updated June 24, 2020



# **DATA BOOK**

### INVERTER PACKAGED AIR-CONDITIONERS

(Split system, air to air heat pump type)

## **HYPER INVERTER**

### **CEILING SUSPENDED TYPE**

Single type	Twin type
FDE40ZSXVG	FDE71VNXPVG
50ZSXVG	100VNXPVG
60ZSXVG	100VSXPVG
71VNXVG	125VNXPVG
100VNXVG	125VSXPVG
100VSXVG	140VNXPVG
125VNXVG	140VSXPVG
125VSXVG	Triple type
140VNXVG	FDE140VNXTVG
140VSXVG	140VSXTVG

### MICRO INVERTER **CEILING SUSPENDED TYPE**

Single type	Twin type	Triple type
FDE100VNAVG	FDE100VNAPVG	FDE140VNATVG
100VSAVG	100VSAPVG	140VSATVG
125VNAVG	125VNAPVG	200VSATVG
125VSAVG	125VSAPVG	Double twin type
140VNAVG	140VNAPVG	FDE200VSADVG
140VSAVG	140VSAPVG	250VSADVG
	200VSAPVG	
	250VSAPVG	

#### DUCT CONNECTED-LOW/MIDDLE **STATIC PRESSURE TYPE**

0 71
FDUM40ZSXVF
50ZSXVF
60ZSXVF
71VNXVF1
100VNXVF2
100VSXVF2
125VNXVF
125VSXVF
140VNXVF
140VSXVF

Single type

Twin type FDUM100VNXPVF 100VSXPVF 125VNXPVF 140VNXPVF1 140VSXPVF1 Triple type FDUM140VNXTVF

140VSXTVF

# STATIC PRESSURE TYPE

Single type
FDU71VNXVF1
100VNXVF2
100VSXVF2
125VNXVF
125VSXVF
140VNXVF
140VSXVF

### DUCT CONNECTED-HIGH DUCT CONNECTED-LOW/MIDDLE DUCT CONNECTED-HIGH STATIC PRESSURE TYPE

A	
ingle type	Twin type
FDUM100VNAVF2	FDUM100VNAPVI
100VSAVF2	100VSAPVI
125VNAVF	125VNAPVI
125VSAVF	125VSAPVI
140VNAVF	140VNAPVI
140VSAVF	140VSAPVI
	200VSAPVI
	250VSAPVI
	Triple type

Single type FDU100VNAVF2 100VSAVF2 125VNAVF 125VSAVF 140VNAVF 140VSAVF 200VSAVG F2 FDUM140VNATVF

**STATIC PRESSURE TYPE** 

### STANDARD INVERTER

#### **CEILING SUSPENDED TYPE**

FDE71VNPVG 90VNP1VG 100VNP1VG

140VSX

### **DUCT CONNECTED-LOW/MIDDLE** STATIC PRESSURE TYPE

S

FDUM71VNPVF1 90VNP1VF2 100VNP1VF2

### **DUCT CONNECTED-HIGH** STATIC PRESSURE TYPE

FDU71VNPVF1 90VNP1VF2 100VNP1VF2

200VSATVF1

## V Multi System

(OUTDOOR UNIT) (INDOOR UNIT) FDC71VNX FDE40VG 100VNX 100VSX 50VG 60VG 125VNX 125VSX 140VNX

## V Multi System

(OUTDOOR UNIT)	(INDOOR UNIT
FDC100VNA	FDE50VG
100VSA	60VG
125VNA	71VG
125VSA	100VG
140VNA	125VG
140VSA	
200VSA	
250VSA	

MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.

## **TABLE OF CONTENTS**

1. HYPER INVERTER PACKAGED AIR-CONDITIONERS	2
2. MICRO INVERTER PACKAGED AIR-CONDITIONERS	247
3. STANDARD INVERTER PACKAGED AIR-CONDITIONERS	450
4. V MULTI SYSTEM	515
5. OPTION PARTS	553

# 1. HYPER INVERTER PACKAGED AIR-CONDITIONERS

## **CONTENTS**

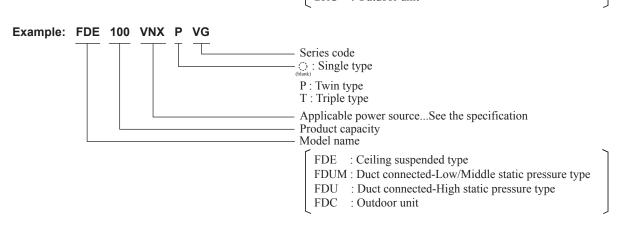
1.1 SPECIFICATIONS	4
1.2 EXTERIOR DIMENSIONS	48
(1) Indoor units	48
(2) Outdoor units	56
(3) Remote control (Option parts)	59
1.3 ELECTRICAL WIRING	62
(1) Indoor units	62
(2) Outdoor units	68
1.4 NOISE LEVEL	
1.5 CHARACTERISTIC OF FAN	
1.6 TEMPERATURE AND VELOCITY DISTRIBUTION	83
1.7 PIPING SYSTEM	87
1.8 RANGE OF USAGE & LIMITATIONS	90
1.9 SELECTION CHART	94
1.9.1 Capacity tables	94
1.9.2 Correction of cooling and heating capacity in relation to air flow rate control (fan speed)	120
1.9.3 Correction of cooling and heating capacity in relation to one way length of refrigerant piping	120
1.9.4 Height difference between the indoor unit and outdoor unit	120
1.10 APPLICATION DATA	
1.10.1 Installation of indoor unit	
1.10.2 Electric wiring work installation	
1.10.3 Installation of wired remote control (Option parts)	141
1.10.4 Installation of outdoor unit	153
(1) Models SRC40 - 60ZSX-S	153
(2) Model FDC71VNX	1.57
(3) Models FDC100 - 140VNX, 100 - 140VSX	165
1.10.5 Instructions for branching pipe set (DIS-WA1,WB1,TA1,TB1)	173
1.11 TECHNICAL INFORMATION	176

## ■ How to read the model name

Example: FDE 40 Z SXVG

Series code
Inverter type
Product capacity
Model name

FDE : Ceiling suspended type
FDUM: Duct connected-Low/Middle static pressure type
FDU : Duct connected-High static pressure type
SRC : Outdoor unit



## 1.1 SPECIFICATIONS

## (1) Ceiling suspended type (FDE)

### (a) Single type

			Model	FDE40	ZSXVG	
tem				Indoor unit FDE40VG	Outdoor unit SRC40ZSX-S	
Power source	ce			1 Phase 220-240V	50Hz / 220V 60Hz	
	Nominal cooling capacity (	(range)	kW	4.0 [ 1.1(Mir	n.)-4.7(Max.)]	
	Nominal heating capacity	(range)	kW	4.5 [ 0.6(Mir	n.)-5.4(Max.)]	
	D	Cooling		1.	02	
	Power consumption	Heating	kW	1.	10	
	Max power consumption			2.60		
	Cooling				/ 5.0	
	Running current Heating		A		/ 5.4	
	Inrush current, max curren		^  -		12	
Operation	Illiusii cuiteii, illax cuiteii				/ 93	
data	Power factor Cooling Heating		% -			
					/ 93	
	EER	Cooling	<u> </u>	3.92		
	COP	Heating		4.09		
	Sound power level	Cooling		60	63	
	Souria power lever	Heating		00	03	
		Cooling	dB(A)	D.I., 40.11, 00.14, 00.1	50	
	Sound pressure level	Heating	` '	P-Hi: 46 Hi: 38 Me: 36 Lo: 31	49	
	Silent mode sound pressu		-	_	Cooling: 42 / Heating: 43	
			+			
Exterior dim	nensions (Height x Width x [	Depth)	mm	210 × 1,070 × 690	640×800(+71)×290	
Exterior app	pearance			Plaster white	Stucco white	
Munsell co				( 6.8Y8.9/0.2 ) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	28	45	
	r type & Q'ty		1.9		RMT5113MCE2 (Twin rotary type )×1	
	r motor (Starting method)		kW	_	Direct line start	
	oil (Amount, type)	1 11 \	_ l	- 0.45 (M-MA68)		
	(Type, amount, pre-charge	iengtn)	kg	<u> </u>	loor unit (Incl. the amount for the piping of : 15m)	
Heat exchar				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant					tronic expansion valve	
an type & 0				Centrifugal fan ×2	Propeller fan ×1	
an motor (	Starting method)		W	30 < Direct line start >	34 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:7	36 33	
Available av	town al atatic processus	rieating	Pa	0		
	ternal static pressure		га	-		
Outside air i				Not possible		
	ality / Quantity			Pocket plastic net ×2(Washable)		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	0	_	
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3		
control	Room temperature control			Thermostat b	by electronics	
JOHNO	Operation display			-		
	· ·			Overload protect	tion for fan motor	
					on thermostat	
Safety equip	oments				tat for fan motor	
					emperature protection	
			<del>                                     </del>	Liquid line: I/U $\phi$ 6.35 (1/4") Pipe	<u> </u>	
	Refrigerant piping size (O.	.D. )	mm –	Gas line: 4127 (1/2") 4	$\frac{\varphi}{12.7(1/2")}$ x0.8 $\frac{\varphi}{12.7(1/2")}$	
	Connecting method		<del>                                     </del>	Flare piping	Flare piping	
notallatia:			m	i iaie pipiliy	i lare pipiliy	
	Attached length of piping		m			
lata	Insulation for piping			, ,	_iquid & Gas lines)	
	Refrigerant line (one way)		m		.30m	
	Vertical height diff. between O/	U and I/U	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)	
	Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 5 pcs	
Drain pump, max lift height		mm				
	ded breaker size		Α		- -	
	ked rotor ampere)		A	Λ	.8	
nterconnec		ımbor			e) / Termainal block (Screw fixing type)	
	ung wires   Size x Core nu	iiinet		<u> </u>	, , , , , , , , , , , , , , , , , , , ,	
P number				IPX0	IPX4	
Standard ac				Mounting kit, Drain hose	Drain elbow, Drain hole grommet	
Option parts	S			Motion ser	nsor: LB-E	
Notes (1) The data are measured at the following			vina cond			

Notes (1) The data are measured at the following conditions.

The pipe length is	7.5m.
--------------------	-------

Item	Indoor air te	emperature	Outdoor air temperature		Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

<sup>(2)</sup> This air-conditioner is manufactured and tested in conformity with the ISO.
(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
(4) Select the breaker size according to the own national standard.
(5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model	FDE50	ZSXVG	
Item				Indoor unit FDE50VG	Outdoor unit SRC50ZSX-S	
Power source	ce			1 Phase 220-240V	750Hz / 220V 60Hz	
	Nominal cooling capacity	(range)	kW	5.0 [ 1.1(Mir	n.)-5.6(Max.)]	
	Nominal heating capacity	(range)	kW	5.4 [ 0.6(Mir	n.)-6.3(Max.)]	
	Power consumption	Cooling		1.	52	
	Fower consumption	Heating	kW	1.	46	
	Max power consumption	•		2.	90	
	Dunning august	Cooling		7.0	7.4	
	Running current	Heating	Α	7.0	7.3	
	Inrush current, max curren	it	ĺ	5 ,	15	
Operation	Danier factor	Cooling	0/	94 / 93		
data	Power factor	Heating	%	g	91	
	EER	Cooling		3.29		
	COP	Heating	i i	3.	70	
		Cooling				
	Sound power level	Heating		60	63	
		Cooling	dB(A)		50	
	Sound pressure level	Heating	( )	P-Hi: 46 Hi: 38 Me: 36 Lo: 31	49	
	Silent mode sound pressu			_	Cooling: 42 / Heating: 43	
Exterior dim	nensions (Height x Width x I	Depth)	mm	210 × 1,070 × 690	640×800(+71)×290	
Exterior app	pearance			Plaster white	Stucco white	
( Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	( 4.2Y7.5/1.1 )near equivalent	
Net weight			kg	28	45	
Compresso	r type & Q'ty			_	RMT5113MCE2 (Twin rotary type )×1	
	r motor (Starting method)		kW	_	Direct line start	
	oil (Amount, type)		Q.	_	0.45 ( M-MA68 )	
	(Type, amount, pre-charge	lenath)	kg	R410A 1.5kg in outdoor unit (Incl. the amount for the piping of : 15m)		
Heat exchar		101191117	9	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant					stronic expansion valve	
Fan type & 0				Centrifugal fan ×2	Propeller fan ×1	
	Starting method)		W	30 < Direct line start >	34 < Direct line start >	
,	otarting metrica)	Cooling			40	
Air flow		Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:7	33	
Available ex	ternal static pressure		Pa	0	_	
Outside air	intake			Not possible	_	
Air filter, Qu	ality / Quantity			Pocket plastic net ×2(Washable)	_	
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	ter		W	0		
	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3		
Operation	Room temperature control			Thermostat by electronics		
control	Operation display			-		
				Overload protection for fan motor		
				·	ion thermostat	
Safety equip	oments			•	stat for fan motor	
					emperature protection	
	D. (1)	D \			φ 6.35(1/4")x0.8 O/U φ 6.35 (1/4")	
	Refrigerant piping size ( O.	.U. )	mm	Gas line: φ 12.7 (1/2") φ	12.7(1/2")x0.8 φ 12.7 (1/2")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m			
data	Insulation for piping			Necessary (both Liquid & Gas lines)		
	Refrigerant line (one way)	lenath	m		30m	
	Vertical height diff. between O/		m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)	
	Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 5 pcs	
		mm	—			
, , , , , , , , , , , , , , , , , , ,		A				
	ked rotor ampere)		A	5	5.0	
		ımher	_ ^			
IP number			.,			
	consorios			Mounting kit, Drain hose	Drain elbow, Drain hole grommet	
					, ,	
Option parts				Motion sensor : LB-E		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	Operation DB		DB	WB	Standards
Cooling	Cooling 27°C		35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.(5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model	FDE60	ZSXVG		
Item				Indoor unit FDE60VG	Outdoor unit SRC60ZSX-S		
Power source					/ 50Hz / 220V 60Hz		
	Nominal cooling capacity	(range)	kW		n.)-6.3(Max.)]		
	Nominal heating capacity (range)		kW		n.)-7.1(Max.)]		
	Power consumption Cooling			1.	75		
	Tower consumption	Heating	kW	1.	86		
	Max power consumption			2.	90		
	Running current	Cooling		8.0	/ 8.4		
	Hulling current	Heating	Α [	8.7	/ 9.1		
Onevetion	Inrush current, max curren	it		5 ,	15		
Operation data	Power factor	Cooling	%	9	95		
uala	Fower factor	Heating	70	g	93		
	EER	Cooling		3.	20		
	COP	Heating	ĺ	3.	60		
	0 1 1	Cooling		22	65		
	Sound power level	Heating		60	64		
		Cooling	dB(A)				
	Sound pressure level	Heating		P-Hi: 47 Hi: 41 Me: 37 Lo: 32	52		
	Silent mode sound pressure level			_	Cooling: 42 / Heating: 43		
Exterior dim	nensions (Height x Width x I	Depth)	mm	210 × 1,320 × 690	640×800(+71)×290		
Exterior app	pearance			Plaster white	Stucco white		
( Munsell co				( 6.8Y8.9/0.2 )near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight	,		kg	33	45		
	r type & Q'ty		- Ny		RMT5113MCE2 (Twin rotary type )×1		
	r motor (Starting method)		kW		Direct line start		
					0.45 ( M-MA68 )		
	oil (Amount, type)	I = tl=\	l	— — — — — — — — — — — — — — — — — — —			
	(Type, amount, pre-charge	iengtn)	kg		the amount for the piping of : 15m)		
Heat exchai				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant					tronic expansion valve		
Fan type &				Centrifugal fan ×4	Propeller fan ×1		
Fan motor (	Starting method)	1	W	50 < Direct line start > 34 < Direct line start >			
Air flow		Cooling	m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10			
		Heating	,	39			
	ternal static pressure		Pa	0	_		
Outside air				Not possible	_		
	ality / Quantity			Pocket plastic net ×2(Washable)	_		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor )		
Electric hea	ter		W	0	_		
Operation	Remote control				, RCH-E3 Wireless : RCN-E-E3		
control	Room temperature control			Thermostat I	by electronics		
55111101	Operation display			-	_		
				Overload protect	tion for fan motor		
Safety equip	oments			Frost protecti	ion thermostat		
Jaiety equip	OHIGHT9				stat for fan motor		
					emperature protection		
	Refrigerant piping size ( O.	D )	mm	Liquid line: I/U $\phi$ 6.35 (1/4") Pipe	φ 6.35(1/4")x0.8 O/U φ 6.35 (1/4")		
	Tremgerant piping size ( O.		mm	Gas line: $\phi$ 12.7 (1/2") $\phi$	12.7(1/2")x0.8 $\phi$ 12.7 (1/2")		
	Connecting method			Flare piping	Flare piping		
Installation Attached length of piping data Insulation for piping		m		_			
			Necessary (both I	Liquid & Gas lines)			
	Refrigerant line (one way)	length	m		30m		
	Vertical height diff. between O/		m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)		
Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 5 pcs			
Drain pump, max lift height		mm	—	—			
Recommended breaker size		Α	-	<u> </u>			
	ked rotor ampere)		A		5.0		
Interconnec		ımher	/ <sup>1</sup>	-	e) / Termainal block (Screw fixing type)		
IP number	ung wires   OIZE A COTE IIL	an IDCI		IPX0	IPX4		
	consorios				Drain elbow, Drain hole grommet		
Standard ad				Mounting kit, Drain hose	, ,		
Option parts				Motion se	Motion sensor : LB-E		

. ,		•				
Item	Item Indoor air temperature Outdoor air temperature				Standards	
Operation	Operation DB		DB	WB	Standards	
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.(5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model	FDE71	VNXVG			
Item				Indoor unit FDE71VG	Outdoor unit FDC71VNX			
Power source					50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW	7.1 [ 3.2(Mir	n.)-8.0(Max.)]			
	Nominal heating capacity	(range)	kW	8.0 [ 3.6(Mir	n.)-9.0(Max.)]			
	Power consumption Cooling				11			
	1 ower consumption	Heating	kW		11			
	Max power consumption				38			
	Running current	Cooling		9.7 /	10.1			
	Training current	Heating	Α [		/ 9.7			
Operation	Inrush current, max curren	t		5 ,	17			
data	Power factor	Cooling	%	9	95			
data		Heating	/0	9	99			
	EER	Cooling		3.	36			
	COP	Heating		3.	79			
	Sound power level	Cooling		60	66			
	Souria power level	Heating		00	00			
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	51			
	Sourid pressure level	Heating		F-HI.47 HI.41 We.37 LO.32	48			
	Silent mode sound pressu	re level	[	_	_			
Exterior disc	anniana (Haiabt y Width y I	Donth)	no no	210 × 1,320 × 690	750000(.00)240			
Exterior diff	ensions (Height x Width x I	Depth)	mm	210 × 1,320 × 690	750×880(+88)×340			
Exterior app	pearance			Plaster white	Stucco white			
( Munsell co				(6.8Y8.9/0.2) near equivalent	( 4.2Y7.5/1.1 )near equivalent			
Net weight			kg	33	60			
	r type & Q'ty			_	RMT5118MDE2 (Twin rotary type )×1			
Compresso	r motor (Starting method)		kW	_	Direct line start			
Refrigerant	oil (Amount, type)		Q.	_	0.675 ( M-MA68 )			
	(Type, amount, pre-charge	lenath)	kg	R410A 2.95kg in outdoor unit (Incl.	the amount for the piping of : 30m)			
	Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant					pansion valve			
Fan type &				Centrifugal fan ×4	Propeller fan ×1			
	Starting method)		W	50 < Direct line start >	86 < Direct line start >			
,	, , , , , , , , , , , , , , , , , , , ,	Cooling	3, ,		60			
Air flow		Heating	m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10	50			
Available ex	ternal static pressure	<u> </u>	Pa	0	_			
Outside air				Not possible	_			
	ality / Quantity			Pocket plastic net ×2(Washable)	_			
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea			W	_	20(Crank case heater)			
	Remote control			(Option) Wired: RC-EX3, RC-E5				
Operation	Room temperature control				by electronics			
control	Operation display			-	. <del>.</del>			
	1			Overload protect	tion for fan motor			
0-4-4				·	on thermostat			
Safety equip	oments			•	stat for fan motor			
				Abnormal discharge t	emperature protection			
	Pofrigoront pining sins (O	D )	mm		φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")			
	Refrigerant piping size ( O.	.U. )	mm -		15.88(5/8")x1.0 φ 15.88 (5/8")			
	Connecting method			Flare piping	Flare piping			
Installation Attached length of piping data Insulation for piping		m	_	_				
			Necessary (both I	Liquid & Gas lines)				
	Refrigerant line (one way)	length	m		.50m			
	Vertical height diff. between O/		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs				
Drain pump, max lift height		mm	_	_				
Recommended breaker size		Α	-					
L.R.A. (Locked rotor ampere)		A		.0				
Interconnec	<del></del>	ımber	<u> </u>		Termainal block (Screw fixing type)			
IP number	5120 X 0010 110			IPX0	IP24			
Standard ac	ccessories			Mounting kit, Drain hose				
Option parts					nsor : LB-E			
Орион рагтѕ				WIOLIOIT 36	Motion sensor : LB-E			

. ,		•			
Item	Item Indoor air temperature Outdoor air temperature				Standards
Operation	Operation DB		DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1903131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

		,	Model	FDE100	OVNXVG		
Item				Indoor unit FDE100VG	Outdoor unit FDC100VNX		
Power source					50Hz / 220V 60Hz		
	Nominal cooling capacity		kW		n.)-11.2(Max.)]		
	Nominal heating capacity		kW		n.)-12.5(Max.)]		
	Power consumption	Cooling			55		
	Heating		kW		68		
	Max power consumption	TO 11			61		
	Running current	Cooling			/ 11.8		
		Heating	A	11.8 / 12.3			
Operation	Inrush current, max curre			18	24 98		
data	Power factor	Cooling Heating	%		99		
	EER	Cooling			92		
	COP	Heating			18		
		Cooling					
	Sound power level	Heating		64	70		
		Cooling	dB(A)		48		
	Sound pressure level	Heating	ab, y	P-Hi: 48 Hi: 43 Me: 38 Lo: 34	50		
	Silent mode sound pressu		i i	_	=		
F	'	-		050 4 000 000	1,000,070,070		
Exterior dim	nensions (Height x Width x	Depth)	mm	250 × 1,620 × 690	1,300×970×370		
Exterior app	pearance			Plaster white	Stucco white		
( Munsell co	olor)			( 6.8Y8.9/0.2 )near equivalent	( 4.2Y7.5/1.1 )near equivalent		
Net weight			kg	43	105		
Compresso	r type & Q'ty			-	RMT5134MDE2 (Twin rotary type)×1		
	r motor (Starting method)		kW	_	Direct line start		
Refrigerant	oil (Amount, type)		l	_	0.9 (M-MA68)		
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 4.5kg in outdoor unit (Incl.	the amount for the piping of : 30m)		
	Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant					pansion valve		
Fan type & 0				Centrifugal fan ×4	Propeller fan ×2		
Fan motor (	Starting method)	1	W	80 < Direct line start >	86 ×2 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi: 32 Hi: 26 Me: 21 Lo: 16.5	100		
	ternal static pressure		Pa	0	_		
Outside air i				Not possible	_		
	ality / Quantity			Pocket plastic net ×2(Washable)	_		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W	_	20(Crank case heater)		
Operation	Remote control			(Option) Wired : RC-EX3 , RC-E5	, -		
control	Room temperature contro	)		I nermostat t	by electronics		
	Operation display			-	_		
					tion for fan motor on thermostat		
Safety equip	oments				stat for fan motor		
					emperature protection		
	B. (				φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")		
	Refrigerant piping size (C	ı.U. )	mm }		15.88(5/8")x1.0 φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	<del>-</del>	<u> </u>		
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)		
	Refrigerant line (one way)		m		100m		
	Vertical height diff. between O	/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs			
Drain pump, max lift height		mm		_			
Recommended breaker size		A		_			
	ked rotor ampere)		Α		.0		
Interconnec	ting wires Size x Core n	umber		,	Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad		,		Mounting kit, Drain hose	Edging		
Option parts				Motion sei	nsor : LB-E		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	Operation DB		DB	WB	Standards
Cooling	Cooling 27°C		35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model	FDE100	OVSXVG
Item				Indoor unit FDE100VG	Outdoor unit FDC100VSX
Power sour					50Hz / 380V 60Hz
	Nominal cooling capacity	(range)	kW		n.)-11.2(Max.)]
	Nominal heating capacity (range)  Power consumption  Cooling		kW		n.)-16.0(Max.)]
					55
	Tower consumption	Heating	kW		68
	Max power consumption				76
	Running current	Cooling		3.8	/ 4.0
	Rulling Current	Heating	A	3.9	/ 4.1
Operation	Inrush current, max currer	nt		5 ,	15
Operation data	Power factor	Cooling	%	g	98
uata	Fower lactor	Heating	70	9	99
	EER	Cooling		3.	92
	COP	Heating	ΙΓ	4.	18
	0	Cooling		64	70
	Sound power level	Heating	1	64	70
		Cooling	dB(A)	D.I.I. 40 III. 40 M. 00 I. 04	48
	Sound pressure level	Heating	`	P-Hi: 48 Hi: 43 Me: 38 Lo: 34	50
	Silent mode sound pressu		1	_	_
	· · · · · · · · · · · · · · · · · · ·			050 4 555 555	1000
Exterior din	mensions (Height x Width x	Depth)	mm	250 × 1,620 × 690	1,300×970×370
Exterior ap	pearance			Plaster white	Stucco white
( Munsell co				( 6.8Y8.9/0.2 )near equivalent	( 4.2Y7.5/1.1 )near equivalent
Net weight			kg	43	105
	or type & Q'ty		Ng	<del>-</del>	RMT5134MDE3 (Twin rotary type )×1
	or motor (Starting method)		kW		Direct line start
	oil (Amount, type)		Q Q		0.9 (M-MA68)
	(Type, amount, pre-charge	longth)	kg	P410A 4 5kg in outdoor unit (Incl.	the amount for the piping of : 30m)
Heat excha		lengin)	Ny	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant					pansion valve
Fan type &				Centrifugal fan ×4	Propeller fan ×2
	(Starting method)		W	80 < Direct line start >	86 ×2 < Direct line start >
T all Illotor	(Starting method)	Cooling		80 < Direct line start >	00 X2 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi: 32 Hi: 26 Me: 21 Lo: 16.5	100
Available ex	xternal static pressure		Pa	0	_
Outside air	intake			Not possible	_
Air filter, Qu	uality / Quantity			Pocket plastic net ×2(Washable)	_
Shock & vil	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea	ater	,	W	_	20(Crank case heater)
Onevetien	Remote control			(Option) Wired: RC-EX3, RC-E5	, RCH-E3 Wireless : RCN-E-E3
Operation control	Room temperature contro	l		Thermostat I	by electronics
COLLIO	Operation display				
					tion for fan motor
Safety equi	inments			•	on thermostat
Calety equi	ipmonto				stat for fan motor
					emperature protection
	Refrigerant piping size ( O	D )	mm	Liquid line: I/U $\phi$ 9.52 (3/8") Pipe	φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")
		,		Gas line: $\phi$ 15.88 (5/8") $\phi$	15.88(5/8")x1.0 φ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation Attached length of piping		m	_	_	
data	data Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U and I/U			Necessary (both I	Liquid & Gas lines)
			m	Max.	100m
			m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs	
Drain pump, max lift height		mm	<del>-</del>	_	
Recommended breaker size		Α	-		
L.R.A. (Loc	ked rotor ampere)		Α	5	.0
Interconnec	cting wires Size x Core nu	ımber		$\phi$ 1.6mm×3 cores + earth cable /	Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard a	ccessories			Mounting kit, Drain hose	Edging
Option part					nsor : LB-E
Option parts					

. ,		•			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	peration DB		DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

			Model	FDE125	SVNXVG
Item				Indoor unit FDE125VG	Outdoor unit FDC125VNX
Power sour					50Hz / 220V 60Hz
	Nominal cooling capacity		kW kW	- '	n.)-14.0(Max.)]
	Nominal heating capacity	apacity (range)			n.)-17.0(Max.)]
	Power consumption Cooling Heating				50
			kW		77
	Max power consumption				18
	Running current	Cooling			/ 16.1
	Training current	Heating	A		/ 17.3
Operation	Inrush current, max curre	nt		18	26
data	Power factor	Cooling	%		9
Gutu		Heating	/ 0		9
	EER	Cooling			57
	COP	Heating		3.	71
	Sound power level	Cooling		64	70
		Heating			
	Sound pressure level	Cooling	dB(A)	P-Hi: 48 Hi: 45 Me: 40 Lo: 35	48
		Heating			50
	Silent mode sound pressu	ure level			<del>-</del>
Exterior dim	nensions (Height x Width x	Depth)	mm	250 × 1,620 × 690	1,300×970×370
Exterior app	pearance			Plaster white	Stucco white
( Munsell co				( 6.8Y8.9/0.2 )near equivalent	( 4.2Y7.5/1.1 )near equivalent
Net weight	· ·		kg	43	105
	r type & Q'ty		Ŭ	_	RMT5134MDE2 (Twin rotary type )×1
Compresso	Compressor motor (Starting method)		kW	_	Direct line start
Refrigerant	oil (Amount, type)		Q	_	0.9 (M-MA68)
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 4.5kg in outdoor unit (Incl.	the amount for the piping of : 30m)
Heat excha	nger		Ŭ	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant				<u> </u>	pansion valve
Fan type &	Q'ty			Centrifugal fan ×4	Propeller fan ×2
Fan motor (	Starting method)		W	80 < Direct line start >	86 ×2 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi:32 Hi:29 Me:23 Lo:17	100
Available ex	ternal static pressure	1.1009	Pa	0	_
Outside air	· · · · · · · · · · · · · · · · · · ·			Not possible	_
	ality / Quantity			Pocket plastic net ×2(Washable)	_
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			w		20(Crank case heater)
	Remote control			(Option) Wired: RC-EX3, RC-E5	
Operation	Room temperature contro				by electronics
control	Operation display			-	_
Safety equi	oments			Frost protecti Internal thermos	tion for fan motor on thermostat stat for fan motor emperature protection
	Refrigerant piping size ( C	).D.)	mm	Liquid line: I/U $\phi$ 9.52 (3/8") Pipe	φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8") 15.88(5/8")x1.0 φ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping		m	_	_
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)
	Refrigerant line (one way)	) length	m		100m
	Vertical height diff. between O	/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
Drain hose			Hose connectable with VP20(O.D.26)	Hole size φ20 x 3 pcs	
Drain pump	, max lift height		mm	_	<del>-</del>
Recommended breaker size		Α	-	_	
			Α	5	.0
Interconnec	ting wires Size x Core n	umber		$\phi$ 1.6mm×3 cores + earth cable /	Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard ad	ccessories			Mounting kit, Drain hose	Edging
Option part	S			Motion ser	nsor : LB-E
Option parts					

		_			· · · -
Item	Indoor air t	temperature	Standards		
Operation	peration DB		DB WB		Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model	FDE12	5VSXVG		
Item				Indoor unit FDE125VG	Outdoor unit FDC125VSX		
Power source					50Hz / 380V 60Hz		
	Nominal cooling capacity (	(range)	kW		n.)-14.0(Max.)]		
	Nominal heating capacity (range)		kW		n.)-18.0(Max.)]		
	Power consumption Cooling				50		
	1 ower consumption	Heating	kW		77		
	Max power consumption				72		
	Running current	Cooling		5.1	/ 5.4		
	Harming Current	Heating	A	5.5	/ 5.8		
Operation	Inrush current, max curren	ıt		5 ,	15		
data	Power factor	Cooling	%	9	9		
uata	Fower lactor	Heating	70	9	9		
	EER	Cooling		3.	57		
	COP	Heating	Ι Γ	3.	71		
	C	Cooling		64	70		
	Sound power level	Heating	1	64	70		
		Cooling	dB(A)	D.I. 40.III. 45.14. 40.I. 05	48		
	Sound pressure level	Heating	1 `	P-Hi: 48 Hi: 45 Me: 40 Lo: 35	50		
	Silent mode sound pressu		1 1	_	_		
				050 4 655 555	1000 5 5		
Exterior dim	ensions (Height x Width x [	Depth)	mm	250 × 1,620 × 690	1,300×970×370		
Exterior app	pearance			Plaster white	Stucco white		
(Munsell co				(6.8Y8.9/0.2) near equivalent	( 4.2Y7.5/1.1 )near equivalent		
Net weight			kg	43	105		
	r type & Q'ty		ı.ı.g	_	RMT5134MDE3 (Twin rotary type)×1		
	r motor (Starting method)		kW		Direct line start		
	oil (Amount, type)		e e		0.9 (M-MA68)		
		length)	kg	R410A 4 5kg in outdoor unit (Incl.	the amount for the piping of : 30m)		
Refrigerant (Type, amount, pre-charge length)		Ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
	Heat exchanger Refrigerant control			<u> </u>	pansion valve		
Fan type &				Centrifugal fan ×4	Propeller fan ×2		
	Starting method)		W	80 < Direct line start >	86 ×2 < Direct line start >		
Tarrinotor (	otarting method)	Cooling		00 \ Direct line start >	00 XZ \ Direct line start >		
Air flow		Heating	m³/min	P-Hi: 32 Hi: 29 Me: 23 Lo: 17	100		
Available ex	ternal static pressure		Pa	0	_		
Outside air	intake			Not possible	_		
Air filter, Qu	ality / Quantity			Pocket plastic net ×2(Washable)	_		
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea	ter		W	<u> </u>	20(Crank case heater)		
0	Remote control			(Option) Wired: RC-EX3, RC-E5	, RCH-E3 Wireless : RCN-E-E3		
Operation	Room temperature control				by electronics		
control	Operation display			-	<del></del>		
	-			Overload protec	tion for fan motor		
Safaty again	amonte				on thermostat		
Safety equip	DITICITO			Internal thermos	stat for fan motor		
					emperature protection		
	Refrigerant piping size ( O.	D )	mm		φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")		
	Literingerant piping size ( O.			Gas line: $\phi$ 15.88 (5/8") $\phi$	15.88(5/8")x1.0 φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation Attached length of piping		m	_	_			
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)		
	Refrigerant line (one way)	length	m	Max.	100m		
	Vertical height diff. between O/	U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs			
Drain pump, max lift height		mm	_				
Recommended breaker size		Α		_			
L.R.A. (Locked rotor ampere)		Α	5	.0			
Interconnec		ımber			Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ac	cessories			Mounting kit, Drain hose	Edging		
Option parts					nsor : LB-E		
Option parts				5	IVIOLIOTI SETISOT . LB-E		

			_			
Ite	em	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	Operation DB		WB	DB	WB	Staridards
Cooling		27°C	19°C	35°C	24°C	ISO5151-T1
Heating		20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

			Model	FDE140	OVNXVG			
Item			Model	Indoor unit FDE140VG	Outdoor unit FDC140VNX			
Power soul	rce			1 Phase 220-240V	50Hz / 220V 60Hz			
	Nominal cooling capacity	/ (range)	kW	14.0 [ 5.0(Mir	n.)-16.0(Max.)]			
Nominal heating capacity (rar		/ (range)	kW		16.0 [ 4.0(Min.)-18.0(Max.)]			
	Power consumption	Cooling		4.40				
	<u> </u>	Heating	kW		69			
	Max power consumption				97			
	Running current	Cooling			/20.2			
		Heating	Α		/ 21.5			
Operation	Inrush current, max curre	_		18	26			
data	Power factor	Cooling	%		99 99			
	EER	Heating Cooling			18			
	COP	Heating			41			
		Cooling						
	Sound power level	Heating		65	72			
		Cooling	dB(A)		49			
	Sound pressure level	Heating	( )	P-Hi: 49 Hi: 45 Me: 40 Lo: 36	52			
	Silent mode sound press			_	_			
Francisco ello		D 41-1		050 1000 000	1 000 070 070			
Exterior dir	mensions (Height x Width x	Depth)	mm	250 × 1,620 × 690	1,300×970×370			
Exterior ap				Plaster white	Stucco white			
( Munsell c				(6.8Y8.9/0.2) near equivalent	( 4.2Y7.5/1.1 )near equivalent			
Net weight			kg	43	105			
	or type & Q'ty				RMT5134MDE2 (Twin rotary type)×1			
	or motor (Starting method)		kW l		Direct line start			
	Refrigerant oil (Amount, type)				0.9 (M-MA68)			
	(Type, amount, pre-charge	e length)	kg		the amount for the piping of : 30m)			
Heat excha				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant Fan type &				Centrifugal fan ×4	pansion valve Propeller fan ×2			
	(Starting method)		w	90 < Direct line start >	86 ×2 < Direct line start >			
Air flow	(Ottarting Mothod)	Cooling	m³/min	P-Hi: 34 Hi: 29 Me: 23 Lo: 18	100			
Available e	xternal static pressure	Heating	Pa	0	_			
Outside air			Ια	Not possible	_			
	uality / Quantity			Pocket plastic net ×2(Washable)	_			
	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea			W	_	20(Crank case heater)			
0 1:	Remote control			(Option) Wired: RC-EX3, RC-E5				
Operation control	Room temperature contro	ol		Thermostat b	by electronics			
COITLIOI	Operation display			-	_			
Safety equi	ipments			Frost protecti	tion for fan motor on thermostat stat for fan motor			
					emperature protection			
	Refrigerant piping size ( C	D.D. )	mm		φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8") 15.88(5/8")x1.0 φ 15.88 (5/8")			
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping	1	m	_	_			
data	Insulation for piping				Liquid & Gas lines)			
	Refrigerant line (one way		m		100m			
	Vertical height diff. between C	D/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
Drain	Drain hose		m	Hose connectable with VP20(O.D.26)	Hole size φ20 x 3 pcs			
Drain pump, max lift height Recommended breaker size		mm A	<del>-</del>	<u> </u>				
	ked rotor ampere)		A		.0			
Interconne		number			Termainal block (Screw fixing type)			
IP number	- 1 OIZO X OOIO I			IPX0	IP24			
	ccessories			Mounting kit, Drain hose	Edging			
Option par				<u> </u>	nsor : LB-E			
N	/m =							

. ,		•			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	peration DB		DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1903131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model	FDE140	DVSXVG
Item			Wiodei	Indoor unit FDE140VG	Outdoor FDC140VSX
Power sour	·			3 Phase 380-415V	/ 50Hz / 380V 60Hz
	Nominal cooling capacity (	range)	kW		n.)-16.0(Max.)]
	Nominal heating capacity (range)		kW		n.)-20.0(Max.)]
	Power consumption	Cooling			40
	1 ower consumption	Heating	kW		69
	Max power consumption				72
	Running current	Cooling			/ 6.8
		Heating	Α		/ 7.2
Operation	Inrush current, max curren			·	15
data	Power factor	Cooling	%		99
autu		Heating	/*		99
	EER	Cooling			18
	COP	Heating		3.	41
	Sound power level	Cooling		65	72
	Courte power toron	Heating			
	Sound pressure level	Cooling	dB(A)	P-Hi: 49 Hi: 45 Me: 40 Lo: 36	49
		Heating			52
	Silent mode sound pressu	re level			_
Exterior dim	nensions (Height x Width x [	Depth)	mm	250 × 1,620 × 690	1,300×970×370
Exterior app	pearance			Plaster white	Stucco white
( Munsell co	olor)			( 6.8Y8.9/0.2 )near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight			kg	43	105
Compresso	r type & Q'ty		Ĭ	_	RMT5134MDE3 (Twin rotary type )×1
	r motor (Starting method)		kW	_	Direct line start
Refrigerant	oil (Amount, type)		Q.	_	0.9 (M-MA68)
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 4.5kg in outdoor unit (Incl.	the amount for the piping of : 30m)
Heat excha	nger		Ĭ	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant control				Electronic ex	pansion valve
Fan type &	Q'ty			Centrifugal fan ×4	Propeller fan ×2
Fan motor (	Starting method)		W	90 < Direct line start >	86 ×2 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi: 34 Hi: 29 Me: 23 Lo: 18	100
Available ex	ternal static pressure		Pa	0	_
Outside air	·			Not possible	_
	ality / Quantity			Pocket plastic net ×2(Washable)	_
	pration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			W	_	20(Crank case heater)
	Remote control			(Option) Wired: RC-EX3, RC-E5	, RCH-E3 Wireless : RCN-E-E3
Operation	Room temperature control			Thermostat b	by electronics
control	Operation display				
Safety equi	pments			Frost protecti Internal thermos	tion for fan motor ion thermostat stat for fan motor emperature protection
	Refrigerant piping size ( O.	D. )	mm	Liquid line: I/U φ 9.52 (3/8") Pipe	φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")
	0 11 0 (	,			15.88(5/8")x1.0
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping		m	<del>-</del>	
data	Insulation for piping				Liquid & Gas lines)
	Refrigerant line (one way)		m		100m
	Vertical height diff. between O/Drain hose	u and I/U	m	Max.30m (Outdoor unit is higher) Hose connectable with VP20(O.D.26)	Max.15m (Outdoor unit is lower) Hole size $\phi$ 20 x 3 pcs
Drain pump, max lift height		mm	_	_	
	ded breaker size		Α	-	<u>.                                    </u>
L.R.A. (Lock	ked rotor ampere)		Α	5	.0
Interconnec		ımber		$\phi$ 1.6mm×3 cores + earth cable /	Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard ad	ccessories			Mounting kit, Drain hose	Edging
Option part	S			Motion se	nsor : LB-E

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.(5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

### (b) Twin type

			Model	FDE71\	NXPVG
Item			modoi	Indoor unit FDE40VG (2 units)	Outdoor unit FDC71VNX
Power sour	rce			1 Phase 220-240V	50Hz / 220V 60Hz
	Nominal cooling capaci	ty (range)	kW		n.)-8.0(Max.)]
	Nominal heating capaci	ty (range)	kW	8.0 [ 3.6(Mir	n.)-9.0(Max.)]
	Power consumption Cooling				05
	Tower consumption	Heating	kW	2.	35
	Max power consumptio	n		3.	84
	Running current	Cooling		9.1	/ 9.5
	running current	Heating	Α	10.4	/ 10.9
Oneveties	Inrush current, max curr	rent	]	5 ,	17
Operation data	Dawer factor	Cooling	%	g	8
uala	Power factor	Heating	70	g	8
	EER	Cooling		3.	46
	COP	Heating	1	3.	40
	0 1 1	Cooling		00	00
	Sound power level	Heating	İ	60	66
ı		Cooling	dB(A)		51
	Sound pressure level	Heating	1 ' '	P-Hi: 46 Hi: 38 Me: 36 Lo: 31	48
	Silent mode sound pres		İ	1	
Exterior din	nensions (Height x Width	x Depth)	mm	210 × 1,070 × 690	750×880(+88)×340
Exterior ap	nearance	,		Plaster white	Stucco white
( Munsell co	•			( 6.8Y8.9/0.2 )near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight			ka	28	60
			kg	_	
	or type & Q'ty	Λ	14/4/		RMT5118MDE2 (Twin rotary type)×1
	or motor (Starting method	)	kW	<del>_</del>	Direct line start
Refrigerant oil (Amount, type)		I	Q.	— D440A 0.051 iii (II	0.675 (M-MA68)
Refrigerant (Type, amount, pre-charge length)		kg	,	the amount for the piping of : 30m)	
Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant					pansion valve
Fan type &			141	Centrifugal fan ×2	Propeller fan ×1
Fan motor	(Starting method)	10 "	W	30 < Direct line start >	86 < Direct line start >
Air flow		Cooling	m³/min	P-Hi:13 Hi:10 Me:9 Lo:7	60
A '1 I I	1 1 1 1	Heating		0	50
	xternal static pressure		Pa	0	<del>-</del>
Outside air				Not possible	-
	uality / Quantity			Pocket plastic net ×2(Washable)	
	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			W	<del>-</del>	20(Crank case heater)
Operation	Remote control			` ' '	, RCH-E3 Wireless : RCN-E-E3
control	Room temperature cont	trol		Thermostat b	by electronics
	Operation display			-	_
					tion for fan motor
Safety equi	ipments				on thermostat
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				tat for fan motor
					emperature protection
	Refrigerant piping size (	( D )	mm		(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")
				Gas line: I/U $\phi$ 12.7 (1/2") ② $\phi$ 12.7(1/2")x(	0.8 ① $\phi$ 15.88(5/8")x1.0 O/U $\phi$ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation		ng	m	<u> </u>	<del>-</del>
data	Insulation for piping			* `	Liquid & Gas lines)
	Refrigerant line (one wa		m		.50m
	Vertical height diff. between	O/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
	Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs
Drain pump, max lift height			mm		<del>-</del>
Recommer	nded breaker size		Α	-	_
	ked rotor ampere)		Α	5	.0
Interconnec	<del></del>	number			Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard a	ccessories	,		Mounting kit, Drain hose	
Option part				,	nsor : LB-E
Option parts					·· ·=

Notes (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	temperature	Standards	
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
- (6) Indoor unit specification for one unit. Capacity and operation data are two indoor units combined and run together.
  (7) Branching pipe set "DIS-WA1G"×1(option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

			Model	FDE100	VNXPVG		
Item			5001	Indoor unit FDE50VG (2 units) Outdoor unit FDC100VNX			
Power source		_			50Hz / 220V 60Hz		
	Nominal cooling capacity		kW		n.)-11.2(Max.)]		
	Nominal heating capacity	<del>, , , , , , , , , , , , , , , , , , , </del>	kW	11.2 [ 4.0(Min.)-12.5(Max.)]			
	Power consumption	Cooling		3.00			
		Heating	kW	3.39			
	Max power consumption	,			58		
	Running current	Cooling			/ 13.9		
		Heating	Α		/ 15.7		
Operation	Inrush current, max currer	· -			24		
data	Power factor	Cooling	%		18		
		Heating	,,,		18		
	EER	Cooling			33		
	COP	Heating		3.	30		
	Sound power level	Cooling		60	70		
		Heating			-		
	Sound pressure level	Cooling	dB(A)	P-Hi: 46 Hi: 38 Me: 36 Lo: 31	48		
	·	Heating			50		
	Silent mode sound pressu	ire level		_	_		
Exterior dim	nensions (Height x Width x	Depth)	mm	210 × 1,070 × 690	1,300×970×370		
Exterior app	pearance			Plaster white	Stucco white		
( Munsell co	olor)			( 6.8Y8.9/0.2 )near equivalent	( 4.2Y7.5/1.1 )near equivalent		
Net weight			kg	28	105		
	r type & Q'ty		Ŭ	_	RMT5134MDE2 (Twin rotary type )×1		
Compresso	r motor (Starting method)		kW	_	Direct line start		
Refrigerant	oil (Amount, type)		Q	_	0.9 (M-MA68)		
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 4.5kg in outdoor unit (Incl.	the amount for the piping of : 30m)		
Heat exchanger			Ĭ	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant control				Electronic ex	pansion valve		
Fan type & 0	Q'ty			Centrifugal fan ×2	Propeller fan ×2		
Fan motor (	Starting method)		W	30 < Direct line start >	86 ×2 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:7	100		
Available ex	ternal static pressure		Pa	0	_		
Outside air				Not possible	_		
	ality / Quantity			Pocket plastic net ×2(Washable)	_		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea	ter		W	<del>-</del>	20(Crank case heater)		
0 !:	Remote control			(Option) Wired: RC-EX3, RC-E5	, RCH-E3 Wireless : RCN-E-E3		
Operation	Room temperature contro	I			by electronics		
control	Operation display			-			
Safety equip	oments			Frost protecti Internal thermos	tion for fan motor on thermostat stat for fan motor emperature protection		
	Refrigerant piping size ( O	.D. )	mm	Liquid line: I/U $\phi$ 6.35 (1/4") ② $\phi$ 9.52(3/8")× Gas line: I/U $\phi$ 12.7 (1/2") ② $\phi$ 12.7(1/2")×(	(0.8 ① $\phi$ 9.52(3/8")x0.8 O/U $\phi$ 9.52 (3/8") 0.8 ① $\phi$ 15.88(5/8")x1.0 O/U $\phi$ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	_	_		
data	Insulation for piping				iquid & Gas lines)		
	Refrigerant line (one way)		m		100m		
	Vertical height diff. between O	/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose				Hose connectable with VP20(O.D.26)	Hole size φ20 x 3 pcs		
	, max lift height		mm	_	_		
	ded breaker size		A				
	ked rotor ampere)		Α		.0		
Interconnec	ting wires Size x Core no	umber		,	Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad				Mounting kit, Drain hose	Edging		
Option parts			لـــــــا	Motion ser	nsor : LB-E		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
- (6) Indoor unit specification for one unit. Capacity and operation data are two indoor units combined and run together.

  (7) Branching pipe set "DIS-WA1G"×1(option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

			Model	FDE100	VSXPVG	
Item			Model	Indoor unit FDE50VG (2 units)	Outdoor unit FDC100VSX	
Power source	ce			3 Phase 380-415V	/ 50Hz / 380V 60Hz	
	Nominal cooling capacity (	(range)	kW	10.0 [ 4.0(Mir	n.)-11.2(Max.)]	
	Nominal heating capacity	(range)	kW		n.)-16.0(Max.)]	
	Power consumption Cooling		ļļ		00	
	·	Heating	kW		39	
	Max power consumption				98	
	Running current	Cooling	.		/ 4.6	
		Heating	Α .		/5.2	
Operation	Inrush current, max curren				15	
data	Power factor	Cooling	%		99	
	FED	Heating			99	
	EER COP	Cooling Heating			33	
	COP	Cooling		ა.	30 I	
	Sound power level	Heating		60	70	
		Cooling	dB(A)		48	
	Sound pressure level			P-Hi: 46 Hi: 38 Me: 36 Lo: 31	50	
	Silent mode sound pressu	Heating re level				
				<del></del>	_	
Exterior dim	ensions (Height x Width x [	Depth)	mm	210 × 1,070 × 690	1,300×970×370	
Exterior app	pearance			Plaster white	Stucco white	
( Munsell co	olor)			( 6.8Y8.9/0.2 )near equivalent	( 4.2Y7.5/1.1 )near equivalent	
Net weight			kg	28	105	
Compresso	r type & Q'ty			_	RMT5134MDE3 (Twin rotary type)×1	
Compresso	r motor (Starting method)		kW	_	Direct line start	
Refrigerant	oil (Amount, type)		l	_	0.9 (M-MA68)	
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 4.5kg in outdoor unit (Incl.	the amount for the piping of : 30m)	
Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant				Electronic ex	pansion valve	
Fan type & 0	Q'ty			Centrifugal fan ×2	Propeller fan ×2	
Fan motor (	Starting method)		W	30 < Direct line start >	86 ×2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:7	100	
Available ex	ternal static pressure		Pa	0	_	
Outside air i	ntake			Not possible	_	
Air filter, Qua	ality / Quantity			Pocket plastic net ×2(Washable)	_	
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	<ul> <li>20(Crank case heater)</li> </ul>		
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3		
control	Room temperature control			Thermostat I	by electronics	
	Operation display				<del>-</del>	
					tion for fan motor	
Safety equip	oments			•	on thermostat	
					stat for fan motor emperature protection	
					κ0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")	
	Refrigerant piping size (O.	.D.)	mm		0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	——————————————————————————————————————	— — — — — — — — — — — — — — — — — — —	
data	Insulation for piping			Necessary (both I	ı Liquid & Gas lines)	
	Refrigerant line (one way)	lenath	m		100m	
	Vertical height diff. between O/		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs		
Drain pump, max lift height		mm	_	_		
	ded breaker size		Α	-	<del>-</del>	
L.R.A. (Lock	ked rotor ampere)		Α	5	0.0	
Interconnec	<del></del>	ımber		$\phi$ 1.6mm×3 cores + earth cable /	Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ac	ccessories			Mounting kit, Drain hose	Edging	
Option parts				Motion se	nsor : LB-E	

Item	Indoor air t	emperature	temperature	Standards	
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
- (6) Indoor unit specification for one unit. Capacity and operation data are two indoor units combined and run together.
  (7) Branching pipe set "DIS-WA1G"×1(option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

			Model	FDE125	VNXPVG			
Item			model	Indoor unit FDE60VG (2 units)	Outdoor unit FDC125VNX			
Power sour	ce			1 Phase 220-240V	50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW	12.5 [ 5.0(Mir	n.)-14.0(Max.)]			
	Nominal heating capacity	<del>, , , , , , , , , , , , , , , , , , , </del>	kW	14.0 [ 4.0(Min.)-17.0(Max.)]				
	Power consumption	Cooling		3.97				
		Heating	kW		70			
	Max power consumption				50			
	Running current	Cooling		17.6 / 18.4				
		Heating	A		/ 17.2			
Operation	Inrush current, max currer				26			
data	Power factor	Cooling	%		8			
	550	Heating			8			
	EER	Cooling			15			
	COP	Heating		3.	78			
	Sound power level	Cooling		60	70			
		Heating	ID(A)		40			
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	48			
	Cilent media accord and	Heating			50 —			
	Silent mode sound pressu	ire ievei			_			
Exterior dim	nensions (Height x Width x	Depth)	mm	210 × 1,320 × 690	1,300×970×370			
Exterior app	pearance			Plaster white	Stucco white			
( Munsell co	olor)			( 6.8Y8.9/0.2 )near equivalent	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	33	105			
Compresso	r type & Q'ty			_	RMT5134MDE2 (Twin rotary type)×1			
Compressor motor (Starting method)			kW	_	Direct line start			
Refrigerant	oil (Amount, type)		Q	_	0.9 (M-MA68)			
Refrigerant (Type, amount, pre-charge length)			kg	R410A 4.5kg in outdoor unit (Incl.	the amount for the piping of : 30m)			
Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant	control			Electronic ex	pansion valve			
Fan type &	Q'ty			Centrifugal fan ×4	Propeller fan ×2			
Fan motor (	Starting method)		W	50 < Direct line start >	86 ×2 < Direct line start >			
Air flow		Cooling Heating	m³/min	P-Hi:20 Hi:16 Me:13 Lo:10	100			
Available ex	ternal static pressure		Pa	0	_			
Outside air	intake			Not possible	_			
Air filter, Qu	ality / Quantity			Pocket plastic net ×2(Washable)	_			
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea	ter		W	_	20(Crank case heater)			
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5	, RCH-E3 Wireless : RCN-E-E3			
Operation control	Room temperature contro	l		Thermostat b	by electronics			
Control	Operation display			-	_			
Safety equip	oments			Frost protecti	tion for fan motor on thermostat stat for fan motor			
					emperature protection			
	Refrigerant piping size ( O	o.D.)	mm	Liquid line: I/U $\phi$ 6.35 (1/4") ② $\phi$ 9.52(3/8")×				
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping		m	<del>-</del>	<del>-</del>			
data	Insulation for piping				iquid & Gas lines)			
	Refrigerant line (one way)		m		100m			
	Vertical height diff. between O	/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
Drain hose				Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs			
Drain pump, max lift height		mm	_	<u> </u>				
	ded breaker size		Α		_			
	ked rotor ampere)		Α		.0			
Interconnec	ting wires Size x Core no	umber		,	Termainal block (Screw fixing type)			
IP number				IPX0	IP24			
Standard ad				Mounting kit, Drain hose	Edging			
Option part	S		لـــــــا	Motion ser	nsor : LB-E			

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
- (6) Indoor unit specification for one unit. Capacity and operation data are two indoor units combined and run together.

  (7) Branching pipe set "DIS-WA1G"×1(option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

			Model	FDE125	VSXPVG			
Item			Woder	Indoor unit FDE60VG (2 units)	Outdoor unit FDC125VSX			
Power sour	ce			3 Phase 380-415V	50Hz / 380V 60Hz			
	Nominal cooling capacity	(range)	kW	12.5 [ 5.0(Mir	12.5 [ 5.0(Min.)-14.0(Max.)]			
	Nominal heating capacity	(range)	kW	14.0 [ 4.0(Mir	n.)-18.0(Max.)]			
	Power consumption	Cooling			97			
	Tower consumption	Heating	kW		70			
	Max power consumption				12			
	Running current	Cooling		5.8	/ 6.2			
	Training current	Heating	Α [	5.4	/ 5.7			
Operation	Inrush current, max curren				15			
data	Power factor	Cooling	%		98			
data		Heating	70		99			
	EER	Cooling	ļļ		15			
	COP	Heating		3.	78			
	Sound power level	Cooling		60	70			
	Courte power toron	Heating						
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	48			
	·	Heating			50			
	Silent mode sound pressu	re level			_			
Exterior dim	nensions (Height x Width x I	Depth)	mm	210 × 1,320 × 690	1,300×970×370			
Exterior app	pearance			Plaster white	Stucco white			
( Munsell co	olor)			( 6.8Y8.9/0.2 )near equivalent	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	33	105			
Compresso	r type & Q'ty			_	RMT5134MDE3 (Twin rotary type)×1			
Compresso	r motor (Starting method)		kW	_	Direct line start			
Refrigerant	oil (Amount, type)		l	_	0.9 (M-MA68)			
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 4.5kg in outdoor unit (Incl.	the amount for the piping of : 30m)			
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant				Electronic ex	pansion valve			
Fan type &	Q'ty			Centrifugal fan ×4	Propeller fan ×2			
Fan motor (	Starting method)		W	50 < Direct line start >	86 ×2 < Direct line start >			
Air flow		Cooling Heating	m³/min	P-Hi:20 Hi:16 Me:13 Lo:10	100			
Available ex	ternal static pressure		Pa	0	_			
Outside air	intake			Not possible	_			
Air filter, Qu	ality / Quantity			Pocket plastic net ×2(Washable)	_			
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea	ter		W	<ul> <li>20(Crank case heater)</li> </ul>				
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5	, RCH-E3 Wireless : RCN-E-E3			
control	Room temperature control			Thermostat b	by electronics			
	Operation display			-	_			
					tion for fan motor			
Safety equip	oments			•	on thermostat			
, , ,					stat for fan motor			
					emperature protection			
	Refrigerant piping size ( O.	.D.)	mm		(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")			
	Connecting mathed			Gas line: I/U φ 12.7 (1/2") ② φ 12.7(1/2")XI  Flare piping	0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")			
Installation	Connecting method Attached length of piping		m	riale pipilig	Flare piping			
Installation Attached length of piping data Insulation for piping			111	Nacassan /hoth l	 Liquid & Gas lines)			
Jaia		lenath	m		100m			
Refrigerant line (one way) length Vertical height diff. between O/U and I/U Drain hose		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)				
		111	Hose connectable with VP20(O.D.26)	Hole size $\phi 20 \times 3 \text{ pcs}$				
Drain pump, max lift height		mm	— —					
	ded breaker size		A	- <del>-</del>	<u>-</u> -			
	ked rotor ampere)		A		.0			
Interconnec	<del>' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' </del>	ımher	/1		Termainal block (Screw fixing type)			
IP number	any wiles   OIZE A COIE III			Ψ 1.0ππ×3 cores + earth cable /	IP24			
Standard ad	ccessories			Mounting kit, Drain hose	Edging			
Option parts				IVIOLIOIT 3E	Motion sensor : LB-E			

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
- (6) Indoor unit specification for one unit. Capacity and operation data are two indoor units combined and run together.
  (7) Branching pipe set "DIS-WA1G"×1(option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

			Model	FDE140	VNXPVG		
Item			model	Indoor unit FDE71VG (2 units)	Outdoor unit FDC140VNX		
Power sour	ce			1 Phase 220-240V	50Hz / 220V 60Hz		
	Nominal cooling capacity	(range)	kW	14.0 [ 5.0(Mir	n.)-16.0(Max.)]		
	Nominal heating capacity	(range)	kW	16.0 [ 4.0(Mir	n.)-18.0(Max.)]		
	Power consumption	Cooling		4.	67		
	Fower consumption	Heating	kW	4.	58		
	Max power consumption			6.	94		
	Running current	Cooling		20.7	/ 21.7		
	Ruffling current	Heating	Α	20.3	/ 21.2		
Operation	Inrush current, max curren	t		5 ,	26		
Operation data	Power factor	Cooling	%	g	98		
uata		Heating	70	9	98		
	EER	Cooling		3.	00		
	COP	Heating		3.	49		
	Sound power level	Cooling		60	72		
	Codita power level	Heating			12		
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	49		
	·	Heating		1-111.47 111.41 We.37 L0.32	52		
	Silent mode sound pressu	re level			_		
Exterior dim	nensions (Height x Width x I	Depth)	mm	210 × 1,320 × 690	1,300×970×370		
Extorior	nogranco			Plaster white	Stucco white		
Exterior app (Munsell co				( 6.8Y8.9/0.2 )near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight	olor )		ka	33	105		
	r type & Q'ty		kg		RMT5134MDE2 (Twin rotary type )×1		
	r motor (Starting method)		kW		Direct line start		
	oil (Amount, type)		_		0.9 (M-MA68)		
	(Type, amount, pre-charge	longth)	lea	P410A 4 Ekg in outdoor unit (Incl.	the amount for the piping of : 30m)		
		lengin)	kg	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Heat exchanger Refrigerant control			<u> </u>	pansion valve			
Fan type &				Centrifugal fan ×4	Propeller fan ×2		
	Starting method)		W	50 < Direct line start >	86 ×2 < Direct line start >		
,	otarting metriody	Cooling					
Air flow		Heating	m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10 100			
	ternal static pressure		Pa	0	_		
Outside air				Not possible	_		
	ality / Quantity			Pocket plastic net ×2(Washable)			
	ration absorber		147	Rubber sleeve(for fan motor)  Rubber sleeve(for compr			
Electric hea			W	— 20(Crank case heater) (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3			
Operation	Remote control				, ·		
control	Room temperature control			mermostati	by electronics		
	Operation display			Overland	tion for fan motor		
				•	on thermostat		
Safety equip	oments			·	stat for fan motor		
					emperature protection		
					(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")		
	Refrigerant piping size (O.	.D. )	mm	Gas line: I/U \( d\) 15.88 (5/8") \( \tilde{2}\) \( d\) 15.88(5/8")	x1.0 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation Attached length of piping			m	— 	——————————————————————————————————————		
data Insulation for piping			Necessary (both I	Liquid & Gas lines)			
	Refrigerant line (one way)	length	m	3 (	100m		
Vertical height diff. between O/U and I/U		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs			
		mm	_				
	ded breaker size		Α		<del>.</del>		
	ked rotor ampere)		Α	5	.0		
Interconnec		ımber			Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad	ccessories			Mounting kit, Drain hose	Edging		
Option part	S				nsor : LB-E		
Οριιστι ραιτο				Wotton Senson . EB-E			

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
- (6) Indoor unit specification for one unit. Capacity and operation data are two indoor units combined and run together.

  (7) Branching pipe set "DIS-WA1G"×1(option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

			Model	FDE140	VSXPVG
Item				Indoor unit FDE71VG (2 units)	Outdoor unit FDC140VSX
Power sour				3 Phase 380-415V	50Hz / 380V 60Hz
	Nominal cooling capacity	(range)	kW		.)-16.0(Max.)]
	Nominal heating capacity	(range)	kW	16.0 [ 4.0(Mir	ı.)-20.0(Max.)]
	Power consumption	Cooling			67
	·	Heating	kW		58
	Max power consumption	1			68
	Running current	Cooling			/7.2
		Heating	Α		7.1
Operation	Inrush current, max curre			-	15
data	Power factor	Cooling	%		9
	EER	Heating			8
	COP	Cooling Heating			49
	COF	Cooling		3.	49
	Sound power level	Heating		60	72
		Cooling	dB(A)		49
	Sound pressure level	Heating	uD(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	52
	Silent mode sound press			_	——————————————————————————————————————
Exterior dim	nensions (Height x Width x	Depth)	mm	210 × 1,320 × 690	1,300×970×370
Exterior app	pearance			Plaster white	Stucco white
( Munsell co	olor)			( 6.8Y8.9/0.2 )near equivalent	( 4.2Y7.5/1.1 )near equivalent
Net weight			kg	33	105
Compresso	r type & Q'ty			-	RMT5134MDE3 (Twin rotary type)×1
Compresso	r motor (Starting method)		kW	_	Direct line start
Refrigerant	oil (Amount, type)		Q	_	0.9 (M-MA68)
Refrigerant	(Type, amount, pre-charge	e length)	kg	Ŭ ,	the amount for the piping of : 30m)
Heat excha				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant					pansion valve
Fan type &				Centrifugal fan ×4	Propeller fan ×2
Fan motor (	Starting method)	10 II	W	50 < Direct line start >	86 ×2 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi:20 Hi:16 Me:13 Lo:10	100
Available ex	ternal static pressure		Pa	0	<del>-</del>
Outside air				Not possible	<del>-</del>
	ality / Quantity			Pocket plastic net ×2(Washable)	
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			W	_	20(Crank case heater)
Operation	Remote control			(Option) Wired : RC-EX3 , RC-E5	·
control	Room temperature contro	OI		I hermostat t	by electronics
	Operation display			Overland protect	- ion for fan motor
					on thermostat
Safety equip	oments				tat for fan motor
					emperature protection
	Refrigerant piping size ( 0	D.D. )	mm	Liquid line: I/U $\phi$ 9.52 (3/8") ② $\phi$ 9.52(3/8")×	
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping		m	_	_
data	Insulation for piping			Necessary (both I	iquid & Gas lines)
	Refrigerant line (one way) length		m	Max.	100m
Vertical height diff. between O/U and I/U		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose		<u></u>		Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs
			mm	_	<del>-</del>
	ded breaker size		Α		-
_ `	(ed rotor ampere)		Α		.0
Interconnec	ting wires Size x Core r	number		,	Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard ad				Mounting kit, Drain hose	Edging
Option part	Option parts			iviotion ser	nsor : LB-E

Item	Item Indoor air temperature			Standards	
Operation DB		WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
- (6) Indoor unit specification for one unit. Capacity and operation data are two indoor units combined and run together.
  (7) Branching pipe set "DIS-WA1G"×1(option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

### (c) Triple type

				FDE140	VNXTVG
Item			Model	Indoor unit FDE50VG (3 units)	Outdoor unit FDC140VNX
Power sour	се			1 Phase 220-240V	50Hz / 220V 60Hz
	Nominal cooling capacity	(range)	kW	14.0 [ 5.0(Mir	n.)-16.0(Max.)]
	Nominal heating capacity	(range)	kW	16.0 [ 4.0(Mir	n.)-18.0(Max.)]
	Power consumption	Cooling		4.	66
	Power consumption	Heating	kW	4.	53
	Max power consumption			6.	86
	Dt	Cooling		20.7	/ 21.6
	Running current	Heating	A	20.1	/ 21.0
	Inrush current, max curre	nt	İ	5 ,	26
Operation	D ( )	Cooling	0/	g	8
data	Power factor	Heating	%	g	8
	EER	Cooling		3.	00
	COP	Heating	İ	3.	53
		Cooling			
	Sound power level	Heating		60	72
		Cooling	dB(A)		49
	Sound pressure level	Heating	' ( )	P-Hi: 46 Hi: 38 Me: 36 Lo: 31	52
	Silent mode sound press			_	_
Exterior din	nensions (Height x Width x	Depth)	mm	210 × 1,070 × 690	1,300×970×370
Exterior app	pearance			Plaster white	Stucco white
( Munsell co				(6.8Y8.9/0.2) near equivalent	( 4.2Y7.5/1.1 )near equivalent
Net weight	,		kg	28	105
	r type & Q'ty		9	_	RMT5134MDE2 (Twin rotary type )×1
	r motor (Starting method)		kW	_	Direct line start
	oil (Amount, type)		Q.	_	0.9 (M-MA68)
	(Type, amount, pre-charg	e lenath)	kg	R410A 4 5kg in outdoor unit (Incl.	the amount for the piping of : 30m)
Heat excha		c iongin)	I Ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant				<u> </u>	pansion valve
Fan type &				Centrifugal fan ×2	Propeller fan ×2
	Starting method)		w	30 < Direct line start >	86 ×2 < Direct line start >
Air flow	otarting motiloa)	Cooling	m³/min	P-Hi:13 Hi:10 Me:9 Lo:7	100
A !   -   -		Heating	D-		
	ternal static pressure		Pa	0	_
Outside air				Not possible	_
	ality / Quantity			Pocket plastic net ×2(Washable) —	
	pration absorber		14/	Rubber sleeve(for fan motor)	Rubber sleeve(for compressor )
Electric hea	,		W	(O-ti) Min-1 : BO EVO BO E	20(Crank case heater)
Operation	Remote control	-l		(Option) Wired : RC-EX3 , RC-E5	
control	Room temperature contro	OI		I nermostat i	by electronics
	Operation display				_
				•	tion for fan motor
Safety equi	pments				on thermostat stat for fan motor
					emperature protection
	Refrigerant piping size ( (	D.D. )	mm	Liquid line: I/U $\phi$ 6.35 (1/4") ② $\phi$ 9.52(3/8")	(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")
		•			0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping	l	m		
data	Insulation for piping	A 1			Liquid & Gas lines)
	Refrigerant line (one way		m		100m
	Vertical height diff. between C	)/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
Drain hose		100:	Hose connectable with VP20(O.D.26)	Hole size φ20 x 3 pcs	
Drain pump, max lift height  Recommended breaker size		mm	<del>_</del>	_	
			A		
	ked rotor ampere)		Α		.0
Interconnec	ting wires Size x Core r	iumper		,	Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard ad				Mounting kit, Drain hose	Edging
Option parts				Motion se	nsor : LB-E

Notes (1) The data are measured at the following conditions.

Item	Item Indoor air temperature			emperature Outdoor air temperature				
Operation DB		WB	DB	WB	Standards			
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1			
Heating	20°C	_	7°C	6°C	1303131-11			

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
- (6) Indoor unit specification for one unit. Capacity and operation data are three indoor units combined and run together.

  (7) Branching pipe set "DIS-TA1G"×1(option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

			Model	FDE140	VSXTVG
Item				Indoor unit FDE50VG (3 units)	Outdoor unit FDC140VSX
Power sour				3 Phase 380-415V	50Hz / 380V 60Hz
	Nominal cooling capacity	(range)	kW		n.)-16.0(Max.)]
	Nominal heating capacity	(range)	kW	16.0 [ 4.0(Mir	n.)-20.0(Max.)]
	Power consumption	Cooling			66
	·	Heating	kW		53
	Max power consumption	1			58
	Running current	Cooling			/7.2
		Heating	Α		/ 7.0
Operation	Inrush current, max curre			-	15
data	Power factor	Cooling	%		9
	FED	Heating			8
	EER COP	Cooling			00 53
	COP	Heating Cooling		3.	
	Sound power level	Heating		60	72
		Cooling	dB(A)		49
	Sound pressure level	Heating	ub(A)	P-Hi: 46 Hi: 38 Me: 36 Lo: 31	52
	Silent mode sound press			<u>_</u>	
				-	
Exterior dim	nensions (Height x Width x	Depth)	mm	210 × 1,070 × 690	1,300×970×370
Exterior app	pearance			Plaster white	Stucco white
( Munsell co	olor)			( 6.8Y8.9/0.2 )near equivalent	( 4.2Y7.5/1.1 )near equivalent
Net weight			kg	28	105
	r type & Q'ty			_	RMT5134MDE3 (Twin rotary type)×1
Compresso	r motor (Starting method)		kW	_	Direct line start
	oil (Amount, type)		l	<del>-</del>	0.9 (M-MA68)
	(Type, amount, pre-charge	e length)	kg		the amount for the piping of : 30m)
Heat excha				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant					pansion valve
Fan type &				Centrifugal fan ×2	Propeller fan ×2
Fan motor (	Starting method)	1	W	30 < Direct line start >	86 ×2 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:7	100
Available ex	ternal static pressure		Pa	0	_
Outside air	intake			Not possible	1
Air filter, Qu	ality / Quantity			Pocket plastic net ×2(Washable)	-
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			W	_	20(Crank case heater)
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5	<u></u>
control	Room temperature contro	ol		Thermostat b	by electronics
	Operation display			-	_
					tion for fan motor
Safety equip	oments				on thermostat stat for fan motor
					emperature protection
	Refrigerant piping size ( C	D.D. )	mm	Liquid line: I/U $\phi$ 6.35 (1/4") ② $\phi$ 9.52(3/8")×	
	Connecting method			Gas line: 1/0 φ 12.7 (1/2 ) ② φ 12.7 (1/2 )xl	Flare piping
Installation	Attached length of piping		m	– iaio piping	– i iai o piping
data	Insulation for piping			Necessary (both I	
	Refrigerant line (one way	) length	m		100m
Vertical height diff. between O/U and I/U		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi 20 \times 3 \text{ pcs}$
			mm	_	
	ded breaker size		Α		_
	ked rotor ampere)		Α		.0
Interconnec	ting wires Size x Core n	number		,	Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard ad				Mounting kit, Drain hose	Edging
Option part	Option parts			Motion ser	nsor : LB-E

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
- (6) Indoor unit specification for one unit. Capacity and operation data are three indoor units combined and run together.

  (7) Branching pipe set "DIS-TA1G"×1(option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

### (2) Duct connected-Low / Middle static pressure type (FDUM)

### (a) Single type

			Model	FDUM4	0ZSXVF	
Item				Indoor unit FDUM40VF Outdoor unit SRC40ZSX-S		
Power sour	rce			1 Phase 220-240V	50Hz / 220V 60Hz	
	Nominal cooling capacit	<del>, , , , , , , , , , , , , , , , , , , </del>	kW	4.0 [ 1.1(Min.)- 4.7(Max.)]		
	Nominal heating capaci	<del>, , , , , , , , , , , , , , , , , , , </del>	kW		ı.)- 5.4(Max.)]	
	Power consumption	Cooling			952	
	·	Heating	kW		07	
	Max power consumptio				60	
	Running current	Cooling	_		/ 4.6	
	Invitab attiment may attim	Heating	Α		/ 5.1 12	
Operation	Inrush current, max curr	Cooling		-	)4	
data	Power factor	Heating	%		95	
	EER	Cooling			20	
	COP	Heating	1		21	
		Cooling				
	Sound power level	Heating		60	63	
		Cooling	dB(A)		50	
	Sound pressure level	Heating	, ,	P-Hi: 37 Hi: 32 Me: 29 Lo: 26	49	
	Silent mode sound pres			-	Cooling: 42 / Heating: 43	
F		D 11)		200 750 005	5 5	
	nensions (Height x Width	x Deptn)	mm	280 × 750 × 635	640×800(+71)×290	
Exterior app				_	Stucco white	
( Munsell co					(4.2Y7.5/1.1) near equivalent	
Net weight			kg	29	45	
	or type & Q'ty				RMT5113MCE2 (Twin rotary type )×1	
	or motor (Starting method	)	kW	_	Direct line start	
	oil (Amount, type)		Q	— D4404 4 51 11 11 11 11 11 11 11 11 11 11 11 11	0.45 (M-MA68)	
	Refrigerant (Type, amount, pre-charge length)		kg	, ·	the amount for the piping of : 15m)	
	Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant Fan type &				Capillary tubes + Elec Centrifugal fan ×1	tronic expansion valve  Propeller fan ×1	
	(Starting method)		W	100 < Direct line start >	34 < Direct line start >	
	(Starting metriod)	Cooling			36	
Air flow		Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	33	
	xternal static pressure		Pa	Standard: 35 Max: 100	_	
Outside air				Possible	_	
	uality / Quantity			Procure locally		
	oration absorber		147	Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	-		
Operation	Remote control				RCH-E3 Wireless : RCN-KIT4-E2	
control	Room temperature cont	roi		I nermostat t	by electronics	
	Operation display			Overland protect	tion for fan motor	
					on thermostat	
Safety equi	pments				stat for fan motor	
					emperature protection	
	Definement 11 1	0.0.\		<u>~</u>	φ 6.35(1/4")x0.8 O/U φ 6.35 (1/4")	
	Refrigerant piping size (	U.D. )	mm		b 12.7 (1/2")x0.8 φ 12.7 (1/2")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of pipin	ıg	m	<u>–</u>	<u> </u>	
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)	
	Refrigerant line (one wa		m		.30m	
	Vertical height diff. between	O/U and I/U	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)	
	Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 5 pcs	
	o, max lift height		mm	Built-in drain pump , 600		
	nded breaker size		Α	<u> </u>		
	ked rotor ampere)		Α		.8	
Interconnec	cting wires Size x Core	number			le) / Termainal block (Screw fixing type)	
IP number				IPX0	IPX4	
Standard a				Mounting kit, Drain hose	Drain elbow, Drain hole grommet	
Option part	Option parts			Filter set : UM-FL1EF,	Motion sensor : LB-KIT	

Notes (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	04
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	35Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
  (6) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
  (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM5	0ZSXVF	
Item				Indoor unit <b>FDUM50VF</b>	Outdoor unit SRC50ZSX-S	
Power source	ce			1 Phase 220-240V	50Hz / 220V 60Hz	
	Nominal cooling capacit	y (range)	kW	5.0 [ 1.1(Min	.)- 5.6(Max.)]	
	Nominal heating capacit	y (range)	kW	5.4 [ 0.6(Min	.)- 6.3(Max.)]	
		Cooling			38	
	Power consumption	Heating	kW	1.	45	
	Max power consumption			2.	90	
	·	Cooling			/ 6.6	
	Running current	Heating	A		/ 6.9	
	Inrush current, max curre		''		15	
Operation		Cooling		-	95	
data	Power factor	Heating	% -	96		
	EER	Cooling			62	
	COP	Heating			72	
	001	Cooling		0.	72	
	Sound power level	Heating		60	63	
		Cooling	dB(A)		50	
	Sound pressure level	Heating	ub(A)	P-Hi: 37 Hi: 32 Me: 29 Lo: 26	49	
	Cilent made cound areas		-			
	Silent mode sound press	sure level		<del>-</del>	Cooling: 42 / Heating: 43	
Exterior dim	nensions (Height x Width	c Depth)	mm	280 × 750 × 635	640×800(+71)×290	
Exterior app	pearance				Stucco white	
( Munsell co				_	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	29	45	
	r type & Q'ty		9	_	RMT5113MCE2 (Twin rotary type )×1	
	r motor (Starting method)		kW	_	Direct line start	
	oil (Amount, type)		e e	_	0.45 ( M-MA68 )	
	(Type, amount, pre-chard	ie length)	kg		the amount for the piping of : 15m)	
Heat exchar	( )	je lerigiri)	- Kg	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant					tronic expansion valve	
Fan type &				Centrifugal fan ×1	Propeller fan ×1	
	Starting method)		W	100 < Direct line start >	34 < Direct line start >	
Tall Hotor (	Starting method)	Cooling	VV	100 < Direct line start >	40	
Air flow			m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	33	
Available ev	townal atatic property	Heating	Pa	Standard: 35 Max: 100		
	ternal static pressure		Ра		_	
Outside air				Possible	_	
	ality / Quantity			Procure locally	— — — — — — — — — — — — — — — — — — —	
	ration absorber		14/	Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	- (O 1' ) W'   DO 5'(O DO 55		
Operation	Remote control				RCH-E3 Wireless : RCN-KIT4-E2	
control	Room temperature contr	Ol		I hermostat t	by electronics	
	Operation display			<del>_</del>	<del>-</del>	
					tion for fan motor	
Safety equip	oments				on thermostat	
					stat for fan motor	
	1				emperature protection	
	Refrigerant piping size (	O.D. )	mm -	Liquid line: I/U φ 6.35 (1/4") Pipe		
					φ 12.7 (1/2")x0.8 φ 12.7 (1/2")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping	9	m	<del>-</del>		
data	Insulation for piping			Necessary (both I		
	Refrigerant line (one wa	,, <u> </u>	m		.30m	
	Vertical height diff. between O/U and I/U		m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)	
Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 5 pcs		
Drain pump, max lift height			mm	Built-in drain pump , 600	_	
Recommen	ded breaker size		Α	-	_	
L.R.A. (Lock	ked rotor ampere)		Α	5	.0	
Interconnec	ting wires Size x Core	number		1.5mm <sup>2</sup> x 4 cores (Including earth cabl	le) / Termainal block (Screw fixing type)	
IP number	•			IPX0	IPX4	
Standard ad	ccessories			Mounting kit, Drain hose	Drain elbow, Drain hole grommet	
Option parts					Motion sensor : LB-KIT	
<u> </u>	1) The data are measures			·	The pine length is 7.5m	

Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	SSFa	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
  (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
  (6) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
  (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM6	0ZSXVF
Item				Indoor unit FDUM60VF	Outdoor unit SRC60ZSX-S
Power source	ce			1 Phase 220-240V	50Hz / 220V 60Hz
	Nominal cooling capacity	y (range)	kW	5.6 [ 1.1(Min	.)- 6.3(Max.)]
	Nominal heating capacit	y (range)	kW	6.7 [ 0.6(Min	.)- 7.1(Max.)]
	Douger consumention	Cooling		1.	54
	Power consumption	Heating	kW	1.	75
	Max power consumption	1		2.	90
	Dunning august	Cooling		6.8	7.1
	Running current	Heating	A	7.8	/ 8.2
0	Inrush current, max curre	ent		5 ,	15
Operation	Power factor	Cooling	%	98 ,	/ 99
data	Heating		%	98 ,	/ 97
	EER	Cooling		3.	64
	COP	Heating		3.	83
	Sound power level	Cooling		60	65
	Souria power level	Heating		60	64
	Cound property level	Cooling	dB(A)	P-Hi:36 Hi:31 Me:28 Lo:25	52
	Sound pressure level	Heating		P-HI:36 HI:31 Me:26 L0:25	52
	Silent mode sound pressure level			<del>-</del>	Cooling: 42 / Heating: 43
Extorior dim	oneione (Hoight y Midth )	( Donth)	mm	280 × 950 × 635	640×800(+71)×290
LXterior alm	ensions (Height x Width )	Debili)	111(11	200 x 900 x 000	040×000(+/1)×230
Exterior app	earance				Stucco white
( Munsell co	lor)			_	(4.2Y7.5/1.1) near equivalent
Net weight			kg	34	45
Compresso	r type & Q'ty			_	RMT5113MCE2 (Twin rotary type)×1
Compresso	r motor (Starting method)		kW	_	Direct line start
Refrigerant	oil (Amount, type)		l	_	0.45 ( M-MA68 )
Refrigerant	(Type, amount, pre-charg	je length)	kg	R410A 1.5kg in outdoor unit (Incl. t	the amount for the piping of : 15m)
Heat exchar	nger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant	control			Capillary tubes + Elec	tronic expansion valve
Fan type & 0	Q'ty			Centrifugal fan ×2	Propeller fan ×1
Fan motor (	Starting method)		W	130 < Direct line start >	34 < Direct line start >
Air flow		Cooling	m³/min	P-Hi: 20 Hi: 15 Me: 13 Lo: 10	41.5
All llow		Heating	111 /111111	1-111.20 111.13 We.13 Lo.10	39
	ternal static pressure		Pa	Standard: 35 Max: 100	_
Outside air i				Possible	_
	ality / Quantity			Procure locally	_
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			W	_	<del>-</del>
Operation	Remote control				RCH-E3 Wireless : RCN-KIT4-E2
control	Room temperature contr	ol		Thermostat b	by electronics
	Operation display			-	-
				•	tion for fan motor
Safety equip	oments			•	on thermostat
, , ,					stat for fan motor
					emperature protection
	Refrigerant piping size (	O.D.)	mm -	Liquid line: I/U \( \phi \) 6.35 (1/4") Pipe	
	_				φ 12.7 (1/2")x0.8 φ 12.7 (1/2")
Inatall-#-	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping	J	m	- Nanagagan: // 11- 1	iguid <sup>9</sup> Coo lines)
data	Insulation for piping Refrigerant line (one wa	/\ longth	m	Necessary (both I	.30m
	Vertical height diff. between	,, <u> </u>	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)
		J/U and I/U	m	Hose connectable VP25(I.D.25, O.D.32)	, , , , , , , , , , , , , , , , , , , ,
Drain hose		mm	, , ,	Hole size $\phi$ 20 x 5 pcs	
Drain pump, max lift height  Recommended breaker size			mm	Built-in drain pump , 600	<del>-</del>
			A		
	ting wires   Size x Core	number	Α		.0
Interconnec	ung wires   Size x Core	number		` •	e) / Termainal block (Screw fixing type)
IP number				IPX0	IPX4
Standard ac				Mounting kit, Drain hose	Drain elbow, Drain hole grommet  Motion sensor : LB-KIT
Option parts	1) The data are measured			·	The pine length is 7.5m.

Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	SSFa	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
  (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
  (6) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.
  (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM7	IVNXVF1		
Item			_	Indoor unit FDUM71VF1	Outdoor unit <b>FDC71VNX</b>		
Power sour	ce			1 Phase 220-240V	50Hz / 220V 60Hz		
	Nominal cooling capacity	/ (range)	kW	7.1 [ 3.2(Mir	n.)-8.0(Max.)]		
	Nominal heating capacity		kW		n.)-9.0(Max.)]		
		Cooling		2.03			
	Power consumption	Heating	kW	1.	99		
	Max power consumption			3.	25		
		Cooling			/ 9.4		
	Running current	Heating	A		/ 9.4		
	Inrush current, max curre		^`		17		
Operation	middir darront, max darro	Cooling			18		
data	Power factor	Heating	% -		16		
	EER Cooling				.5		
	COP	Heating			02		
	COF	Cooling		4.	02		
	Sound power level			65	66		
		Heating	-ID(A)		F4		
	Sound pressure level	Cooling	dB(A)	P-Hi: 38 Hi: 33 Me: 29 Lo: 25	51		
	·	Heating			48		
	Silent mode sound press	ure level			_		
Exterior dim	ensions (Height x Width x	(Depth)	mm	280 × 950 × 635	750×880(+88)×340		
Extorior and	nogranco		$\vdash$		Stucco white		
Exterior app ( Munsell co				_	( 4.2Y7.5/1.1 ) near equivalent		
`	olor )		l.e.	0.4			
Net weight			kg	34	60		
	r type & Q'ty		114/	<del>-</del>	RMT5118MDE2 (Twin rotary type )×1		
	r motor (Starting method)		kW		Direct line start		
	oil (Amount, type)		l	<del>_</del>	0.675 (M-MA68)		
	(Type, amount, pre-charg	e length)	kg		the amount for the piping of : 30m)		
Heat exchar				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant					pansion valve		
Fan type & 0				Centrifugal fan ×2	Propeller fan ×1		
Fan motor (	Starting method)		W	130 < Direct line start >	86 < Direct line start >		
Air flow		Cooling	m³/min	P-Hi:24 Hi:19 Me:15 Lo:10	60		
		Heating		0: 1 1 05 14 100	50		
	ternal static pressure		Pa	Standard: 35 Max: 100	_		
Outside air				Possible	_		
	ality / Quantity			Procure locally			
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor )		
Electric hea	,		W	<del></del>	20 (Crank case heater)		
Operation	Remote control				RCH-E3 Wireless : RCN-KIT4-E2		
control	Room temperature contr	ol		Thermostat b	by electronics		
	Operation display			<u> </u>	=		
					tion for fan motor		
Safety equip	oments				on thermostat		
ou.or, oqu.,					stat for fan motor		
					emperature protection		
	  Refrigerant piping size ( (	ו ח כ	mm -		φ 9.52 (3/8")x0.8 O/U φ 9.52 (3/8")		
		J.D. <sub>j</sub>		Gas line: $\phi$ 15.88 (5/8") $\phi$	15.88 (5/8")x1.0 φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping	]	m	<del>_</del>	_		
data	Insulation for piping			Necessary (both I	_iquid & Gas lines)		
	Refrigerant line (one way		m	Max	.50m		
	Vertical height diff. between 0	D/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs			
Drain pump, max lift height			mm	Built-in Drain pump , 600	_		
Recommended breaker size			Α	-	_		
L.R.A. (Lock	ked rotor ampere)		Α	5	.0		
Interconnec	- '	number			Termainal block (Screw fixing type)		
IP number	<u> </u>			IPX0	IP24		
Standard ac	ccessories			Mounting kit, Drain hose			
Option parts					Motion sensor : LB-KIT		
	1) The data are magazired		<u> </u>		The nine length is 7.5m		

Item	Indoor air te	emperature	Outdoor air	temperature	External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	SoPa	1909191-11	

- $\hbox{\ensuremath{(2)} This air-conditioner is manufactured and tested in conformity with the ISO. } \\$
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
  (6) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.
  (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM100VNXVF2			
Item				Indoor unit FDUM100VF2	Outdoor unit <b>FDC100VNX</b>		
Power source	ce				50Hz / 220V 60Hz		
	Nominal cooling capacity	/ (range)	kW	10.0 [ 4.0(Mir	n.)-11.2(Max.)]		
	Nominal heating capacity		kW	11.2 [ 4.0(Mir			
		Cooling		2.68			
	Power consumption	Heating	kW		02		
	Max power consumption		1	4.	83		
	·	Cooling			/ 12.5		
	Running current	Heating	A		/ 14.1		
	Inrush current, max curre		l '`  -	5 ,			
Operation	initudin current, max curre	Cooling		-	7		
data	Power factor	Heating	% -		7		
	EER Cooling				73		
	COP	Heating	-		73 71		
	COF	J		3.	<i>i</i> 1		
	Sound power level	Cooling		65	70		
	•	Heating	.p.,\		10		
	Sound pressure level	Cooling	dB(A)	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	48		
	<u> </u>	Heating			50		
	Silent mode sound press	ure level		_	<del>_</del>		
Exterior dim	ensions (Height x Width x	Depth)	mm	280 × 1370 × 740	1300×970×370		
Exterior one					Stucco white		
Exterior app ( Munsell co				_	( 4.2Y7.5/1.1 ) near equivalent		
Net weight	101 )		lec	ΕΛ	(4.2 Y 7.5/1.1 ) near equivalent		
	1 0 0 1		kg	54			
	type & Q'ty		114/	_	RMT5134MDE2 (Twin rotary type)×1		
	motor (Starting method)		kW	_	Direct line start		
	oil (Amount, type)		l	<del>_</del>	0.9 (M-MA68)		
	(Type, amount, pre-charg	e length)	kg	• ` `	the amount for the piping of : 30m)		
Heat exchar				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant of				Electronic ex	pansion valve		
Fan type & 0				Centrifugal fan ×3	Propeller fan ×2		
Fan motor (S	Starting method)		W	100 + 130 < Direct line start >	86 x 2 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi: 36 Hi: 28 Me: 25 Lo: 19	100		
Available ex	ternal static pressure		Pa	Standard: 60 Max: 100	-		
Outside air i				Possible	_		
	ality / Quantity			Procure locally	_		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric heat			W		20 (Crank case heater)		
	Remote control			(Option) Wired: RC-EX3, RC-E5.	RCH-E3 Wireless : RCN-KIT4-E2		
Operation	Room temperature contr	ol			by electronics		
control	Operation display			-	<u>,                                      </u>		
Safety equip				Frost protecti Internal thermos Abnormal discharge t	tion for fan motor on thermostat stat for fan motor emperature protection		
	Refrigerant piping size (	D.D. )	mm	Liquid line: I/U φ 9.52 (3/8") Pipe σ Gas line: φ 15.88 (5/8") φ			
ı	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping	1	m	_	_		
data	Insulation for piping	•		Necessary (both I	Liquid & Gas lines)		
	Refrigerant line (one way	/) length	m		100m		
	Vertical height diff. between (		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose	,, J and 1/ U		Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi 20 \times 3$ pcs		
			mm	Built-in Drain pump, 600	-		
					<u> </u>		
Recommended breaker size A L.R.A. (Locked rotor ampere) A					 .0		
	- '		Α				
Interconnect	ting wires Size x Core r	iumper			Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
	Standard accessories						
				Mounting kit, Drain hose	Edging Motion sensor : LB-KIT		

Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	oora	1903151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
  (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
  (6) Static pressure of optional air filter "UM-FL3EF" is 5Pa initially.
  (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM10	0VSXVF2		
Item				Indoor unit FDUM100VF2	Outdoor unit FDC100VSX		
Power sour	ce			3 Phase 380-415V	50Hz / 380V 60Hz		
	Nominal cooling capacity	(range)	kW		n.)-11.2(Max.)]		
	Nominal heating capacity	(range)	kW	11.2 [ 4.0(Min.)-16.0(Max.)]			
	Power consumption	Cooling		2.68			
	I ower consumption	Heating	kW	3.02			
	Max power consumption			6.	04		
	Running current	Cooling	]	4.0	/ 4.2		
	Turining current	Heating	Α	4.5	/ 4.7		
Operation	Inrush current, max curre	nt			15		
data	Power factor	Cooling	%		)7		
data	Heating		/0		/ 98		
	EER	Cooling			73		
	COP	Heating		3.	71		
	Sound power level	Cooling		65	70		
	Courte power level	Heating					
	Sound pressure level	Cooling	dB(A)	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	48		
	<u> </u>	Heating			50		
	Silent mode sound pressu	ıre level		_	_		
Exterior din	nensions (Height x Width x	Depth)	mm	280 × 1370 × 740	1300×970×370		
Exterior app	pearance				Stucco white		
( Munsell co	olor)			<del>-</del>	( 4.2Y7.5/1.1 ) near equivalent		
Net weight			kg	54	105		
Compresso	or type & Q'ty		Ŭ	_	RMT5134MDE3 (Twin rotary type)×1		
Compresso	or motor (Starting method)		kW	_	Direct line start		
Refrigerant	oil (Amount, type)		Q	_	0.9 (M-MA68)		
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 4.5kg in outdoor unit (Incl.	the amount for the piping of : 30m)		
Heat excha	nger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant	control			Electronic ex	pansion valve		
Fan type &				Centrifugal fan ×3	Propeller fan ×2		
Fan motor (	(Starting method)		W	100 + 130 < Direct line start >	86 x 2 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi:36 Hi:28 Me:25 Lo:19	100		
Available ex	kternal static pressure	J J	Pa	Standard: 60 Max: 100	_		
Outside air				Possible	_		
	ality / Quantity			Procure locally	_		
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea	iter		W	<u> </u>	20 (Crank case heater)		
	Remote control			(Option) Wired: RC-EX3, RC-E5,	RCH-E3 Wireless : RCN-KIT4-E2		
Operation control	Room temperature contro	ol			by electronics		
COLLLOI	Operation display			-	<del>-</del>		
Safety equi	pments			Frost protecti Internal thermos	tion for fan motor on thermostat stat for fan motor emperature protection		
	Refrigerant piping size ( C	).D. )	mm		φ 9.52 (3/8")x0.8 O/U φ 9.52 (3/8") 15.88 (5/8")x1.0 φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	_			
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)		
	Refrigerant line (one way)		m	Max.	100m		
	Vertical height diff. between O Drain hose	/U and I/U	m	Max.30m (Outdoor unit is higher) Hose connectable VP25(I.D.25, O.D.32)	Max.15m (Outdoor unit is lower) Hole size φ20 x 3 pcs		
Drain pump, max lift height			mm	Built-in Drain pump , 600	_		
			Α		_		
	ked rotor ampere)		Α	5	.0		
Interconnec	<del></del>	umber			Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard a	ccessories			Mounting kit, Drain hose	Edging		
Option part					Motion sensor : LB-KIT		
option parto				·			

Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	оога	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
  (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
  (6) Static pressure of optional air filter "UM-FL3EF" is 5Pa initially.
  (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM125VNXVF		
Item				Indoor unit FDUM125VF	Outdoor unit FDC125VNX	
Power source	ce				50Hz / 220V 60Hz	
	Nominal cooling capacity	/ (range)	kW		n.)-14.0(Max.)]	
	Nominal heating capacity		kW	E (	n.)-17.0(Max.)]	
		Cooling	1.00		49	
	Power consumption	Heating	kW		77	
	Max power consumption		````  -		03	
	Wax power consumption	Cooling			/ 16.2	
	Running current				/ 10.2 / 17.6	
	Invited at the party of the	Heating	A			
Operation	Inrush current, max curre			5 ,		
data	Power factor	Cooling	% -		8	
	Heating				/ 97	
	EER	Cooling	-		58	
	COP	Heating		3.	71	
	Sound power level	Cooling		67	70	
	Courta power level	Heating	l L	01	70	
	Sound pressure level	Cooling	dB(A)	P-Hi: 45 Hi: 40 Me: 34 Lo: 29	48	
	Courid pressure level	Heating		1 -11110 11110 1VIC. 04 LU. 23	50	
	Silent mode sound press	ure level		_		
Extorior d'	ongiona (Haight v Might	(Donth)	m	200 v 1270 ·· 740	1200-070270	
Exterior aim	ensions (Height x Width x	Debru)	mm	280 × 1370 × 740	1300×970×370	
Exterior app	pearance				Stucco white	
( Munsell co				_	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	54	105	
	r type & Q'ty		I Ng	<del>_</del>	RMT5134MDE2 (Twin rotary type )×1	
	r motor (Starting method)		kW		Direct line start	
	oil (Amount, type)				0.9 (M-MA68)	
		- 1	Q .		()	
	(Type, amount, pre-charg	e length)	kg		the amount for the piping of : 30m)	
Heat exchar				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant					pansion valve	
Fan type & 0				Centrifugal fan ×3	Propeller fan ×2	
Fan motor (	Starting method)		W	100 + 200 < Direct line start >	86 x 2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi:39 Hi:32 Me:26 Lo:20	100	
Available ex	ternal static pressure	1	Pa	Standard: 60 Max: 100	_	
Outside air i				Possible	_	
	ality / Quantity			Procure locally	<u>_</u>	
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor )	
Electric hear			w	hubber sieeve(ior lair motor)	20 (Crank case heater)	
Electric flea	,		VV	(Ontion) Wired : DC EV2 DC E5	RCH-E3 Wireless : RCN-KIT4-E2	
Operation	Remote control	-1				
control	Room temperature control	01		I nermostat t	by electronics	
	Operation display				_	
					tion for fan motor	
Safety equip	oments			•	on thermostat	
					stat for fan motor	
	T				emperature protection	
	  Refrigerant piping size ( (	O.D. )	mm -	Liquid line: I/U φ 9.52 (3/8") Pipe α		
				Gas line: $\phi$ 15.88 (5/8") $\phi$		
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping	3	m	_	<del>-</del>	
data	Insulation for piping				Liquid & Gas lines)	
	Refrigerant line (one way		m	Max.	100m	
	Vertical height diff. between 0	D/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs		
Drain pump, max lift height			mm	Built-in Drain pump , 600	<del>_</del> _ ·	
Recommended breaker size			Α		-	
	ked rotor ampere)		Α	5	.0	
Interconnec	- '	number	· 1		Termainal block (Screw fixing type)	
IP number	g			IPX0	IP24	
Standard ac	rcessories			Mounting kit, Drain hose	Edging	
Option parts					Motion sensor : LB-KIT	
	1) The data are massured				The pine length is 7 5m	

Item	Indoor air te	emperature	Outdoor air	temperature	External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	OUFA	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
  (6) Static pressure of optional air filter "UM-FL3EF" is 5Pa initially.
  (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM1:	25VSXVF			
Item				Indoor unit FDUM125VF	Outdoor unit FDC125VSX			
Power sour	ce			3 Phase 380-415\	/ 50Hz / 380V 60Hz			
	Nominal cooling capacit	y (range)	kW	12.5 [ 5.0(Mir	n.)-14.0(Max.)]			
	Nominal heating capacit		kW		n.)-18.0(Max.)]			
		Cooling		3.49				
	Power consumption	Heating	kW		77			
	Max power consumption		1		54			
	max perrer eemeumprier	Cooling			/ 5.5			
	Running current	Heating	Α		/ 5.9			
	Inrush current, max curre		^		, 15			
Operation	illiusii current, max curr	Cooling			/ 96			
data	Power factor		%		7 90 97			
		Heating						
	EER	Cooling			58			
	COP	Heating		ა	71			
	Sound power level	Cooling		67	70			
		Heating		<u> </u>				
	Sound pressure level	Cooling	dB(A)	P-Hi: 45 Hi: 40 Me: 34 Lo: 29	48			
	Courta pressure level	Heating		1 111.40111.40 MIC. 04 E0. 20	50			
	Silent mode sound press	sure level		_	_			
Exterior din	anniana (Haight y Midth	v Donth)	mm	280 × 1370 × 740	1300×970×370			
Exterior diri	nensions (Height x Width :	x Deptil)	'''''	260 x 1370 x 740	1300x970x370			
Exterior app	pearance				Stucco white			
( Munsell co	olor)			_	( 4.2Y7.5/1.1 ) near equivalent			
Net weight	•		kg	54	105			
	r type & Q'ty			<u>-</u>	RMT5134MDE3 (Twin rotary type )×1			
	r motor (Starting method)	1	kW		Direct line start			
	oil (Amount, type)	<u>'                                      </u>	e e		0.9 (M-MA68)			
		re length)	kg		the amount for the piping of : 30m)			
Refrigerant (Type, amount, pre-charge length) Heat exchanger			ry .	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant					pansion valve			
Fan type &			147	Centrifugal fan ×3	Propeller fan ×2			
Fan motor (	Starting method)	10 "	W	100 + 200 < Direct line start >	86 x 2 < Direct line start >			
Air flow		Cooling Heating	m³/min	P-Hi: 39 Hi: 32 Me: 26 Lo: 20	100			
Available ex	ternal static pressure	пеашу	Pa	Standard: 60 Max: 100	_			
Outside air			- ι α	Possible	_			
	ality / Quantity			Procure locally	_			
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea			W	hubber sleeve(for fair filotor)	` ' '			
Liectric riea	· · · · · · · · · · · · · · · · · · ·		VV	(Ontion) Wired - DO EVO DO EE	20 (Crank case heater) RCH-E3 Wireless: RCN-KIT4-E2			
Operation	Remote control							
control	Room temperature control	IUI		i nermostat i	by electronics			
	Operation display				—			
					tion for fan motor			
Safety equi	pments			•	on thermostat			
' '					stat for fan motor			
	T				emperature protection			
	Refrigerant piping size (	O.D. )	mm		φ 9.52 (3/8")x0.8 O/U φ 9.52 (3/8")			
	0 11 0 1			Gas line: φ 15.88 (5/8") φ				
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of pipin	g	m		_			
data Insulation for piping				Liquid & Gas lines)				
	Refrigerant line (one wa		m		100m			
	Vertical height diff. between	O/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
	Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs			
Drain pump	, max lift height	,	mm	Built-in Drain pump, 600	_			
Recommended breaker size		Α		_				
L.R.A. (Locked rotor ampere)			Α	5	5.0			
Interconnec		number			Termainal block (Screw fixing type)			
IP number	J 12   2   2   2   2   2   2   2   2   2			IPX0	IP24			
Standard ad	ccessories	,		Mounting kit, Drain hose	Edging			
Option parts				Filter set : UM-FL3EF, Motion sensor : LB-KIT				

Item	Indoor air te	emperature	Outdoor air	temperature	External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	OUFA	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
  (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
  (6) Static pressure of optional air filter "UM-FL3EF" is 5Pa initially.
  (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM140VNXVF		
Item				Indoor unit FDUM140VF	Outdoor unit <b>FDUM140VF</b>	
Power source	ce				50Hz / 220V 60Hz	
	Nominal cooling capacity	/ (range)	kW	14.0 [ 5.0(Mir		
	Nominal heating capacity		kW		n.)-18.0(Max.)]	
	Troninal neating capacity	Cooling	KVV	4.28		
	Power consumption		kW		42	
	Heating		KVV			
	Max power consumption				19	
	Running current Cooling			19.2		
	Heating Heating		A		/ 20.7	
Operation	Inrush current, max curre			5 ,	26	
data	Power factor	Cooling	% -		)7	
data	l ower lactor	Heating	/0	9	)7	
	EER	Cooling		3.	27	
	COP	Heating		3.	62	
		Cooling				
	Sound power level	Heating		70	72	
		Cooling	dB(A)		49	
	Sound pressure level	Heating	GD(//)	P-Hi: 47 Hi: 40 Me: 35 Lo: 30	52	
	Cilont mode sawad a		-		52	
	Silent mode sound pressure level			<del>-</del>	_	
Exterior dim	ensions (Height x Width x	Depth)	mm	280 × 1370 × 740	1300×970×370	
Exterior app	nearance	,			Stucco white	
( Munsell co				_	(4.2Y7.5/1.1) near equivalent	
`	ior)		l.e.	F.4		
Net weight			kg	54	105	
	r type & Q'ty			_	RMT5134MDE2 (Twin rotary type)×1	
	r motor (Starting method)		kW	<del>-</del>	Direct line start	
	oil (Amount, type)		l	_	0.9 (M-MA68)	
Refrigerant	(Type, amount, pre-charg	e length)	kg	R410A 4.5kg in outdoor unit (Incl. t	the amount for the piping of : 30m)	
Heat exchai	nger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant	control			Electronic ex	pansion valve	
Fan type &	Q'tv			Centrifugal fan ×3	Propeller fan ×2	
	Starting method)		W	100 + 200 < Direct line start >	86 x 2 < Direct line start >	
Air flow	,	Cooling Heating	m³/min	P-Hi: 48 Hi: 35 Me: 28 Lo: 22	100	
Available ex	ternal static pressure	Tricating	Pa	Standard: 60 Max: 100	_	
Outside air	·		ια	Possible	_	
					_	
	ality / Quantity			Procure locally		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	<del>-</del>	20 (Crank case heater)	
Operation	Remote control				RCH-E3 Wireless : RCN-KIT4-E2	
control	Room temperature contr	ol		Thermostat b	by electronics	
COTILIO	Operation display			-	_	
Safety equip	oments			Frost protecti Internal thermos	tion for fan motor on thermostat stat for fan motor emperature protection	
	Refrigerant piping size (	O.D. )	mm	Liquid line: I/U φ 9.52 (3/8") Pipe σ Gas line: φ 15.88 (5/8") φ		
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping	1	m	— 	——————————————————————————————————————	
data	Insulation for piping	7		Nacassani (hoth I		
	Refrigerant line (one way	/) longth	m		100m	
			m			
	Vertical height diff. between (	J/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs		
Drain pump, max lift height			mm	Built-in Drain pump , 600	_	
Recommended breaker size		Α		_		
L.R.A. (Locked rotor ampere)			Α	5	.0	
Interconnec	ting wires Size x Core r	number		$\phi$ 1.6mm x 3 cores + earth cable /	Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ac	cessories			Mounting kit, Drain hose	Edging	
Option parts					Motion sensor : LB-KIT	
	1) The data are magazired		<u> </u>		The pine length is 7.5s	

Item	Indoor air te	emperature	Outdoor air	temperature	External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	OUFA	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
  (3) Sound level indicates the value in an anechoic chamber. During operation these valsue are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
  (6) Static pressure of optional air filter "UM-FL3EF" is 5Pa initially.
  (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM14	40VSXVF		
Item				Indoor unit FDUM140VF	Outdoor unit FDC140VSX		
Power sour					50Hz / 380V 60Hz		
	Nominal cooling capacity		kW		n.)-16.0(Max.)]		
	Nominal heating capacity		kW		n.)-20.0(Max.)]		
	Power consumption	Cooling			28		
	Heating		kW		42		
	Max power consumption				74		
	Running current	Cooling		6.4	/ 6.7		
	Training carrent	Heating	A		/ 6.9		
Operation	Inrush current, max curre	nt			15		
data	Power factor	Cooling	%		97		
data	1 ower lactor	Heating	70	9	)7		
	EER	Cooling		3.	27		
	COP	Heating		3.	62		
	Sound power level	Cooling		70	72		
	Souria power level	Heating		70	12		
	Sound progrum lovel	Cooling	dB(A)	P-Hi: 47 Hi: 40 Me: 35 Lo: 30	49		
	Sound pressure level	Heating		F-HI.47 HI.40 Me.33 LO.30	52		
	Silent mode sound press	ure level		_	_		
Francisco elico		D4l-)		000 1070 740	1000 070 070		
Exterior din	nensions (Height x Width x	Depth)	mm	280 × 1370 × 740	1300×970×370		
Exterior app	pearance				Stucco white		
( Munsell co				_	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	54	105		
	or type & Q'ty			_	RMT5134MDE3 (Twin rotary type )×1		
	or motor (Starting method)		kW	_	Direct line start		
· ·	oil (Amount, type)		Q.	_	0.9 (M-MA68)		
	(Type, amount, pre-charge	e lenath)	kg	R410A 4.5kg in outdoor unit (Incl.	the amount for the piping of : 30m)		
	Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant				<u> </u>	pansion valve		
Fan type &				Centrifugal fan ×3	Propeller fan ×2		
	(Starting method)		W	100 + 200 < Direct line start >	86 × 2 < Direct line start >		
Air flow	<u> </u>	Cooling Heating	m³/min	P-Hi: 48 Hi: 35 Me: 28 Lo: 22	100		
Available ex	kternal static pressure	ricating	Pa	Standard: 60 Max: 100	_		
Outside air	· · · · · · · · · · · · · · · · · · ·	-	ıα	Possible	_		
	iality / Quantity			Procure locally	<u>_</u>		
	oration absorber	<del></del>		Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W	—	20 (Crank case heater)		
Licotiic rica	Remote control	-	**	(Ontion) Wired : BC-EX3 BC-E5	RCH-E3 Wireless : RCN-KIT4-E2		
Operation	Room temperature control				by electronics		
control	Operation display	<u> </u>		memostati			
0-1-1					tion for fan motor on thermostat		
Safety equi	pments				stat for fan motor emperature protection		
	Refrigerant piping size ( C	D.D. )	mm		φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8") 15.88(5/8")×1.0 φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m				
data Insulation for piping			Necessary (both I	Liquid & Gas lines)			
	Refrigerant line (one way	) length	m	• • • • • • • • • • • • • • • • • • • •	100m		
	Vertical height diff. between C		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi 20 \times 3$ pcs		
Drain pump, max lift height		mm	Built-in Drain pump , 600	_			
Recommended breaker size		Α		<del>-</del>			
L.R.A. (Locked rotor ampere)			Α	5	.0		
Interconnecting wires Size x Core number					Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad	ccessories			Mounting kit, Drain hose	Edging		
Option part					Motion sensor : LB-KIT		
Option parts				Filter Set . OWI-FLSEF, WOULDIT SETISOF . LB-KTT			

Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
  (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
  (6) Static pressure of optional air filter "UM-FL3EF" is 5Pa initially.
  (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

#### (b) Twin type

			Model	FDUM10	0VNXPVF		
Item			Wiodei	Indoor unit FDUM50VF (2 units)	Outdoor unit FDC100VNX		
Power sour	ce			1 Phase 220-240V	50Hz / 220V 60Hz		
	Nominal cooling capacity	(range)	kW	10.0 [ 4.0(Mir	n.)-11.2(Max.)]		
	Nominal heating capacity	(range)	kW	11.2 [ 4.0(Mir	n.)-12.5(Max.)]		
	Power consumption	Cooling		2.66			
	Heating		kW [	3.	02		
	Max power consumption	Max power consumption		4.	83		
	Bunning ourrent	Cooling		11.9	/ 12.4		
	Running current	Heating	A	13.5	/ 14.1		
O	Inrush current, max currer	nt	] [	5 ,	24		
Operation	Power factor	Cooling	%	97 .	/ 98		
data	Power lactor	Heating	%	9	7		
	EER	Cooling		3.	76		
	COP	Heating		3.	71		
	Cound novembered	Cooling		60	70		
	Sound power level	Heating	1	60	70		
	0	Cooling	dB(A)	D. I.E. 07. I.E. 00. May 00. Lay 00	48		
	Sound pressure level	Heating	1 ` 1	P-Hi: 37 Hi: 32 Me: 29 Lo: 26	50		
	Silent mode sound pressu	ure level	i i	_	_		
Francis P				000 750 005	1000 070 070		
Exterior dim	nensions (Height x Width x	Depth)	mm	280 × 750 × 635	1300×970×370		
Exterior app	pearance				Stucco white		
( Munsell co				_	( 4.2Y7.5/1.1 ) near equivalent		
Net weight			kg	29	105		
Compresso	r type & Q'ty		Ĭ	_	RMT5134MDE2 (Twin rotary type )×1		
Compressor motor (Starting method)			kW	_	Direct line start		
	oil (Amount, type)		e e	_	0.9 (M-MA68)		
	(Type, amount, pre-charge	e lenath)	kg	R410A 4.5kg in outdoor unit (Incl. t	(		
	Heat exchanger		g	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant				<u> </u>	pansion valve		
Fan type &				Centrifugal fan ×1	Propeller fan ×2		
	Starting method)		W	100 < Direct line start >	86 x 2 < Direct line start >		
Air flow	,	Cooling Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	100		
Available ex	ternal static pressure	1.1009	Pa	Standard: 35 Max: 100	_		
Outside air	<u> </u>			Possible	_		
	ality / Quantity			Procure locally	_		
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W	—	20 (Crank case heater)		
Licotilo lica	Remote control			(Ontion) Wired : BC-EX3 BC-E5	RCH-E3 Wireless : RCN-KIT4-E2		
Operation	Room temperature control	ol			by electronics		
control	Operation display			-	_		
Safety equi				Frost protecti Internal thermos	tion for fan motor on thermostat stat for fan motor emperature protection		
	Refrigerant piping size ( C	).D. )	mm	Liquid line: I/U $\phi$ 6.35 (1/4") ② $\phi$ 9.52(3/8")»	<u> </u>		
	Connecting method			Flare piping	Flare piping		
Installation Attached length of piping			m	_	_		
data	Insulation for piping				_iquid & Gas lines)		
Refrigerant line (one way) length Vertical height diff. between O/U and I/U Drain hose		m		100m			
		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi 20 \times 3$ pcs			
Drain pump, max lift height		mm	Built-in Drain pump , 600	_			
Recommended breaker size		А		_			
L.R.A. (Locked rotor ampere)			Α	5	.0		
Interconnec	ting wires Size x Core n	umber		$\phi$ 1.6mm×3 cores + earth cable /	Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad	ccessories			Mounting kit, Drain hose	Edging		
Option parts	S			Filter set : UM-FL1EF,	Motion sensor : LB-KIT		
Notes (4) The data and the control of the control o							

Notes (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	33Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (7) Branching pipe set "DIS-WA1G×1(option). ①: Pipe of O/U-Branch. ②: Pipe of Branch-I/U
- (8) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
- (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM10	0VSXPVF
Item			dci	Indoor unit FDUM50VF (2 units)	Outdoor unit FDC100VSX
Power sour	rce			3 Phase 380-415V	50Hz / 380V 60Hz
	Nominal cooling capacit	ty (range)	kW	10.0 [ 4.0(Mir	n.)-11.2(Max.)]
	Nominal heating capacit	ty (range)	kW	11.2 [ 4.0(Mir	n.)-16.0(Max.)]
	Power consumption	Cooling		2.	66
	Heating		kW	3.	02
	Max power consumption			6.	04
	Dunning august	Punning current Cooling		4.0	/ 4.2
	Running current	Heating	Α	4.5	/ 4.7
	Inrush current, max current			5 ,	15
Operation	D ( )	Cooling	0/	9	16
data	Power factor	Heating	%	97	/ 98
	EER	Cooling		3.	76
	COP	Heating		3.	71
		Cooling			
	Sound power level	Heating		60	70
		Cooling	dB(A)		48
	Sound pressure level	Heating	4200	P-Hi: 37 Hi: 32 Me: 29 Lo: 26	50
	Silent mode sound pres			_	_
	Olioni mode dedna pred	0410 10101			
Exterior din	nensions (Height x Width	x Depth)	mm	280 × 750 × 635	1300×970×370
Exterior ap	pearance				Stucco white
( Munsell co	olor)			_	( 4.2Y7.5/1.1 ) near equivalent
Net weight			kg	29	105
Compresso	or type & Q'ty			_	RMT5134MDE3 (Twin rotary type )×1
	or motor (Starting method)	)	kW	_	Direct line start
	oil (Amount, type)	·	Q	_	0.9 (M-MA68)
	(Type, amount, pre-char	ae lenath)	kg	R410A 4.5kg in outdoor unit (Incl.	the amount for the piping of : 30m)
	Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant					pansion valve
Fan type &				Centrifugal fan ×1	Propeller fan ×2
	(Starting method)		W	100 < Direct line start >	86 x 2 < Direct line start >
Air flow	(Committee)	Cooling Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	100
Available ex	xternal static pressure	rieating	Pa	Standard: 35 Max: 100	_
Outside air				Possible	_
	uality / Quantity			Procure locally	_
	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			W	_	20 (Crank case heater)
	Remote control			(Option) Wired: RC-EX3. RC-E5.	RCH-E3 Wireless : RCN-KIT4-E2
Operation	Room temperature cont	rol			by electronics
control	Operation display			-	_
	To be a series of			Overload protect	tion for fan motor
	_				on thermostat
Safety equi	ipments			The second secon	stat for fan motor
					emperature protection
	Refrigerant piping size (	O D .)	mm	Liquid line: I/U φ 6.35 (1/4") ② φ 9.52(3/8")»	(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")
		,			0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation Attached length of piping data Insulation for piping Refrigerant line (one way) length		m		<del>-</del>	
				_iquid & Gas lines)	
		m		100m	
	Vertical height diff. between	O/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi 20 \times 3$ pcs	
Drain pump, max lift height		mm	Built-in Drain pump, 600	_	
Recommended breaker size		Α	-		
L.R.A. (Locked rotor ampere)			Α	5	.0
Interconnecting wires Size x Core number				$\phi$ 1.6mm×3 cores + earth cable /	Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard a	ccessories	1		Mounting kit, Drain hose	Edging
Option part		1			Motion sensor : LB-KIT

( )		5				11111111
Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	33Fa	1803131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
  (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.

  (7) Branching pipe set "DIS-WA1G"×1(option). ①: Pipe of O/U-Branch. ②: Pipe of Branch-I/U

  (8) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.

  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM12	5VNXPVF
Item				Indoor unit FDUM60VF (2 units)	Outdoor unit FDC125VNX
Power source					50Hz / 220V 60Hz
	Nominal cooling capacit	y (range)	kW	12.5 [ 5.0(Min	i.)-14.0(Max.)]
	Nominal heating capacit	y (range)	kW	14.0 [ 4.0(Min	ı.)-17.0(Max.)]
	Power consumption	Cooling		3.5	
	Heating		kW	3.	66
	Max power consumption	1		5.1	86
	Running current	Cooling		14.6	/ 15.3
	Training carrent	Heating	A	16.4	
Operation	Inrush current, max curre	ent		5 ,	26
data	Power factor	Cooling	%	9	7
data	T OWEI IACIOI	Heating	70	9	7
	EER	Cooling			83
	COP	Heating		3.	83
	Sound power level	Cooling		60	70
	Courta power level	Heating			
	Sound pressure level	Cooling	dB(A)	P-Hi:36 Hi:31 Me:28 Lo:25	48
	·	Heating		1-111.30 TII.31 Me.20 L0.23	50
	Silent mode sound press	sure level		_	
Exterior dim	ensions (Height x Width	x Depth)	mm	280 × 950 × 635	1300×970×370
Exterior app	pearance				Stucco white
( Munsell co				-	(4.2Y7.5/1.1) near equivalent
Net weight			kg	34	105
	r type & Q'ty		ı ııg	_	RMT5134MDE2 (Twin rotary type )×1
	r motor (Starting method)	,	kW	_	Direct line start
	oil (Amount, type)		Q	_	0.9 (M-MA68)
	(Type, amount, pre-charge	ne lenath)	kg	R410A 4.5kg in outdoor unit (Incl. t	, ,
Heat exchar		jo longin,	ı ııg	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant					pansion valve
Fan type & 0		,		Centrifugal fan ×2	Propeller fan ×2
	Starting method)		W	130 < Direct line start >	86 x 2 < Direct line start >
Air flow	<u> </u>	Cooling Heating	m³/min	P-Hi: 20 Hi: 15 Me: 13 Lo: 10	100
Available ev	ternal static pressure	Tricating	Pa	Standard : 35 Max : 100	
Outside air			1 4	Possible	
	ality / Quantity			Procure locally	
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for compressor)
Electric hea			W	—	20 (Crank case heater)
	Remote control			(Option) Wired : BC-EX3 - BC-E5	RCH-E3 Wireless : RCN-KIT4-E2
Operation	Room temperature contr	ol			by electronics
control	Operation display	<u>.                                    </u>		-	-
Safety equip				Frost protection Internal thermos	ion for fan motor on thermostat tat for fan motor emperature protection
	Refrigerant piping size (	O.D. )	mm	Liquid line: I/U $\phi$ 6.35 (1/4") ② $\phi$ 9.52(3/8")x Gas line: I/U $\phi$ 12.7 (1/2") ② $\phi$ 12.7(1/2")x(	0.8 ① $\phi$ 9.52(3/8")x0.8 O/U $\phi$ 9.52 (3/8") 0.8 ① $\phi$ 15.88(5/8")x1.0 O/U $\phi$ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation Attached length of piping data Insulation for piping		m			
			Necessary (both L	. ,	
	Refrigerant line (one wa	,,	m		100m
	Vertical height diff. between	O/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
	Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs
Drain pump, max lift height			mm	Built-in Drain pump , 600	<u> </u>
Recommended breaker size		Α		_	
	ked rotor ampere)		Α		.0
Interconnec	ting wires Size x Core	number			Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard ac				Mounting kit, Drain hose	Edging
Option parts		-		Filter set : UM-FL2EF, I	
NI-1 /	1) The data are magazires			P.C.	The nine length is 7 5m

Item	Indoor air temperature		Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C		

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
  (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.

  (7) Branching pipe set "DIS-WA1G"×1(option). ①: Pipe of O/U-Branch. ②: Pipe of Branch-I/U

  (8) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.'

  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM12	5VSXPVF		
Item				Indoor unit FDUM60VF (2 units)	Outdoor unit FDC125VSX		
Power sour	ce			3 Phase 380-415V	50Hz / 380V 60Hz		
	Nominal cooling capacity	y (range)	kW	12.5 [ 5.0(Mir	n.)-14.0(Max.)]		
	Nominal heating capacity	y (range)	kW	14.0 [ 4.0(Mir	n.)-18.0(Max.)]		
	D	Cooling		3.26			
	Power consumption	Heating	kW	3.	66		
	Max power consumption			7.	32		
	Б	Cooling		4.9	/ 5.2		
	Running current	Heating	A	5.4	/ 5.7		
	Inrush current, max current		1 1	5 ,	15		
Operation		Cooling			/ 95		
data	Power factor	Heating	%		98		
	EER	Cooling			83		
	COP	Heating	1 1		83		
	001	Cooling		0.			
	Sound power level			60	70		
		Heating	4D(V)		40		
	Sound pressure level	Cooling	dB(A)	P-Hi: 36 Hi: 31 Me: 28 Lo: 25	48		
	·	Heating			50		
	Silent mode sound press	sure level		<del>-</del>	_		
Exterior dim	nensions (Height x Width x	( Depth)	mm	280 × 950 × 635	1300×970×370		
Exterior app	pearance				Stucco white		
( Munsell co	olor)			_	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	34	105		
Compressor type & Q'ty				_	RMT5134MDE3 (Twin rotary type)×1		
Compressor motor (Starting method)			kW	_	Direct line start		
Refrigerant oil (Amount, type)			e e	_	0.9 (M-MA68)		
	(Type, amount, pre-charg	ie lenath)	kg	R410A 4 5kg in outdoor unit (Incl.)	the amount for the piping of : 30m)		
Heat exchanger		Ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant control				<u> </u>	pansion valve		
Fan type &				Centrifugal fan ×2	Propeller fan ×2		
	Starting method)		w	130 < Direct line start >	86 x 2 < Direct line start >		
i all motor (	Starting metriou)	Cooling		150 < Direct line start >	00 X 2 < Direct line start >		
Air flow		Heating	m³/min	P-Hi:20 Hi:15 Me:13 Lo:10	100		
Available ex	ternal static pressure		Pa	Standard: 35 Max: 100	_		
Outside air	intake			Possible	_		
	ality / Quantity			Procure locally	_		
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea	ter		W	_	20 (Crank case heater)		
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5,	RCH-E3 Wireless : RCN-KIT4-E2		
Operation control	Room temperature contr	ol		Thermostat I	by electronics		
COLLIGI	Operation display			-			
				Overload protect	tion for fan motor		
Cofot:	amanta				on thermostat		
Safety equi	uments			Internal thermos	stat for fan motor		
				Abnormal discharge t	emperature protection		
	Refrigerant piping size (	O D )	mm	Liquid line: I/U $\phi$ 6.35 (1/4") ② $\phi$ 9.52(3/8")			
		J.D. j		Gas line: I/U $\phi$ 12.7 (1/2") ② $\phi$ 12.7(1/2")x0	0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping	9	m	<del>-</del>	_		
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)		
	Refrigerant line (one way		m	Max.	100m		
	Vertical height diff. between 0	O/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi 20 \times 3$ pcs		
Drain pump	, max lift height	-	mm	Built-in Drain pump, 600	<u>-</u> :		
	ded breaker size		Α		· -		
	(ed rotor ampere)		Α	5	.0		
Interconnec	<del></del>	number			Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad	cessories	-		Mounting kit, Drain hose	Edging		
Option part				<u>~</u>	Motion sensor : LB-KIT		
Option part				FIILEI SEL. UIVI-FLZEF,	INIOUOU SEUSOI . LD-IVII		

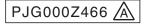
( )	111111111111						
Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	33Fa	1803131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
  (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.

  (7) Branching pipe set "DIS-WA1G"×1(option). ①: Pipe of O/U-Branch. ②: Pipe of Branch-I/U

  (8) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.

  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)



			Model	FDUM140	DVNXPVF1	
Item				Indoor unit FDUM71VF1 (2 units)	Outdoor unit FDC140VNX	
Power sour	ce			1 Phase 220-240V	50Hz / 220V 60Hz	
	Nominal cooling capacity	y (range)	kW	14.0 [ 5.0(Mir	n.)-16.0(Max.)]	
	Nominal heating capacity	y (range)	kW	16.0 [ 4.0(Mir	n.)-18.0(Max.)]	
	Power consumption	Cooling		4.	36	
	Heating		kW	4.	35	
	Max power consumption	1		6.	10	
	Dunning august	Cooling		19.5	/ 20.4	
	Running current	Heating	Α	19.5	/ 20.4	
	Inrush current, max current			5 ,	26	
Operation data	Power factor	Cooling	%	ç	97	
uala	Power lactor	Heating	90	ç	97	
	EER	Cooling		3.	21	
	COP	Heating		3.	68	
	0	Cooling		0.5	70	
	Sound power level	Heating		65	72	
	0	Cooling	dB(A)	D. I.E. 00 . I.E. 00 . May 00 . I.a. 05	49	
	Sound pressure level	Heating		P-Hi:38 Hi:33 Me:29 Lo:25	52	
	Silent mode sound press	sure level		_	_	
Endand P		. D!'\		000 050 005	1000 070 070	
Exterior din	nensions (Height x Width x	( Depth)	mm	280 × 950 × 635	1300×970×370	
Exterior app	pearance				Stucco white	
( Munsell co				_	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	34	105	
Compresso	r type & Q'ty			_	RMT5134MDE2 (Twin rotary type)×1	
Compressor motor (Starting method)			kW	_	Direct line start	
Refrigerant oil (Amount, type)			e	_	0.9 (M-MA68)	
	(Type, amount, pre-charg	ie lenath)	kg	R410A 4.5kg in outdoor unit (Incl.	the amount for the piping of : 30m)	
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant control					pansion valve	
Fan type &				Centrifugal fan ×2	Propeller fan ×2	
	Starting method)		W	130 < Direct line start >	86 x 2 < Direct line start >	
Air flow	,	Cooling Heating	m³/min	P-Hi:24 Hi:19 Me:15 Lo:10	100	
Available ex	ternal static pressure	1	Pa	Standard: 35 Max: 100	_	
Outside air			Ι α	Possible	_	
	ality / Quantity			Procure locally	_	
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for compressor)	
Electric hea			W	—	20 (Crank case heater)	
	Remote control			(Ontion) Wired : BC-EX3 BC-E5	RCH-E3 Wireless : RCN-KIT4-E2	
Operation	Room temperature contr	rol			by electronics	
control	Operation display	01		Thermostat i	_	
	operation diopiay			Overload protect	tion for fan motor	
					on thermostat	
Safety equi	oments			The second secon	stat for fan motor	
					emperature protection	
	Refrigerant piping size (	O.D. )	mm	Liquid line: I/U φ 9.52 (3/8") ② φ 9.52(3/8")	(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8") x1.0 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping	r	m	i iaie pipiliig	- I late pipilig	
data	Insulation for piping	1	- 111		Liquid & Gas lines)	
Gala	Refrigerant line (one way	v) length	m		100m	
			m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Vertical height diff. between O/U and I/U  Drain hose		111	Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs	
Drain numn	, max lift height		mm	Built-in Drain pump, 600	— 11010 3120 ψ20 λ 0 pc3	
	ded breaker size		A	Built in Brain pump, 000		
	ked rotor ampere)		A		.0	
Interconnec	<del></del>	number	_ ^		Termainal block (Screw fixing type)	
IP number	ung wires   OIZE X OOIE I	TOTTIDE!		φ 1.6ππx 3 cores + earth cable /	IP24	
Standard ad	coesories			Mounting kit, Drain hose	Edging	
				<u> </u>	, , , , , , , , , , , , , , , , , , , ,	
Option parts				Filter set : UM-FL2EF, Motion sensor : LB-KIT		

Item	Indoor air te	emperature	Outdoor air temperature DB WB		External static pressure	Standards
Operation	DB	WB			of indoor unit	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	35Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
  (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (a) Ine operation data indicate when the air-conditioner is operated at 250/00/12 or 220/00/12.

  (b) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.

  (7) Branching pipe set "DIS-WA1G"×1(option). ①: Pipe of O/U-Branch. ②: Pipe of Branch-I/U

  (8) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.'

  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM140	VSXPVF1		
Item			ouo.	Indoor unit FDUM71VF1 (2 units)	Outdoor unit FDC140VSX		
Power source	ce				50Hz / 380V 60Hz		
	Nominal cooling capacit	y (range)	kW	14.0 [ 5.0(Min	n.)-16.0(Max.)]		
	Nominal heating capacit	y (range)	kW	16.0 [ 4.0(Min	n.)-20.0(Max.)]		
	Dower consumption	Cooling		4.36			
	Power consumption	Heating	kW	4.:	35		
	Max power consumption	1		7.	63		
	Dunning ouwent	Cooling		6.5	/ 6.8		
	Running current	Heating	Α	6.5	/ 6.8		
	Inrush current, max curre	ent		5 ,	15		
Operation	Cooling		%	9	7		
data	Power factor	Heating	90	9	7		
	EER	Cooling		3.:	21		
	COP	Heating		3.	68		
	Cound nower level	Cooling		65	72		
	Sound power level	Heating		05	12		
	0	Cooling	dB(A)	D. I.E 00 . I.E 00 . May . 00 . L = . 05	49		
	Sound pressure level	Heating	l i	P-Hi:38 Hi:33 Me:29 Lo:25	52		
	Silent mode sound pressure level			_	_		
Furtania1'	oneigne (Height - MC III	· Dont!-\		000 050 005	1000070070		
Exterior aim	ensions (Height x Width :	k Depth)	mm	280 × 950 × 635	1300×970×370		
Exterior app	pearance				Stucco white		
( Munsell co				_	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	34	105		
	r type & Q'ty			_	RMT5134MDE3 (Twin rotary type )×1		
Compressor motor (Starting method)		kW	_	Direct line start			
Refrigerant oil (Amount, type)			Q	_	0.9 (M-MA68)		
	(Type, amount, pre-charge	ae lenath)	kg	R410A 4.5kg in outdoor unit (Incl. t	,		
Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant control					pansion valve		
Fan type &				Centrifugal fan ×2	Propeller fan ×2		
	Starting method)		W	130 < Direct line start >	86 x 2 < Direct line start >		
Air flow	,	Cooling Heating	m³/min	P-Hi:24 Hi:19 Me:15 Lo:10	100		
Available ex	ternal static pressure	1	Pa	Standard : 35 Max : 100	_		
Outside air		,	١.۵	Possible	_		
	ality / Quantity	<del></del>		Procure locally	_		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for compressor)		
Electric hea			W	—	20 (Crank case heater)		
	Remote control			(Option) Wired : BC-EX3 - BC-E5	RCH-E3 Wireless : RCN-KIT4-E2		
Operation	Room temperature contr	ol			by electronics		
control	Operation display	<u>.                                    </u>		-	-		
Safety equip				Frost protection Internal thermos	tion for fan motor on thermostat stat for fan motor emperature protection		
	Refrigerant piping size (	O.D. )	mm	Liquid line: I/U φ 9.52 (3/8") ② φ 9.52(3/8")χ Gas line: I/U φ 15.88 (5/8") ② φ 15.88(5/8")χ	(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8") (1.0 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping	g	m		_		
data	Insulation for piping			Necessary (both L	Liquid & Gas lines)		
	Refrigerant line (one wa	y) length	m	Max.	100m		
	Vertical height diff. between	O/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs		
Drain pump	, max lift height		mm	Built-in Drain pump , 600			
Recommen	ded breaker size		Α		<del>-</del>		
L.R.A. (Lock	ked rotor ampere)		Α	5	.0		
Interconnec	ting wires Size x Core	number		$\phi$ 1.6mm× 3 cores + earth cable /	Termainal block (Screw fixing type)		
IP number	·			IPX0	IP24		
Standard ac	ccessories			Mounting kit, Drain hose	Edging		
Option parts	3			Filter set : UM-FL2EF, I	Motion sensor : LB-KIT		
	1) The data are measures			190	The pine length is 7 5m		

( )	111111111111						
Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	33Fa	1803131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
  (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (a) The operation data indicate when the air-conditioner is operated at 40000F2 or 30000F2.

  (b) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.

  (7) Branching pipe set "DIS-WA1G"×1(option). ①: Pipe of O/U-Branch. ②: Pipe of Branch-I/U

  (8) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.'

  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

#### (c) Triple type

			Model	FDUM14	0VNXTVF			
Item			Wiodei	Indoor unit FDUM50VF (3 units)	Outdoor unit FDC140VNX			
Power source	De .			1 Phase 220-240V	50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW	14.0 [ 5.0(Mir	n.)-16.0(Max.)]			
	Nominal heating capacity		kW	E (	n.)-18.0(Max.)]			
		Cooling		4.21				
	Power consumption	Heating	kW		69			
	Max power consumption	riodaling	""		57			
	wax power consumption	Cooling			/ 19.8			
	Running current	Heating	A		/ 19.6			
	Inrush current, max current		^					
Operation			$\longrightarrow$	5 , 26 97				
data	Power factor	Cooling	%					
		Heating			7			
	EER	Cooling	1 -		33			
	COP	Heating	$\longrightarrow$	3.	41			
	Sound power level	Cooling	<u> </u>	60	72			
	Souria power level	Heating	1	00	12			
		Cooling	dB(A)	D.I. 07 II. 00 M 00 I 00	49			
	Sound pressure level	Heating	1	P-Hi: 37 Hi: 32 Me: 29 Lo: 26	52			
	Silent mode sound pressure le		í t	_	. 1			
Exterior dim	ensions (Height x Width x [	Depth)	mm	$280 \times 750 \times 635$	1300×970×370			
Exterior app			<del></del>		Stucco white			
(Munsell co			Í I	_	( 4.2Y7.5/1.1 ) near equivalent			
	101 )		<del></del>	00	, ,			
Net weight			kg	29	105			
	r type & Q'ty		$\longrightarrow$	_	RMT5134MDE2 (Twin rotary type)×1			
	r motor (Starting method)		kW	_	Direct line start			
Refrigerant of	oil (Amount, type)		l l	_	0.9 (M-MA68)			
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 4.5kg in outdoor unit (Incl. t	the amount for the piping of : 30m)			
Heat exchar	nger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant control				Flectronic ex	pansion valve			
Fan type & (				Centrifugal fan ×1	Propeller fan ×2			
	Starting method)		W	100 < Direct line start >	86 < Direct line start>			
ran motor (	starting method)	Caalina	VV	100 < Direct line start >	60 < Direct line start>			
Air flow		Cooling	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	100			
		Heating	-					
	ternal static pressure		Pa	Standard: 35 Max: 100				
Outside air i			$\longrightarrow$	Possible				
Air filter, Qua	ality / Quantity			Procure locally	ı			
Shock & vib	ration absorber		1	Rubber sleeve(for fan motor)	Rubber sleeve (for compressor)			
Electric heat	ter		W	_	20 (Crank case heater)			
	Remote control			(Option) Wired: RC-EX3. RC-E5.	RCH-E3 Wireless : RCN-KIT4-E2			
Operation	Room temperature control	I			by electronics			
control	Operation display	<u> </u>		-	-			
	oporation diopiay	-		Overlead protect	tion for fan motor			
			1	•	on thermostat			
Safety equip	oments		1	•				
			1		stat for fan motor			
	Г		$\longrightarrow$		emperature protection			
	Refrigerant piping size ( O.	.D. )	mm -	Liquid line: I/U φ 6.35 (1/4") ② φ 9.52(3/8")×	0.8 ① φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8")			
		,		Gas line: I/U φ 12.7 (1/2") ② φ 12.7(1/2")×0	0.8 ① φ 15.88(5/8")×1.0 O/U φ 15.88 (5/8")			
	Connecting method		$\Box$ $\Box$	Flare piping	Flare piping			
Installation	Attached length of piping		m	_				
data	Insulation for piping			Necessarv (both L	iquid & Gas lines)			
	Refrigerant line (one way)	length	m	, ,	.50m			
	Vertical height diff. between O/		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
	Drain hose	- unu 1/ U		Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi 20 \times 3$ pcs			
Drain numa	, max lift height		mm	Built-in Drain pump, 600	i iole size ψ zu λ σ μοs			
			mm	Built-iii Draiii puriip , 600	<u> </u>			
	ded breaker size		A	-	_			
	(ed rotor ampere)		Α		.0			
Interconnec	ting wires Size x Core nu	umber			Termainal block (Screw fixing type)			
IP number				IPX0	IP24			
Standard ac	cessories			Mounting kit, Drain hose	Edging			
Option parts				<u> </u>	Motion sensor : LB-KIT			
	1) The data are measured a	at the felle			The pipe length is 7.5m.			

Notes (1) The data are measured at the following conditions.

Item	Indoor air te	emperature	Outdoor air temperature  DB WB		External static pressure	Standards
Operation	DB	WB			of indoor unit	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	35Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

- nigner due to ambient conditions.

  (4) Select the breaker size according to the own national standard.

  (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

  (6) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.

  (7) Branching pipe set "DIS-TA1G"×1(option). ①: Pipe of O/U-Branch. ②: Pipe of Branch-I/U

  (8) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.¹

  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)



			Model	FDUM14	0VSXTVF		
Item				Indoor unit FDUM50VF (3 units)	Outdoor unit FDC140VSX		
Power source					50Hz / 380V 60Hz		
	Nominal cooling capacity	y (range)	kW	14.0 [ 5.0(Min	n.)-16.0(Max.)]		
	Nominal heating capacity	y (range)	kW	16.0 [ 4.0(Min	n.)-20.0(Max.)]		
	Power consumption	Cooling		4.21			
	rower consumption	Heating	kW	4.	69		
	Max power consumption	1		8.:	21		
	Running current	Cooling		6.3	/ 6.6		
	Heating		Α	7.0	/ 7.4		
0	Inrush current, max current			5 ,	15		
Operation	Power factor	Cooling	%	96 ,	/ 97		
data	Power factor	Heating	%	97 /	/ 96		
	EER	Cooling		3.:	33		
	COP	Heating		3.	41		
	0 1 1	Cooling		20	70		
	Sound power level	Heating		60	72		
		Cooling	dB(A)		49		
	Sound pressure level	Heating		P-Hi:37 Hi:32 Me:29 Lo:26	52		
	Silent mode sound press			_			
Exterior dim	ensions (Height x Width >	( Depth)	mm	280 × 750 × 635	1300×970×370		
Exterior app	earance				Stucco white		
( Munsell co				-	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	29	105		
	r type & Q'ty		ıg	_	RMT5134MDE3 (Twin rotary type )×1		
Compressor motor (Starting method)		kW	_	Direct line start			
Refrigerant oil (Amount, type)			Q Q	_	0.9 (M-MA68)		
Refrigerant (Type, amount, pre-charge length)			kg	R410A 4.5kg in outdoor unit (Incl. t			
Heat exchanger		ı.g	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant control					pansion valve		
Fan type & 0				Centrifugal fan ×1	Propeller fan ×2		
	Starting method)		W	100 < Direct line start >	86 x 2 < Direct line start >		
,	starting metriod)	Cooling					
Air flow		Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	100		
Available ex	ternal static pressure	Triodaing	Pa	Standard : 35 Max : 100			
Outside air i			1 4	Possible	<u> </u>		
	ality / Quantity			Procure locally			
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for compressor)		
Electric heat			W	—	20 (Crank case heater)		
	Remote control			(Option) Wired : RC-EX3 RC-E5	RCH-E3 Wireless : RCN-KIT4-E2		
Operation	Room temperature contr	nl			by electronics		
control	Operation display	<u>.</u>		memostat t	-		
	1 - 1- 3. a alopia)			Overload protect	tion for fan motor		
				·	on thermostat		
Safety equip	oments			•	stat for fan motor		
					emperature protection		
				Liquid line: I/U φ 6.35 (1/4") ② φ 9.52(3/8")x			
	Refrigerant piping size (	O.D. )	mm -	Gas line: I/U $\phi$ 12.7 (1/2") ② $\phi$ 12.7(1/2")x0	0.8 ① \( d \) 15.88(5/8")x1.0 \( O/\text{U} \) \( d \) 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	— bibilià	— — — — — — — — — — — — — — — — — — —		
data	Insulation for piping			Necessary (both L	iquid & Gas lines)		
	Refrigerant line (one way	v) length	m		100m		
	Vertical height diff. between 0	,,	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose	o, o ana 1/0		Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs		
Drain nump	, max lift height		mm	Built-in Drain pump, 600	- 1010 3120 ψ20 λ 0 μ03		
	ded breaker size		A	Built in Brain pullip, 000			
	ked rotor ampere)		A	5	.0		
Interconnec	<del></del>	numher	_ ^		.u Termainal block (Screw fixing type)		
IP number	ung wilds  OIZE A OOIE I	INTIDO		Ψ 1.0ππ 3 cores + earth cable /	IP24		
Standard ac				Mounting kit, Drain hose	Edging		
Option parts				Filter set : UM-FL1EF, I	<u>_</u>		
	1) The data are measured		<u> </u>	FIILEI SEL . UIVI-FLIEF, I	The pine length is 7.5m		

. ,		•					
Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	33Fa	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
  (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (a) The operation data indicate when the air-conditioner is operated at 40000F2 or 30000F2.

  (b) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.

  (7) Branching pipe set "DIS-TA1G"×1(option). ①: Pipe of O/U-Branch. ②: Pipe of Branch-I/U

  (8) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.'

  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

# (3) Duct connected-High static pressure type (FDU) Single type

	9.0 1,70		Model	FDU71\	/NXVF1		
Item				Indoor unit FDU71VF1	Outdoor unit FDC71VNX		
Power sour	ce			1 Phase 220-240V	50Hz / 220V 60Hz		
	Nominal cooling capacity	(range)	kW	7.1 [ 3.2(Mir	n.)-8.0(Max.)]		
	Nominal heating capacity	(range)	kW	8.0 [ 3.6(Mir	n.)-9.0(Max.)]		
	Power consumption	Cooling		2.05			
	Power consumption	Heating	kW	2.	01		
	Max power consumption			3.	28		
	Bunning ourrent	Cooling		9.1 /	/ 9.5		
	Running current	Heating	Α	9.1 ,	/ 9.5		
0	Inrush current, max currer	nt	] [	5 ,	17		
Operation	Device factor	Cooling	%	9	8		
data	data Power factor Heating EER Cooling		1 %	9	6		
				3.	46		
	COP	Heating	1	3.98			
	C	Cooling		C.F.	66		
	Sound power level	Heating	1	65	66		
	0 1 1	Cooling	dB(A)	D.I., 00.II, 00.14 00.1 05	51		
	Sound pressure level	Heating	1 `	P-Hi: 38 Hi: 33 Me: 29 Lo: 25	48		
	Silent mode sound pressu	ire level	1 1	_	_		
		<b>D</b>		202 252 225	750, 2007, 207, 240		
Exterior din	nensions (Height x Width x	Depth)	mm	280 × 950 × 635	750×880(+88)×340		
Exterior app	pearance				Stucco white		
(Munsell co				_	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	34	60		
Compressor type & Q'ty			1.9	<del>-</del>	RMT5118MDE2 (Twin rotary type)×1		
Compressor motor (Starting method)			kW	_	Direct line start		
Refrigerant oil (Amount, type)			Q.	_	0.675 (M-MA68)		
Refrigerant (Type, amount, pre-charge length)			kg	R410A 2 95kg in outdoor unit (Incl	the amount for the piping of : 30m)		
Heat exchanger			1.9	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant				<u> </u>	pansion valve		
Fan type &				Centrifugal fan ×2	Propeller fan ×1		
	(Starting method)		W	130 < Direct line start >	86 < Direct line start >		
	(0	Cooling			60		
Air flow		Heating	m³/min	P-Hi:24 Hi:19 Me:15 Lo:10	50		
Available ex	xternal static pressure	1	Pa	Standard: 35 Max: 200			
Outside air	<u>'</u>		1 47	Possible			
	iality / Quantity			Procure locally	_		
	oration absorber	-		Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W	_	20 (Crank case heater)		
	Remote control			(Option) Wired: RC-EX3. RC-E5	, RCH-E3 Wireless : RCN-KIT4-E2		
Operation	Room temperature contro	ol			by electronics		
control	Operation display	· ·		-	-		
	Laborate a sub-rea			Overload protect	tion for fan motor		
					on thermostat		
Safety equi	pments			·	tat for fan motor		
				Abnormal discharge to	emperature protection		
	D ( )	· D .		Liquid line: I/U φ 9.52 (3/8") Pipe			
	Refrigerant piping size ( O	າ.ບ. )	mm		φ 15.88(5/8")x1.0 φ 15.88(5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	— 	— - hibinia		
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)		
	Refrigerant line (one way)	) lenath	m		.50m		
	Vertical height diff. between O		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose			Hose connectable VP25( I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs		
Drain numn	o, max lift height		mm	Built-in Drain pump, 600	— — — — — — — — — — — — — — — — — — —		
	ided breaker size		A				
	ked rotor ampere)		A		.0		
Interconnec		umber	77		Termainal block(Screw fixing type)		
IP number	July WIIOS   DIZE X OUIE II	ui i i i i i i		Ψ 1.0Hill x3 cores + earth cable /	IP24		
Standard a	ccessories	-		Mounting kit, Drain hose	——————————————————————————————————————		
Option part					sor : LB-KIT		
<u> </u>	(1) The data are measured :		<u> </u>		The pine length is 7 5m		

Notes (1) The data are measured at the following conditions.

Item	Indoor air te	emperature	Outdoor air temperature  DB WB		External static pressure	Standards
Operation	DB	WB			of indoor unit	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	SSFa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)

			Model	FDU100	VNXVF2		
Item				Indoor unit FDU100VF2	Outdoor unit FDC100VNX		
Power sour	rce				50Hz / 220V 60Hz		
	Nominal cooling capacity	(range)	kW		n.)-11.2(Max.)]		
	Nominal heating capacity	(range)	kW	11.2 [ 4.0(Min.)-12.5(Max.)]			
	Power consumption	Cooling	]	2.68			
		Heating	kW	3.02			
	Max power consumption	1		4.83			
	Running current Cooling				/ 12.5		
		Heating	Α		/ 14.1		
Operation	Inrush current, max currer				25		
data	Power factor	Cooling	%		7		
	EED	Heating			73		
	EER COP	Cooling Heating			73 71		
	СОР	J		3.	/ I		
	Sound power level	Cooling		65	70		
		Heating Cooling	dB(A)		48		
	Sound pressure level	Heating	ub(A)	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	50		
	Silent mode sound pressu				_		
	Silent mode sound pressu	ire ievei			_		
Exterior din	mensions (Height x Width x	Depth)	mm	280 × 1370 × 740	1300×970×370		
Exterior app					Stucco white		
( Munsell co	olor)			_	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	54	105		
	or type & Q'ty			<del>-</del>	RMT5134MDE2 (Twin rotary type)×1		
Compressor motor (Starting method)		kW	<u>–</u>	Direct line start			
Refrigerant oil (Amount, type)			Q		0.9 (M-MA68)		
Refrigerant (Type, amount, pre-charge length)			kg		the amount for the piping of : 30m)		
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant					pansion valve		
Fan type &				Centrifugal fan ×3	Propeller fan ×2		
Fan motor (	(Starting method)		W	100 + 130 < Direct line start >	86 x 2 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi:36 Hi:28 Me:25 Lo:19	100		
Available ex	xternal static pressure		Pa	Standard: 60 Max: 200	_		
Outside air	intake			Possible	_		
	uality / Quantity			Procure locally	_		
	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W		20 (Crank case heater)		
Operation	Remote control				, RCH-E3 Wireless : RCN-KIT4-E2		
control	Room temperature contro	ol		Thermostat b	by electronics		
	Operation display	1		-	_		
					tion for fan motor		
Safety equi	ipments			•	on thermostat stat for fan motor		
					emperature protection		
					$\phi$ 9.52(3/8")x0.8 O/U $\phi$ 9.52 (3/8")		
	Refrigerant piping size ( O	).D.)	mm	Gas line: Δ15 88 (5/8") A	φ 9.32 (3/8 ) x 0.0 0/0 φ 9.32 (3/8 ) δ 15.88(5/8") x 1.0 φ 15.88(5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	– iaie piping	— Hare piping		
data	Insulation for piping				 Liquid & Gas lines)		
	Refrigerant line (one way)	) lenath	m		100m		
	Vertical height diff. between O		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose			Hose connectable VP25( I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs		
Drain pump	o, max lift height		mm	Built-in Drain pump , 600	<del>-</del>		
	nded breaker size		Α	-	_		
L.R.A. (Locl	ked rotor ampere)		Α	5	.0		
Interconnec	cting wires Size x Core n	umber		$\phi$ 1.6mm ×3 cores + earth cable /	Termainal block(Screw fixing type)		
IP number				IPX0	IP24		
Standard a	ccessories			Mounting kit, Drain hose	Edging		
Option part	ts			Motion sen	sor : LB-KIT		
1	—						

Item	Indoor air t	emperature	Outdoor air temperature  DB WB		External static pressure	Standards
Operation	DB	WB			of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	oopa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)

			Model	FDU100	VSXVF2
Item				Indoor unit FDU100VF2	Outdoor unit FDC100VSX
Power source	ce				50Hz / 380V 60Hz
	Nominal cooling capacity	/ (range)	kW	10.0 [ 4.0(Min	n.)-11.2(Max.)]
	Nominal heating capacity		kW	11.2 [ 4.0(Min	
		Cooling			68
	Power consumption	Heating	kW		02
	Max power consumption				04
	·	Cooling			/ 4.2
	Running current	Heating	A		4.7
	Inrush current, max current		^`  -		16
Operation	peration Cooling				7
data	Power factor	Heating	% -		/ 98
	EER	Cooling			73
	COP	Heating	-		
	COP	J		3.	<i>[</i> ]
	Sound power level	Cooling		65	70
		Heating	<u> </u>	**	
	Sound pressure level	Cooling	dB(A)	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	48
	Heating		<u> </u>		50
	Silent mode sound pressure level			_	<del>-</del>
Exterior dim	ensions (Height x Width x	Denth)	mm	280 × 1370 × 740	1300×970×370
Exterior dim	erisions (rieignit x width x	Deptil)	1111111	200 × 1370 × 740	1300×970×370
Exterior app	earance				Stucco white
(Munsell co				_	(4.2Y7.5/1.1) near equivalent
Net weight	•		kg	54	105
Compressor	rtype & Q'ty				RMT5134MDE3(Twin rotary type)×1
Compressor motor (Starting method)			kW	_	Direct line start
Refrigerant oil (Amount, type)			e l	_	0.9 (M-MA68)
Refrigerant (Type, amount, pre-charge length)		kg		the amount for the piping of : 30m)	
Heat exchanger		ry	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant control				pansion valve	
Fan type & C			14/	Centrifugal fan ×3	Propeller fan ×2
Fan motor (S	Starting method)	10 "	W	100 + 130 < Direct line start >	86 x 2 < Direct line start >
Air flow		Cooling	m³/min	P-Hi: 36 Hi: 28 Me: 25 Lo: 19	100
• "		Heating		0	
	ternal static pressure		Pa	Standard : 60 Max : 200	
Outside air i				Possible	_
	ality / Quantity			Procure locally	_
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric heat	ter		W	_	20 (Crank case heater)
Operation	Remote control				, RCH-E3 Wireless : RCN-KIT4-E2
control	Room temperature contr	ol		Thermostat b	by electronics
CONTROL	Operation display			-	_
				Overload protect	tion for fan motor
Safety equip	amonte			Frost protection	on thermostat
Salety equip	oments			Internal thermos	tat for fan motor
				Abnormal discharge to	emperature protection
				Abnormal discharge temperature protection  Liquid line: I/U φ 9.52 (3/8") Pipe φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")	
	D-film-n-t-11 / /	2.0.\			
	Refrigerant piping size (	D.D. )	mm		
	Refrigerant piping size ( Connecting method	O.D. )	mm	Gas line: φ 15.88 (5/8") φ	15.88(5/8")x1.0 φ 15.88(5/8")
Installation	Connecting method				
Installation data	Connecting method Attached length of piping		mm -	Gas line: $\phi$ 15.88 (5/8") $\phi$ Flare piping	5.15.88(5/8")x1.0
	Connecting method Attached length of piping Insulation for piping	]	m	Gas line: $\phi$ 15.88 (5/8") $\phi$ Flare piping — Necessary (both L	15.88(5/8")x1.0
	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way	y) length	m m	Gas line: $\phi$ 15.88 (5/8") $\phi$ Flare piping — Necessary (both L	15.88(5/8")x1.0
	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between 0	y) length	m	Gas line: φ15.88 (5/8") φ Flare piping  -  Necessary (both L  Max.  Max.30m (Outdoor unit is higher)	15.88(5/8")x1.0
data	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between G Drain hose	y) length	m m m	Gas line: φ15.88 (5/8") φ Flare piping  -  Necessary (both L  Max.  Max.30m (Outdoor unit is higher)  Hose connectable VP25( I.D.25, O.D.32)	15.88(5/8")x1.0
data  Drain pump,	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between ( Drain hose max lift height	y) length	m m m	Gas line: φ15.88 (5/8") φ Flare piping  -  Necessary (both L  Max.  Max.30m (Outdoor unit is higher)  Hose connectable VP25(1.D.25, O.D.32)  Built-in Drain pump, 600	15.88(5/8")x1.0 φ 15.88(5/8")  Flare piping  —  Liquid & Gas lines)  100m  Max.15m (Outdoor unit is lower)  Hole size φ 20 x 3 pcs  —
Drain pump,	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between ( Drain hose , max lift height ded breaker size	y) length	m m m	Gas line: φ15.88 (5/8") φ Flare piping  Necessary (both L  Max.  Max.30m (Outdoor unit is higher)  Hose connectable VP25(1.D.25, O.D.32)  Built-in Drain pump, 600	15.88(5/8")x1.0 φ 15.88(5/8")  Flare piping  —  Liquid & Gas lines)  100m  Max.15m (Outdoor unit is lower)  Hole size φ 20 x 3 pcs  —
Drain pump, Recommend L.R.A. (Lock	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between ( Drain hose , max lift height ded breaker size eed rotor ampere)	y) length D/U and I/U	m m m	Gas line: φ15.88 (5/8") φ Flare piping  Necessary (both L  Max.  Max.30m (Outdoor unit is higher) Hose connectable VP25(1.D.25, O.D.32)  Built-in Drain pump , 600	15.88(5/8")x1.0 φ 15.88(5/8")  Flare piping  —  Liquid & Gas lines)  100m  Max.15m (Outdoor unit is lower)  Hole size φ 20 x 3 pcs  —  —  —
Drain pump, Recommend L.R.A. (Lock Interconnect	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between ( Drain hose , max lift height ded breaker size ed rotor ampere)	y) length D/U and I/U	m m m	Gas line: φ15.88 (5/8") φ Flare piping  Necessary (both L  Max.  Max.30m (Outdoor unit is higher) Hose connectable VP25( I.D.25, O.D.32)  Built-in Drain pump , 600  5  φ1.6mm ×3 cores + earth cable /	15.88(5/8")x1.0 φ 15.88(5/8")  Flare piping  —  iquid & Gas lines)  100m  Max.15m (Outdoor unit is lower)  Hole size φ 20 x 3 pcs  —  —  .0  Termainal block(Screw fixing type)
Drain pump, Recomment L.R.A. (Lock Interconnect IP number	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between ( Drain hose , max lift height ded breaker size ded rotor ampere) ting wires Size x Core in	y) length D/U and I/U	m m m	Gas line: $\phi$ 15.88 (5/8") $\phi$ Flare piping  Necessary (both L  Max.  Max.30m (Outdoor unit is higher)  Hose connectable VP25(I.D.25, O.D.32)  Built-in Drain pump, 600  5 $\phi$ 1.6mm ×3 cores + earth cable /  IPX0	15.88(5/8")x1.0 φ 15.88(5/8")  Flare piping  —  iquid & Gas lines)  100m  Max.15m (Outdoor unit is lower)  Hole size φ 20 x 3 pcs  —  —  .0  Termainal block(Screw fixing type)  IP24
Drain pump, Recommend L.R.A. (Lock Interconnect	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between ( Drain hose , max lift height ded breaker size ded rotor ampere) ting wires Size x Core in	y) length D/U and I/U	m m m	Gas line: $\phi$ 15.88 (5/8") $\phi$ Flare piping  Necessary (both L  Max.  Max.30m (Outdoor unit is higher) Hose connectable VP25( I.D.25, O.D.32) Built-in Drain pump , 600  5 $\phi$ 1.6mm ×3 cores + earth cable / IPX0 Mounting kit, Drain hose	15.88(5/8")x1.0 φ 15.88(5/8")  Flare piping  —  Liquid & Gas lines)  100m  Max.15m (Outdoor unit is lower)  Hole size φ 20 x 3 pcs  —  —  .0  Termainal block(Screw fixing type)

Item	Indoor air te	emperature	Outdoor air temperature  DB WB		External static pressure	Standards
Operation	DB	WB			of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)

				FDU12	5VNXVF			
Item				Indoor unit FDU125VF	Outdoor unit FDC125VNX			
Power source	ce				50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW	12.5 [ 5.0(Mir	n.)-14.0(Max.)]			
	Nominal heating capacity		kW	14.0 [ 4.0(Mir	, , ,			
		Cooling		3.49				
	Power consumption	Heating	kW		77			
	Max power consumption				03			
		Cooling			/ 16.2			
	Running current	Heating	A		/ 17.6			
	Inrush current, max current		l ^`	5 ,				
Operation	peration Cooling			·	8			
data	Power factor	Heating	%		/ 97			
	EER	Cooling			58			
	COP	Heating	-		71			
	COP	3		3.	<i>i</i> i			
	Sound power level	Cooling		67	70			
		Heating			40			
	Sound pressure level	Cooling	dB(A)	P-Hi: 45 Hi: 40 Me: 34 Lo: 29	48			
	Heating				50			
	Silent mode sound press	ure level		-	<del>-</del>			
Exterior dim	ensions (Height x Width x	Depth)	mm	280 × 1370 × 740	1300×970×370			
		- 1 1/						
Exterior app				_	Stucco white			
( Munsell co	olor)				(4.2Y7.5/1.1) near equivalent			
Net weight			kg	54	105			
Compresso	r type & Q'ty			_	RMT5134MDE2 (Twin rotary type)×1			
Compressor motor (Starting method)			kW	_	Direct line start			
Refrigerant oil (Amount, type)			Q	_	0.9 (M-MA68)			
Refrigerant (Type, amount, pre-charge length)		e length)	kg	R410A 4.5kg in outdoor unit (Incl. t	the amount for the piping of : 30m)			
Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant control			Electronic ex	pansion valve				
Fan type &	Q'ty			Centrifugal fan ×3	Propeller fan ×2			
	Starting method)		W	100 + 200 < Direct line start >	86 x 2 < Direct line start >			
Air flow	,	Cooling Heating	m³/min	P-Hi:39 Hi:32 Me:26 Lo:20	100			
Available ex	ternal static pressure	11100011119	Pa	Standard: 60 Max: 200	_			
Outside air				Possible	_			
	ality / Quantity			Procure locally	_			
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea			W	—	20 (Crank case heater)			
	Remote control			(Option) Wired : RC-EX3 RC-E5	, RCH-E3 Wireless : RCN-KIT4-E2			
Operation	Room temperature control	ol			by electronics			
control	Operation display	· ·		-	-			
Safety equip	, , , , , , , , , , , , , , , , , , , ,			Frost protecti Internal thermos	tion for fan motor on thermostat tat for fan motor emperature protection			
	Refrigerant piping size (	O.D. )	mm	Liquid line: I/U φ 9.52 (3/8") Pipe  Gas line: φ 15.88 (5/8") φ				
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping		m	_	_			
data	Insulation for piping			Necessary (both I	iquid & Gas lines)			
	Refrigerant line (one way		m	Max.	100m			
	Vertical height diff. between C	)/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
	Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs			
Drain pump	, max lift height		mm	Built-in Drain pump , 600	<del>-</del>			
	ded breaker size		Α	1 1 1	-			
	ked rotor ampere)		Α	5	.0			
Interconnec	- '	number	·		Termainal block(Screw fixing type)			
IP number	g			IPX0	IP24			
Standard ac	ccessories			Mounting kit, Drain hose	Edging			
Option parts					sor : LB-KIT			
	1) The data are magazired				The pine length is 7 Em			

Item	Indoor air t	emperature	Outdoor air temperature  DB WB		External static pressure	Standards
Operation	DB	WB			of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	oura	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)

			Model	FDU12	5VSXVF		
Item				Indoor unit FDU125VF	Outdoor unit FDC125VSX		
Power source	ce				50Hz / 380V 60Hz		
	Nominal cooling capacity	/ (range)	kW	12.5 [ 5.0(Mir	n.)-14.0(Max.)]		
	Nominal heating capacity		kW	14.0 [ 4.0(Mir			
		Cooling		3.49			
	Power consumption	Heating	kW	3.	77		
	Max power consumption		1	7.	54		
		Cooling			/ 5.5		
	Running current	Heating	A		/ 5.9		
	Inrush current, max curre		'		18		
Operation		Cooling		·	/ 96		
data	Power factor	Heating	%		7		
	EER	Cooling			58		
	COP	Heating		3.			
		Cooling					
	Sound power level	Heating		67	70		
		Cooling	dB(A)		48		
	Sound pressure level	Heating	45(//)	P-Hi: 45 Hi: 40 Me: 34 Lo: 29	50		
	Silent mode sound press				30		
	Jonetic mode sound press	uic icvei		<del>-</del>	<del>-</del>		
Exterior dim	ensions (Height x Width x	Depth)	mm	280 × 1370 × 740	1300×970×370		
Exterior app	pearance				Stucco white		
( Munsell co				_	(4.2Y7.5/1.1) near equivalent		
Net weight	,		kg	54	105		
	r type & Q'ty			<u>-</u>	RMT5134MDE3 (Twin rotary type)×1		
Compressor motor (Starting method)			kW	_	Direct line start		
Refrigerant oil (Amount, type)		Q	_	0.9 (M-MA68)			
Refrigerant (Type, amount, pre-charge length)		e lenath)	kg	R410A 4 5kg in outdoor unit (Incl. t	the amount for the piping of : 30m)		
Heat exchanger		ı.ı.g	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant control			<u> </u>	pansion valve			
Fan type & 0		-		Centrifugal fan ×3	Propeller fan ×2		
	Starting method)		W	100 + 200 < Direct line start >	86 x 2 < Direct line start >		
Air flow	otal ting motiled)	Cooling Heating	m³/min	P-Hi:39 Hi:32 Me:26 Lo:20	100		
Available ov	ternal static pressure	пеашу	Pa	Standard: 60 Max: 200			
Outside air i			га	Possible			
	ality / Quantity			Procure locally			
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W	hubber sieeve(ior iair motor)	20 (Crank case heater)		
Electric flea	,		VV	(Ontion) Wired : BC EV2 BC E5	, RCH-E3 Wireless : RCN-KIT4-E2		
Operation	Remote control						
control	Room temperature control	UI		i nermostat t	by electronics		
	Operation display			-	-		
Safety equip	oments			Frost protecti	tion for fan motor on thermostat tat for fan motor		
				Abnormal discharge to	emperature protection		
	Refrigerant piping size (	O.D. )	mm	Liquid line: I/U φ 9.52 (3/8") Pipe Gas line: φ 15.88 (5/8") φ			
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping	1	m	— —	——————————————————————————————————————		
data Insulation for piping			Necessary (both L	Liquid & Gas lines)			
	Refrigerant line (one way	/) length	m		100m		
	Vertical height diff. between 0		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs		
Drain numn	, max lift height		mm	Built-in Drain pump, 600			
	ded breaker size		A	1 1 1			
	ked rotor ampere)		A		.0		
Interconnec	- '	numher	/1		Termainal block(Screw fixing type)		
IP number	ung wires   Dize x Cole i	IGITIDEI		φ 1.6ππ x3 cores + earth cable /	IP24		
Standard ac	noesories			Mounting kit, Drain hose			
Option parts					Edging sor : LB-KIT		
	1) The data are measured				SUI: LD-NII		

Item	Indoor air t	emperature	Outdoor air temperature  DB WB		External static pressure	Standards
Operation	DB	WB			of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	oura	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)

			Model	FDU140	OVNXVF
Item				Indoor unit <b>FDU140VF</b>	Outdoor unit <b>FDC140VNX</b>
Power source	ce				50Hz / 220V 60Hz
	Nominal cooling capacity	(range)	kW	14.0 [ 5.0(Min	n.)-16.0(Max.)]
	Nominal heating capacity		kW	16.0 [ 4.0(Min	
.		Cooling			28
	Power consumption	Heating	kW		42
	Max power consumption	1			19
		Cooling		19.2	
	Running current	Heating	A		/ 20.7
	Inrush current, max current		^		30
Operation	mirusii current, max curre	Cooling			7
data	Power factor Heating		% -		7
	EED				
	COP	Cooling Heating	-		27
	COP	J J		3.	62
	Sound power level	Cooling		70	72
		Heating		· •	
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 40 Me: 35 Lo: 30	49
	Courta procedio levol	Heating		1 111 11 111 10 MIC. GC 20. GC	52
	Silent mode sound pressure level			_	_
Exterior dim	ensions (Height x Width x	Denth)	mm	280 × 1370 × 740	1300×970×370
Exterior dim	ensions (Height X Width X	Deptil)	'''''	200 x 1370 x 740	1300×970×370
Exterior app	earance				Stucco white
( Munsell co				_	(4.2Y7.5/1.1) near equivalent
Net weight			kg	54	105
	r type & Q'ty		1.9		RMT5134MDE2 (Twin rotary type)×1
Compressor motor (Starting method)			kW	_	Direct line start
Refrigerant oil (Amount, type)		e l	_	0.9 (M-MA68)	
Refrigerant (Type, amount, pre-charge length)		kg		the amount for the piping of : 30m)	
<u> </u>		- Kg	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Heat exchanger Refrigerant control			3 2 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	pansion valve	
Fan type & C			14/	Centrifugal fan ×3	Propeller fan ×2
Fan motor (	Starting method)	10 "	W	100 + 200 < Direct line start >	86 x 2 < Direct line start >
Air flow		Cooling	m³/min	P-Hi: 48 Hi: 35 Me: 28 Lo: 22	100
		Heating			
	ternal static pressure		Pa	Standard : 60 Max : 200	
Outside air i				Possible	_
	ality / Quantity			Procure locally	_
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric heat	ter		W	_	20 (Crank case heater)
Operation	Remote control				, RCH-E3 Wireless : RCN-KIT4-E2
control	Room temperature contr	ol		Thermostat b	by electronics
CONTROL	Operation display			-	_
				Overload protect	tion for fan motor
Safety equip	amonto			Frost protection	on thermostat
Salety equip	Differits			Internal thermos	tat for fan motor
				Abnormal discharge to	emperature protection
	Defelorment of the section of	) D )		Liquid line: I/U $\phi$ 9.52 (3/8") Pipe	
Refrigerant piping size (O.D.)		mm -	Gas line: φ15.88 (5/8") φ		
' I	nemgerant piping size ( (	J.D. )			
	Connecting method				
Installation	Connecting method		m	Flare piping	Flare piping  —
Installation data	Connecting method Attached length of piping		m	Flare piping —	Flare piping —
	Connecting method Attached length of piping Insulation for piping			Flare piping  —  Necessary (both L	Flare piping — iquid & Gas lines)
	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way	r) length	m	Flare piping  — Necessary (both L Max.	Flare piping — iquid & Gas lines) 100m
	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between 0	r) length		Flare piping  — Necessary (both L Max. Max.30m (Outdoor unit is higher)	Flare piping  — Liquid & Gas lines) 100m  Max.15m (Outdoor unit is lower)
data	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between C	r) length	m m	Flare piping  —  Necessary (both L  Max.  Max.30m (Outdoor unit is higher)  Hose connectable VP25( I.D.25, O.D.32)	Flare piping — iquid & Gas lines) 100m
data  Drain pump,	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between 0 Drain hose , max lift height	r) length	m m	Flare piping  —  Necessary (both L  Max.  Max.30m (Outdoor unit is higher)  Hose connectable VP25(1.D.25, O.D.32)  Built-in Drain pump, 600	Flare piping  — Liquid & Gas lines)  100m  Max.15m (Outdoor unit is lower)  Hole size $\phi$ 20 x 3 pcs  —
Drain pump,	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between 0 Drain hose , max lift height ded breaker size	r) length	m m m mm	Flare piping  —  Necessary (both L  Max.  Max.30m (Outdoor unit is higher)  Hose connectable VP25( I.D.25, O.D.32)  Built-in Drain pump, 600	Flare piping  — Liquid & Gas lines)  100m  Max.15m (Outdoor unit is lower)  Hole size $\phi$ 20 x 3 pcs  —
Drain pump, Recommend L.R.A. (Lock	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between ( Drain hose , max lift height ded breaker size ted rotor ampere)	r) length 0/U and I/U	m m	Flare piping	Flare piping  — Liquid & Gas lines)  100m  Max.15m (Outdoor unit is lower)  Hole size $\phi$ 20 x 3 pcs  — — —
Drain pump, Recommend L.R.A. (Lock Interconnect	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between 0 Drain hose , max lift height ded breaker size ded rotor ampere)	r) length 0/U and I/U	m m m mm	Flare piping	Flare piping — Liquid & Gas lines)  100m  Max.15m (Outdoor unit is lower)  Hole size φ 20 x 3 pcs — — — — — — — — — — — — — — — — — — —
Drain pump, Recommend L.R.A. (Lock Interconnect IP number	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between ( Drain hose , max lift height ded breaker size ted rotor ampere) ting wires Size x Core reference	r) length 0/U and I/U	m m m mm	Flare piping  Necessary (both L  Max.  Max.30m (Outdoor unit is higher)  Hose connectable VP25(I.D.25, O.D.32)  Built-in Drain pump, 600  5  \$\phi\$1.6mm \times 3 cores + earth cable /  IPX0	Flare piping — Liquid & Gas lines)  100m  Max.15m (Outdoor unit is lower)  Hole size φ 20 x 3 pcs — — — — — — — — — — — — — — — — — — —
Drain pump, Recommenc L.R.A. (Lock Interconnec	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way Vertical height diff. between 0 Drain hose , max lift height ded breaker size ded rotor ampere) ting wires Size x Core r	r) length 0/U and I/U	m m m mm	Flare piping  Necessary (both L  Max.  Max.30m (Outdoor unit is higher)  Hose connectable VP25( I.D.25, O.D.32)  Built-in Drain pump , 600  5  \$\phi\$ 1.6mm \times 3 cores + earth cable /  IPX0  Mounting kit, Drain hose	Flare piping — iquid & Gas lines)  100m  Max.15m (Outdoor unit is lower)  Hole size φ 20 x 3 pcs — — — — 0  Termainal block(Screw fixing type)

Item	Indoor air t	emperature	Outdoor air temperature  DB WB		External static pressure	Standards
Operation	DB	WB			of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	oura	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)

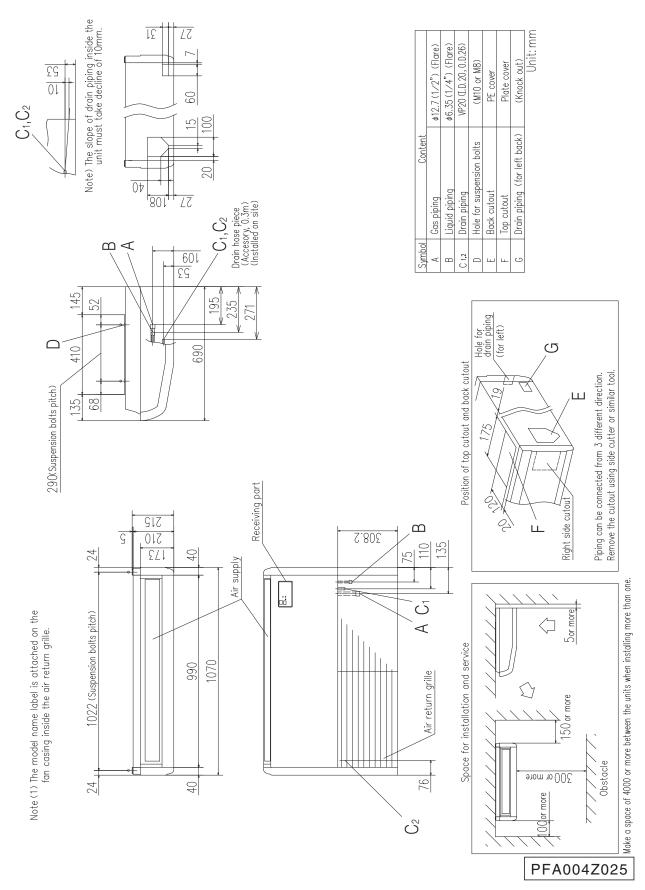
			Model	FDU14	OVSXVF
Item				Indoor unit <b>FDU140VF</b>	Outdoor unit FDC140VSX
Power source	ce				50Hz / 380V 60Hz
	Nominal cooling capacity	/ (range)	kW	14.0 [ 5.0(Mir	n.)-16.0(Max.)]
	Nominal heating capacity		kW	16.0 [ 4.0(Mir	, , , , , , , , , , , , , , , , , , , ,
		Cooling			28
	Power consumption	Heating	kW	4.	42
	Max power consumption			7.	74
		Cooling			/ 6.7
	Running current	Heating	A		6.9
	Inrush current, max current				19
Operation		Cooling		·	7
data	Power factor Heating		%		7
	EER	Cooling			27
	COP	Heating			62
		Cooling			
	Sound power level	Heating		70	72
		Cooling	dB(A)		49
	Sound pressure level	Heating	GD(A)	P-Hi: 47 Hi: 40 Me: 35 Lo: 30	52
	Silent mode sound press		-		- 52 
	Joheni mode sound press	uie ievei		<del>-</del>	<del>-</del>
Exterior dim	ensions (Height x Width x	Depth)	mm	280 × 1370 × 740	1300×970×370
Exterior app	earance				Stucco white
( Munsell co				_	(4.2Y7.5/1.1) near equivalent
Net weight	/		kg	54	105
	r type & Q'ty		g	_	RMT5134MDE3 (Twin rotary type)×1
	Compressor motor (Starting method)		kW	_	Direct line start
Refrigerant oil (Amount, type)			Q Q	_	0.9 (M-MA68)
Refrigerant (Type, amount, pre-charge length)		o longth)	kg		the amount for the piping of : 30m)
Heat exchanger		Ny	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant control			<u> </u>	pansion valve	
Fan type & 0					
	ગાપુ Starting method)		W	Centrifugal fan ×3  100 + 200 < Direct line start >	Propeller fan ×2 86 x 2 < Direct line start >
	Starting method)	Cooling	m³/min		
Air flow		Heating		P-Hi:48 Hi:35 Me:28 Lo:22	100
	ternal static pressure		Pa	Standard: 60 Max: 200	<del>-</del>
Outside air i				Possible	<del>-</del>
	ality / Quantity			Procure locally	<del>-</del>
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			W	_	20 (Crank case heater)
Operation	Remote control				, RCH-E3 Wireless : RCN-KIT4-E2
control	Room temperature contr	ol		Thermostat b	by electronics
	Operation display			<u>-</u>	
Safety equip	oments			Frost protecti	tion for fan motor on thermostat
					tat for fan motor emperature protection
	Refrigerant piping size ( (	D.D. )	mm	Liquid line: I/U φ 9.52 (3/8") Pipe Gas line: φ 15.88 (5/8") φ	φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")
	Connecting method				
Inetall-#-			m	Flare piping	Flare piping
Installation Attached length of piping		m		is vid 9 Cap lines)	
data	Insulation for piping	/\ lone+l-		Necessary (both I	_ · · · ·
	Refrigerant line (one way		m		100m
	Vertical height diff. between Orain hose	J/U and I/U	m	Max.30m (Outdoor unit is higher) Hose connectable VP25( I.D.25, O.D.32)	Max.15m (Outdoor unit is lower)  Hole size $\phi$ 20 x 3 pcs
Drain numn	, max lift height		mm	Built-in Drain pump, 600	- Ιοίο δίζο ψευ κ ο μοδ
	ded breaker size		A	1 1 1	<u> </u>
	sed rotor ampere)		A		.0
,	- '	number	^		Termainal block(Screw fixing type)
Interconnec IP number	ung wires   Size x Core i	IUITIDEI	<del>                                     </del>	φ 1.6mm ×3 cores + earth cable /	IP24
Standard ac	nonceorine		<del>                                     </del>	Mounting kit, Drain hose	
Option parts			$\vdash$		Edging sor : LB-KIT
	1) The data are measured				SOT: LB-KII

Item	Indoor air t	emperature	Outdoor air temperature  DB WB		External static pressure	Standards
Operation	DB	WB			of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	oura	1505151-11

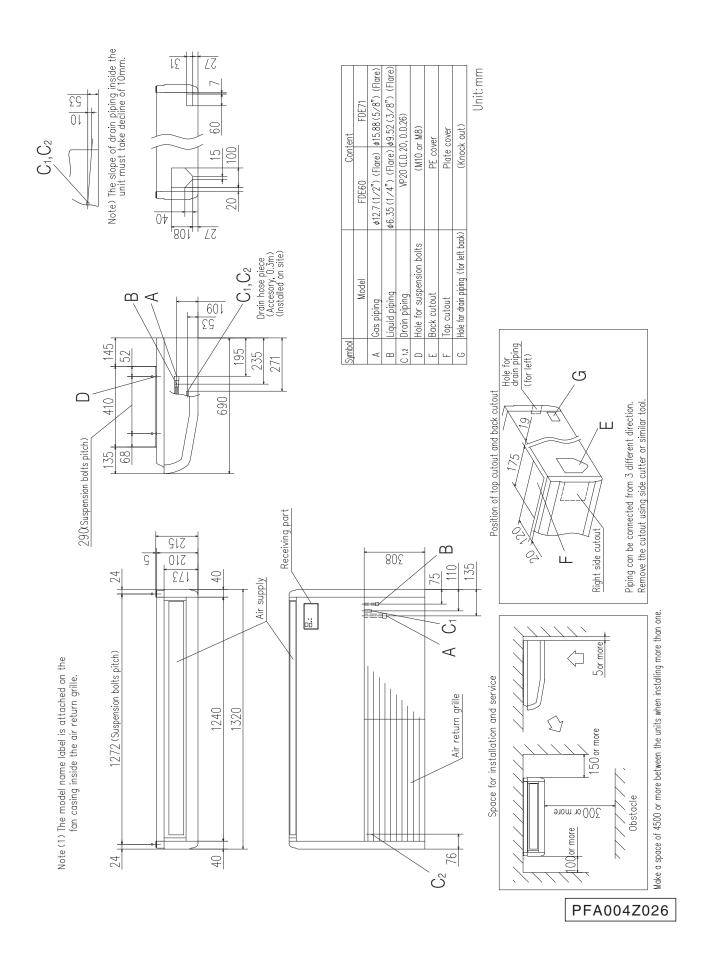
- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)

## 1.2 EXTERIOR DIMENSIONS

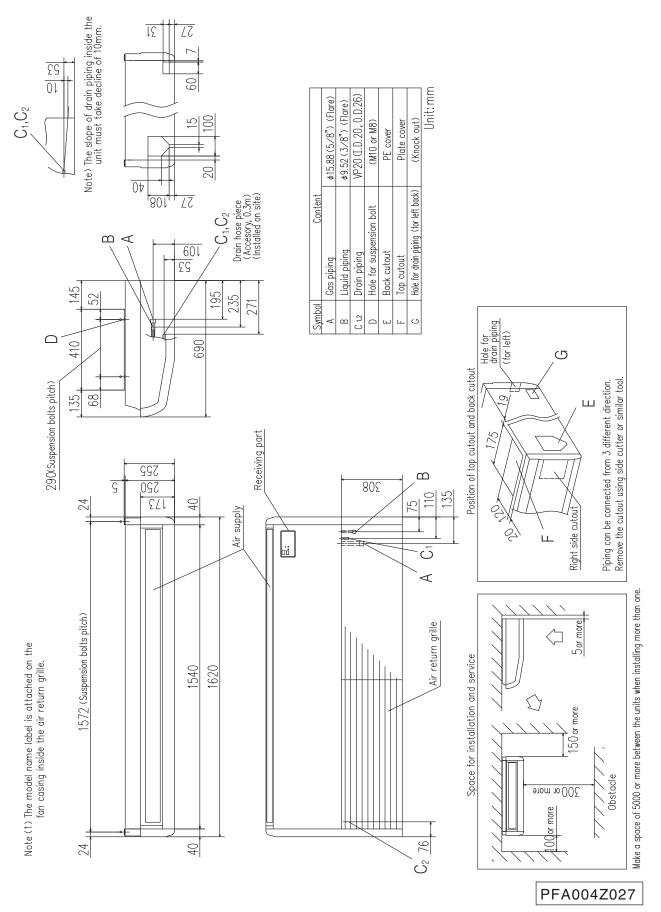
- (1) Indoor units
  - (a) Ceiling suspended type (FDE) Models FDE40G, 50VG



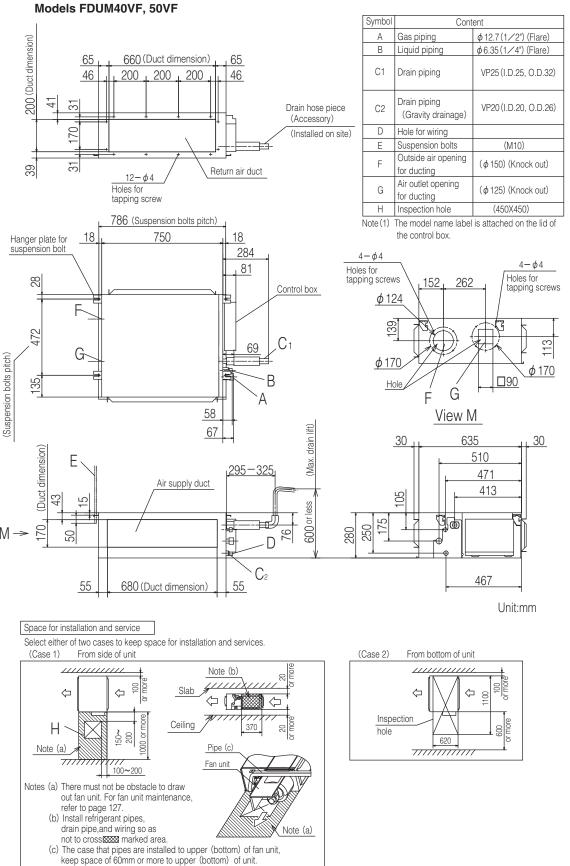
## Models FDE60VG, 71VG



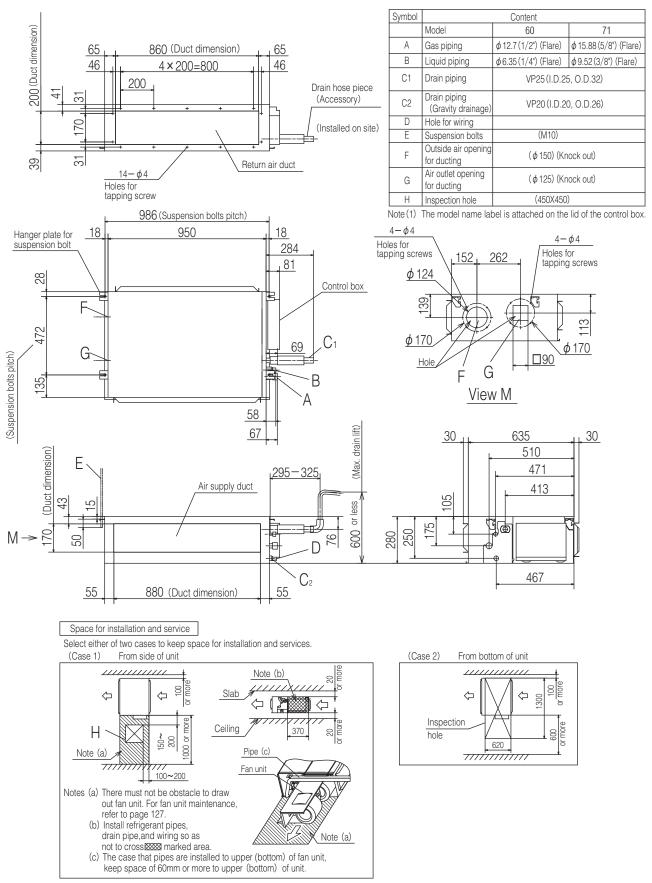
#### Models FDE100VG, 125VG, 140VG



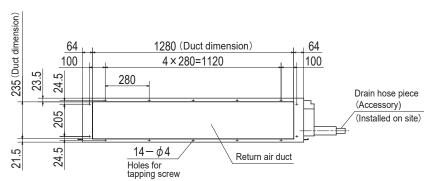
## (b) Duct connected-Low / Middle static pressure type (FDUM)



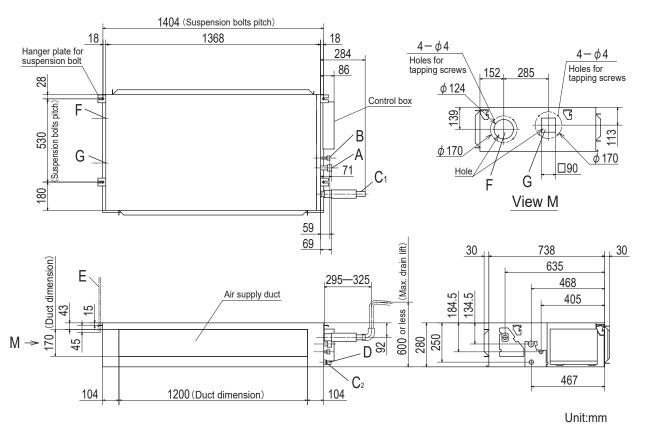
#### Models FDUM60VF, 70VF1



#### Models FDUM100VF2, 125VF, 140VF

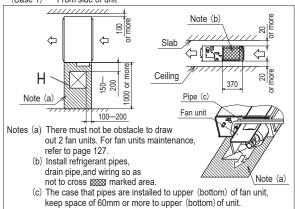


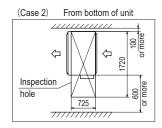
Symbol	Content				
A	Gas piping	φ 15.88 (5 / 8") (Flare)			
В	Liquid piping	φ 9.52 (3 / 8") (Flare)			
C <sub>1</sub>	Drain piping	VP25 (I.D.25,O.D.32)			
C <sub>2</sub>	Drain piping (Gravity drainage)	VP20 (I.D.20,O.D.26)			
D	Hole for wiring				
E	Suspension bolts	(M10)			
F	Outside air opening for ducting	( φ 150) (Knock out)			
G	Air outlet opening for ducting	( φ 125) ( Knock out)			
Н	Inspection hole	(450X450)			



#### Space for installation and service

Select either of two cases to keep space for installation and services. (Case 1) From side of unit

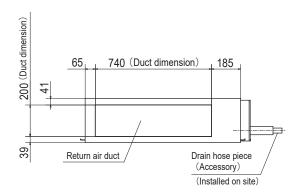




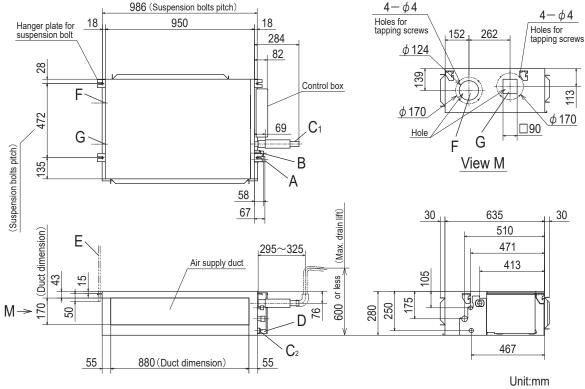
Note (1) The model name label is attached on the lid of the control box.

PJG000Z004 🛕

# (c) Duct connected-High static pressure type (FDU) Model FDU71VF1



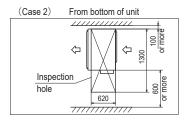
Symbol	Content					
Α	Gas piping	φ15.88 (5/8") (Flare)				
В	Liquid piping	$\phi$ 9.52 (3/8") (Flare)				
C1	Drain piping	VP25 (I.D.25,O.D.32)				
C2	Drain piping (Gravity drainage)	VP20 (I.D.20,O.D.26)				
D	Hole for wiring					
E	Suspension bolts	(M10)				
F	Outside air opening for ducting	(Knock out)				
G	Air outlet opening for ducting	(Knock out)				
Н	Inspection hole	(450X450)				



#### Space for installation and service

Select either of two cases to keep space for installation and services. (Case 1) From side of unit

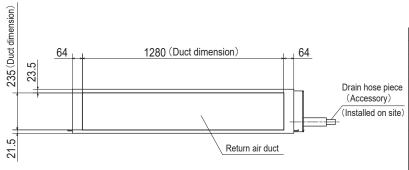
Note (b) or more  $\Diamond$ Slab Ceiling Η 150~ 200 Pipe (c) Note (a) Fan unit 100~200 Notes (a) There must not be obstacle to draw out fan unit. For fan unit maintenance, refer to page 133. (b) Install refrigerant pipes, drain pipe, and wiring so as not to cross ‱ marked area. (c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.



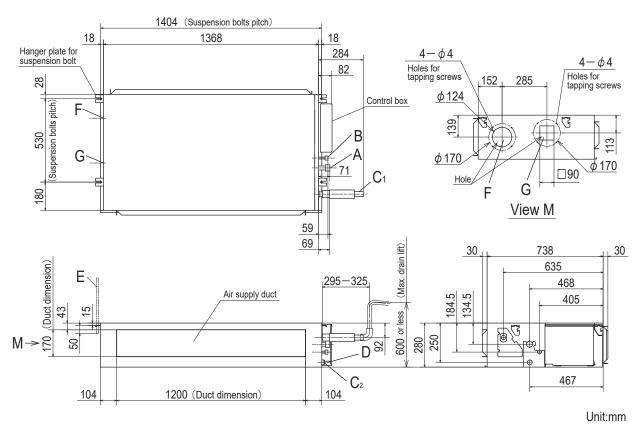
Note (1) The model name label is attached on the lid of the control box.

PJG000Z047

#### Models FDU100VF2, 125VF, 140VF

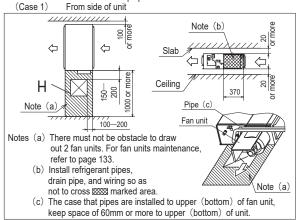


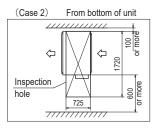
	Symbol		Content		
	A Gas piping B Liquid piping		φ 15.88 (5/8") (Flare)		
			$\phi$ 9.52 (3/8") (Flare)		
	C <sub>1</sub>	Drain piping	VP25 (I.D.25,O.D.32)		
!	C <sub>2</sub>	Drain piping	VP20 (I.D.20,O.D.26)		
	02	(Gravity drainage)	,		
)	D	Hole for wiring			
	E Suspension bolts		(M10)		
	F Outside air opening		(Knock out)		
	Г	for ducting	(Kilock out)		
	G	Air outlet opening	(Knock out)		
	G	for ducting	(NIIOCK OUL)		
	Н	Inspection hole	(450X450)		
			(10011100)		



Space for installation and service

Select either of two cases to keep space for installation and services.

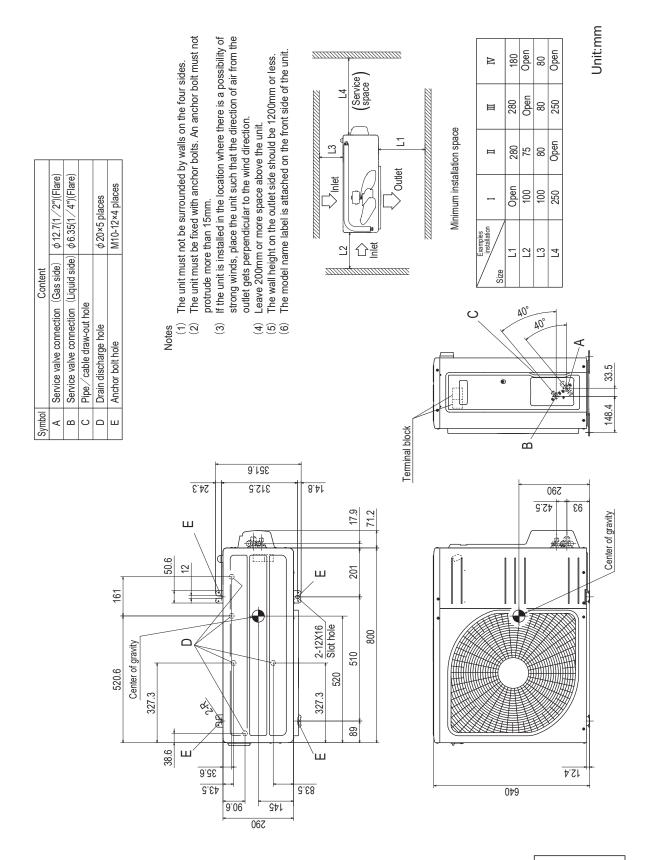




Note (1) The model name label is attached on the lid of the control box.

PJG000Z048 🛕

# (2) Outdoor units Models SRC40ZSX-S, 50ZSX-S, 60ZSX-S



RCT000Z020

Unit:mm

#### **Model FDC71VNX**



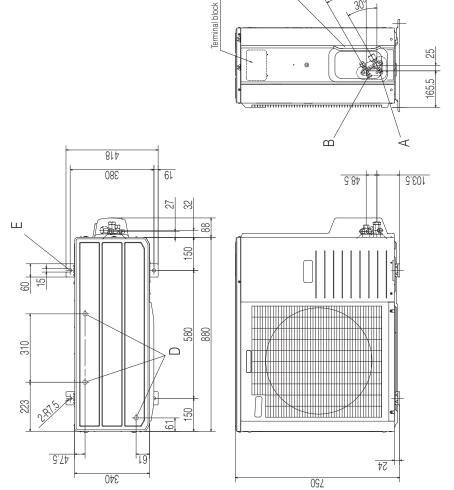
Outlet

Ħ	200	Open	100	250
Ħ	Open	250	150	250
-	Open	300	100	250
Evamples of installation Dimensions	LI II	7	[3	L4

<u>30°</u>

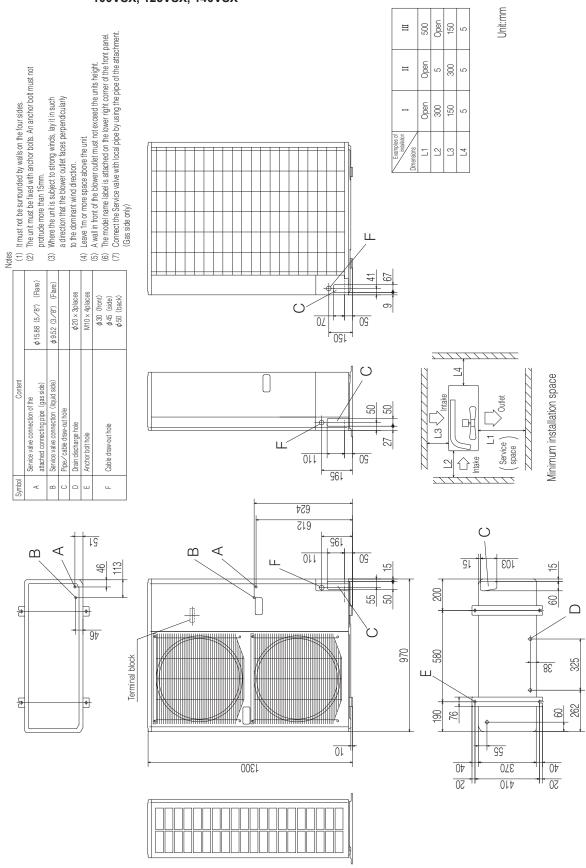
 $\bigcirc$ 

	φ15.88 (5∕8") (Flare)	φ9.52 (3×8") (Flare)		φ20 × 3places	M10 × 4places	
Content	Service valve connection (gas side)	Service valve connection (liquid side)	Pipe/cable draw-out hole	Drain discharge hole	Anchor bolt hole	
Symbol	A	ш	ပ		ш	



Minimum installation space

## Models FDC100VNX, 125VNX, 140VNX 100VSX, 125VSX, 140VSX

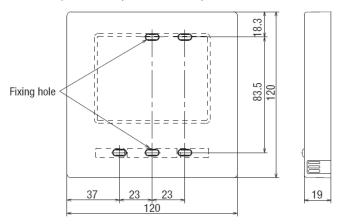


PCA001Z569 🖒

#### (3) Remote control (Option parts)

# (a) Wired remote control Model RC-EX3

#### Dimensions (Viewed from front)



Exterior appearance	Pearl white
(Munsell color)	(N8.5) near equivalent

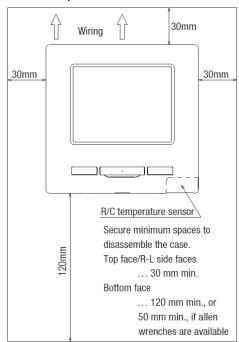
#### Cautions for selecting installation place

- (1) Installation surface must be flat and sufficiently strong. R/C case must not be deformed.
- (2) Where the R/C can detect room temperatures accurately This is a must when detecting room temperatures with the temperature sensor of R/C.
  - · Install the R/C where it can detect the average temperature in the room.
  - · Install the R/C sufficiently separated from a heat source.
  - · Install the R/C where it will not be influenced by the turbulence of air when the door is opened or closed.

Select a place where the R/C is not exposed to direct sunlight or blown by winds from the air-conditioner or temperatures on the wall surface will not deviate largely from indoor air temperatures.

(3) When using the panel provided with the automatic filter elevating function, select a place where the movement of grill can be seen easily.

#### Installation space



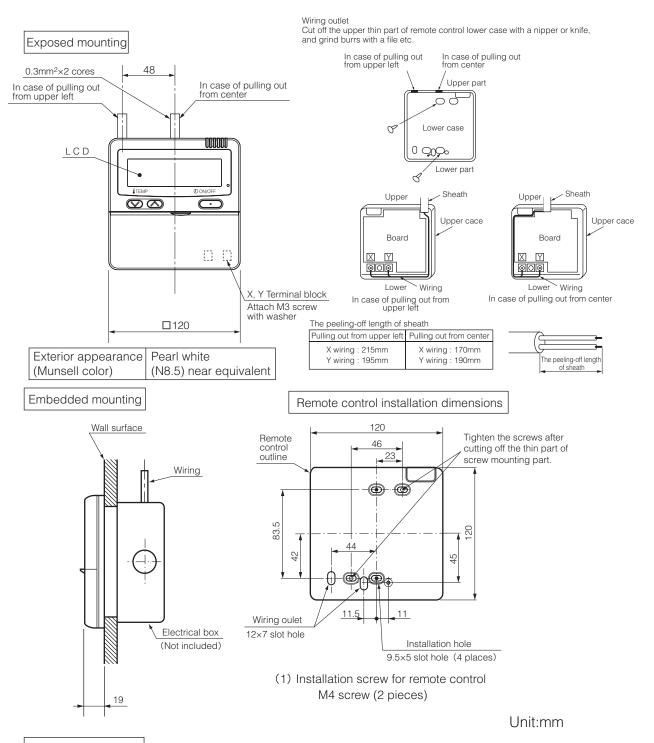
#### R/C cable: $0.3 \text{mm}^2 \times 2 \text{ cores}$

When the cable length is longer than 100 m, the max size for wires used in the R/C case is 0.5 mm². Connect them to wires of larger size near the outside of R/C. When wires are connected, take measures to prevent water, etc. from entering inside.

< 200 m	0.5 mm <sup>2</sup> x 2 cores
< 300 m	0.75 mm <sup>2</sup> x 2 cores
< 400 m	1.25 mm <sup>2</sup> x 2 cores
< 600 m	2.0 mm <sup>2</sup> x 2 cores

Adapted to **RoHS** directive

#### **Model RC-E5**



#### Wiring specifications

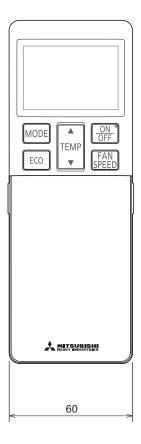
(1) If the prolongation is over 100m, change to the size below. But, wiring in the remote control case should be under 0.5mm². Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire connecting section. Be careful about contact failure.

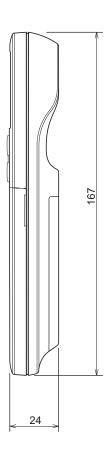
Length	Wiring thickness		
100 to 200m	0.5mm <sup>2</sup> ×2 cores		
Under 300m	0.75mm <sup>2</sup> ×2 cores		
Under 400m	1.25mm <sup>2</sup> ×2 cores		
Under 600m	2.0mm <sup>2</sup> ×2 cores		

PJZ000Z295

# (b) Wireless remote control RCN-E2 (Option parts)

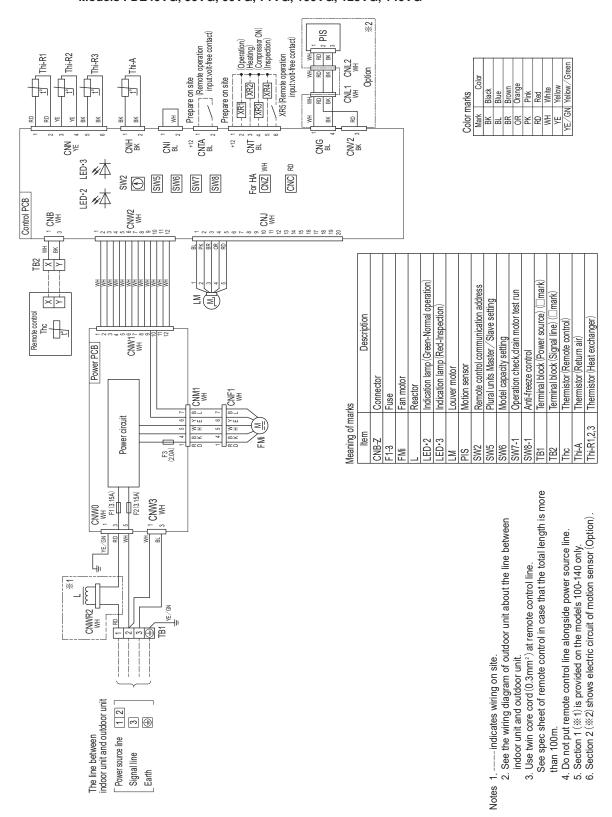






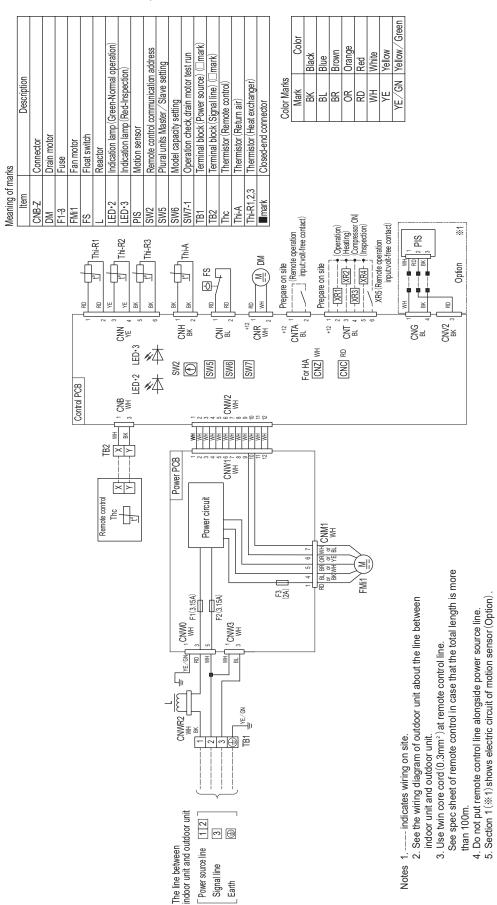
## 1.3 ELECTRICAL WIRING

- (1) Indoor units
  - (a) Ceiling suspended type (FDE)
    Models FDE40VG, 50VG, 60VG, 71VG, 100VG, 125VG, 140VG



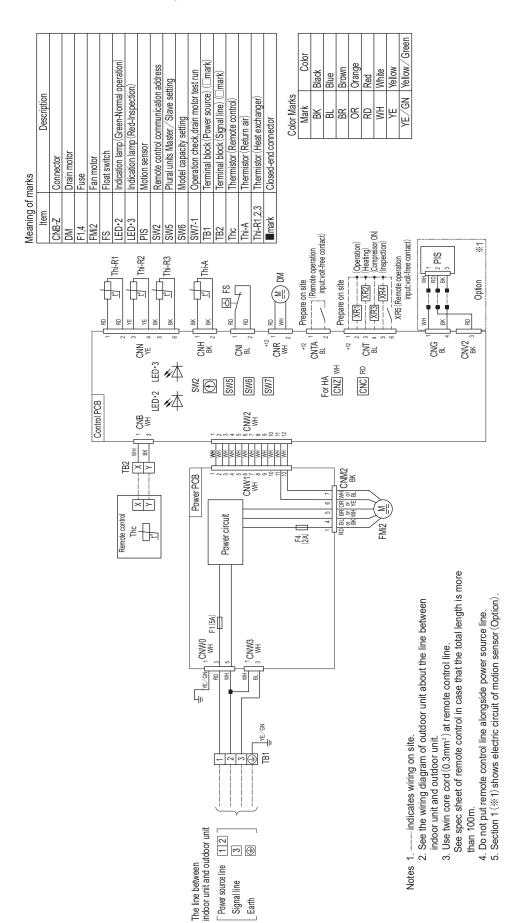
PFA004Z081

# (6) Duct connected-Low / Middle static pressure type (FDUM) Models FDUM40VF, 50VF



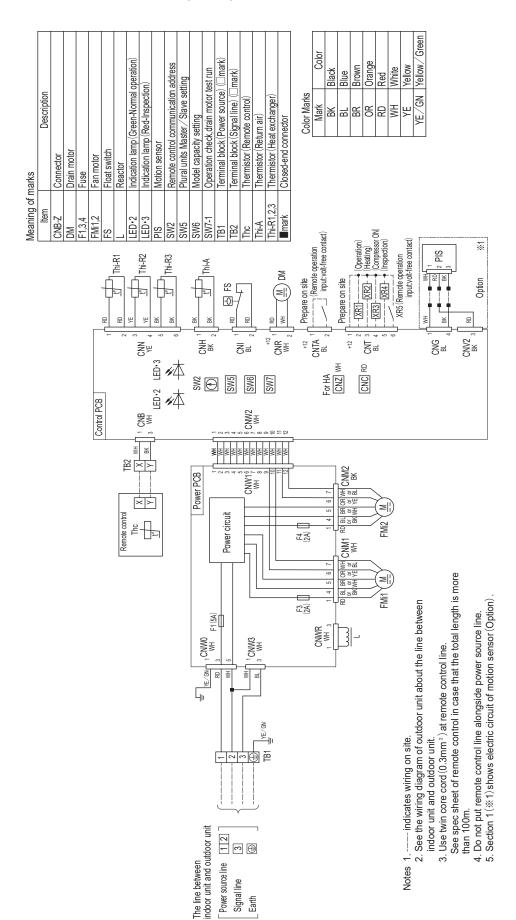
PJG000Z467

#### Models FDUM60VF, 71VF1



PJG000Z468

#### Models FDUM100VF2, 125VF, 140VF

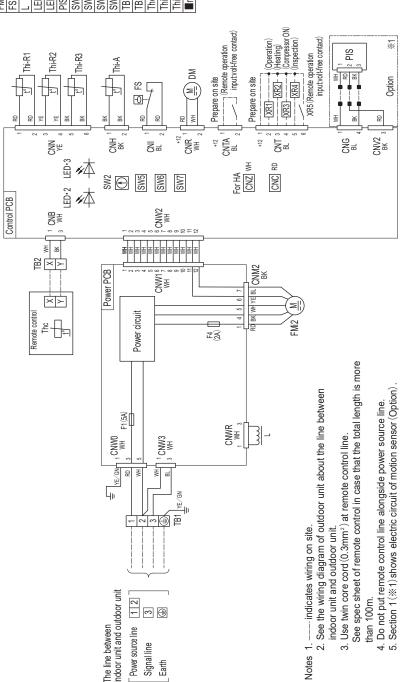




#### (c) Duct connected-High static pressure type (FDU) Model FDU71VF1

Meaning of marks	ıarks
Item	Description
CNB-Z	Connector
DM	Drain motor
F1,4	Fuse
FMi1,2	Fan motor
FS	Float switch
7	Reactor
LED•2	Indication lamp (Green-Normal operation)
EPD•3	Indication lamp (Red-Inspection)
SId	Motion sensor
SW2	Remote control communication address
SWS	Plural units Master / Slave setting
9/NS	Model capacity setting
1-7WS	Operation check, drain motor test run
TB1	Terminal block (Power source) (□mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Thermistor (Remote control)
Thi-A	Thermistor (Return air)
Thi-R1,2,3	Thermistor (Heat exchanger)
mark	Closed-end connector

	Color	Black	Blue	Red	White	Yellow	Yellow/Green
Color Marks	Mark	BK	В	8	MH	Æ	YE/GN



PJG000Z463

than 100m.

The line between indoor unit

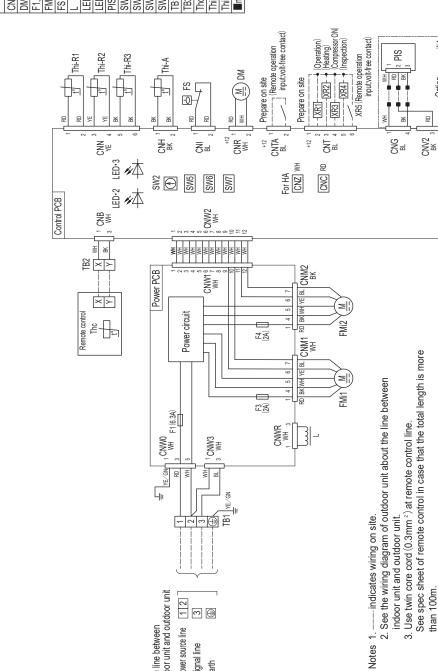
1 2

Power source line Signal line Earth

#### Models FDU100VF2, 125VF, 140VF

Meaning of marks	narks
ltem	Description
CNB-Z	Connector
DM	Drain motor
F1,3,4	Fuse
FMi1,2	Fan motor
FS	Float switch
	Reactor
LED•2	Indication lamp (Green-Normal operation)
LED•3	Indication lamp (Red-Inspection)
PIS	Motion sensor
SW2	Remote control communication address
SW5	Plural units Master / Slave setting
SW6	Model capacity setting
SW7-1	Operation check, drain motor test run
TB1	Terminal block (Power source) (□mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Thermistor (Remote control)
Thi-A	Thermistor (Return air)
Thi-R1,2,3	Thermistor (Heat exchanger)
mark	Closed-end connector

	Color	Black	Blue	Red	White	Yellow	Yellow/Green
Color Marks	Mark	BK	В	ß	MM	Æ	YE/GN



than 100m.

<u>×</u>

Option

Do not put remote control line alongside power source line. Section 1 (%1) shows electric circuit of motion sensor (Option).

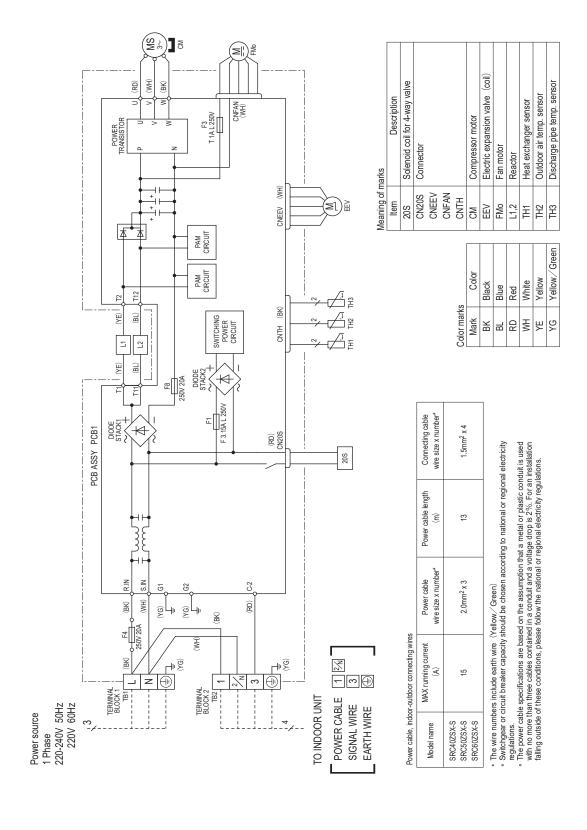
PJG000Z464/A

The line between indoor unit

1 2

Power source line Signal line Earth

# (2) Outdoor units Models SRC40ZSX-S, 50ZSX-S, 60ZSX-S



RWC000Z298

#### **Model FDC71VNX**

Power source 1 Phase AC220-240V 50Hz/220V 60Hz

marks	Description	Compressor motor	Fan motor	Crankcase heater	Drain pan heater	Auxilliary relay (for CH)		Auxilliary relay (for DH)	Solenoid valve for 4-way valve	Expansion valve for cooling	Expansion valve for heating	High pressure switch	Thermistor	(Outdoor air temp.)	Thermistor	(Discharge pipe temp.)	Thermistor	(Heat exchanger temp.)	Thermistor	(Suction pipe temp.)	Thermistor (IPM)	Low pressure sensor	Intelligent power module	Terminal block	Fuse	Connector	Pump down switch	Local setting switch	Indication lamp (GREEN)	Indication lamp (RED)	Reactor	
Meaning of marks	Item	CM	FM01	동	Н	52X1	52X3	52X4	208	SM1	SM2	63H1	Tho-A		Tho-D		Tho-R1,R2		Tho-S		Tho-IPM	LPT	IPM	TB	F.F3	CnA-Z	SW9	SW3,5	LED1	LED2	=	
																	Color	Black	Blue	Brown	Orange	Red	White	Yellow	Yellow/Green	Gray	Pink					

Color marks

Mark

Defrost control change	The defrost operation interval becomes shorter by furning OW this swifch. This swifch should be turned ON in the area where outside temperature becomes below the freezing point.
Snow guard fan control	When this switch is turned ON, the outdoor untit any without hor for Seconds in every 10 minutes, when outdoor temperature falls to 3 cor lower and the comprosesor is not running when the unit is used in a very snowy country, set this switch to ON.
Trial operation	Method of trial operation  1. Trial operation can be performed by using 304-3.  2. Cooling trial operation will be performed with 304-4 to OFF and heading trial operation when 304-4 to OFF and heading trial operation when 304-4 to ON.  3. Besu use boun OFF 504-53 after the trial moneration is finished.

SW3-2

Local setting switch SW3, SW5 (Set up at shipment OFF)

SW3-1

	CONC.) TO THE THE THE THE THE THE THE THE THE THE
	88 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 108 ± 1
TO INDOOR UNIT POWER CABLE [3] SIGNAL WRE [3] SM1 M M M M M M M M M M M M M M M M M M	100 100 100 100 100 100 100 100 100 100
	SSS SSS SSS SSS SSS SSS SSS SSS SSS SS
B∃ <i>™</i> ∧9[	2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000
HW C	POWER PROPERTY OF THE PROPERTY
88 88 88 88 88 88 88 88 88 88 88 88 88	(HM) (HM) (HM) (HM) (HM) (HM) (HM) (HM)
8008 31 11 12 11 12 10 10 10 10 10 10 10 10 10 10 10 10 10	121 T22 W(H) W(H) W(H) W(H) W(H) W(H) W(H) W(H)

Model	MAX over current (A)	Power cable size (mm²)	Power cable length (m)	Indoor-outdoor wire size x number	Earth wire size
FDC71	17	3.5	21	φ 1.6mm x 3	ф 1.6mm

Power cable, indoor-outdoor connecting wires

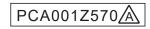
φ 1.6mm x 3	with heaters, refer
21	hout heaters. For units v
3.5	ove table are for units wit
17	he specifications shown in the above table are for units without heaters. For units with heaters, refer
FDC71	• The spec

- The specifications shown in the above table are for units without heaters. For units with heaters, refer
  to the installation instructions or the construction instructions of the indoor unit.
   Switchgard of includ treaker capacity which is calculated from MAX. over current should be chosen
  along the regulations in each country.
   The cable specifications are based on the assumption that a metal or plastic conduit is used with on
  more than three cables contained in a conduit and a voltage drop is 2%. For an installation is filling
  outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation
  in effect in each country.
   Refer to installation manual or technical manual about usage of local setting switch.

PCA001Z605

## Models FDC100VNX, 125VNX, 140VNX

									Meaning of marks	-ks	
								Color marks	ltem	Description	
Source AC.220-240V.5	SOURCE D AC 220-240V 50H 7 / 220V 60H 7							Mark Color	CnA-Z	Connector	
a E		Γ		Д					픙	Crankcase heater	
	Salah T								H	Drain pan heater	
 	NOISE FILTER PCB3	إسا :		~] e	TO INDOOR UNIT				CM	Compressor motor	
	20 S	5/11			SIGNAL WIRE				CT	Current sensor	
- II	GH		F (4A)	)					MO	Diode module	
V	₩ <b>X</b>				SMI	SMS	PMO1		Н	Fuse	
									FM01	Fan motor	
	MQ				_ [ ]				IPM	Intelligent power module	
,	+0				E	E				Reactor	
					HM A BO TB	MM A MH	GH 18 HW GH 18 HB HB HB HB HB HB HB HB HB HB HB HB HB	V /GN Vellow /Green	LED1	Indication lamp (GREEN)	
, .	78 08		HW HW	18 HM	6 4 3 2 1	6 4 3 2 1 7	6541		LED2	Indication lamp (RED)	
L	Z Z		CNW	CNNV2 (OR)	CNEEV1	CNEEV2 80)	CNFAN1 CNFAN2		LPT	Low pressure sensor	
	INVERTER PCB2	CNI2 CNI2							SM1	Expansion valve for cooling	
	N d l	CNIA	# B ONS	3	CONTROL PCB1				SM2	Expansion valve for heating	
	88	CNACTI		52X1 52X3	***		No.		SW1	Pump down switch	
				-	L.,	LED2 1 2 3 4 1	5		SW3,5	Local setting switch	
	78 3 HM 3	18 3H 7///	8	92X2		SMS	ONO		TB	Terminal block	
;	SW SW		B GWC						Tho-A	Thermistor (Outdoor air temp.)	
8	3~ A/F MODULE		GNA1 CNA7 (WH)	CNS CNS (RD)	CNH CNTH (MH)	dino	CNPS CNB (HD)		Tho-D	Thermistor (Discharge pipe temp.)	
·-  ı	CM		HM	78 18 88 89	HD NB NB NB NB NB NB NB NB	BK BK	NH NH NH		Tho-P	Thermistor (IPM)	
				=[					Tho-R1,2	Thermistor (Heat exchanger pipe temp.)	
	_		Ŧ	# F	<i> </i>	<i> </i>	<i>†</i>		Tho-S	Thermistor (Suction pipe temp.)	
			Judgan				LPT Though		20S	Solenoid valve for 4-way valve	
				7			7101		52X1	Auxilliary relay (for CH)	
									52X2	Auxilliary relay (for DH)	
									52X3	Auxilliary relay (for 20S)	
Powerc	Power cable, indoor-outdoor connecting wires	ecting wires				Local sett	Local setting switch SW3 (Set up at shipment OFF)	int OFF)	63H1	High pressure switch	
Model	MAX over current (A)	Power cable size (mm²)	Power cable length (m)	Indoor-outdoor wire size x number	Earth wire size (mm)	SW3-1	Defrost control change	The defrost operation interval becomes shorter by turning ON this switch. This switch should be turned ON in the area where outside temperature become below the frontier of the football of the frontier of the football of t	comes shorter vitch should be de temperature		
FDC100	24		25					When this switch is turned ON, the	e outdoor unit		
FDC125		5.5	Č	φ 1.6mm x 3	φ1.6	SW3-2	Snow dilard fan control	fan will run for 30 seconds in every 10 minutes, when outdoor temperature falls to 3°C or lower and	ry 10 minutes, 3°C or lower and		
FDC140	89		53					the compressor is not running when the unit is used in a very snowy country, set this switch to ON.	then the unit is user witch to ON.	p	
The spe	<ul> <li>The specifications shown in the above table are for units without heaters. For units with heaters, refer to the inetallation instructions or the construction instructions of the indoor unit</li> </ul>	ove table are for units w	thout heaters. For units w	vith heaters, refer				Method of trial operation	0,000		
Switchg	<ul> <li>Switchgear of circuit breaker capacity which is calculated from MAX, over current should be chosen</li> </ul>	city which is calculated t	rom MAX. over current sh	nould be chosen				© Compressor will be in the operation when SW3-3, 4.	ation when SW3-3 is	,4. is ON.	
along th	along the regulations in each country.	itry.	in back citacle as laten a			SW3-3,4	Trial operation	Cooling trial operation will be pe	erformed when SW	V3-4 is OFF,	
more th	ine caps specifications are based on the assumption that a fried of plastic contidutes used writing more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling	in a conduit and a voltag	te drop is 2%. For an insta	allation falling				and nearing that operation when sw3-4 is On.  (Description of SW3-3 after the trial operation of the swarp of the swarp operation)	r the trial operation		
outside in effect	outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation in effect in each country.	tollow the internal cabil	ng regulations. Adapt it to	o the regulation				Is finished.			



#### Models FDC100VSX, 125VSX, 140VSX

Meaning of marks	
Item	Description
CH	Crankcase heater
CM	Compressor motor
CnA-Z	Connector
CT	Current sensor
HO	Drain pan heater
MO	Diode module
Ь	Fuse
FMo1,2	Fan motor
IPM	Intelligent power module
7	Reactor
LED1	Indication lamp (GREEN)
LED2	Indication lamp (RED)
LPT	Low pressure sensor
SM1	Expansion valve for cooling
SM2	Expansion valve for heating
SW1	Pump down switch
SW3,5	Local setting switch
TB	Terminal block
Tho-A	Thermistor (Outdoor air temp.)
Tho-D	Thermistor (Discharger pipe temp.)
Tho-R1,2	Thermistor (Heat exchanger pipe temp.)
Tho-S	Thermistor (Suction pipe temp.)
Tho-P	Thermistor (IPM)
208	Solenoid valve for 4-way valve
52C	Relay
52X1	Auxilliary relay (for CH)
52X2	Auxilliary relay (for DH)
52X3	Auxilliary relay (for 20S)
52X6	Auxilliary relay (for 52C)
63H1	High pressure switch

Obormark Mark BK BK OR NA WAH V Y CGN PR GR GR GR	ırks	Color	Black	Blue	Brown	Orange	Red	White	Yellow	Yellow/Green	Gray	Pink
	Color marks	Mark	BK	BL	BR	NB B	BB BB	WH	>-	Y/GN	GR	Д

		MH WH WH WH WH WH WH WH WH WH WH WH WH WH		
	INVERTER PCB2	□ > □ S		
			HM 1997 1997 1997 1997 1997 1997 1997 199	
	11	200 100 100 100 100 100 100 100 100 100	CW	N
Power source 3 Phase AC380-415V 50Hz	S S S S S S S S S S S S S S S S S S S	SK <b>▼</b>	TO NO COR LIMIT  POWER CABLE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE T	

SW3-1	Defrost control change	The defrost operation interval becomes shorter by turning ON his switch. This switch should be turned ON in the area where outside temperature becomes below the freezing point.
SW3-2	Snow guard fan control	When this switch is turned ON, the outdoor unit far will run for 30 seconds in every 10 minutes, when outdoor temperature falls to 3°C or lower and the compressor is not furniming when the unit is used in a very strowy country, set this switch to ON.
SW3-3,4	Trial operation	Method of trial operation can be performed by using SW3-34.  © Trial operation can be performed by using SW3-34.  © Compressor will be in the operation when SW3-3 is ON.  © Cooling trial operation will be performed when SW3-4 is OFF, and heating this doperation will SW3-4 is OFF.  The state of the SW3-3 affect the trial operation is finished.

Local setting switch SW3 (Set up at shipment OFF)

Earth wire size (mm)

φ1.6

Power cable, indoor-outdoor connecting wires

Switchgear of circuit breaker capacity which is calculated from MAX. over current should be chosen
along the regulations in each country.
 The cable specifications are based on the assumption that a metal or plastic conduit is used with no
more than there cables contained in a conduit and a voltage drop is 2%. For an installation failing
outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation
in effect in each country.

PCA001Z571<u>A</u>

#### 1.4 NOISE LEVEL

Notes(1) The data are based on the following conditions

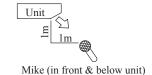
- Ambient air temperature: Indoor unit 27°CWB. Outdoor unit 35°CDB.
- (2) The data in the chart are measured in an anechoic room.
- (3) The noise levels measured in the field are usually higher than the data because of reflection.

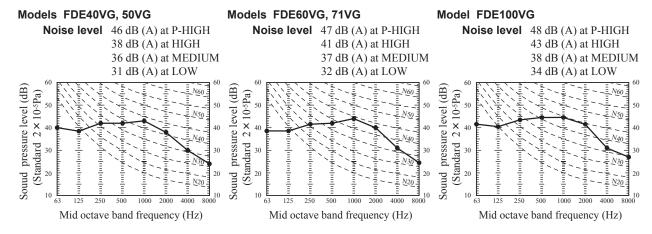
#### (1) Indoor units

Model FDE125VG

(a) Ceiling suspended type (FDE)

Measured based on JIS B 8616 Mike position as right





#### Noise level 48 dB (A) at P-HIGH Noise level 49 dB (A) at P-HIGH 45 dB (A) at HIGH 45 dB (A) at HIGH 40 dB (A) at MEDIUM 35 dB (A) at LOW $2 \times 10^{5} \text{Pa}$

Sound pressure level (dB) (Standard  $2 \times 10^{-5}$ Pa) 4000 Mid octave band frequency (Hz)

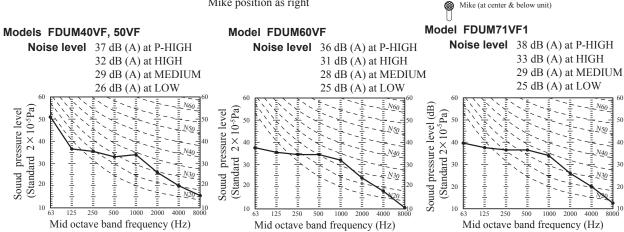
# 40 dB (A) at MEDIUM 36 dB (A) at LOW pressure level (dB) (Standard Sound Mid octave band frequency (Hz)

#### (b) Duct connected-Low/Middle static pressure type (FDUM)

Measured based on JIS B 8616 Mike position as right

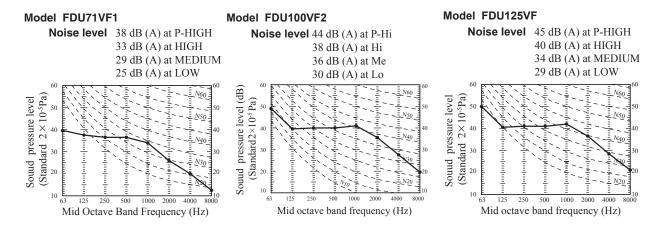
Model FDE140VG

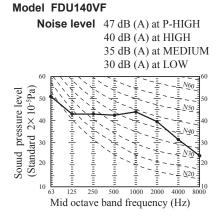




#### Model FDUM100VF2 Model FDUM125VF Model FDUM140VF Noise level 47 dB (A) at P-HIGH Noise level 44 dB (A) at P-Hi Noise level 45 dB (A) at P-HIGH 38 dB (A) at Hi 40 dB (A) at HIGH 40 dB (A) at HIGH 36 dB (A) at Me 34 dB (A) at MEDIUM 35 dB (A) at MEDIUM 30 dB (A) at Lo 29 dB (A) at LOW 30 dB (A) at LOW Sound pressure level (dB) pressure level (dB) Sound pressure level (dB) (Standard $2 \times 10^{-5}$ Pa) (Standard 2×10<sup>-5</sup> Pa) (Standard $2 \times 10^{-5} Pa$ ) Sound -10 8000 Mid octave band frequency (Hz) Mid octave band frequency (Hz) Mid octave band frequency (Hz)

# (c) Duct connected-High static pressure type (FDU) Measured based on JIS B 8616 Mike position as right 1 m 2 m Air J Unit Return duct Supply duct 1.5 m Mike (at center & below unit)





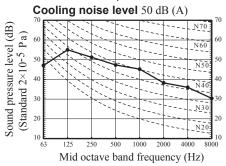
#### (2) Outdoor units

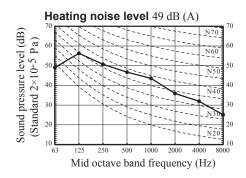
Measured based or JIS B 8616 or JIS C 9612

Mike position: at highest noise level in position as mentined below.

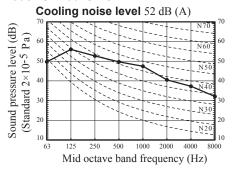
Distance from front side 1m

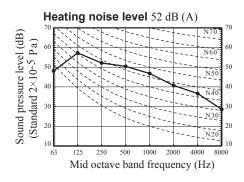
#### Models SRC40ZSX-S, 50ZSX-S



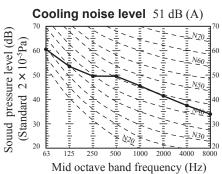


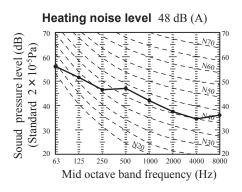
#### Model SRC60ZSX-S



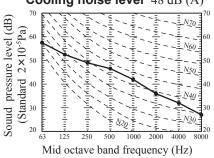


#### Model FDC71VNX





#### Models FDC100VNX,100VSX Cooling noise level 48 dB (A)



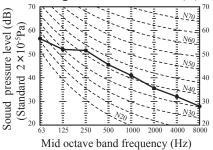
# Heating noise level 50 dB (A) Sound pressure level (dB) (Standard 2×10-5Pa)

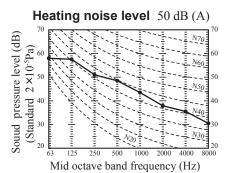
Mid octave band frequency (Hz)

1000 2000

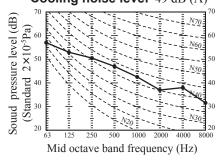
250 500

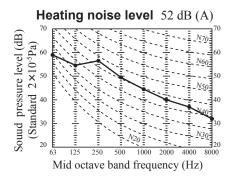
#### Models FDC125VNX,125VSX Cooling noise level 48 dB (A)





#### Models FDC140VNX,140VSX Cooling noise level 49 dB (A)





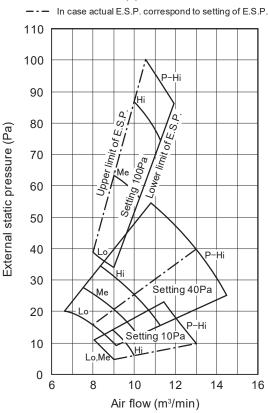
#### 1.5 CHARACTERISTICS OF FAN

#### (1) Duct connected-Low / Middle static pressure type (FDUM)

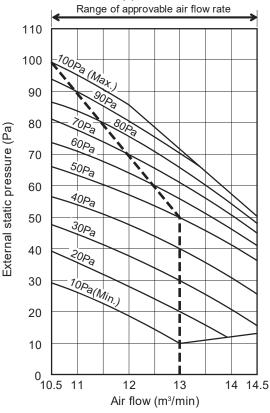
- Characteristic FAN (1) shows air flow vs. External Static Pressure (E.S.P.) range where settings of E.S.P. are maximum E.S.P. (100Pa), rated E.S.P., and minimum E.S.P. (10Pa)
- · Characteristic FAN (2) shows air flow vs E.S.P. curve when set fan tap is set P-Hi with each setting of E.S.P by remote control.
- External Static Pressure (E.S.P.) can be set by wired remote control.
- · You can set required E.S.P. by wired remote control which calculate it with the set air flow rate and pressure loss of the duct connected.

### Models FDUM40VF, 50VF

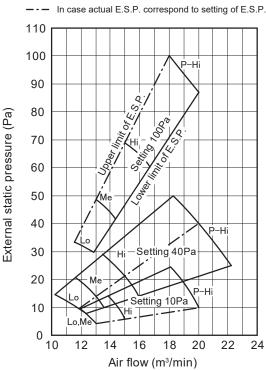
#### Characteristic FAN(1)

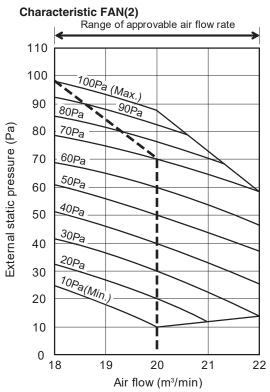


#### Characteristic FAN(2)

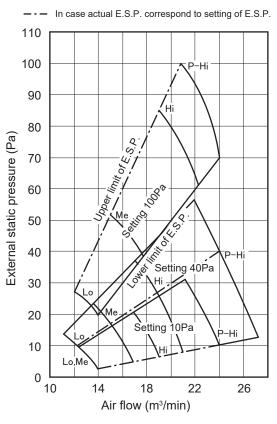


#### Model FDUM60VF

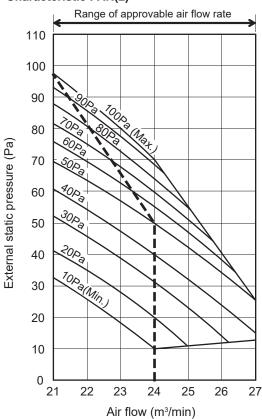




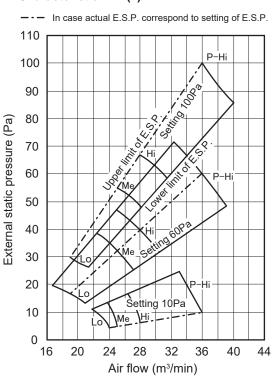
# Model FDUM71VF1 Characteristic FAN(1)

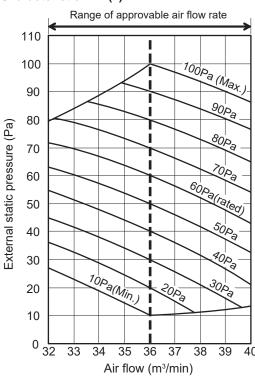


#### Characteristic FAN(2)

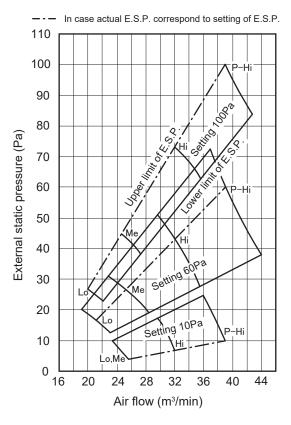


#### Model FDUM100VF2 Characteristic FAN(1)

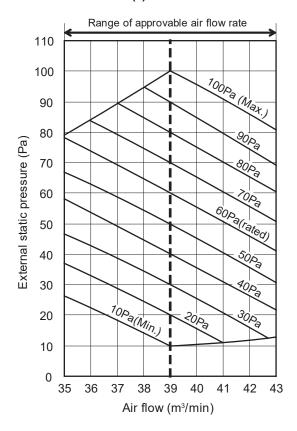




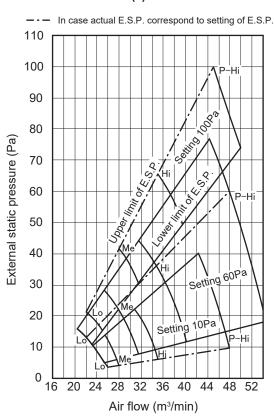
#### Model FDUM125VF Characteristic FAN(1)

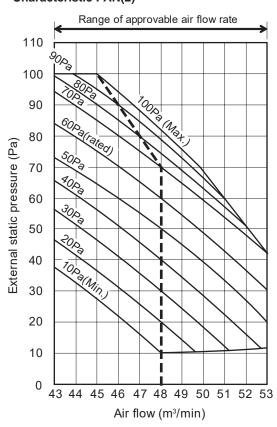


#### Characteristic FAN(2)



#### Model FDUM140VF Characteristic FAN(1)



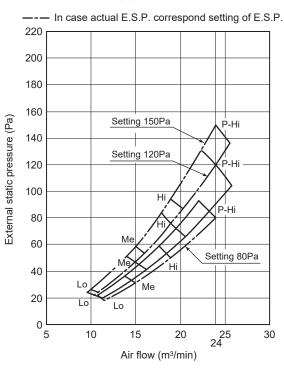


#### (2) Duct connected-High static pressure type (FDU)

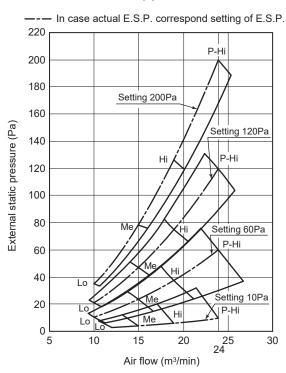
- Characteristic FAN (1) shows air flow vs. External Static Pressure (E.S.P.) range where settings of E.S.P. are maximum E.S.P. (SW8-4 OFF : 150Pa, SW8-4 ON : 200Pa), rated E.S.P., and minimum E.S.P. (SW8-4 OFF : 80Pa, SW8-4 ON : 10Pa)
- · Characteristic FAN (2) shows air flow vs E.S.P. curve when set fan tap is set P-Hi with each setting of E.S.P. by remote control.
- External Static Pressure (E.S.P.) can be set by wired remote control.
- · You can set required E.S.P. by wired remote control which calculate it with the set air flow rate and pressure loss of the duct connected.

#### **Model FDU71VF1**

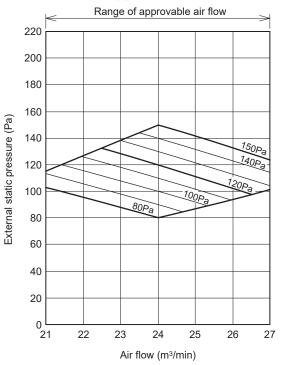
■ SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa) Characteristic FAN (1)

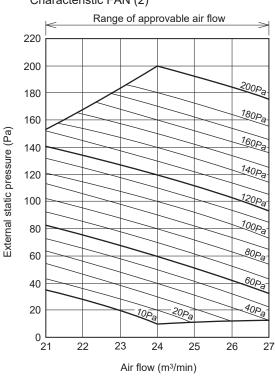


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)
Characteristic FAN (1)



#### Characteristic FAN (2)

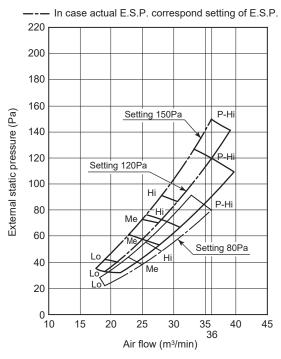




#### Model FDU100VF2

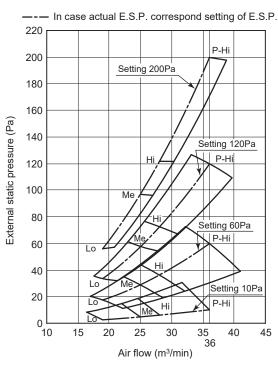
■SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa)

#### Characteristic FAN (1)

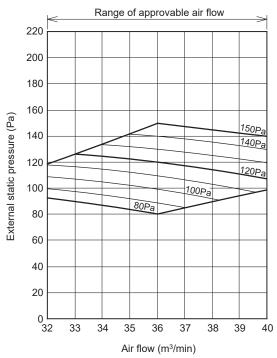


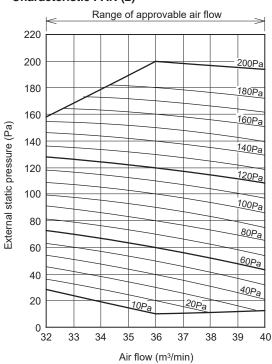
■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

#### Characteristic FAN (1)



#### Characteristic FAN (2)

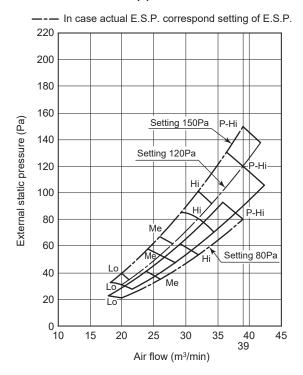




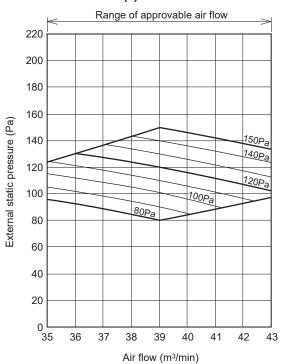
#### Model FDU125VF

■SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa)

#### Characteristic FAN (1)

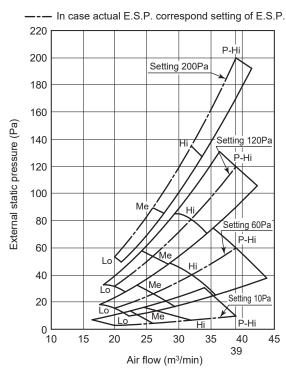


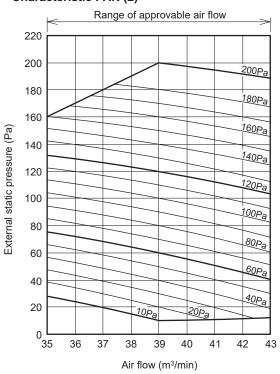
#### Characteristic FAN (2)



#### ■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

#### Characteristic FAN (1)

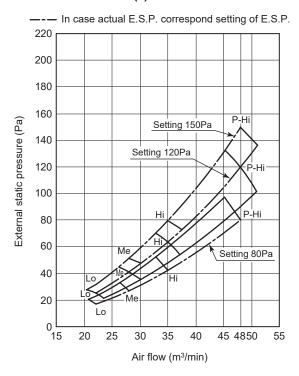




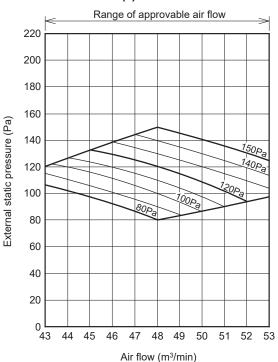
#### **Model FDU140VF**

■SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa)

#### Characteristic FAN (1)

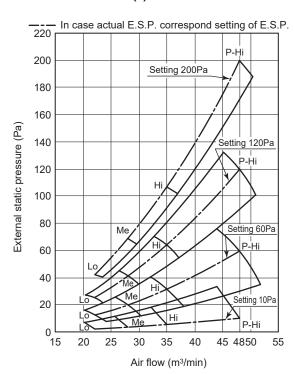


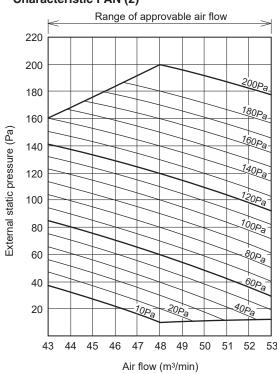
#### Characteristic FAN (2)



#### ■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

#### Characteristic FAN (1)





#### 1.6 TEMPERATURE AND VELOCITY DISTRIBUTION

Indoor temperature

Cooling 27°CDB / 19°CWB

Heating 20°CDB

Note: These figures represent the typical main range of temperature and velocity distribution at the center of air outlet within the published conditions.

In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.

#### Ceiling suspended type (FDE)

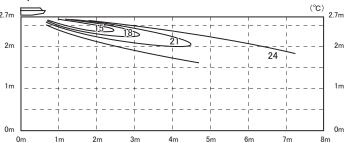
Models FDE40, 50VG

#### Cooling Air flow: P-Hi

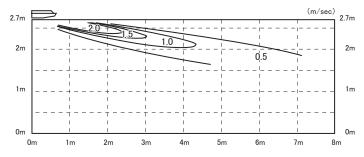
Louver position



#### Temperature distribution

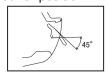


#### Velocity distribution

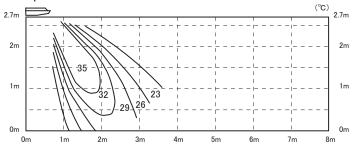


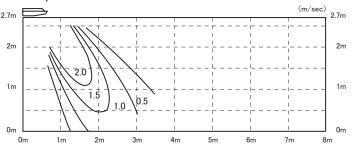
#### Heating Air flow: P-Hi

Louver position



#### Temperature distribution





**- 83 -**

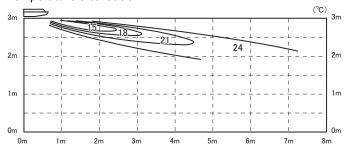
#### Models FDE60, 71VG

#### Cooling Air flow: P-Hi

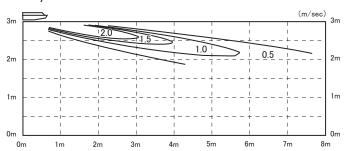
Louver position



#### Temperature distribution

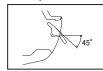


#### Velocity distribution

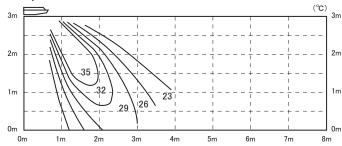


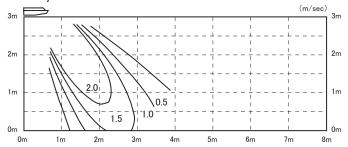
#### Heating Air flow: P-Hi

#### Louver position



#### Temperature distribution



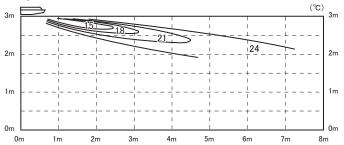


#### Models FDE100, 125VG Cooling Air flow: P-Hi

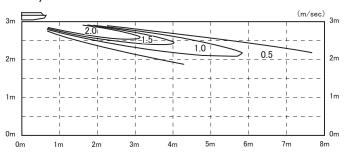
Louver position



#### Temperature distribution

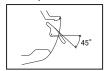


#### Velocity distribution

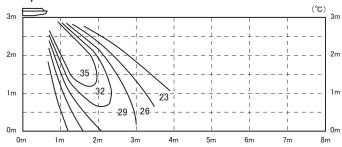


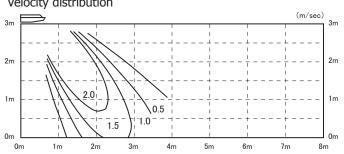
#### Heating Air flow: P-Hi

Louver position



#### Temperature distribution





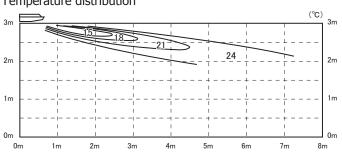
#### **Model FDE140VG**

#### Cooling Air flow: P-Hi

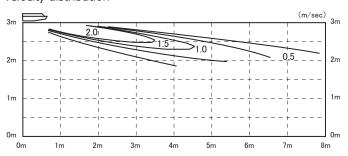
Louver position



Temperature distribution



#### Velocity distribution

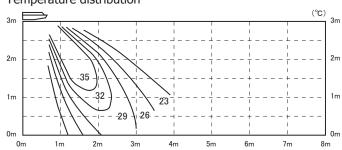


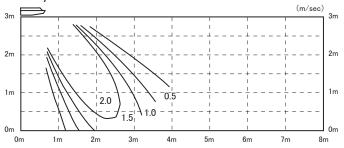
#### Heating Air flow: P-Hi

Louver position



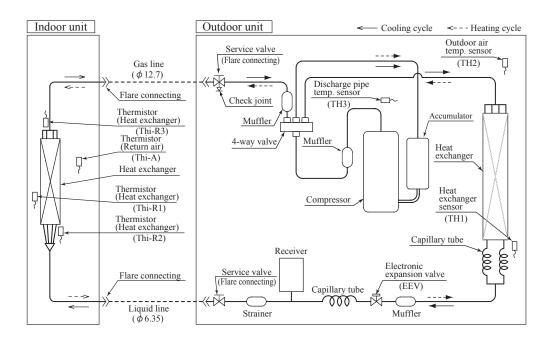
#### Temperature distribution



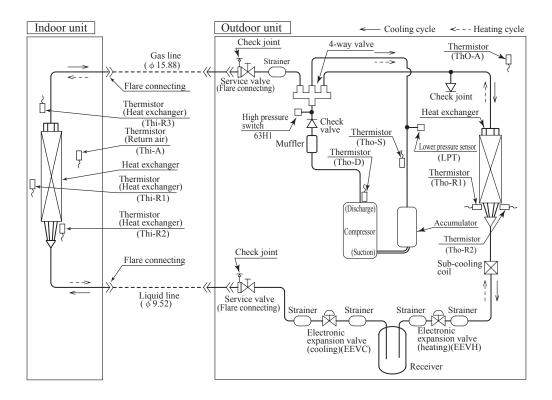


#### 1.7 PIPING SYSTEM

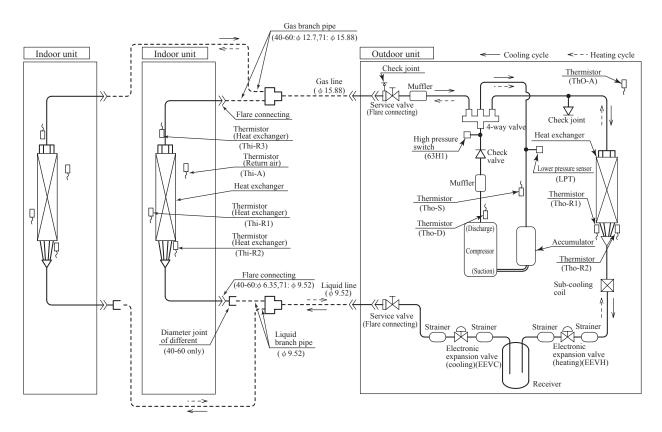
(1) Single type Models 40, 50, 60



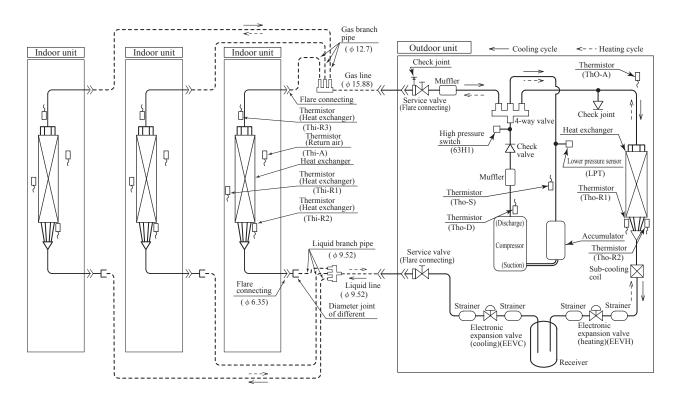
Models 71, 100, 125, 140



#### (2) Twin type Models 71, 100, 125, 140



# (3) Triple type Model 140



# Preset point of the protective devices

Parts name	Mark	Equipped unit	40, 50, 60 model	71, 100, 125, 140 model			
Thermistor (for protection overloading in heating)	Thi-R	Indoor unit		OFF 63℃ ON 56℃			
Thermistor (for frost prevention)	Thi-R			OFF 1.0℃ ON 10℃			
Thermistor (for protection high pressure in cooling.)	Tho-R (TH1)	Outdoor unit	OFF 63℃ ON 53℃	OFF 65℃ ON 51℃			
Thermistor (for detecting discharge pipe temp.)	Tho-D (TH3)	Outdoor unit	OFF 115℃ ON 95℃	OFF 115℃ ON 85℃			
High pressure switch (for protection)	63H1	Outdoor unit	_	OFF 4.15MPa ON 3.15MPa			
Low pressure sensor (for protection)	LPT	Outdoor unit	_	OFF 0.079MPa ON 0.227MPa			

Note(1) Values in ( ) shown in the case of SRC40, 50, 60 model.

#### 1.8 RANGE OF USAGE & LIMITATIONS

0		See the next page.
Operating temperature rang	ge	When used below -5°C, install a snow hood. <fdc71-140 only=""></fdc71-140>
Recommendable area to in	stall	Considering to get sufficient heating capacity, the area where the averaged lowest ambient air temperature in day time during winter is above 0°C, and it has no accumulation of snow.
Installation site		The limitations of installation space are shown in the page for outline drawing.  Install the indoor unit at least 2.5m higher than the floor surface.
Temperature and humidity of indoor unit in the ceiling (No	•	Dew point temperature: 28°C (FDE: 23°C) or less, relative hummdity: 80% or less
Limitations on unit and pipir	ng installation	See page 92 and 93.
Compressor	Cycle time	7 minutes or more (from OFF to OFF) or (from ON to ON)
ON-OFF cycling	Stop time	3 minutes or more
	Voltage range	Rating ±10%
Power source	Voltage drop at start-up	Min.85% of rating
	Phase-to-phase umbalance	3% or less

Note 1. Do not install the unit in places which:

- 1) Flammable gas may leak.
- 2) Carbon fiber, metal particles, powder, etc. are floating.
- 3) Cosmetic or special sprays are used frequently.
- 4) Exposed to oil splashes or steam (e.g. kitchen and machine plant).
- 5) Exposed to sea breeze (e.g. coastal area) or calcium chloride (e.g. snow melting agent).
- 6) Exposed to ammonia substance (e.g. organic fertilizer).
- 7) Matters affecting devices, such as sulfuric gas, chlorine gas, acid, alkali, etc. may generate or accumulate.
- 8) Chimney smoke is hanging.
- 9) Sucking the exhaust gas from heat exchanger.
- 10) Adjacent to equipment generating electromagnetic waves or high frequency waves.
- 11) There is light beams that affect the receiving device of indoor unit in case of the wireless specification.
- 12) Snow falls heavily.
- 13) At an elevation of 1000 meters or higher.
- 14) On mobile machine (e.g. vehicle, ship, etc.)
- 15) Splashed with water to indoor unit (e.g. laundry room).
- 16) Indoor units of twin and triple specifications separately in a room with partition.
- Note 2. If ambient temperature and humidity exceed the above values, add polyurethane foam insulation on the outer plate (10mm or thicker) of indoor unit.

Both gas and liquid pipes need to be cover with 20mm or thicker heat insulation materials at the place where humidity exceeds 70%.

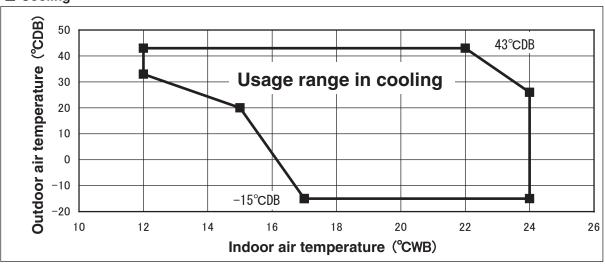
Note 3. When used below -5°C, install a snow hood on site.

Regarding outline of a snow hood, refer to our technical maunal.

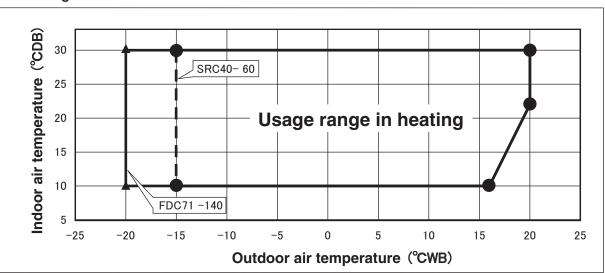
PFA004Z051
PJG000Z014
PJG000Z055

#### **Operating temperature range**

#### ■ Cooling



#### ■ Heating



Decline in cooling and heating capacity or operation stop may occur when the outdoor unit is installed in places where natural wind can increase or decrease its design air flow rate.

#### "CAUTION" Cooling operation under low outdoor air temperature conditions

PAC models can be operated in cooling mode at low outdoor air temperature condition within above temperature range. However in case of severely low temperature conditions if the following precaution is not observed, it may not be operated in spite of operable temperature range mentioned above and cooling capacity may not be established under certain conditions.

#### [Precaution]

In case of severely low temperature condition

- 1) Install the outdoor unit at the place where strong wind cannot blow directly into the outdoor unit.
- 2) If there is no installation place where can prevent strong wind from directly blowing into the outdoor unit, mount the flex flow adapter (prepared as option part) or like such devices onto the outdoor unit in order to divert the strong wind.

#### [Reason]

Under the low outdoor air temperature conditions of  $-5^{\circ}$ C or lower, the outdoor fan is controlled at lower or lowest speed by outdoor fan control, but if strong wind directly blow into the outdoor unit, the outdoor heat exchanger temperature will drop more.

This makes high and low pressures to drop as well. This low pressure drop makes the indoor heat exchanger temperature to drop and will activate anti-frost control at indoor heat exchanger at frequent intervals, that cooling operation may not be established for any given time.

Limitation on unit and piping installation - single, twin.	twin.				
Docoviptions	The second second	::0	Oimoisosionosi limitations	Marks appearing in the drawing	in the drawing
Descriptions	Models for outdoor unit	aoor unit	Umensional limitations	Single type	Twin type
	SRC40 · 50 · 60	0 · 60	≥ 30m		
One-way pipe length	FDC71		≥ 50m		
	FDC100 · 125 · 140	5 · 140	≥ 100m	N.	L+L1+L2
MAIN CONTRACTOR OF THE CONTRAC	FDC71		≥ 50m		-
Mair pipe lengin	FDC100 · 125 · 140	5 · 140	≥ 100m		_
One of the state of the first because a sind	FDC71		≥ 20m		- -
One-way pipe ierigin and inst branci ing point	FDC100 · 125 · 140	5 · 140	≥ 30m		LI, LZ
Difference of pipe length after first branching point			≥ 10m		L1 - L2 L2 - L1
Total pipe length after the second branching point			≥ 15m		
		SRC40 · 50 · 60	≥ 20m		
	When outdoor unit is positioned higher	FDC71	, , , , , , , , , , , , , , , , , , ,	Ι	I
timi acception been accepting acceptant acceptant to the second of	-	FDC100 · 125 · 140	IIIOO ∕II		
		SRC40 · 50 · 60	≥ 20m		
	When outdoor unit is positioned lower	FDC71	, ,	I	I
		FDC100 · 125 · 140	NI NI		
Elevation difference among indoor units			≥ 0.5m		r.
orizontally at point as to table below from the best below from the best between the reduced grant as the reduced grant grant as the reduced grant gra	Twin type Indoor unit  buttoor unit as possible.  The factory charge when refrigerant piping is	Infoor unit has been also	Branch set (o		

Limitation on unit and piping installation - triple.				
Consists			Marks appearing in the drawing	in the drawing
Descriptions	Models for outdoor unit	Dimensional limitations	Triple type A	Triple type B
One-way pipe length	FDC140	≥ 100m	L + L1 + L2 + L3	L+La+L1+L2+L3 %1
Main pipe length	FDC140	≥ 100m	٦	7
One-way pipe length first branching point to indoor units between	FDC140	≥ 30m	L1, 0.L2, 0.L3	
One-way pipe length between first branching point from and second branching point	FDC140	≥ 5m		La
One-way pipe length first branching point and indoor units	FDC140	≥ 27m		La + L2, □La + L3
District process difference of the process of the p	de herenoh	< 3m	L1 - L2,	( not possible )
riping tengan amerence among piping to macor ams. Form inst pranci	on instruction	3m ≤ ≤ 10m	( not possible )	L1 - (La + L2),
One-way pipe length difference from second branching point to indoor units	point to indoor units	≥ 10m		12 - 13
Electricity of the second of t	When the outdoor unit is positioned higher	≥ 30m	_	
Elevation difference between indoor and outdoor	When the outdoor unit is positioned lower	≥ 15m	<b>-</b>	Е.
Elevation difference among indoor units		≥ 0.5m	h1,□h2,□h3	h1,□h2,□h3
Triple type A  Hardon unit as possible.  (1) A riser pipe must be part of the main.  A branching pipe set should be installed horizontally at point as close to an indoor unit as possible.  (2) Reduce refrigerant amount by 1.0kg from the factory charge when refrigerant piping is shorter than 3m.	Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple	indoor unit First branc L (riser)	hindorunit h2 h3 h3 h3 h3 h3 h3 h3 h3 h3 h3 h3 h3 h3	**1 Install the indoor units so that L + L1 becomes the longest one-way pipe. Keep the pipe length difference between L1 and (La + L2) or (La + L3) within 10m.

#### 1.9 SELECTION CHART

Correct the cooling and heating capacity in accordance with the operating conditions. The net cooling and heating capacity can be obtained in the following way.

Net capacity = Capacity shown in the capacity tables (1.9.1) × Correction factors shown in the table (1.9.2) (1.9.3) (1.9.4).

Caution: In case that the cooling operation during low outdoor air temperature below -5°C is expected, install the outdoor unit where it is not influenced by natural wind. Otherwise protection control by low pressure will be activated much more frequently and it will cause insufficient capacity or breakdown of the compressor in worst case.

#### 1.9.1 Capacity tables

(1) Ceiling suspended type (FDE)

(a) Single type

Model FDE40ZSXVG Indoor unit FDE40VG Outdoor unit SRC40ZSX-S

Cooling		. <b>4023</b> 8	AVG	IIIC	iooi ui	III. I L	)L40 V	G	Outdo	or urin	. 510	04020	-N-O			(kW)	Н	leatin	ıg mo	de : H	łС
0.11							Indo	or air t	emper	ature							١Г	Outo	door	ln	ndo
Outdoor air temp.	18°0	DB	21°0	DB	23°0	DB	26°0	DB	27°C	DB	28°0	DB	31°0	DB	33°0	DB	Ш	air te	∍mp.		
all tellip.	12°C	WB	14°C	WB	16℃	WB	18°C	WB	19°C	WB	20°C	WB	22°C	WB	24°C	:WB	9	CDB	°CWB	16	1
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-	19.8	-20		$\Box$
11					3.38	3.03	3.56	3.28	3.65	3.25	3.75	3.23	3.95	3.42	4.15	3.36	-	17.7	-18		
13					3.46	3.06	3.65	3.32	3.75	3.29	3.85	3.26	4.05	3.45	4.26	3.39	-	15.7	-16		
15					3.54	3.09	3.74	3.35	3.84	3.32	3.95	3.30	4.15	3.49	4.36	3.42	-	13.5	-14	2.67	2.
17					3.62	3.12	3.83	3.38	3.94	3.36	4.04	3.33	4.26	3.52	4.47	3.45	-	11.5	-12	2.83	2.
19					3.69	3.15	3.91	3.41	4.02	3.39	4.15	3.37	4.41	3.57	4.67	3.51	11.	-9.5	-10	3.00	2.
21					3.81	3.20	3.99	3.44	4.10	3.42	4.26	3.40	4.56	3.62	4.87	3.57	11.	-7.5	-8	3.17	3.
23					3.85	3.22	4.04	3.46	4.15	3.43	4.30	3.42	4.59	3.63	4.88	3.57	1.	-5.5	-6	3.23	3.
25			3.73	3.35	3.89	3.23	4.08	3.48	4.20	3.45	4.34	3.43	4.61	3.63	4.89	3.58	1.	-3.0	-4	3.29	3.
27			3.76	3.36	3.93	3.25	4.13	3.50	4.25	3.47	4.36	3.44	4.60	3.63			1.	-1.0	-2	3.36	3.
29			3.70	3.34	3.86	3.22	4.06	3.47	4.18	3.45	4.30	3.42	4.54	3.61				1.0	0	3.42	3.
31			3.64	3.31	3.80	3.20	4.00	3.45	4.12	3.42	4.24	3.40	4.48	3.59				2.0	1	3.45	3.
33	3.23	2.99	3.44	3.22	3.74	3.17	3.94	3.42	4.06	3.40	4.18	3.38	4.42	3.57				3.0	2	3.67	3.
35	3.28	3.01	3.44	3.22	3.68	3.15	3.88	3.40	4.00	3.38	4.12	3.36	4.36	3.55				5.0	4	4.11	4.
37	3.23	2.99	3.38	3.20	3.62	3.12	3.82	3.38	3.94	3.36	4.06	3.33	4.30	3.53			П	7.0	6	4.55	4.
39	3.17	2.96	3.32	3.17	3.56	3.10	3.76	3.36	3.88	3.34	4.00	3.31	4.23	3.51			П	9.0	8	4.78	4.
41	3.12	2.94	3.27	3.15	3.50	3.07	3.70	3.33	3.82	3.31	3.93	3.29	4.17	3.49			1	11.5	10	5.01	4.
43	3.06	2 91	3 21	3 12	3 44	3.05	3 64	3.31	3.76	3 29	3.87	3 27	4 10	3 47			1	13.5	12	5.30	5

)	Heatii	ng mo	de : H	IC			(kW
1	Out	door	ln	door a	ir tem	peratu	re
1	air t	emp.			°CDB		
1	°CDB	°CWB	16	18	20	22	24
1	-19.8	-20					
1	-17.7	-18					
1	-15.7	-16					
1	-13.5	-14	2.67	2.63	2.59	2.55	2.50
1	-11.5	-12	2.83	2.79	2.75	2.71	2.67
1	-9.5	-10	3.00	2.96	2.92	2.88	2.84
1	-7.5	-8	3.17	3.13	3.09	3.05	3.01
1	-5.5	-6	3.23	3.20	3.16	3.12	3.09
1	-3.0	-4	3.29	3.26	3.23	3.20	3.17
1	-1.0	-2	3.36	3.33	3.30	3.28	3.25
1	1.0	0	3.42	3.40	3.38	3.35	3.33
1	2.0	1	3.45	3.43	3.41	3.39	3.37
1	3.0	2	3.67	3.65	3.63	3.61	3.59
1	5.0	4	4.11	4.09	4.07	4.04	4.01
1	7.0	6	4.55	4.53	4.50	4.47	4.44
1	9.0	8	4.78	4.75	4.72	4.69	4.66
1	11.5	10	5.01	4.98	4.95	4.91	4.88
1	13.5	12	5.30	5.26	5.21	5.14	5.10
_	15.5	14	5.58	5.53	5.48	5.37	5.32
	16.5	16	5.73	5.67	5.61	5.48	5.44

Heating mode: HC

16 18

3.20

3.40

3.60

3.80

3.88

3.95

4.03

4.10

4.14

4.41

4.94

5.46

5.74

6.02

6.36 6.31 6.25

6.70 6.64 6.57

6.87

-4

4

6

10

16

3.15 3.11

3.35 3.31

3.55 3.51

3.75 3.71

3.83 3.79

3.92 3.88 3.84

4.00 3.97

4.08 4.05 4.03

4.12 4.10 4.07

4.38 4.36

4.91 4.88

5.43 5.40

5.70 5.67

5.98 5.94

6.80

6.73

Outdoor air temp. °CDB °CWB

-19.8 -20

-17.7 -18

-15.7 -16

-13.5 -14

-11.5 -12

-9.5 -10

-7.5 -8

-5.5 -6

-3.0

-1.0 -2

1.0 0

2.0 3.0

5.0

7.0

9.0 8

11.5

13.5 12

15.5 14

16.5

(kW)

PFA004Z047

3.05 3.00

3.26 3.20

3.46 3.41

3.66 3.61 3.71

3.75

3.93 3.90

4.33 4.30

4.85 4.82

5.37 5.33 5.59

5.63

5.89 5.85

6.17 6.12

6.44 6.39

3.80

4.00

4.05

6.52

Indoor air temperature

20 22 24

(kW)

Model FDE50ZSXVG Indoor unit FDE50VG Outdoor unit SRC50ZSX-S

Cooling mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°C	DB	21°C	DB	23°C	DB	26°0	DB	27°C	DB	28°C	DB	31°0	DB	33°C	DB
all tollip.	12℃	:WB	14°C	:WB	16°C	WB	18°C	WB	19℃	WB	20°C	:WB	22°C	WB	24°C	:WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.22	3.37	4.45	3.62	4.56	3.59	4.69	3.56	4.94	3.74	5.19	3.66
13					4.32	3.42	4.56	3.66	4.68	3.63	4.81	3.60	5.07	3.78	5.32	3.70
15					4.42	3.46	4.68	3.71	4.80	3.68	4.93	3.65	5.19	3.82	5.45	3.74
17					4.53	3.51	4.79	3.76	4.92	3.72	5.06	3.69	5.32	3.87	5.58	3.78
19					4.62	3.55	4.89	3.80	5.02	3.76	5.19	3.74	5.51	3.93	5.84	3.86
21					4.76	3.61	4.99	3.84	5.13	3.81	5.32	3.79	5.70	4.00	6.09	3.94
23					4.81	3.63	5.04	3.86	5.19	3.83	5.37	3.81	5.73	4.01	6.10	3.95
25			4.66	3.78	4.86	3.65	5.10	3.88	5.25	3.85	5.42	3.83	5.76	4.02	6.11	3.95
27			4.70	3.80	4.91	3.67	5.16	3.91	5.31	3.88	5.46	3.84	5.75	4.02		
29			4.62	3.76	4.83	3.64	5.08	3.87	5.23	3.84	5.38	3.81	5.68	3.99		
31			4.54	3.73	4.75	3.60	5.00	3.84	5.15	3.81	5.30	3.78	5.60	3.96		
33	4.04	3.38	4.31	3.62	4.67	3.57	4.93	3.81	5.08	3.79	5.23	3.76	5.53	3.94		
35	4.11	3.42	4.30	3.61	4.59	3.53	4.85	3.78	5.00	3.75	5.15	3.73	5.45	3.91		
37	4.04	3.38	4.23	3.58	4.52	3.50	4.77	3.75	4.92	3.72	5.07	3.70	5.37	3.88		
39	3.97	3.35	4.16	3.55	4.45	3.47	4.70	3.72	4.85	3.70	4.99	3.67	5.29	3.86		
41	3.90	3.31	4.09	3.52	4.38	3.44	4.62	3.69	4.77	3.67	4.92	3.64	5.21	3.83		
43	3.83	3.28	4.01	3.48	4.30	3.41	4.55	3.66	4.69	3.64	4.84	3.61	5.13	3.80		

Notes(1)	These	data	show	average	statuses.
	Daman	dia.	an the	a arratama	a a m t m a 1

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length :7.5m Level difference of Zero.

(3) Symbols are as follows. TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

• )	These data show average statuses.
	Depending on the system control, there may be ranges where the operation is not conducted continuously.
	These data show the case where the operation frequency of a compressor is fixed.

6.58 PFA004Z047 Model FDE60ZSXVG Indoor unit FDE60VG Outdoor unit SRC60ZSX-S Cooling mode (kW) Heating mode: HC Indoor air temperature Outdoor Indoor air temperature Outdoo 18°CDB 21°CDB 28°CDB 31°CDB 33°CDB air temp 23°CDB 26°CDB 27°CDB °CDB air temp 12°CWB 14°CWB 16°CWB 18°CWB 19°CWB 20°CWB 22°CWB 24°CWB CDB °CWB 18 20 24 16 22 19.8 -20 °CDB TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC 11 4.73 4.47 4.98 4.87 5.11 4.83 5.25 4.79 5.53 5.10 5.81 5.01 17.7 -18 4.84 4.51 4.87 4.84 13 5.11 4.91 5.24 5.39 5.67 5.14 5.96 5.05 15.7 -16 15 4.95 4.55 5.24 4.96 5.38 4.92 5.52 4.88 5.82 5.19 6.11 5.09 -13.5 -14 3.97 3.91 3.85 3.79 3.73 17 5.07 4.60 5.37 5.01 5.51 4.97 5.66 4.93 5.96 5.23 6.25 5.13 -11.5 -12 4.22 4.16 4.10 4.04 3.98 19 5.17 4.64 5.48 5.05 5.63 5.01 5.81 4.98 6.17 5.30 6.54 5.21 -9.5 -10 4.47 4.41 4.35 4.29 4.23 21 5.33 6.82 4.48 4.71 5.59 5.09 5.74 5.05 5.96 5.03 6.39 5.36 5.30 -8 4.66 4.60 4.54 -7.5 4.72 23 5.39 4.73 5.65 5.11 5.81 5.08 6.01 5.05 6.42 5.37 6.83 5.30 -5.5 -6 4.81 4.76 4.70 4.65 4.60 25 5.22 4.93 5.44 4.75 5.71 5.14 5.88 5.10 6.07 5.07 6.45 5.38 6.84 5.30 -3.0 -4 4.90 4.86 4.81 4.77 4.72 27 5.27 4.95 5.50 4.78 5.78 5.16 5.94 5.12 6.11 5.08 6.44 5.38 -1.0 -2 5.00 4.96 4.92 4.88 4.84 29 5.18 4.91 5.41 4.74 5.69 5.13 5.86 5.09 6.02 5.05 6.36 5.36 5.06 5.03 4.96 0 5.09 4.99 1.0 31 5.09 4.87 5.32 4.70 5.60 5.09 5.77 5.06 5.94 5.02 6.27 5.33 2.0 5.14 5.11 5.08 5.05 5.02 33 4.53 4.39 4.82 4.72 5.23 4.67 5.52 5.06 5.69 5.03 5.85 4.99 6.19 5.30 3.0 2 5.47 5.44 5.41 5.37 5.34 5.60 5.27 35 4.60 4.42 4.81 4.71 5.15 4.63 5.43 5.03 5.00 5.77 4.97 6.10 5.0 4 6.12 6.09 6.05 6.01 5.98 37 4.52 4.39 4.73 4.64 5.06 4.60 5.35 5.00 5.51 4.97 5.68 4.94 6.01 5.25 6.78 6.74 6.66 6.61 7.0 6 6.70 39 4.44 4.35 4.65 4.56 4.98 4.57 5.26 4.97 5.43 4.94 5.59 4.91 5.92 5.22 9.0 8 7.12 7.08 7.03 6.98 6.94 7.26 41 4 37 4 28 4 58 4 49 4 90 4 54 5.18 4 94 5.34 4 91 5.51 4 88 5.83 5 19 11.5 10 7 47 7 4 1 7.36 7.31 43 4.29 4.20 4.50 4.41 4.82 4.50 5.10 4.91 5.26 4.88 5.42 4.85 5.74 5.16 13.5 7.89 7.82 7.76 7.65 7.59 12 7.93 15.5 8.31 8.23 8.15 7.99 16.5 16 8.53 8.44 8.35 8.16 8.09

PFA004Z047

Model	FDE71VNXVG	Indoor unit	FDE71VG	Outdoor unit	FDC71VNX
Cooling	mode				

Outdoor							Indo	or air t	emper	ature						
air temp.	18°0	DB	21°C	DB	23°C	DB	26°C	DB	27°C	DB	28°C	DB	31°C	DB	33°C	DB
uii tomp.	12°C	WB	14℃	WB	16℃	:WB	18°C	:WB	19℃	:WB	20°C	:WB	22°C	:WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.87	4.52	6.02	5.25	6.59	5.36	6.79	5.32	7.19	5.62	7.59	5.52
13					5.33	4.71	6.32	5.37	6.82	5.44	7.03	5.41	7.45	5.71	7.88	5.61
15					5.79	4.90	6.63	5.49	7.05	5.53	7.27	5.49	7.71	5.79	8.16	5.69
17					6.26	5.09	6.94	5.61	7.27	5.61	7.51	5.58	7.97	5.88	8.44	5.78
19					6.59	5.23	7.16	5.70	7.44	5.68	7.68	5.64	8.15	5.94	8.63	5.83
21					6.93	5.38	7.38	5.78	7.60	5.74	7.84	5.70	8.33	6.00	8.82	5.89
23					6.91	5.37	7.35	5.77	7.57	5.73	7.81	5.69	8.30	5.99	8.78	5.88
25			6.46	5.49	6.89	5.36	7.32	5.76	7.54	5.72	7.78	5.68	8.26	5.98	8.74	5.87
27			6.45	5.48	6.87	5.35	7.30	5.75	7.52	5.71	7.74	5.66	8.18	5.95		
29			6.34	5.43	6.75	5.30	7.19	5.71	7.41	5.67	7.64	5.63	8.09	5.92		
31			6.23	5.38	6.64	5.25	7.08	5.66	7.31	5.63	7.54	5.59	7.99	5.89		
33	5.77	4.98	6.05	5.30	6.53	5.21	6.97	5.62	7.20	5.59	7.44	5.55	7.90	5.85		
35	5.67	4.93	5.95	5.25	6.42	5.16	6.86	5.58	7.10	5.55	7.34	5.52	7.81	5.82		
37	5.58	4.89	5.85	5.21	6.31	5.11	6.72	5.52	6.95	5.49	7.18	5.46	7.64	5.77		
39	5.49	4.85	5.76	5.17	6.20	5.07	6.59	5.47	6.81	5.44	7.03	5.41	7.46	5.71		
41	5.39	4.80	5.67	5.13	6.09	5.02	6.45	5.42	6.66	5.39	6.87	5.35	7.29	5.65		
43	5.30	4.75	5.57	5.08	5.97	4.97	6.31	5.36	6.51	5.33	6.71	5.29	7.12	5.60		

Notes(1) These data show average statuses

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length: 7.5m

Level difference of Zero (3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC : Heating capacity (kW)

(kW)	Heatin	ng mo	de : H	IC			(kW)
	Out	door	In	door a	ir temp	peratui	re
В	air te	emp.			°CDB		
/B	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	3.95	3.93	3.91	3.88	3.86
5.52	-17.7	-18	4.18	4.16	4.14	4.11	4.09
5.61	-15.7	-16	4.42	4.39	4.37	4.34	4.32
5.69	-13.5	-14	4.68	4.65	4.63	4.60	4.57
5.78	-11.5	-12	4.94	4.91	4.88	4.85	4.82
5.83	-9.5	-10	5.20	5.17	5.14	5.11	5.08
5.89	-7.5	-8	5.46	5.43	5.40	5.36	5.33
5.88	-5.5	-6	5.59	5.55	5.52	5.48	5.44
5.87	-3.0	-4	5.71	5.68	5.64	5.60	5.56
	-1.0	-2	5.84	5.80	5.76	5.72	5.67
	1.0	0	5.97	5.92	5.88	5.83	5.79
	2.0	1	6.03	5.98	5.94	5.89	5.85
	3.0	2	6.45	6.40	6.35	6.30	6.25
	5.0	4	7.29	7.23	7.18	7.12	7.06
	7.0	6	8.13	8.06	8.00	7.93	7.87
	9.0	8	8.42	8.36	8.29	8.23	8.16
	11.5	10	8.72	8.65	8.59	8.52	8.46
	13.5	12	9.20	9.13	9.06	9.00	8.92
	15.5	14	9.69	9.61	9.53	9.47	9.39
	16.5	16	9.93	9.85	9.77	9.71	9.62

Model FDE100VNXVG Indoor unit FDE100VG Outdoor unit FDC100VNX Cooling mode

Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°0	DB	21°C	DB	23°C	DB	26°C	DB	27°C	DB	28°C	DB	31℃	DB	33℃	DB
an temp.	12°C	:WB	14°C	WB	16°C	WB	18°C	:WB	19℃	:WB	20°C	WB	22°C	WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	7.45	8.84	8.11	9.10	8.05	9.38	8.00	9.94	8.49	10.50	8.35
13					8.63	7.57	9.17	8.23	9.43	8.17	9.73	8.12	10.32	8.61	10.92	8.47
15					8.93	7.70	9.49	8.35	9.77	8.29	10.09	8.24	10.71	8.74	11.34	8.60
17					9.23	7.82	9.82	8.48	10.11	8.42	10.44	8.36	11.10	8.86	11.75	8.72
19					9.44	7.91	10.04	8.56	10.34	8.50	10.68	8.45	11.35	8.94	12.01	8.79
21					9.64	7.99	10.26	8.64	10.57	8.58	10.91	8.53	11.59	9.02	12.28	8.87
23					9.64	7.99	10.28	8.65	10.59	8.59	10.94	8.54	11.63	9.03	12.32	8.88
25			8.95	8.15	9.64	7.99	10.30	8.66	10.62	8.60	10.97	8.55	11.66	9.04	12.36	8.90
27			8.91	8.13	9.64	7.99	10.33	8.67	10.64	8.61	10.96	8.55	11.59	9.02		
29			8.84	8.10	9.51	7.93	10.16	8.61	10.48	8.55	10.80	8.49	11.45	8.98		
31			8.76	8.06	9.37	7.88	10.00	8.54	10.32	8.49	10.65	8.44	11.30	8.93		
33	8.21	7.48	8.58	7.98	9.23	7.82	9.83	8.48	10.16	8.43	10.49	8.38	11.15	8.88		
35	7.77	7.27	8.31	7.86	9.09	7.76	9.66	8.41	10.00	8.38	10.34	8.33	11.01	8.83		
37	7.68	7.23	8.18	7.81	8.92	7.69	9.49	8.35	9.81	8.31	10.13	8.26	10.77	8.76		
39	7.58	7.18	8.04	7.74	8.76	7.63	9.31	8.28	9.62	8.24	9.93	8.19	10.54	8.68		
41	7.49	7.14	7.91	7.69	8.59	7.56	9.14	8.22	9.43	8.17	9.73	8.12	10.31	8.61		
43	7.40	7.09	7.78	7.62	8.42	7.49	8.96	8.15	9.24	8.10	9.52	8.05	10.08	8.54		

Heati	ng mo	de : H	C			(kW)
Out	door	In	door a	ir tem	peratu	·e
air t	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	7.30	7.24	7.18	7.12	7.06
-17.7	-18	7.74	7.68	7.62	7.55	7.49
-15.7	-16	8.18	8.12	8.05	7.99	7.92
-13.5	-14	8.54	8.47	8.40	8.33	8.27
-11.5	-12	8.89	8.82	8.75	8.68	8.61
-9.5	-10	9.25	9.17	9.10	9.03	8.95
-7.5	-8	9.60	9.53	9.45	9.38	9.30
-5.5	-6	10.00	9.92	9.84	9.76	9.68
-3.0	-4	10.39	10.31	10.23	10.14	10.06
-1.0	-2	10.79	10.70	10.62	10.53	10.44
1.0	0	11.18	11.09	11.01	10.91	10.82
2.0	1	11.38	11.29	11.20	11.10	11.01
3.0	2	11.38	11.29	11.20	11.10	11.01
5.0	4	11.38	11.29	11.20	11.11	11.01
7.0	6	11.37	11.29	11.20	11.11	11.01
9.0	8	11.85	11.76	11.67	11.58	11.48
11.5	10	12.32	12.23	12.15	12.05	11.95
13.5	12	12.97	12.88	12.78	12.68	12.72
15.5	14	13.62	13.52	13.41	13.32	13.49
16.5	16	13.95	13.84	13.72	13.63	13.87

(kW)

PFA004Z047

Model FDE100VSXVG Indoor unit FDE100VG Outdoor unit FDC100VSX Cooling mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°0	DB	21°C	DB	23°C	DB	26°C	DB	27°C	DB	28°C	DB	31℃	DB	33°C	DB
un tomp.	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19℃	WB	20°C	WB	22°C	WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	7.45	8.84	8.11	9.10	8.05	9.38	8.00	9.94	8.49	10.50	8.35
13					8.63	7.57	9.17	8.23	9.43	8.17	9.73	8.12	10.32	8.61	10.92	8.47
15					8.93	7.70	9.49	8.35	9.77	8.29	10.09	8.24	10.71	8.74	11.34	8.60
17					9.23	7.82	9.82	8.48	10.11	8.42	10.44	8.36	11.10	8.86	11.75	8.72
19					9.44	7.91	10.04	8.56	10.34	8.50	10.68	8.45	11.35	8.94	12.01	8.79
21					9.64	7.99	10.26	8.64	10.57	8.58	10.91	8.53	11.59	9.02	12.28	8.87
23					9.64	7.99	10.28	8.65	10.59	8.59	10.94	8.54	11.63	9.03	12.32	8.88
25			8.95	8.15	9.64	7.99	10.30	8.66	10.62	8.60	10.97	8.55	11.66	9.04	12.36	8.90
27			8.91	8.13	9.64	7.99	10.33	8.67	10.64	8.61	10.96	8.55	11.59	9.02		
29			8.84	8.10	9.51	7.93	10.16	8.61	10.48	8.55	10.80	8.49	11.45	8.98		
31			8.76	8.06	9.37	7.88	10.00	8.54	10.32	8.49	10.65	8.44	11.30	8.93		
33	8.21	7.48	8.58	7.98	9.23	7.82	9.83	8.48	10.16	8.43	10.49	8.38	11.15	8.88		
35	7.77	7.27	8.31	7.86	9.09	7.76	9.66	8.41	10.00	8.38	10.34	8.33	11.01	8.83		
37	7.68	7.23	8.18	7.81	8.92	7.69	9.49	8.35	9.81	8.31	10.13	8.26	10.77	8.76		
39	7.58	7.18	8.04	7.74	8.76	7.63	9.31	8.28	9.62	8.24	9.93	8.19	10.54	8.68		
41	7.49	7.14	7.91	7.69	8.59	7.56	9.14	8.22	9.43	8.17	9.73	8.12	10.31	8.61		
43	7.40	7.09	7.78	7.62	8.42	7.49	8.96	8.15	9.24	8.10	9.52	8.05	10.08	8.54		

Notes(1) These data show average statuses.

es(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

(kW)		ng mo door			ir tem	peratui	e.
В		emp.		400. 6	°CDB		
/B	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	11.29	11.20	11.11	11.02	10.93
8.35	-17.7	-18	11.34	11.25	11.16	11.06	10.97
8.47	-15.7	-16	11.38	11.29	11.20	11.11	11.02
8.60	-13.5	-14	11.38	11.29	11.20	11.11	11.02
8.72	-11.5	-12	11.38	11.29	11.20	11.11	11.02
8.79	-9.5	-10	11.38	11.29	11.20	11.11	11.02
8.87	-7.5	-8	11.37	11.29	11.20	11.11	11.02
8.88	-5.5	-6	11.38	11.29	11.20	11.11	11.02
8.90	-3.0	-4	11.38	11.29	11.20	11.11	11.01
$\Box$	-1.0	-2	11.38	11.29	11.20	11.11	11.01
	1.0	0	11.38	11.29	11.20	11.10	11.01
$\Box$	2.0	1	11.38	11.29	11.20	11.10	11.01
	3.0	2	11.38	11.29	11.20	11.10	11.01
	5.0	4	11.38	11.29	11.20	11.11	11.01
	7.0	6	11.37	11.29	11.20	11.11	11.01
$\neg$	9.0	8	11.85	11.76	11.67	11.58	11.48
	11.5	10	12.32	12.23	12.15	12.05	11.95
	13.5	12	12.97	12.88	12.78	12.68	12.72
	15.5	14	13.62	13.52	13.41	13.32	13.49
	16.5	16	13.95	13.84	13.72	13.63	13.87

Model FDE125VNXVG Indoor unit FDE125VG Outdoor unit FDC125VNX Cooling mode

0.444							Indo	or air t	emper	ature						
Outdoor air temp.	18°C	DB	21℃	DB	23°C	DB	26°C	DB	27°C	DB	28°C	DB	31℃	DB	33℃	DB
un tomp.	12℃	:WB	14℃	WB	16°C	WB	18°C	WB	19℃	WB	20°C	WB	22°C	WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	8.31	11.05	8.95	11.37	8.88	11.72	8.82	12.42	9.29	13.12	9.13
13					10.79	8.47	11.46	9.11	11.79	9.04	12.16	8.98	12.91	9.46	13.65	9.29
15					11.16	8.63	11.87	9.28	12.22	9.21	12.61	9.15	13.39	9.62	14.17	9.45
17					11.54	8.80	12.27	9.44	12.64	9.37	13.05	9.31	13.87	9.79	14.69	9.61
19					11.80	8.91	12.55	9.55	12.93	9.49	13.34	9.42	14.18	9.89	15.02	9.71
21					12.05	9.02	12.83	9.67	13.21	9.60	13.64	9.53	14.49	10.00	15.34	9.82
23					12.05	9.02	12.85	9.68	13.24	9.61	13.67	9.55	14.54	10.02	15.40	9.84
25			11.19	9.18	12.05	9.02	12.88	9.69	13.27	9.62	13.71	9.56	14.58	10.03	15.45	9.85
27			11.14	9.15	12.05	9.02	12.91	9.70	13.30	9.63	13.70	9.56	14.49	10.00		
29			11.05	9.11	11.88	8.95	12.70	9.62	13.10	9.55	13.51	9.48	14.31	9.94		
31			10.95	9.06	11.71	8.87	12.49	9.53	12.90	9.47	13.31	9.41	14.13	9.88		
33	10.26	8.48	10.73	8.96	11.53	8.80	12.29	9.45	12.70	9.40	13.11	9.33	13.94	9.81		
35	9.71	8.21	10.39	8.80	11.36	8.72	12.08	9.36	12.50	9.32	12.92	9.26	13.76	9.75		
37	9.60	8.15	10.22	8.72	11.15	8.63	11.86	9.27	12.26	9.22	12.67	9.17	13.47	9.65		
39	9.48	8.09	10.05	8.64	10.94	8.54	11.64	9.19	12.03	9.14	12.41	9.07	13.18	9.55		
41	9.36	8.03	9.89	8.57	10.74	8.45	11.42	9.10	11.79	9.04	12.16	8.98	12.89	9.45		
43	9.25	7.98	9.72	8.49	10.53	8.36	11.21	9.01	11.55	8.95	11.90	8.89	12.60	9.35		

(kW)		Heatir	ng mo	de : H	IC			(kW)
		Out	door	ln	door a	ir tem	peratu	re
)B	П	air te	emp.			°CDB		
VВ	П	°CDB	°CWB	16	18	20	22	24
SHC	П	-19.8	-20	9.12	9.05	8.97	8.90	8.83
9.13	П	-17.7	-18	9.67	9.60	9.52	9.44	9.37
9.29	П	-15.7	-16	10.23	10.15	10.07	9.98	9.90
9.45	П	-13.5	-14	10.67	10.59	10.50	10.42	10.33
9.61	П	-11.5	-12	11.11	11.03	10.94	10.85	10.76
9.71	П	-9.5	-10	11.56	11.47	11.38	11.29	11.19
9.82	П	-7.5	-8	12.00	11.91	11.82	11.72	11.62
9.84	П	-5.5	-6	12.49	12.40	12.30	12.20	12.10
9.85	П	-3.0	-4	12.99	12.89	12.79	12.68	12.57
	П	-1.0	-2	13.48	13.38	13.27	13.16	13.05
	П	1.0	0	13.98	13.87	13.76	13.64	13.52
	П	2.0	1	14.22	14.11	14.00	13.88	13.76
	П	3.0	2	14.22	14.11	14.00	13.88	13.76
	П	5.0	4	14.22	14.11	14.00	13.88	13.76
	П	7.0	6	14.22	14.11	14.00	13.88	13.77
	П	9.0	8	14.81	14.70	14.59	14.47	14.35
	П	11.5	10	15.41	15.29	15.18	15.06	14.94
		13.5	12	16.22	16.09	15.97	15.85	15.90
		15.5	14	17.03	16.90	16.76	16.65	16.86
	1	16.5	16	17.44	17.30	17.16	17.04	17.34

PFA004Z047

22 24

13.83 13.72

13.89 13.77

13.78 13.66

13.89 13.77

13.89 13.77

13.89 13.77

13.89 13.77

13.88 13.77

13.88 13.77

13.88 13.76

13.88 13.76

13.88 13.76

13.88 13.76

13.88 13.76

14.35

°CDB

20

13.89

13.94

14.00

14.00

14.11 14.00

14.11 14.00

14.11 14.00

14.22 14.11 14.00

14.11 14.00

14.11 14.00

14.22 14.11 14.00

14.22 14.11 14.00

14.11 14.00

17.44 17.30 17.16 17.04 17.34

Model FDE125VSXVG Indoor unit FDE125VG Outdoor unit FDC125VSX Cooling mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°C	DB	21°C	DB	23°C	DB	26°C	DB	27°C	DB	28°C	DB	31°C	DB	33°C	DB
dii tomp.	12℃	:WB	14℃	WB	16°C	WB	18°C	:WB	19℃	WB	20°C	WB	22°C	WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	8.31	11.05	8.95	11.37	8.88	11.72	8.82	12.42	9.29	13.12	9.13
13					10.79	8.47	11.46	9.11	11.79	9.04	12.16	8.98	12.91	9.46	13.65	9.29
15					11.16	8.63	11.87	9.28	12.22	9.21	12.61	9.15	13.39	9.62	14.17	9.45
17					11.54	8.80	12.27	9.44	12.64	9.37	13.05	9.31	13.87	9.79	14.69	9.61
19					11.80	8.91	12.55	9.55	12.93	9.49	13.34	9.42	14.18	9.89	15.02	9.71
21					12.05	9.02	12.83	9.67	13.21	9.60	13.64	9.53	14.49	10.00	15.34	9.82
23					12.05	9.02	12.85	9.68	13.24	9.61	13.67	9.55	14.54	10.02	15.40	9.84
25			11.19	9.18	12.05	9.02	12.88	9.69	13.27	9.62	13.71	9.56	14.58	10.03	15.45	9.85
27			11.14	9.15	12.05	9.02	12.91	9.70	13.30	9.63	13.70	9.56	14.49	10.00		
29			11.05	9.11	11.88	8.95	12.70	9.62	13.10	9.55	13.51	9.48	14.31	9.94		
31			10.95	9.06	11.71	8.87	12.49	9.53	12.90	9.47	13.31	9.41	14.13	9.88		
33	10.26	8.48	10.73	8.96	11.53	8.80	12.29	9.45	12.70	9.40	13.11	9.33	13.94	9.81		
35	9.71	8.21	10.39	8.80	11.36	8.72	12.08	9.36	12.50	9.32	12.92	9.26	13.76	9.75		
37	9.60	8.15	10.22	8.72	11.15	8.63	11.86	9.27	12.26	9.22	12.67	9.17	13.47	9.65		
39	9.48	8.09	10.05	8.64	10.94	8.54	11.64	9.19	12.03	9.14	12.41	9.07	13.18	9.55		
41	9.36	8.03	9.89	8.57	10.74	8.45	11.42	9.10	11.79	9.04	12.16	8.98	12.89	9.45		
43	9.25	7.98	9.72	8.49	10.53	8.36	11.21	9.01	11.55	8.95	11.90	8.89	12.60	9.35		

Heating mode: HC

16 18

14.11 14.00

14.17 14.06

14.23 14.11

14.23 14.11

14.22

14.22

14.22

14.22

14.22 14.11 14.00

14.22

14.22

Outdoor air temp

°CDB °CWB

-19.8 -20 -18

-15.7 -16

-13.5 -14

-11.5 -12

-9.5 -10

-7.5 -8

-5.5 -6

-3.0

-1.0

1.0

2.0

3.0 2

5.0

16.5

-4

4

16

(kW)

(kW) Indoor air temperature

7.0 14.22 14.11 14.00 13.88 13.77 6 9.0 14.70 8 14.81 14.59 14.47 11.5 10 15.41 15.29 15.18 15.06 14.94 15.85 15.90 13.5 12 16.22 16.09 15.97 17.03 16.90 16.65 16.86 15.5 14 16.76

Notes(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length: 7.5m Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

Model FDE140VNXVG Indoor unit FDE140VG Outdoor unit FDC140VNX Cooling mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°C	DB	21°C	DB	23°C	DB	26°C	DB	27°C	DB	28°C	DB	31°C	DB	33℃	DB
un temp.	12℃	WB	14°C	:WB	16°C	WB	18°C	:WB	19℃	:WB	20°C	WB	22°C	WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.09	12.38	9.76	12.73	9.69	13.13	9.62	13.91	10.11	14.70	9.93
13					12.08	9.27	12.83	9.95	13.21	9.87	13.62	9.80	14.45	10.30	15.28	10.11
15					12.50	9.45	13.29	10.13	13.68	10.06	14.12	9.99	14.99	10.48	15.87	10.29
17					12.92	9.64	13.75	10.32	14.16	10.24	14.62	10.18	15.54	10.68	16.45	10.48
19					13.21	9.77	14.06	10.45	14.48	10.37	14.95	10.31	15.88	10.80	16.82	10.60
21					13.50	9.90	14.36	10.58	14.80	10.50	15.28	10.43	16.23	10.92	17.19	10.72
23					13.50	9.90	14.40	10.59	14.83	10.51	15.31	10.44	16.28	10.94	17.25	10.74
25			12.53	10.06	13.50	9.90	14.43	10.61	14.87	10.53	15.35	10.46	16.33	10.96	17.30	10.75
27			12.48	10.03	13.50	9.90	14.46	10.62	14.90	10.54	15.34	10.46	16.23	10.92		
29			12.37	9.98	13.31	9.82	14.23	10.52	14.68	10.45	15.13	10.37	16.03	10.85		
31			12.26	9.93	13.11	9.73	13.99	10.42	14.45	10.36	14.91	10.29	15.82	10.78		
33	11.49	9.31	12.02	9.81	12.92	9.64	13.76	10.33	14.23	10.27	14.69	10.21	15.61	10.70		
35	10.88	9.00	11.63	9.63	12.72	9.55	13.53	10.23	14.00	10.18	14.47	10.12	15.41	10.63		
37	10.75	8.93	11.45	9.54	12.49	9.45	13.29	10.13	13.74	10.08	14.18	10.01	15.08	10.52		
39	10.62	8.87	11.26	9.45	12.26	9.35	13.04	10.03	13.47	9.97	13.90	9.91	14.76	10.41		
41	10.49	8.80	11.07	9.37	12.02	9.24	12.80	9.93	13.21	9.87	13.62	9.80	14.44	10.30		
43	10.35	8.74	10.89	9.28	11.79	9.14	12.55	9.83	12.94	9.77	13.33	9.69	14.11	10.18		

Heatir	ng mo	de : H	С			(kW)
	door	In	door a	ir temp	peratu	re
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	10.42	10.34	10.26	10.17	10.09
-17.7	-18	11.06	10.97	10.88	10.79	10.70
-15.7	-16	11.69	11.60	11.50	11.41	11.32
-13.5	-14	12.20	12.10	12.00	11.91	11.81
-11.5	-12	12.70	12.60	12.50	12.40	12.30
-9.5	-10	13.21	13.11	13.00	12.90	12.79
-7.5	-8	13.71	13.61	13.50	13.39	13.28
-5.5	-6	14.28	14.17	14.06	13.94	13.83
-3.0	-4	14.84	14.73	14.61	14.49	14.37
-1.0	-2	15.41	15.29	15.17	15.04	14.91
1.0	0	15.97	15.85	15.72	15.59	15.45
2.0	1	16.26	16.13	16.00	15.86	15.73
3.0	2	16.25	16.13	16.00	15.86	15.73
5.0	4	16.25	16.13	16.00	15.86	15.73
7.0	6	16.25	16.12	16.00	15.87	15.73
9.0	8	16.93	16.80	16.68	16.54	16.40
11.5	10	17.61	17.48	17.35	17.21	17.07
13.5	12	18.53	18.39	18.25	18.12	18.17
15.5	14	19.46	19.31	19.16	19.02	19.27
16.5	16	19.93	19.77	19.61	19.48	19.82

(kW)

PFA004Z047

Model FDE140VSXVG Indoor unit FDE140VG Outdoor unit FDC140VSX Cooling mode

Cooling	mode	Э														(kW)
Outdoor							Indo	or air t	emper	ature						
air temp.	18℃	DB	21°0	DB	23°C	DB	26°0	DB	27°C	DB	28℃	DB	31°C	DB	33°C	DB
	12°C	:WB	14°C	WB	16°C	WB	18°C	WB	19℃	WB	20°C	WB	22°C	:WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.09	12.38	9.76	12.73	9.69	13.13	9.62	13.91	10.11	14.70	9.93
13					12.08	9.27	12.83	9.95	13.21	9.87	13.62	9.80	14.45	10.30	15.28	10.11
15					12.50	9.45	13.29	10.13	13.68	10.06	14.12	9.99	14.99	10.48	15.87	10.29
17					12.92	9.64	13.75	10.32	14.16	10.24	14.62	10.18	15.54	10.68	16.45	10.48
19					13.21	9.77	14.06	10.45	14.48	10.37	14.95	10.31	15.88	10.80	16.82	10.60
21					13.50	9.90	14.36	10.58	14.80	10.50	15.28	10.43	16.23	10.92	17.19	10.72
23					13.50	9.90	14.40	10.59	14.83	10.51	15.31	10.44	16.28	10.94	17.25	10.74
25			12.53	10.06	13.50	9.90	14.43	10.61	14.87	10.53	15.35	10.46	16.33	10.96	17.30	10.75
27			12.48	10.03	13.50	9.90	14.46	10.62	14.90	10.54	15.34	10.46	16.23	10.92		
29			12.37	9.98	13.31	9.82	14.23	10.52	14.68	10.45	15.13	10.37	16.03	10.85		
31			12.26	9.93	13.11	9.73	13.99	10.42	14.45	10.36	14.91	10.29	15.82	10.78		
33	11.49	9.31	12.02	9.81	12.92	9.64	13.76	10.33	14.23	10.27	14.69	10.21	15.61	10.70		
35	10.88	9.00	11.63	9.63	12.72	9.55	13.53	10.23	14.00	10.18	14.47	10.12	15.41	10.63		
37	10.75	8.93	11.45	9.54	12.49	9.45	13.29	10.13	13.74	10.08	14.18	10.01	15.08	10.52		
39	10.62	8.87	11.26	9.45	12.26	9.35	13.04	10.03	13.47	9.97	13.90	9.91	14.76	10.41		
41	10.49	8.80	11.07	9.37	12.02	9.24	12.80	9.93	13.21	9.87	13.62	9.80	14.44	10.30		
43	10.35	8.74	10.89	9.28	11.79	9.14	12.55	9.83	12.94	9.77	13.33	9.69	14.11	10.18		

Heatir	ng mo	de : H	C			(kW)
	door	In	door a	ir tem	peratui	e e
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	16.13	16.00	15.87	15.74	15.61
-17.7	-18	16.19	16.07	15.94	15.81	15.68
-15.7	-16	16.26	16.13	16.00	15.87	15.74
-13.5	-14	16.26	16.13	16.00	15.87	15.74
-11.5	-12	16.25	16.13	16.00	15.87	15.74
-9.5	-10	16.25	16.13	16.00	15.87	15.74
-7.5	-8	16.25	16.12	16.00	15.87	15.74
-5.5	-6	16.25	16.13	16.00	15.87	15.74
-3.0	-4	16.25	16.13	16.00	15.87	15.73
-1.0	-2	16.25	16.13	16.00	15.86	15.73
1.0	0	16.25	16.13	16.00	15.86	15.73
2.0	1	16.26	16.13	16.00	15.86	15.73
3.0	2	16.25	16.13	16.00	15.86	15.73
5.0	4	16.25	16.13	16.00	15.86	15.73
7.0	6	16.25	16.12	16.00	15.87	15.73
9.0	8	16.93	16.80	16.68	16.54	16.40
11.5	10	17.61	17.48	17.35	17.21	17.07
13.5	12	18.53	18.39	18.25	18.12	18.17
15.5	14	19.46	19.31	19.16	19.02	19.27
16.5	16	19.93	19.77	19.61	19.48	19.82

Notes(1) These data show average statuses.

es(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

#### (b) Twin type

Model FDE71VNXPVG Indoor unit FDE40VG (2 uints) Outdoor unit FDC71VNX Cooling mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°0	DB	21°C	DB	23°0	DB	26°C	DB	27°C	DB	28°0	DB	31°0	DB	33℃	DB
un tomp.	12°C	WB	14°C	:WB	16℃	:WB	18℃	WB	19℃	WB	20°C	:WB	22°C	:WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.87	4.77	6.02	5.90	6.59	6.26	6.79	6.22	7.19	6.63	7.59	6.52
13					5.33	5.22	6.32	6.19	6.82	6.34	7.03	6.30	7.45	6.71	7.88	6.60
15					5.79	5.67	6.63	6.38	7.05	6.42	7.27	6.38	7.71	6.79	8.16	6.68
17					6.26	5.85	6.94	6.50	7.27	6.50	7.51	6.46	7.97	6.87	8.44	6.76
19					6.59	5.98	7.16	6.58	7.44	6.56	7.68	6.52	8.15	6.93	8.63	6.82
21					6.93	6.12	7.38	6.66	7.60	6.62	7.84	6.57	8.33	6.98	8.82	6.87
23					6.91	6.11	7.35	6.65	7.57	6.60	7.81	6.56	8.30	6.97	8.78	6.86
25			6.46	6.26	6.89	6.10	7.32	6.64	7.54	6.59	7.78	6.55	8.26	6.96	8.74	6.85
27			6.45	6.26	6.87	6.10	7.30	6.63	7.52	6.59	7.74	6.54	8.18	6.93		
29			6.34	6.21	6.75	6.05	7.19	6.59	7.41	6.55	7.64	6.50	8.09	6.91		
31			6.23	6.11	6.64	6.00	7.08	6.55	7.31	6.51	7.54	6.47	7.99	6.87		
33	5.77	5.65	6.05	5.93	6.53	5.96	6.97	6.51	7.20	6.47	7.44	6.44	7.90	6.85		
35	5.67	5.56	5.95	5.83	6.42	5.92	6.86	6.47	7.10	6.44	7.34	6.40	7.81	6.82		
37	5.58	5.47	5.85	5.73	6.31	5.87	6.72	6.42	6.95	6.38	7.18	6.35	7.64	6.77		
39	5.49	5.38	5.76	5.64	6.20	5.83	6.59	6.37	6.81	6.34	7.03	6.30	7.46	6.71		
41	5.39	5.28	5.67	5.56	6.09	5.78	6.45	6.32	6.66	6.28	6.87	6.24	7.29	6.66		
43	5.30	5.19	5.57	5.46	5.97	5.74	6.31	6.18	6.51	6.23	6.71	6.19	7.12	6.61		

Heatin	ng mo	de : H	IC			(kW)
Out	door	In	door a	ir tem	peratui	e,
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	3.95	3.93	3.91	3.88	3.86
-17.7	-18	4.18	4.16	4.14	4.11	4.09
-15.7	-16	4.42	4.39	4.37	4.34	4.32
-13.5	-14	4.68	4.65	4.63	4.60	4.57
-11.5	-12	4.94	4.91	4.88	4.85	4.82
-9.5	-10	5.20	5.17	5.14	5.11	5.08
-7.5	-8	5.46	5.43	5.40	5.36	5.33
-5.5	-6	5.59	5.55	5.52	5.48	5.44
-3.0	-4	5.71	5.68	5.64	5.60	5.56
-1.0	-2	5.84	5.80	5.76	5.72	5.67
1.0	0	5.97	5.92	5.88	5.83	5.79
2.0	1	6.03	5.98	5.94	5.89	5.85
3.0	2	6.45	6.40	6.35	6.30	6.25
5.0	4	7.29	7.23	7.18	7.12	7.06
7.0	6	8.13	8.06	8.00	7.93	7.87
9.0	8	8.42	8.36	8.29	8.23	8.16
11.5	10	8.72	8.65	8.59	8.52	8.46
13.5	12	9.20	9.13	9.06	9.00	8.92
15.5	14	9.69	9.61	9.53	9.47	9.39
16.5	16	9.93	9.85	9.77	9.71	9.62

(kW)

PFA004Z047

Model FDE100VNXPVG Indoor unit FDE50VG (2 uints) Outdoor unit FDC100VNX Cooling mode

																()
Outdoor							Indo	or air t	emper	ature						
air temp.	18°0	DB	21°C	DB	23°C	DB	26°C	DB	27°C	DB	28°C	DB	31℃	DB	33°C	DB
all terrip.	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19°C	WB	20°C	WB	22°C	WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.70	8.84	7.22	9.10	7.17	9.38	7.12	9.94	7.50	10.50	7.37
13					8.63	6.83	9.17	7.35	9.43	7.29	9.73	7.24	10.32	7.63	10.92	7.49
15					8.93	6.96	9.49	7.48	9.77	7.42	10.09	7.37	10.71	7.76	11.34	7.62
17					9.23	7.09	9.82	7.61	10.11	7.55	10.44	7.50	11.10	7.89	11.75	7.75
19					9.44	7.18	10.04	7.70	10.34	7.64	10.68	7.59	11.35	7.98	12.01	7.83
21					9.64	7.27	10.26	7.79	10.57	7.73	10.91	7.68	11.59	8.06	12.28	7.92
23					9.64	7.27	10.28	7.80	10.59	7.74	10.94	7.69	11.63	8.08	12.32	7.93
25			8.95	7.39	9.64	7.27	10.30	7.80	10.62	7.75	10.97	7.70	11.66	8.09	12.36	7.94
27			8.91	7.37	9.64	7.27	10.33	7.82	10.64	7.76	10.96	7.70	11.59	8.06		
29			8.84	7.34	9.51	7.21	10.16	7.75	10.48	7.70	10.80	7.64	11.45	8.01		
31			8.76	7.30	9.37	7.15	10.00	7.68	10.32	7.63	10.65	7.58	11.30	7.96		
33	8.21	6.83	8.58	7.22	9.23	7.09	9.83	7.61	10.16	7.57	10.49	7.52	11.15	7.91		
35	7.77	6.61	8.31	7.09	9.09	7.03	9.66	7.54	10.00	7.51	10.34	7.47	11.01	7.86		
37	7.68	6.56	8.18	7.03	8.92	6.95	9.49	7.48	9.81	7.44	10.13	7.39	10.77	7.78		
39	7.58	6.51	8.04	6.97	8.76	6.88	9.31	7.40	9.62	7.36	9.93	7.32	10.54	7.70		
41	7.49	6.47	7.91	6.91	8.59	6.81	9.14	7.34	9.43	7.29	9.73	7.24	10.31	7.62		
43	7.40	6.43	7.78	6.85	8.42	6.74	8.96	7.27	9.24	7.22	9.52	7.17	10.08	7.55		

Notes(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

(kW)	Heatir	ng mo	de : H	IC			(kW)
		door	In	door a	ir tem	peratui	е
ЭB	air te	emp.			°CDB		
VΒ	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	7.30	7.24	7.18	7.12	7.06
7.37	-17.7	-18	7.74	7.68	7.62	7.55	7.49
7.49	-15.7	-16	8.18	8.12	8.05	7.99	7.92
7.62	-13.5	-14	8.54	8.47	8.40	8.33	8.27
7.75	-11.5	-12	8.89	8.82	8.75	8.68	8.61
7.83	-9.5	-10	9.25	9.17	9.10	9.03	8.95
7.92	-7.5	-8	9.60	9.53	9.45	9.38	9.30
7.93	-5.5	-6	10.00	9.92	9.84	9.76	9.68
7.94	-3.0	-4	10.39	10.31	10.23	10.14	10.06
	-1.0	-2	10.79	10.70	10.62	10.53	10.44
	1.0	0	11.18	11.09	11.01	10.91	10.82
	2.0	1	11.38	11.29	11.20	11.10	11.01
	3.0	2	11.38	11.29	11.20	11.10	11.01
	5.0	4	11.38	11.29	11.20	11.11	11.01
	7.0	6	11.37	11.29	11.20	11.11	11.01
	9.0	8	11.85	11.76	11.67	11.58	11.48
	11.5	10	12.32	12.23	12.15	12.05	11.95
	13.5	12	12.97	12.88	12.78	12.68	12.72
	15.5	14	13.62	13.52	13.41	13.32	13.49
	16.5	16	13.95	13.84	13.72	13.63	13.87

Model		100V	SXPV	G	Indoor	unit	FDE5	0VG (2	2 uints	)	Outdo	or unit	FDC	100V	SX								
Cooling	mode	9														(kW)	He	iting mo	de : H	IC			(kW)
Outdoor							Indo	or air t	emper	ature								utdoor	In	door a	ir tem	peratur	е
air temp.	18°C	DB	21°0	DB	23℃	DB	26℃	DB	27°C	DB	28°C	DB	31℃	DB	33℃	DB	а	temp.			°CDB		
u top.	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19℃	WB	20°C	WB	22°C	WB	24℃	:WB	°CI	B °CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19	8 -20	11.29	11.20	11.11	11.02	10.93
11					8.33	6.70	8.84	7.22	9.10	7.17	9.38	7.12	9.94	7.50	10.50	7.37	-17	7 -18	11.34	11.25	11.16	11.06	10.97
13					8.63	6.83	9.17	7.35	9.43	7.29	9.73	7.24	10.32	7.63	10.92	7.49	-15	7 -16	11.38	11.29	11.20	11.11	11.02
15					8.93	6.96	9.49	7.48	9.77	7.42	10.09	7.37	10.71	7.76	11.34	7.62	-13	5 -14	11.38	11.29	11.20	11.11	11.02
17					9.23	7.09	9.82	7.61	10.11	7.55	10.44	7.50	11.10	7.89	11.75	7.75	-11	5 -12	11.38	11.29	11.20	11.11	11.02
19					9.44	7.18	10.04	7.70	10.34	7.64	10.68	7.59	11.35	7.98	12.01	7.83	-9.	-10	11.38	11.29	11.20	11.11	11.02
21					9.64	7.27	10.26	7.79	10.57	7.73	10.91	7.68	11.59	8.06	12.28	7.92	-7.	5 -8	11.37	11.29	11.20	11.11	11.02
23					9.64	7.27	10.28	7.80	10.59	7.74	10.94	7.69	11.63	8.08	12.32	7.93	-5.	-6	11.38	11.29	11.20	11.11	11.02
25			8.95	7.39	9.64	7.27	10.30	7.80	10.62	7.75	10.97	7.70	11.66	8.09	12.36	7.94	-3.	-4	11.38	11.29	11.20	11.11	11.01
27			8.91	7.37	9.64	7.27	10.33	7.82	10.64	7.76	10.96	7.70	11.59	8.06			-1.	) -2	11.38	11.29	11.20	11.11	11.01
29			8.84	7.34	9.51	7.21	10.16	7.75	10.48	7.70	10.80	7.64	11.45	8.01			1.	0	11.38	11.29	11.20	11.10	11.01
31			8.76	7.30	9.37	7.15	10.00	7.68	10.32	7.63	10.65	7.58	11.30	7.96			2.	1	11.38	11.29	11.20	11.10	11.01
33	8.21	6.83	8.58	7.22	9.23	7.09	9.83	7.61	10.16	7.57	10.49	7.52	11.15	7.91			3.	2	11.38	11.29	11.20	11.10	11.01
35	7.77	6.61	8.31	7.09	9.09	7.03	9.66	7.54	10.00	7.51	10.34	7.47	11.01	7.86			5.	4	11.38	11.29	11.20	11.11	11.01
37	7.68	6.56	8.18	7.03	8.92	6.95	9.49	7.48	9.81	7.44	10.13	7.39	10.77	7.78			7.	6	11.37	11.29	11.20	11.11	11.01
39	7.58	6.51	8.04	6.97	8.76	6.88	9.31	7.40	9.62	7.36	9.93	7.32	10.54	7.70			9.	8	11.85	11.76	11.67	11.58	11.48
41	7.49	6.47	7.91	6.91	8.59	6.81	9.14	7.34	9.43	7.29	9.73	7.24	10.31	7.62			11.	5 10	12.32	12.23	12.15	12.05	11.95
43	7.40	6.43	7.78	6.85	8.42	6.74	8.96	7.27	9.24	7.22	9.52	7.17	10.08	7.55			13.	5 12	12.97	12.88	12.78	12.68	12.72
																	15.	5 14	13.62	13.52	13.41	13.32	13.49
																	16.	5 16	13.95	13.84	13.72	13.63	13.87

PFA004Z047

Model	FDE125VNXPVG	Indoor unit	FDE60VG (2 uints)	Outdoor unit	FDC125VNX
Cooling	mode				

Outdoor							Indo	or air t	emper	ature						
air temp.	18°C	DB	21°C	DB	23°C	DB	26°C	DB	27°C	DB	28°C	DB	31°C	DB	33°C	DB
uii tomp.	12℃	:WB	14℃	WB	16°C	WB	18°C	:WB	19℃	:WB	20°C	:WB	22°C	:WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	9.31	11.05	10.13	11.37	10.06	11.72	9.99	12.42	10.62	13.12	10.44
13					10.79	9.47	11.46	10.29	11.79	10.21	12.16	10.15	12.91	10.77	13.65	10.59
15					11.16	9.62	11.87	10.44	12.22	10.37	12.61	10.30	13.39	10.92	14.17	10.74
17					11.54	9.77	12.27	10.59	12.64	10.52	13.05	10.46	13.87	11.08	14.69	10.90
19					11.80	9.88	12.55	10.70	12.93	10.63	13.34	10.56	14.18	11.18	15.02	10.99
21					12.05	9.99	12.83	10.81	13.21	10.73	13.64	10.66	14.49	11.28	15.34	11.09
23					12.05	9.99	12.85	10.81	13.24	10.74	13.67	10.67	14.54	11.29	15.40	11.11
25			11.19	10.18	12.05	9.99	12.88	10.83	13.27	10.75	13.71	10.69	14.58	11.31	15.45	11.12
27			11.14	10.16	12.05	9.99	12.91	10.84	13.30	10.76	13.70	10.69	14.49	11.28		
29			11.05	10.12	11.88	9.91	12.70	10.76	13.10	10.69	13.51	10.62	14.31	11.22		
31			10.95	10.08	11.71	9.84	12.49	10.68	12.90	10.62	13.31	10.55	14.13	11.16		
33	10.26	9.34	10.73	9.98	11.53	9.77	12.29	10.60	12.70	10.54	13.11	10.48	13.94	11.10		
35	9.71	9.08	10.39	9.83	11.36	9.70	12.08	10.52	12.50	10.47	12.92	10.41	13.76	11.04		
37	9.60	9.03	10.22	9.75	11.15	9.61	11.86	10.44	12.26	10.38	12.67	10.32	13.47	10.95		
39	9.48	8.98	10.05	9.68	10.94	9.53	11.64	10.35	12.03	10.30	12.41	10.23	13.18	10.86		
41	9.36	8.92	9.89	9.61	10.74	9.45	11.42	10.27	11.79	10.21	12.16	10.15	12.89	10.76		
43	9.25	8.87	9.72	9.53	10.53	9.36	11.21	10.19	11.55	10.13	11.90	10.06	12.60	10.67		

Notes(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

(kW)	Heatin	door			ir temp	neratui	(kW)
ОВ		emp.	- "'	uooi u	°CDB	Joratai	
VB	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	9.12	9.05	8.97	8.90	8.83
10.44	-17.7	-18	9.67	9.60	9.52	9.44	9.37
10.59	-15.7	-16	10.23	10.15	10.07	9.98	9.90
10.74	-13.5	-14	10.67	10.59	10.50	10.42	10.33
10.90	-11.5	-12	11.11	11.03	10.94	10.85	10.76
10.99	-9.5	-10	11.56	11.47	11.38	11.29	11.19
11.09	-7.5	-8	12.00	11.91	11.82	11.72	11.62
11.11	-5.5	-6	12.49	12.40	12.30	12.20	12.10
11.12	-3.0	-4	12.99	12.89	12.79	12.68	12.57
	-1.0	-2	13.48	13.38	13.27	13.16	13.05
	1.0	0	13.98	13.87	13.76	13.64	13.52
	2.0	1	14.22	14.11	14.00	13.88	13.76
	3.0	2	14.22	14.11	14.00	13.88	13.76
	5.0	4	14.22	14.11	14.00	13.88	13.76
	7.0	6	14.22	14.11	14.00	13.88	13.77
	9.0	8	14.81	14.70	14.59	14.47	14.35
	11.5	10	15.41	15.29	15.18	15.06	14.94
	13.5	12	16.22	16.09	15.97	15.85	15.90
	15.5	14	17.03	16.90	16.76	16.65	16.86
	16.5	16	17.44	17.30	17.16	17.04	17.34

<b>Model</b> Cooling			SXPV	-	Indoor			(-		,		or unit		C125V	-	(kW)	Heatir
0.44							Indo	or air t	emper	ature							Out
Outdoor air temp.	18°C	DB	21°0	DB	23°C	DB	26°0	DB	27°C	DB	28°0	DB	31°0	DB	33℃	DB	air te
un temp.	12℃	WB	14°C	WB	16℃	WB	18°C	WB	19℃	:WB	20°C	WB	22°C	WB	24℃	WB	°CDB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8
11					10.41	9.31	11.05	10.13	11.37	10.06	11.72	9.99	12.42	10.62	13.12	10.44	-17.7
13					10.79	9.47	11.46	10.29	11.79	10.21	12.16	10.15	12.91	10.77	13.65	10.59	-15.7
15					11.16	9.62	11.87	10.44	12.22	10.37	12.61	10.30	13.39	10.92	14.17	10.74	-13.5
17					11.54	9.77	12.27	10.59	12.64	10.52	13.05	10.46	13.87	11.08	14.69	10.90	-11.5
19					11.80	9.88	12.55	10.70	12.93	10.63	13.34	10.56	14.18	11.18	15.02	10.99	-9.5
21					12.05	9.99	12.83	10.81	13.21	10.73	13.64	10.66	14.49	11.28	15.34	11.09	-7.5
23					12.05	9.99	12.85	10.81	13.24	10.74	13.67	10.67	14.54	11.29	15.40	11.11	-5.5
25			11.19	10.18	12.05	9.99	12.88	10.83	13.27	10.75	13.71	10.69	14.58	11.31	15.45	11.12	-3.0
27			11.14	10.16	12.05	9.99	12.91	10.84	13.30	10.76	13.70	10.69	14.49	11.28			-1.0
29			11.05	10.12	11.88	9.91	12.70	10.76	13.10	10.69	13.51	10.62	14.31	11.22			1.0
31			10.95	10.08	11.71	9.84	12.49	10.68	12.90	10.62	13.31	10.55	14.13	11.16			2.0
33	10.26	9.34	10.73	9.98	11.53	9.77	12.29	10.60	12.70	10.54	13.11	10.48	13.94	11.10			3.0
35	9.71	9.08	10.39	9.83	11.36	9.70	12.08	10.52	12.50	10.47	12.92	10.41	13.76	11.04			5.0
37	9.60	9.03	10.22	9.75	11.15	9.61	11.86	10.44	12.26	10.38	12.67	10.32	13.47	10.95			7.0
39	9.48	8.98	10.05	9.68	10.94	9.53	11.64	10.35	12.03	10.30	12.41	10.23	13.18	10.86			9.0
41	9.36	8.92	9.89	9.61	10.74	9.45	11.42	10.27	11.79	10.21	12.16	10.15	12.89	10.76			11.5
43	9.25	8.87	9.72	9.53	10.53	9.36	11.21	10.19	11.55	10.13	11.90	10.06	12.60	10.67			13.5
			•								•		•				15.5

	Heatir	ng mo	de : H	IC			(kW)
	Out	door	In	door a	ir temp	peratu	re .
	air te	emp.			°CDB		
	°CDB	°CWB	16	18	20	22	24
	-19.8	-20	14.11	14.00	13.89	13.78	13.66
	-17.7	-18	14.17	14.06	13.94	13.83	13.72
	-15.7	-16	14.23	14.11	14.00	13.89	13.77
	-13.5	-14	14.23	14.11	14.00	13.89	13.77
	-11.5	-12	14.22	14.11	14.00	13.89	13.77
	-9.5	-10	14.22	14.11	14.00	13.89	13.77
	-7.5	-8	14.22	14.11	14.00	13.89	13.77
	-5.5	-6	14.22	14.11	14.00	13.88	13.77
	-3.0	-4	14.22	14.11	14.00	13.88	13.77
	-1.0	-2	14.22	14.11	14.00	13.88	13.76
	1.0	0	14.22	14.11	14.00	13.88	13.76
	2.0	1	14.22	14.11	14.00	13.88	13.76
	3.0	2	14.22	14.11	14.00	13.88	13.76
	5.0	4	14.22	14.11	14.00	13.88	13.76
	7.0	6	14.22	14.11	14.00	13.88	13.77
	9.0	8	14.81	14.70	14.59	14.47	14.35
	11.5	10	15.41	15.29	15.18	15.06	14.94
	13.5	12	16.22	16.09	15.97	15.85	15.90
'	15.5	14	17.03	16.90	16.76	16.65	16.86
	16.5	16	17.44	17.30	17.16	17.04	17.34

PFA004Z047

(kW)

Model FDE140VNXPVG Indoor unit FDE71VG (2 uints) Outdoor unit FDC140VNX Cooling mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°C	DB	21°C	DB	23°C	DB	26°C	DB	27°C	DB	28°C	DB	31℃	DB	33°C	DB
dii tomp.	12°C	WB	14°C	:WB	16℃	WB	18°C	WB	19℃	:WB	20°C	:WB	22°C	:WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.82	12.38	10.63	12.73	10.55	13.13	10.48	13.91	11.09	14.70	10.90
13					12.08	10.00	12.83	10.81	13.21	10.73	13.62	10.66	14.45	11.26	15.28	11.07
15					12.50	10.17	13.29	10.99	13.68	10.90	14.12	10.84	14.99	11.44	15.87	11.25
17					12.92	10.35	13.75	11.17	14.16	11.09	14.62	11.02	15.54	11.62	16.45	11.42
19					13.21	10.47	14.06	11.29	14.48	11.21	14.95	11.14	15.88	11.74	16.82	11.53
21					13.50	10.60	14.36	11.41	14.80	11.33	15.28	11.26	16.23	11.85	17.19	11.65
23					13.50	10.60	14.40	11.42	14.83	11.34	15.31	11.27	16.28	11.87	17.25	11.67
25			12.53	10.79	13.50	10.60	14.43	11.43	14.87	11.35	15.35	11.28	16.33	11.89	17.30	11.68
27			12.48	10.77	13.50	10.60	14.46	11.45	14.90	11.37	15.34	11.28	16.23	11.85		
29			12.37	10.72	13.31	10.52	14.23	11.35	14.68	11.28	15.13	11.20	16.03	11.79		
31			12.26	10.67	13.11	10.43	13.99	11.26	14.45	11.19	14.91	11.12	15.82	11.72		
33	11.49	9.94	12.02	10.56	12.92	10.35	13.76	11.17	14.23	11.11	14.69	11.04	15.61	11.65		
35	10.88	9.64	11.63	10.38	12.72	10.27	13.53	11.08	14.00	11.02	14.47	10.96	15.41	11.58		
37	10.75	9.58	11.45	10.30	12.49	10.17	13.29	10.99	13.74	10.93	14.18	10.86	15.08	11.47		
39	10.62	9.52	11.26	10.21	12.26	10.07	13.04	10.89	13.47	10.83	13.90	10.76	14.76	11.37		
41	10.49	9.45	11.07	10.13	12.02	9.97	12.80	10.80	13.21	10.73	13.62	10.66	14.44	11.26		
43	10.35	9.39	10.89	10.05	11.79	9.88	12.55	10.70	12.94	10.63	13.33	10.55	14.11	11.15		

Notes(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length: 7.5m

Level difference of Zero (3) Symbols are as follows.

TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

Heating mode: HC Indoor air temperature Outdoor air temp °CDB °CDB °CWB 20 16 18 22 24 10.42 10.34 10.26 10.17 10.09 -19.8 -20 -18 11.06 10.97 10.88 10.79 10.70 -15.7 -16 11.69 11.60 11.50 11.41 11.32 11.91 11.81 12.10 -13.5 -14 12.20 12.00 -11.5 -12 12.70 12.60 12.50 12.40 12.30 -9.5 -10 13.21 | 13.11 | 13.00 12.90 12.79 -7.5 -8 13.71 13.61 13.50 13.39 | 13.28 14.17 13.94 13.83 -5.5 14.28 14.06 -6 14.73 14.49 14.37 -3.0 14.84 14.61 -1.0 15.41 15.29 15.17 15.04 14.91 15.85 15.59 15.45 1.0 0 15.97 15.72 15.86 15.73 2.0 16.26 16.13 16.00 3.0 2 16.25 16.13 16.00 15.86 15.73 16.13 15.86 15.73 5.0 4 16.25 16.00 7.0 16.25 16.12 16.00 15.87 15.73 6 9.0 16.80 8 16.93 16.68 16.54 16.40 11.5 10 17.61 17.48 17.35 17.21 17.07 18.12 18.17 13.5 12 18.53 18.39 18.25 19.46 19.31 19.16 19.02 19.27 15.5 14 16 19.93 19.77 19.61 19.48 19.82 16.5

(kW)

Coolina mode Indoor air temperature Outdoo 18°CDB 21°CDB 23°CDB 26°CDB 27°CDB 28°CDB 31°CDB 33°CDB air temp 12°CWB 14°CWB 16°CWB 18°CWB 19°CWB 20°CWB 22°CWB 24°CWB °CDB TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC 11 11.66 9.82 12.38 10.63 12.73 10.55 13.13 10.48 13.91 11.09 14.70 10.90 12.08 10.00 13.62 10.66 14.45 11.26 15.28 11.07 13 12.83 10.81 13.21 10.73 15 12.50 10.17 13.29 10.99 13.68 10.90 14.12 10.84 14.99 11.44 15.87 11.25 17 12.92 10.35 13.75 11.17 14.16 14.62 11.02 15.54 11.62 16.45 11.42 11.09 19 13.21 10.47 14.06 11.29 14.48 11.21 14.95 11.14 15.88 11.74 16.82 11.53 11.85 21 13.50 10.60 14.36 11.41 14.80 11.33 15.28 11.26 16.23 17.19 11.65 23 13.50 10.60 14.40 11.42 14.83 11.34 15.31 11.27 16.28 11.87 17.25 11.67 25 12.53 10.79 13.50 10.60 14.43 11.43 14.87 11.35 15.35 11.28 16.33 11.89 17.30 11.68 27 12.48 10.77 13.50 10.60 14.46 11.45 14.90 11.37 15.34 11.28 16.23 11.85 29 12.37 10.72 13.31 10.52 14.23 11.35 14.68 11.28 15.13 11.20 16.03 11.79 31 12.26 10.67 13.11 10.43 13.99 11.26 14.45 11.19 14.91 11.12 15.82 11.72 33 11.49 9.94 12.02 10.56 12.92 10.35 13.76 11.17 14.23 11.11 14.69 11.04 15.61 11.65

11.08

10.89 13.47

14.00 11.02 14.47 10.96

13.74 10.93

12.94

10.83

10.73

10.63 13.33 10.55

14.18 10.86

13.90

13 62 10.66

Indoor unit FDE71VG (2 uints)

Outdoor unit FDC140VSX

15.41 11.58

15.08

14.76

14 44 11 26

14.11 11.15

10.76

11.47

11.37

Heating mode: HC Indoor air temperature Outdoor air temp °CDB °CWB 20 CDB 16 18 22 24 16.00 15.87 15.74 19.8 -20 16.13 17.7 -18 16.19 16.07 15.94 15.81 15.68 16.13 16.00 15.87 15.74 15.7 -16 16.26 -13.5 16.26 16.13 16.00 15.87 15.74 -14 -11.5 16.25 16.13 16.00 15.87 15.74 -12 -9.5 -10 16.25 16.13 16.00 15.87 15.74 16.12 16.00 15.87 15.74 -7.5 -8 16.25 -5.5 -6 16.25 16.13 16.00 15.87 15.74 -3.0 -4 16.25 16.13 16.00 15.87 15.73 -1.0 -2 16.25 16.13 16.00 15.86 15.73 15.86 15.73 16.25 16.13 16.00 1.0 0 2.0 16.26 16.13 16.00 15.86 15.73 3.0 2 16.25 16.13 16.00 15.86 15.73 5.0 4 16.25 16.13 16.00 15.86 | 15.73 7.0 6 16.25 16.12 16.00 15.87 | 15.73 9.0 8 16.93 16.80 16.68 16.54 16.40 11.5 10 17.61 17 48 17.35 17.21 17.07 13.5 18.53 18.39 18.25 18.12 18.17 12 15.5 19.46 19.31 19.16 19.02 19.27 16.5 16 19.93 19.77 19.61 19.48 19.82

PFA004Z047

(kW)

#### (c) Triple type

35

37

39

41

43

10.88 9.64

10.75 9.58

10.62 9.52

10 49 9 45

10.35 9.39 11.63 10.38

11.45

11.26 10.21

11 07 10 13

10.89 10.05

10.30

12.72 10.27 13.53

12.49

12.26

12 02 9 97

11.79 9.88

10.17

10.07

13.29 10.99

13.04

1280 10.80 13 21

12.55 10.70

FDE140VSXPVG

Model FDE140VNXTVG Indoor unit FDE50VG (3 uints) Outdoor unit FDC140VNX Cooling mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°C	DB	21°C	DB	23°C	DB	26°C	DB	27°C	DB	28°C	DB	31°C	DB	33°C	DB
un tomp.	12°C	:WB	14℃	WB	16°C	:WB	18°C	:WB	19℃	:WB	20°C	WB	22°C	WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.70	12.38	10.49	12.73	10.41	13.13	10.34	13.91	10.92	14.70	10.73
13					12.08	9.87	12.83	10.66	13.21	10.58	13.62	10.51	14.45	11.10	15.28	10.91
15					12.50	10.05	13.29	10.84	13.68	10.76	14.12	10.69	14.99	11.28	15.87	11.08
17					12.92	10.23	13.75	11.02	14.16	10.94	14.62	10.87	15.54	11.46	16.45	11.26
19					13.21	10.35	14.06	11.14	14.48	11.06	14.95	10.99	15.88	11.58	16.82	11.38
21					13.50	10.48	14.36	11.26	14.80	11.19	15.28	11.12	16.23	11.70	17.19	11.49
23					13.50	10.48	14.40	11.28	14.83	11.20	15.31	11.13	16.28	11.71	17.25	11.51
25			12.53	10.67	13.50	10.48	14.43	11.29	14.87	11.21	15.35	11.14	16.33	11.73	17.30	11.52
27			12.48	10.64	13.50	10.48	14.46	11.30	14.90	11.23	15.34	11.14	16.23	11.70		
29			12.37	10.59	13.31	10.40	14.23	11.21	14.68	11.14	15.13	11.06	16.03	11.63		
31			12.26	10.54	13.11	10.31	13.99	11.12	14.45	11.05	14.91	10.98	15.82	11.56		
33	11.49	9.83	12.02	10.43	12.92	10.23	13.76	11.03	14.23	10.97	14.69	10.90	15.61	11.49		
35	10.88	9.53	11.63	10.25	12.72	10.14	13.53	10.93	14.00	10.88	14.47	10.82	15.41	11.42		
37	10.75	9.47	11.45	10.17	12.49	10.05	13.29	10.84	13.74	10.78	14.18	10.71	15.08	11.31		
39	10.62	9.41	11.26	10.09	12.26	9.95	13.04	10.74	13.47	10.68	13.90	10.61	14.76	11.20		
41	10.49	9.34	11.07	10.00	12.02	9.85	12.80	10.65	13.21	10.58	13.62	10.51	14.44	11.10		
43	10.35	9.28	10.89	9.92	11.79	9.75	12.55	10.55	12.94	10.48	13.33	10.41	14.11	10.99		

Heating mode : HC

(kW)

Notes(1) These data show average statuses. Depending on the system control, there may be ranges where the operation is not conducted continuously

These data show the case where the operation frequency of a compressor is fixed.(Cooling only) (2) Capacities are based on the following conditions. Corresponding refrigerant piping length: 7.5m

Level difference of Zero (3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC : Heating capacity (kW)

Out	door	In	door a	ir temp	peratui	re
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	10.42	10.34	10.26	10.17	10.09
-17.7	-18	11.06	10.97	10.88	10.79	10.70
-15.7	-16	11.69	11.60	11.50	11.41	11.32
-13.5	-14	12.20	12.10	12.00	11.91	11.81
-11.5	-12	12.70	12.60	12.50	12.40	12.30
-9.5	-10	13.21	13.11	13.00	12.90	12.79
-7.5	-8	13.71	13.61	13.50	13.39	13.28
-5.5	-6	14.28	14.17	14.06	13.94	13.83
-3.0	-4	14.84	14.73	14.61	14.49	14.37
-1.0	-2	15.41	15.29	15.17	15.04	14.91
1.0	0	15.97	15.85	15.72	15.59	15.45
2.0	1	16.26	16.13	16.00	15.86	15.73
3.0	2	16.25	16.13	16.00	15.86	15.73
5.0	4	16.25	16.13	16.00	15.86	15.73
7.0	6	16.25	16.12	16.00	15.87	15.73
9.0	8	16.93	16.80	16.68	16.54	16.40
11.5	10	17.61	17.48	17.35	17.21	17.07
13.5	12	18.53	18.39	18.25	18.12	18.17
15.5	14	19.46	19.31	19.16	19.02	19.27
16.5	16	19.93	19.77	19.61	19.48	19.82

Model	FDE140VSXTVG	Indoor unit	FDE50VG (3 uints)	Outdoor unit	FDC140VSX
Cooling	mode				

							Indo	or air t	emper	ature						
Outdoor	18°C	DB	21°0	DB	23°C	DB	26°C		27°C		28°C	DB	31°0	DB	33°0	DB
air temp.	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19°C	WB	20°C	WB	22°C	WB	24℃	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.70	12.38	10.49	12.73	10.41	13.13	10.34	13.91	10.92	14.70	10.73
13					12.08	9.87	12.83	10.66	13.21	10.58	13.62	10.51	14.45	11.10	15.28	10.91
15					12.50	10.05	13.29	10.84	13.68	10.76	14.12	10.69	14.99	11.28	15.87	11.08
17					12.92	10.23	13.75	11.02	14.16	10.94	14.62	10.87	15.54	11.46	16.45	11.26
19					13.21	10.35	14.06	11.14	14.48	11.06	14.95	10.99	15.88	11.58	16.82	11.38
21					13.50	10.48	14.36	11.26	14.80	11.19	15.28	11.12	16.23	11.70	17.19	11.49
23					13.50	10.48	14.40	11.28	14.83	11.20	15.31	11.13	16.28	11.71	17.25	11.51
25			12.53	10.67	13.50	10.48	14.43	11.29	14.87	11.21	15.35	11.14	16.33	11.73	17.30	11.52
27			12.48	10.64	13.50	10.48	14.46	11.30	14.90	11.23	15.34	11.14	16.23	11.70		
29			12.37	10.59	13.31	10.40	14.23	11.21	14.68	11.14	15.13	11.06	16.03	11.63		
31			12.26	10.54	13.11	10.31	13.99	11.12	14.45	11.05	14.91	10.98	15.82	11.56		
33	11.49	9.83	12.02	10.43	12.92	10.23	13.76	11.03	14.23	10.97	14.69	10.90	15.61	11.49		
35	10.88	9.53	11.63	10.25	12.72	10.14	13.53	10.93	14.00	10.88	14.47	10.82	15.41	11.42		
37	10.75	9.47	11.45	10.17	12.49	10.05	13.29	10.84	13.74	10.78	14.18	10.71	15.08	11.31		
39	10.62	9.41	11.26	10.09	12.26	9.95	13.04	10.74	13.47	10.68	13.90	10.61	14.76	11.20		
41	10.49	9.34	11.07	10.00	12.02	9.85	12.80	10.65	13.21	10.58	13.62	10.51	14.44	11.10		
43	10.35	9.28	10.89	9.92	11.79	9.75	12.55	10.55	12.94	10.48	13.33	10.41	14.11	10.99		

Notes(1) These data show average status

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions: Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

(kW) Heating mode: HC Outdoor Indoor air temperature air temp. °CDB 20 CDB °CWB 16 18 22 24 -19.8 -20 16.13 16.00 15.87 15.74 15.61 16.07 15.81 15.68 -17.7 -18 16.19 15.94 16.13 16.00 15.87 15.74 -15.7 -16 16.26 15.87 15.74 -13.5 -14 16.26 16.13 16.00 -11.5 -12 16.25 16.13 16.00 15.87 15.74 -9.5 16.25 16.13 16.00 15.87 15.74 -10 16.25 16.12 16.00 15.87 15.74 -7.5 -8 -5.5 -6 16.25 16.13 16.00 15.87 15.74 -3.0 -4 16.25 16.13 16.00 15.87 15.73 -2 16.25 16.13 16.00 15.86 15.73 -1.0 16.25 16.13 16.00 15.86 15.73 1.0 0 2.0 16.26 | 16.13 | 16.00 | 15.86 | 15.73 3.0 16.25 | 16.13 | 16.00 | 15.86 | 15.73 5.0 16.25 16.13 16.00 15.86 15.73 4 16.12 16.00 15.87 15.73 7.0 6 16.25 9.0 8 16.93 16.80 16.68 16.54 16.40 17.21 17.07 17.61 17.48 17.35 11.5 10 18.12 18.17 13.5 12 18.53 18.39 18.25 15.5 19.46 19.31 19.16 19.02 19.27 16.5 16 19.93 | 19.77 | 19.61 | 19.48 | 19.82

#### (2) Duct connected-Low / Middle static pressure type (FDUM)

#### (a) Single type

Model FDUM40ZSXVF Indoor unit FDUM40VF Outdoor unit SRC40ZSX-S Cooling mode

Outdoor	Indoor air temperature															
Outdoor air temp.	18°C	DB	21°C	DB	23°C	DB	26°C	DB	27℃	DB	28°C	DB	31°C	DB	33℃	DB
un tomp.	12℃	:WB	14℃	:WB	16°C	WB	18℃	:WB	19℃	WB	20°C	:WB	22°C	:WB	24°C	:WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					3.38	3.08	3.56	3.34	3.65	3.31	3.75	3.29	3.95	3.49	4.15	3.44
13					3.46	3.11	3.65	3.37	3.75	3.35	3.85	3.33	4.05	3.52	4.26	3.47
15					3.54	3.14	3.74	3.41	3.84	3.38	3.95	3.36	4.15	3.56	4.36	3.50
17					3.62	3.18	3.83	3.44	3.94	3.42	4.04	3.39	4.26	3.59	4.47	3.53
19					3.69	3.21	3.91	3.47	4.02	3.45	4.15	3.43	4.41	3.64	4.67	3.59
21					3.81	3.26	3.99	3.51	4.10	3.48	4.26	3.47	4.56	3.69	4.87	3.66
23					3.85	3.27	4.04	3.53	4.15	3.50	4.30	3.49	4.59	3.71	4.88	3.66
25			3.73	3.40	3.89	3.29	4.08	3.54	4.20	3.52	4.34	3.50	4.61	3.71	4.89	3.66
27			3.76	3.42	3.93	3.31	4.13	3.56	4.25	3.54	4.36	3.51	4.60	3.71		
29			3.70	3.39	3.86	3.28	4.06	3.53	4.18	3.51	4.30	3.49	4.54	3.69		
31			3.64	3.36	3.80	3.25	4.00	3.51	4.12	3.49	4.24	3.47	4.48	3.67		
33	3.23	3.03	3.44	3.27	3.74	3.23	3.94	3.49	4.06	3.47	4.18	3.45	4.42	3.65		
35	3.28	3.05	3.44	3.27	3.68	3.20	3.88	3.46	4.00	3.44	4.12	3.42	4.36	3.63		
37	3.23	3.03	3.38	3.24	3.62	3.18	3.82	3.44	3.94	3.42	4.06	3.40	4.30	3.61		
39	3.17	3.00	3.32	3.22	3.56	3.15	3.76	3.42	3.88	3.40	4.00	3.38	4.23	3.58		
41	3.12	2.98	3.27	3.19	3.50	3.13	3.70	3.39	3.82	3.38	3.93	3.36	4.17	3.56		
43	3.06	2.95	3.21	3.15	3.44	3.10	3.64	3.37	3.76	3.35	3.87	3.33	4.10	3.54		

(kW)		Heatir	ng mo	de · H	C			(kW)
(1277)	П		door			ir temp	oratu	
DB	П		emp.	- 111	uooi a	°CDB	Jeratui	-
VB	П		°CWB	16	18	20	22	24
SHC	П	-19.8	-20	10	10	20	22	24
_	П							
3.44	П	-17.7	-18					
3.47	П	-15.7	-16					
3.50	П	-13.5	-14	2.67	2.63	2.59	2.55	2.50
3.53	П	-11.5	-12	2.83	2.79	2.75	2.71	2.67
3.59	П	-9.5         -10         3.00         2.96         2.92           -7.5         -8         3.17         3.13         3.09						2.84
3.66	П	-7.5	-8	3.05	3.01			
3.66	П	-5.5	-6	3.23	3.20	3.16	3.12	3.09
3.66	П	-3.0	-4	3.29	3.26	3.23	3.20	3.17
	П	-1.0	-2	3.36	3.33	3.30	3.28	3.25
	П	1.0	0	3.42	3.40	3.38	3.35	3.33
	П	2.0	1	3.45	3.43	3.41	3.39	3.37
	П	3.0	2	3.67	3.65	3.63	3.61	3.59
	П	5.0	4	4.11	4.09	4.07	4.04	4.01
	П	7.0	6	4.55	4.53	4.50	4.47	4.44
	П	9.0	8	4.78	4.75	4.72	4.69	4.66
	П	11.5	10	5.01	4.98	4.95	4.91	4.88
		13.5	12	5.30	5.26	5.21	5.14	5.10
		15.5	14	5.58	5.53	5.48	5.37	5.32
		16.5	16	5.73	5.67	5.61	5.48	5.44

#### PJG000Z012A

Model FDUM50ZSXVF Indoor unit FDUM50VF Outdoor unit SRC50ZSX-S Cooling mode

Cooling	Cooling mode (kW) Indoor air temperature															
Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°(	CDB
u 10p.	12°	CWB	14°(	CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°0	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.22	3.43	4.45	3.69	4.56	3.66	4.69	3.63	4.94	3.82	5.19	3.76
13					4.32	3.48	4.56	3.73	4.68	3.71	4.81	3.68	5.07	3.87	5.32	3.80
15					4.42	3.52	4.68	3.78	4.80	3.75	4.93	3.72	5.19	3.91	5.45	3.84
17					4.53	3.57	4.79	3.83	4.92	3.80	5.06	3.77	5.32	3.96	5.58	3.88
19					4.62	3.61	4.89	3.87	5.02	3.84	5.19	3.82	5.51	4.02	5.84	3.97
21					4.76	3.67	4.99	3.91	5.13	3.88	5.32	3.87	5.70	4.09	6.09	4.05
23					4.81	3.70	5.04	3.93	5.19	3.91	5.37	3.89	5.73	4.10	6.10	4.05
25			4.66	3.84	4.86	3.72	5.10	3.96	5.25	3.93	5.42	3.91	5.76	4.11	6.11	4.05
27			4.70	3.86	4.91	3.74	5.16	3.98	5.31	3.96	5.46	3.93	5.75	4.11		
29			4.62	3.82	4.83	3.71	5.08	3.95	5.23	3.92	5.38	3.90	5.68	4.09		
31			4.54	3.79	4.75	3.67	5.00	3.92	5.15	3.89	5.30	3.87	5.60	4.06		
33	4.04	3.43	4.31	3.68	4.67	3.63	4.93	3.89	5.08	3.86	5.23	3.84	5.53	4.03		
35	4.11	3.47	4.30	3.67	4.59	3.60	4.85	3.85	5.00	3.83	5.15	3.81	5.45	4.00		
37	4.04	3.43	4.23	3.64	4.52	3.57	4.77	3.82	4.92	3.80	5.07	3.78	5.37	3.97		
39	3.97	3.40	4.16	3.60	4.45	3.54	4.70	3.79	4.85	3.77	4.99	3.75	5.29	3.95		
41	3.90	3.36	4.09	3.57	4.38	3.50	4.62	3.76	4.77	3.74	4.92	3.72	5.21	3.92		
43	3.83	3.33	4.01	3.53	4.30	3.47	4.55	3.73	4.69	3.71	4.84	3.69	5.13	3.89		

Notes(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Heatir	Heating mode:HC (kW) Outdoor Indoor air temperature												
		In	door a		oeratui	re							
air te	emp.			°CDB									
°CDB	°CWB	16	18	20	22	24							
-19.8	-20												
-17.7	-18												
-15.7	-16												
-13.5	-14	3.20	3.15	3.11	3.05	3.00							
-11.5	-12	3.40	3.35	3.31	3.26	3.20							
-9.5	-10	3.60	3.55	3.51	3.46	3.41							
-7.5	-8	3.80	3.75	3.71	3.66	3.61							
-5.5	-6	3.88	3.83	3.79	3.75	3.71							
-3.0	-4	3.95	3.92	3.88	3.84	3.80							
-1.0	-2	4.03	4.00	3.97	3.93	3.90							
1.0	0	4.10	4.08	4.05	4.03	4.00							
2.0	1	4.14	4.12	4.10	4.07	4.05							
3.0	2	4.41	4.38	4.36	4.33	4.30							
5.0	4	4.94	4.91	4.88	4.85	4.82							
7.0	6	5.46	5.43	5.40	5.37	5.33							
9.0	8	5.74	5.70	5.67	5.63	5.59							
11.5	10	6.02	5.98	5.94	5.89	5.85							
13.5	12	6.36	6.31	6.25	6.17	6.12							
15.5	14	6.70	6.64	6.57	6.44	6.39							
16.5	16	6.87	6.80	6.73	6.58	6.52							

Model	Model FDUM60ZSXVF Indoor unit FDUM60VF Outdoor unit SRC60ZSX-S Cooling mode (kW) I															
Cooming	mode						Indo	or air t	ompor	aturo						(KVV)
Outdoor	18°	CDB	21°	CDB	23°	CDB		CDB		CDB	28°	CDB	31°	CDB	33°	CDB
air temp.	12°(	CWB	14°(	CWB	16°0	CWB	18°(	CWB	19°(	CWB	20°0	CWB	22°(	CWB		CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.73	4.33	4.98	4.71	5.11	4.67	5.25	4.62	5.53	4.91	5.81	4.80
13					4.84	4.37	5.11	4.76	5.24	4.71	5.39	4.66	5.67	4.95	5.96	4.84
15					4.95	4.41	5.24	4.80	5.38	4.75	5.52	4.70	5.82	4.99	6.11	4.88
17					5.07	4.45	5.37	4.84	5.51	4.80	5.66	4.75	5.96	5.03	6.25	4.91
19					5.17	4.49	5.48	4.88	5.63	4.83	5.81	4.79	6.17	5.09	6.54	4.99
21					5.33	4.55	5.59	4.92	5.74	4.87	5.96	4.84	6.39	5.15	6.82	5.06
23					5.39	4.58	5.65	4.94	5.81	4.89	6.01	4.86	6.42	5.16	6.83	5.06
25			5.22	4.78	5.44	4.59	5.71	4.96	5.88	4.92	6.07	4.88	6.45	5.17	6.84	5.06
27			5.27	4.80	5.50	4.62	5.78	4.99	5.94	4.94	6.11	4.89	6.44	5.17		
29			5.18	4.77	5.41	4.58	5.69	4.95	5.86	4.91	6.02	4.86	6.36	5.14		
31			5.09	4.73	5.32	4.55	5.60	4.92	5.77	4.88	5.94	4.83	6.27	5.12		
33	4.53	4.27	4.82	4.62	5.23	4.51	5.52	4.90	5.69	4.85	5.85	4.81	6.19	5.09		
35	4.60	4.30	4.81	4.61	5.15	4.48	5.43	4.86	5.60	4.82	5.77	4.78	6.10	5.07		
37	4.52	4.27	4.73	4.58	5.06	4.45	5.35	4.84	5.51	4.80	5.68	4.75	6.01	5.04		
39	4.44	4.23	4.65	4.55	4.98	4.42	5.26	4.81	5.43	4.77	5.59	4.73	5.92	5.02		
41	4.37	4.20	4.58	4.49	4.90	4.39	5.18	4.78	5.34	4.74	5.51	4.70	5.83	4.99		
43	4.29	4.17	4.50	4.41	4.82	4.36	5.10	4.75	5.26	4.71	5.42	4.67	5.74	4.97		

	Heating mode:HC (kW)  Outdoor Indoor air temperature													
П			In	door a	ir temp	eratu	re							
П	air te	emp.			°CDB									
П	°CDB	°CWB	16	18	20	22	24							
П	-19.8	-20												
П	-17.7	-18												
П	-15.7	-16												
П	-13.5	-14	3.97	3.91	3.85	3.79	3.73							
П	-11.5	-12	4.22	4.16	4.10	4.04	3.98							
П	-9.5	-10	4.47	4.41	4.35	4.29	4.23							
П	-7.5	-8	4.72	4.54	4.48									
П	-5.5	-6	4.81	4.76	4.70	4.65	4.60							
П	-3.0	-4	4.90	4.86	4.81	4.77	4.72							
П	-1.0	-2	5.00	4.96	4.92	4.88	4.84							
П	1.0	0	5.09	5.06	5.03	4.99	4.96							
П	2.0	1	5.14	5.11	5.08	5.05	5.02							
П	3.0	2	5.47	5.44	5.41	5.37	5.34							
П	5.0	4	6.12	6.09	6.05	6.01	5.98							
П	7.0	6	6.78	6.74	6.70	6.66	6.61							
П	9.0	8	7.12	7.08	7.03	6.98	6.94							
П	11.5	10	7.47	7.41	7.36	7.31	7.26							
	13.5	12	7.89	7.82	7.76	7.65	7.59							
'	15.5	14	8.31	8.23	7.99	7.93								
	16.5	16	8.53	8.44	8.35	8.16	8.09							

#### PJG000Z012A

Model	FDUM71VNXVF1	Indoor unit	FDUM71VF1	Outdoor unit	FDC71VNX
Cooling	mode				

Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°(	CDB
a tomp.	12°0	CWB	14°(	CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(	CWB	24°0	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.87	4.77	6.02	5.60	6.59	5.67	6.79	5.62	7.19	5.96	7.59	5.82
13					5.33	5.01	6.32	5.70	6.82	5.74	7.03	5.69	7.45	6.03	7.88	5.89
15					5.79	5.17	6.63	5.80	7.05	5.82	7.27	5.76	7.71	6.10	8.16	5.96
17					6.26	5.35	6.94	5.91	7.27	5.89	7.51	5.84	7.97	6.17	8.44	6.03
19					6.59	5.47	7.16	5.98	7.44	5.95	7.68	5.89	8.15	6.22	8.63	6.08
21					6.93	5.60	7.38	6.06	7.60	6.00	7.84	5.94	8.33	6.27	8.82	6.13
23					6.91	5.59	7.35	6.05	7.57	5.99	7.81	5.93	8.30	6.26	8.78	6.11
25			6.46	5.76	6.89	5.58	7.32	6.04	7.54	5.98	7.78	5.92	8.26	6.25	8.74	6.10
27			6.45	5.75	6.87	5.57	7.30	6.03	7.52	5.97	7.74	5.91	8.18	6.23		
29			6.34	5.71	6.75	5.53	7.19	5.99	7.41	5.94	7.64	5.88	8.09	6.21		
31			6.23	5.66	6.64	5.49	7.08	5.96	7.31	5.90	7.54	5.85	7.99	6.18		
33	5.77	5.22	6.05	5.59	6.53	5.45	6.97	5.92	7.20	5.87	7.44	5.81	7.90	6.15		
35	5.67	5.18	5.95	5.55	6.42	5.40	6.86	5.88	7.10	5.83	7.34	5.78	7.81	6.13		
37	5.58	5.14	5.85	5.51	6.31	5.36	6.72	5.83	6.95	5.79	7.18	5.73	7.64	6.08		
39	5.49	5.10	5.76	5.47	6.20	5.32	6.59	5.79	6.81	5.74	7.03	5.69	7.46	6.03		
41	5.39	5.05	5.67	5.44	6.09	5.28	6.45	5.74	6.66	5.69	6.87	5.64	7.29	5.99		
43	5.30	5.02	5.57	5.40	5.97	5.24	6.31	5.70	6.51	5.65	6.71	5.59	7.12	5.94		

Notes(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

(kW)	Heatir	ng mo	de:HC				(kW)
	Out	door	ln	door a	ir temp	eratur	е
DB	air te	emp.			°CDB		
WB	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	3.95	3.93	3.91	3.88	3.86
5.82	-17.7	-18	4.18	4.16	4.14	4.11	4.09
5.89	-15.7	-16	4.42	4.39	4.37	4.34	4.32
5.96	-13.5	-14	4.68	4.65	4.63	4.60	4.57
6.03	-11.5	-12	4.94	4.91	4.88	4.85	4.82
6.08	-9.5	-10	5.20	5.17	5.14	5.11	5.08
6.13	-7.5	-8	5.46	5.43	5.40	5.36	5.33
6.11	-5.5	-6	5.59	5.55	5.52	5.48	5.44
6.10	-3.0	-4	5.71	5.68	5.64	5.60	5.56
	-1.0	-2	5.84	5.80	5.76	5.72	5.67
	1.0	0	5.97	5.92	5.88	5.83	5.79
	2.0	1	6.03	5.98	5.94	5.89	5.85
	3.0	2	6.45	6.40	6.35	6.30	6.25
	5.0	4	7.29	7.23	7.18	7.12	7.06
	7.0	6	8.13	8.06	8.00	7.93	7.87
	9.0	8	8.42	8.36	8.29	8.23	8.16
	11.5	10	8.72	8.65	8.59	8.52	8.46
	13.5	12	9.20	9.13	9.06	9.00	8.92
	15.5	14	9.69	9.61	9.53	9.47	9.39
	16.5	16	9.93	9.85	9.77	9.71	9.62

**Model FDUM100VNXVF2** Indoor unit FDUM100VF2 Outdoor unit FDC100VNX Cooling mode

Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
dii tomp.	12°0	CWB	14°(	CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°(	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.94	8.84	7.57	9.10	7.45	9.38	7.33	9.94	7.76	10.50	7.48
13					8.63	7.03	9.17	7.65	9.43	7.52	9.73	7.40	10.32	7.83	10.92	7.54
15					8.93	7.11	9.49	7.73	9.77	7.60	10.09	7.48	10.71	7.90	11.34	7.60
17					9.23	7.20	9.82	7.82	10.11	7.69	10.44	7.56	11.10	7.97	11.75	7.67
19					9.44	7.27	10.04	7.87	10.34	7.74	10.68	7.61	11.35	8.02	12.01	7.71
21					9.64	7.33	10.26	7.93	10.57	7.80	10.91	7.66	11.59	8.07	12.28	7.75
23					9.64	7.33	10.28	7.94	10.59	7.80	10.94	7.67	11.63	8.08	12.32	7.76
25			8.95	7.65	9.64	7.33	10.30	7.94	10.62	7.81	10.97	7.68	11.66	8.08	12.36	7.76
27			8.91	7.63	9.64	7.33	10.33	7.95	10.64	7.82	10.96	7.68	11.59	8.07		
29			8.84	7.61	9.51	7.29	10.16	7.91	10.48	7.78	10.80	7.64	11.45	8.04		
31			8.76	7.58	9.37	7.25	10.00	7.86	10.32	7.74	10.65	7.60	11.30	8.01		
33	8.21	7.04	8.58	7.52	9.23	7.20	9.83	7.82	10.16	7.70	10.49	7.57	11.15	7.98		
35	7.77	6.87	8.31	7.43	9.09	7.16	9.66	7.77	10.00	7.66	10.34	7.53	11.01	7.96		
37	7.68	6.84	8.18	7.39	8.92	7.11	9.49	7.73	9.81	7.61	10.13	7.49	10.77	7.91		
39	7.58	6.80	8.04	7.34	8.76	7.06	9.31	7.68	9.62	7.57	9.93	7.44	10.54	7.87		
41	7.49	6.77	7.91	7.30	8.59	7.02	9.14	7.64	9.43	7.52	9.73	7.40	10.31	7.83		
43	7.40	6.74	7.78	7.26	8.42	6.97	8.96	7.60	9.24	7.48	9.52	7.36	10.08	7.79		

	Heating mode:HC (kW)												
1		door	In	Indoor air temperature									
ı	air te	emp.	°CDB										
ı	°CDB	°CWB	16	18	20	22	24						
ı	-19.8	-20	7.30	7.24	7.18	7.12	7.06						
ı	-17.7	-18	7.74	7.68	7.62	7.55	7.49						
ı	-15.7	-16	8.18	8.12	8.05	7.99	7.92						
ı	-13.5	-14	8.54	8.47	8.40	8.33	8.27						
ı	-11.5	-12	8.89	8.82	8.75	8.68	8.61						
ı	-9.5	-10	9.25	9.17	9.10	9.03	8.95						
ı	-7.5	-8	9.60	9.53	9.45	9.38	9.30						
ı	-5.5	-6	10.00	9.92	9.84	9.76	9.68						
ı	-3.0	-4	10.39	10.31	10.23	10.14	10.06						
ı	-1.0	-2	10.79	10.70	10.62	10.53	10.44						
ı	1.0	0	11.18	11.09	11.01	10.91	10.82						
ı	2.0	1	11.38	11.29	11.20	11.10	11.01						
ı	3.0	2	11.38	11.29	11.20	11.10	11.01						
ı	5.0	4	11.38	11.29	11.20	11.11	11.01						
ı	7.0	6	11.37	11.29	11.20	11.11	11.01						
Į	9.0	8	11.85	11.76	11.67	11.58	11.48						
ı	11.5	10	12.32	12.23	12.15	12.05	11.95						
	13.5	12	12.97	12.88	12.78	12.68	12.72						
ı	15.5	14	13.62	13.52	13.41	13.32	13.49						
ı	16.5	16	13.95	13.84	13.72	13.63	13.87						

(kW)

PJG000Z012A

**Model FDUM100VSXVF2** Indoor unit FDUM100VF2 Outdoor unit FDC100VSX Cooling mode

																()
0.44							Indo	or air t	emper	ature						
Outdoor air temp.	18°CDB		21°CDB		23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°CDB		33°CDB	
an temp.	12°	CWB	14°(	CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°CWB		24°CWB	
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.94	8.84	7.57	9.10	7.45	9.38	7.33	9.94	7.76	10.50	7.48
13					8.63	7.03	9.17	7.65	9.43	7.52	9.73	7.40	10.32	7.83	10.92	7.54
15					8.93	7.11	9.49	7.73	9.77	7.60	10.09	7.48	10.71	7.90	11.34	7.60
17					9.23	7.20	9.82	7.82	10.11	7.69	10.44	7.56	11.10	7.97	11.75	7.67
19					9.44	7.27	10.04	7.87	10.34	7.74	10.68	7.61	11.35	8.02	12.01	7.71
21					9.64	7.33	10.26	7.93	10.57	7.80	10.91	7.66	11.59	8.07	12.28	7.75
23					9.64	7.33	10.28	7.94	10.59	7.80	10.94	7.67	11.63	8.08	12.32	7.76
25			8.95	7.65	9.64	7.33	10.30	7.94	10.62	7.81	10.97	7.68	11.66	8.08	12.36	7.76
27			8.91	7.63	9.64	7.33	10.33	7.95	10.64	7.82	10.96	7.68	11.59	8.07		
29			8.84	7.61	9.51	7.29	10.16	7.91	10.48	7.78	10.80	7.64	11.45	8.04		
31			8.76	7.58	9.37	7.25	10.00	7.86	10.32	7.74	10.65	7.60	11.30	8.01		
33	8.21	7.04	8.58	7.52	9.23	7.20	9.83	7.82	10.16	7.70	10.49	7.57	11.15	7.98		
35	7.77	6.87	8.31	7.43	9.09	7.16	9.66	7.77	10.00	7.66	10.34	7.53	11.01	7.96		
37	7.68	6.84	8.18	7.39	8.92	7.11	9.49	7.73	9.81	7.61	10.13	7.49	10.77	7.91		
39	7.58	6.80	8.04	7.34	8.76	7.06	9.31	7.68	9.62	7.57	9.93	7.44	10.54	7.87		
41	7.49	6.77	7.91	7.30	8.59	7.02	9.14	7.64	9.43	7.52	9.73	7.40	10.31	7.83		
43	7.40	6.74	7.78	7.26	8.42	6.97	8.96	7.60	9.24	7.48	9.52	7.36	10.08	7.79		

Notes(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW) Heating mode:HC Outdoor Indoor air temperature air temp. °CDB CDB CWB 16 18 20 22 24 -19.8 -20 11.29 11.20 11.11 11.02 10.93 11.34 11.25 11.16 11.06 10.97 -17.7 -18 -15.7 -16 11.38 11.29 11.20 11.11 11.02 11.38 11.29 11.20 11.11 11.02 -13.5 -14 -11.5 -12 11.38 11.29 11.20 11.11 11.02 11.38 11.29 11.20 11.11 11.02 -9.5 | -10 -7.5 -8 11.37 11.29 11.20 11.11 11.02 -5.5 -6 11.38 11.29 11.20 11.11 11.02 |11.38|11.29|11.20|11.11|11.01 -3.0 -4 11.38 11.29 11.20 11.11 11.01 -1.0 11.38 11.29 11.20 11.10 11.01 1.0 0 2.0 11.38 11.29 11.20 11.10 11.01 11.38 11.29 11.20 11.10 11.01 3.0 2 11.38 11.29 11.20 11.11 11.01 5.0 4 7.0 11.37 11.29 11.20 11.11 11.01 6 9.0 8 11.85 11.76 11.67 11.58 11.48 11.5 12.32 12.23 12.15 12.05 11.95 10 12.97 12.88 12.78 12.68 12.72 13.5 12 15.5 13.62 13.52 13.41 13.32 13.49 13.95 13.84 13.72 13.63 13.87 16.5 16

Model FDUM125VNXVF Indoor unit FDUM125VF Outdoor unit FDC125VNX

Cooling	ooling mode (kW)															
Outdoor		Indoor air temperature														
air temp.	1 18°CDB   21°CDB		CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°CDB		
	12°0	CWB	14°(	CWB	16°0	CWB	18°	CWB	19°0	CWB	20°	CWB	22°CWB		24°CWB	
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	9.34	11.05	10.16	11.37	10.10	11.72	10.04	12.42	10.66	13.12	10.51
13					10.79	9.50	11.46	10.32	11.79	10.25	12.16	10.20	12.91	10.83	13.65	10.67
15					11.16	9.66	11.87	10.48	12.22	10.42	12.61	10.36	13.39	10.99	14.17	10.83
17					11.54	9.82	12.27	10.64	12.64	10.58	13.05	10.52	13.87	11.15	14.69	10.99
19					11.80	9.93	12.55	10.75	12.93	10.69	13.34	10.63	14.18	11.25	15.02	11.10
21					12.05	10.04	12.83	10.86	13.21	10.79	13.64	10.74	14.49	11.36	15.34	11.20
23					12.05	10.04	12.85	10.87	13.24	10.81	13.67	10.75	14.54	11.38	15.40	11.22
25			11.19	10.21	12.05	10.04	12.88	10.88	13.27	10.82	13.71	10.77	14.58	11.39	15.45	11.23
27			11.14	10.19	12.05	10.04	12.91	10.89	13.30	10.83	13.70	10.76	14.49	11.36		
29			11.05	10.15	11.88	9.97	12.70	10.81	13.10	10.75	13.51	10.69	14.31	11.30		
31			10.95	10.10	11.71	9.89	12.49	10.72	12.90	10.67	13.31	10.62	14.13	11.24		
33	10.26	9.37	10.73	10.00	11.53	9.82	12.29	10.64	12.70	10.60	13.11	10.54	13.94	11.17		
35	9.71	9.10	10.39	9.84	11.36	9.74	12.08	10.56	12.50	10.52	12.92	10.47	13.76	11.11		
37	9.60	9.05	10.22	9.77	11.15	9.65	11.86	10.47	12.26	10.43	12.67	10.38	13.47	11.01		
39	9.48	8.99	10.05	9.69	10.94	9.57	11.64	10.39	12.03	10.34	12.41	10.29	13.18	10.92		
41	9.36	8.93	9.89	9.62	10.74	9.48	11.42	10.30	11.79	10.25	12.16	10.20	12.89	10.82		
43	9.25	8.88	9.72	9.53	10.53	9.39	11.21	10.22	11.55	10.16	11.90	10.10	12.60	10.72		

	Heating mode:HC (kW												
		door	ln	Indoor air temperature									
Ш	air te	emp.	°CDB										
Ш	°CDB	°CWB	16	18	20	22	24						
Ш	-19.8 -20		9.12	9.05	8.97	8.90	8.83						
Ш	-17.7	-17.7 -18		9.60	9.52	9.44	9.37						
Ш	-15.7	-16	10.23	10.15	10.07	9.98	9.90						
Ш	-13.5	-14	10.67	10.59	10.50	10.42	10.33						
Ш	-11.5	-12	11.11	11.03	10.94	10.85	10.76						
Ш	-9.5	-10	11.56	11.47	11.38	11.29	11.19						
Ш	-7.5	-8	12.00	11.91	11.82	11.72	11.62						
Ш	-5.5	-6	12.49	12.40	12.30	12.20	12.10						
Ш	-3.0	-4	12.99	12.89	12.79	12.68	12.57						
Ш	-1.0	-2	13.48	13.38	13.27	13.16	13.05						
Ш	1.0	0	13.98	13.87	13.76	13.64	13.52						
Ш	2.0	1	14.22	14.11	14.00	13.88	13.76						
Ш	3.0	2	14.22	14.11	14.00	13.88	13.76						
Ш	5.0	4	14.22	14.11	14.00	13.88	13.76						
Ш	7.0	6	14.22	14.11	14.00	13.88	13.77						
Ш	9.0	8	14.81	14.70	14.59	14.47	14.35						
Ш	11.5	10	15.41	15.29	15.18	15.06	14.94						
	13.5	12	16.22	16.09	15.97	15.85	15.90						
'	15.5	14	17.03	16.90	16.76	16.65	16.86						
	16.5	16	17.44	17.30	17.16	17.04	17.34						

PJG000Z012A

Model	FDUM125VSXVF	Indoor unit	FDUM125VF	Outdoor unit	FDC125VSX
wodei	FDUINI 123V3XVF	illuool ullit	FD0W123VF	Outdoor unit	FDC 123V3.

Cooling	Cooling mode (kW)															
0.44		Indoor air temperature														
Outdoor air temp.	1 18°CDB 1 21°C		CDB	23°CDB		26°	CDB	27°	CDB	28°	28°CDB 31°		CDB	33°	33°CDB	
dii tomp.	12°	CWB	14°(	CWB	16°0	CWB	18°	CWB	19°0	CWB	20°	CWB	22°CWB		24°CWB	
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	9.34	11.05	10.16	11.37	10.10	11.72	10.04	12.42	10.66	13.12	10.51
13					10.79	9.50	11.46	10.32	11.79	10.25	12.16	10.20	12.91	10.83	13.65	10.67
15					11.16	9.66	11.87	10.48	12.22	10.42	12.61	10.36	13.39	10.99	14.17	10.83
17					11.54	9.82	12.27	10.64	12.64	10.58	13.05	10.52	13.87	11.15	14.69	10.99
19					11.80	9.93	12.55	10.75	12.93	10.69	13.34	10.63	14.18	11.25	15.02	11.10
21					12.05	10.04	12.83	10.86	13.21	10.79	13.64	10.74	14.49	11.36	15.34	11.20
23					12.05	10.04	12.85	10.87	13.24	10.81	13.67	10.75	14.54	11.38	15.40	11.22
25			11.19	10.21	12.05	10.04	12.88	10.88	13.27	10.82	13.71	10.77	14.58	11.39	15.45	11.23
27			11.14	10.19	12.05	10.04	12.91	10.89	13.30	10.83	13.70	10.76	14.49	11.36		
29			11.05	10.15	11.88	9.97	12.70	10.81	13.10	10.75	13.51	10.69	14.31	11.30		
31			10.95	10.10	11.71	9.89	12.49	10.72	12.90	10.67	13.31	10.62	14.13	11.24		
33	10.26	9.37	10.73	10.00	11.53	9.82	12.29	10.64	12.70	10.60	13.11	10.54	13.94	11.17		
35	9.71	9.10	10.39	9.84	11.36	9.74	12.08	10.56	12.50	10.52	12.92	10.47	13.76	11.11		
37	9.60	9.05	10.22	9.77	11.15	9.65	11.86	10.47	12.26	10.43	12.67	10.38	13.47	11.01		
39	9.48	8.99	10.05	9.69	10.94	9.57	11.64	10.39	12.03	10.34	12.41	10.29	13.18	10.92		
41	9.36	8.93	9.89	9.62	10.74	9.48	11.42	10.30	11.79	10.25	12.16	10.20	12.89	10.82		
43	9.25	8.88	9.72	9.53	10.53	9.39	11.21	10.22	11.55	10.16	11.90	10.10	12.60	10.72		

Notes(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Heating mode:HC (kW											
	door	Indoor air temperature									
air te	emp.	°CDB									
°CDB	°CWB	16	18	20	22	24					
-19.8	-20	14.11	14.00	13.89	13.78	13.66					
-17.7	-18	14.17	14.06	13.93	13.83	13.72					
-15.7	-16	14.23	14.11	14.00	13.89	13.77					
-13.5	-14	14.23	14.11	14.00	13.89	13.77					
-11.5	-12	14.22	14.11	14.00	13.89	13.77					
-9.5	-10	14.22	14.11	14.00	13.89	13.77					
-7.5	-8	14.22	14.11	14.00	13.89	13.77					
-5.5	-6	14.22	14.11	14.00	13.88	13.77					
-3.0	-4	14.22	14.11	14.00	13.88	13.77					
-1.0	-2	14.22	14.11	14.00	13.88	13.76					
1.0	0	14.22	14.11	14.00	13.88	13.76					
2.0	1	14.22	14.11	14.00	13.88	13.76					
3.0	2	14.22	14.11	14.00	13.88	13.76					
5.0	4	14.22	14.11	14.00	13.88	13.76					
7.0	6	14.22	14.11	14.00	13.88	13.77					
9.0	8	14.81	14.70	14.59	14.47	14.35					
11.5	10	15.41	15.29	15.18	15.06	14.94					
13.5	12	16.22	16.09	15.97	15.85	15.90					
15.5	14	17.03	16.90	16.76	16.65	16.86					
16.5	16	17.44	17.30	17.16	17.04	17.34					

Model	FDUM140VNXVF	Indoor unit	FDUM140VF	Outdoor unit	FDC140VNX
Cooling	mode				

Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
un tomp.	12°0	CWB	14°(	CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(	CWB	24°(	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	10.07	12.38	10.97	12.73	10.84	13.13	10.71	13.91	11.36	14.70	11.06
13					12.08	10.21	12.83	11.10	13.21	10.97	13.62	10.85	14.45	11.49	15.28	11.18
15					12.50	10.35	13.29	11.25	13.68	11.11	14.12	10.98	14.99	11.63	15.87	11.31
17					12.92	10.50	13.75	11.39	14.16	11.26	14.62	11.12	15.54	11.76	16.45	11.43
19					13.21	10.60	14.06	11.49	14.48	11.35	14.95	11.22	15.88	11.85	16.82	11.52
21					13.50	10.71	14.36	11.59	14.80	11.45	15.28	11.31	16.23	11.94	17.19	11.60
23					13.50	10.71	14.40	11.60	14.83	11.46	15.31	11.32	16.28	11.95	17.25	11.61
25			12.53	11.05	13.50	10.71	14.43	11.61	14.87	11.47	15.35	11.33	16.33	11.96	17.30	11.62
27			12.48	11.03	13.50	10.71	14.46	11.62	14.90	11.48	15.34	11.33	16.23	11.94		
29			12.37	10.98	13.31	10.64	14.23	11.54	14.68	11.41	15.13	11.27	16.03	11.89		
31			12.26	10.94	13.11	10.57	13.99	11.47	14.45	11.34	14.91	11.21	15.82	11.83		
33	11.49	10.15	12.02	10.85	12.92	10.50	13.76	11.39	14.23	11.28	14.69	11.14	15.61	11.78		
35	10.88	9.90	11.63	10.70	12.72	10.43	13.53	11.32	14.00	11.21	14.47	11.08	15.41	11.73		
37	10.75	9.84	11.45	10.63	12.49	10.35	13.29	11.25	13.74	11.13	14.18	11.00	15.08	11.65		
39	10.62	9.79	11.26	10.56	12.26	10.27	13.04	11.17	13.47	11.05	13.90	10.92	14.76	11.57		
41	10.49	9.73	11.07	10.49	12.02	10.19	12.80	11.10	13.21	10.97	13.62	10.85	14.44	11.49		
43	10.35	9.68	10.89	10.42	11.79	10.11	12.55	11.02	12.94	10.90	13.33	10.77	14.11	11.41		

	Heatir	ng mo	de:HC				(kW
		door	In	door a	ir tem	peratui	re
	air te	emp.			°CDB		
	°CDB	°CWB	16	18	20	22	24
	-19.8	-20	10.42	10.34	10.26	10.17	10.09
	-17.7	-18	11.06	10.97	10.88	10.79	10.70
	-15.7	-16	11.69	11.60	11.50	11.41	11.32
	-13.5	-14	12.20	12.10	12.00	11.91	11.81
	-11.5	-12	12.70	12.60	12.50	12.40	12.30
	-9.5	-10	13.21	13.11	13.00	12.90	12.79
	-7.5	-8	13.71	13.61	13.50	13.39	13.28
	-5.5	-6	14.28	14.17	14.06	13.94	13.83
	-3.0	-4	14.84	14.73	14.61	14.49	14.37
	-1.0	-2	15.41	15.29	15.17	15.04	14.91
	1.0	0	15.97	15.85	15.72	15.59	15.45
	2.0	1	16.26	16.13	16.00	15.86	15.73
	3.0	2	16.25	16.13	16.00	15.86	15.73
	5.0	4	16.25	16.13	16.00	15.86	15.73
	7.0	6	16.25	16.12	16.00	15.87	15.73
	9.0	8	16.93	16.80	16.68	16.54	16.40
	11.5	10	17.61	17.48	17.35	17.21	17.07
	13.5	12	18.53	18.39	18.25	18.12	18.17
'	15.5	14	19.46	19.31	19.16	19.02	19.27
	16.5	16	19.93	19.77	19.61	19.48	19.82

(kW)

Model FDUM140VSXVF Indoor unit FDUM140VF Outdoor unit FDC140VSX Cooling mode

Cooling	mode	9			idooi	uiiit i	DOW	14011		rataoo	ı umt	100	14000	^		(kW)	Hea	ting m	node:H	C
0.44							Indo	or air t	emper	ature							0	utdoor	T	ndc
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	aiı	temp.		
ali terrip.	12°(	CWB	14°	CWB	16°	CWB	18°	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°(	CWB	°CD	B °CW	/B 16	T
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19	.8 -20	16.13	3 16
11					11.66	10.07	12.38	10.97	12.73	10.84	13.13	10.71	13.91	11.36	14.70	11.06	-17	.7 -18	16.19	9 16
13					12.08	10.21	12.83	11.10	13.21	10.97	13.62	10.85	14.45	11.49	15.28	11.18	-15	7 -16	16.26	3 16
15					12.50	10.35	13.29	11.25	13.68	11.11	14.12	10.98	14.99	11.63	15.87	11.31	-13	.5 -14	16.26	3 16
17					12.92	10.50	13.75	11.39	14.16	11.26	14.62	11.12	15.54	11.76	16.45	11.43	-11	.5 -12	16.25	5 16
19					13.21	10.60	14.06	11.49	14.48	11.35	14.95	11.22	15.88	11.85	16.82	11.52	<b>-</b> 9.:	5 -10	16.25	5 16
21					13.50	10.71	14.36	11.59	14.80	11.45	15.28	11.31	16.23	11.94	17.19	11.60	-7.	5 -8	16.25	5 16
23					13.50	10.71	14.40	11.60	14.83	11.46	15.31	11.32	16.28	11.95	17.25	11.61	<b>-</b> 5.:	5 -6	16.25	5 16
25			12.53	11.05	13.50	10.71	14.43	11.61	14.87	11.47	15.35	11.33	16.33	11.96	17.30	11.62	-3.	0 -4	16.25	5 16
27			12.48	11.03	13.50	10.71	14.46	11.62	14.90	11.48	15.34	11.33	16.23	11.94			-1.0	) -2	16.25	5 16
29			12.37	10.98	13.31	10.64	14.23	11.54	14.68	11.41	15.13	11.27	16.03	11.89			1.0	0	16.25	5 16
31			12.26	10.94	13.11	10.57	13.99	11.47	14.45	11.34	14.91	11.21	15.82	11.83			2.0	) 1	16.26	3 16
33	11.49	10.15	12.02	10.85	12.92	10.50	13.76	11.39	14.23	11.28	14.69	11.14	15.61	11.78			3.0	) 2	16.25	5 16
35	10.88	9.90	11.63	10.70	12.72	10.43	13.53	11.32	14.00	11.21	14.47	11.08	15.41	11.73			5.0	) 4	16.25	5 16
37	10.75	9.84	11.45	10.63	12.49	10.35	13.29	11.25	13.74	11.13	14.18	11.00	15.08	11.65			7.0	) 6	16.25	5 16
39	10.62	9.79	11.26	10.56	12.26	10.27	13.04	11.17	13.47	11.05	13.90	10.92	14.76	11.57			9.0	8 (	16.93	3 16
41	10.49	9.73	11.07	10.49	12.02	10.19	12.80	11.10	13.21	10.97	13.62	10.85	14.44	11.49			11.	5 10	17.61	1 17
43	10.35	9.68	10.89	10.42	11.79	10.11	12.55	11.02	12.94	10.90	13.33	10.77	14.11	11.41			13.	5 12	18.53	3 18
																		-	$\overline{}$	

Notes(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed.
(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

Outdoor Indoor air temperature air temp. °CDB CDB CWB 16 18 20 22 24 -19.8 -20 16.13 16.00 15.87 15.74 15.61 16.19 16.07 15.94 15.81 15.68 -17.7 -18 16.26 16.13 16.00 15.87 15.74 -15.7 -16 16.26 16.13 16.00 15.87 15.74 -13.5 -14 16.25 16.13 16.00 15.87 15.74 -11.5 -12 16.25 16.13 16.00 15.87 15.74 -9.5 -10 -7.5 -8 16.25 16.12 16.00 15.87 15.74 -5.5 -6 |16.25|16.13|16.00|15.87|15.74

PJG000Z012A

|16.25|16.13|16.00|15.87|15.73 -3.0 -4 16.25 16.13 16.00 15.86 15.73 -1 0 -2 16.25 16.13 16.00 15.86 15.73 1.0 0 2.0 16.26 16.13 16.00 15.86 15.73 16.25 16.13 16.00 15.86 15.73 3.0 2 16.25 16.13 16.00 15.86 15.73 5.0 4 7.0 16.25 16.12 16.00 15.87 15.73 6 9.0 8 |16.93|16.80|16.68|16.54|16.40 17.61 17.48 17.35 17.21 17.07 11.5 10 18.53 18.39 18.25 18.12 18.17 13.5 12 15.5 19.46 19.31 19.16 19.02 19.27

16 | 19.93 | 19.77 | 19.61 | 19.48 | 19.82

16.5

## (b) Twin type

Model FDUM100VNXPVF Indoor unit FDUM50VF (2 units) Outdoor unit FDC100VNX Cooling mode (kW)

Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
un tomp.	12°	CWB	14°(	CWB	16°	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°(	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.82	8.84	7.36	9.10	7.31	9.38	7.27	9.94	7.67	10.50	7.55
13					8.63	6.95	9.17	7.49	9.43	7.44	9.73	7.40	10.32	7.80	10.92	7.69
15					8.93	7.08	9.49	7.62	9.77	7.57	10.09	7.54	10.71	7.94	11.34	7.82
17					9.23	7.22	9.82	7.76	10.11	7.71	10.44	7.67	11.10	8.08	11.75	7.95
19					9.44	7.31	10.04	7.85	10.34	7.80	10.68	7.76	11.35	8.17	12.01	8.04
21					9.64	7.40	10.26	7.94	10.57	7.89	10.91	7.85	11.59	8.25	12.28	8.13
23					9.64	7.40	10.28	7.95	10.59	7.90	10.94	7.86	11.63	8.27	12.32	8.14
25			8.95	7.51	9.64	7.40	10.30	7.96	10.62	7.91	10.97	7.88	11.66	8.28	12.36	8.16
27			8.91	7.49	9.64	7.40	10.33	7.97	10.64	7.92	10.96	7.87	11.59	8.25		
29			8.84	7.46	9.51	7.34	10.16	7.90	10.48	7.86	10.80	7.81	11.45	8.20		
31			8.76	7.42	9.37	7.28	10.00	7.83	10.32	7.79	10.65	7.75	11.30	8.15		
33	8.21	6.93	8.58	7.33	9.23	7.22	9.83	7.76	10.16	7.73	10.49	7.69	11.15	8.09		
35	7.77	6.71	8.31	7.20	9.09	7.16	9.66	7.69	10.00	7.66	10.34	7.63	11.01	8.05		
37	7.68	6.66	8.18	7.14	8.92	7.08	9.49	7.62	9.81	7.59	10.13	7.55	10.77	7.96		
39	7.58	6.61	8.04	7.08	8.76	7.01	9.31	7.55	9.62	7.51	9.93	7.47	10.54	7.88		
41	7.49	6.57	7.91	7.02	8.59	6.93	9.14	7.48	9.43	7.44	9.73	7.40	10.31	7.80		
43	7.40	6.52	7.78	6.96	8.42	6.86	8.96	7.40	9.24	7.36	9.52	7.32	10.08	7.72		

Heatir	ng mo	de:HC	)			(kW)
Out	door	ln	door a	ir tem	peratui	re
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	7.30	7.24	7.18	7.12	7.06
-17.7	-18	7.74	7.68	7.62	7.55	7.49
-15.7	-16	8.18	8.12	8.05	7.99	7.92
-13.5	-14	8.54	8.47	8.40	8.33	8.27
-11.5	-12	8.89	8.82	8.75	8.68	8.61
-9.5	-10	9.25	9.17	9.10	9.03	8.95
-7.5	-8	9.60	9.53	9.45	9.38	9.30
-5.5	-6	10.00	9.92	9.84	9.76	9.68
-3.0	-4	10.39	10.31	10.23	10.14	10.06
-1.0	-2	10.79	10.70	10.62	10.53	10.44
1.0	0	11.18	11.09	11.01	10.91	10.82
2.0	1	11.38	11.29	11.20	11.10	11.01
3.0	2	11.38	11.29	11.20	11.10	11.01
5.0	4	11.38	11.29	11.20	11.11	11.01
7.0	6	11.37	11.29	11.20	11.11	11.01
9.0	8	11.85	11.76	11.67	11.58	11.48
11.5	10	12.32	12.23	12.15	12.05	11.95
13.5	12	12.97	12.88	12.78	12.68	12.72
15.5	14	13.62	13.52	13.41	13.32	13.49
16.5	16	13.95	13.84	13.72	13.63	13.87

Model FDUM100VSXPVF Indoor unit FDUM50VF (2 units) Outdoor unit FDC100VSX Cooling mode

Indoor air temperature Outdoo 18°CDB 21°CDB 23°CDB 28°CDB 31°CDB 33°CDB 26°CDB 27°CDB air temp 12°CWB 14°CWB 16°CWB 18°CWB 19°CWB 20°CWB 22°CWB 24°CWB °CDB SHC TC TC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC SHC 8.84 7.36 9.94 10.50 11 8.33 6.82 9.10 7.31 9.38 7.27 7.67 7.55 13 8.63 6.95 9.17 7.49 9.43 7.44 9.73 7.40 10.32 7.80 10.92 7.69 7.08 9.49 7.62 9.77 7.57 10.09 7.54 10.71 7.94 11.34 7.82 15 8.93 9.23 7.22 9.82 7.76 10.11 7.71 10.44 7.67 11.10 8.08 11.75 7.95 17 19 9.44 7.31 10.04 7.85 10.34 7.80 10.68 7.76 11.35 8.17 12.01 8.04 21 9.64 7.40 10.26 7.94 10.57 7.89 10.91 7.85 11.59 8.25 12.28 8.13 12.32 9.64 7.40 7.86 11.63 8.27 8.14 23 10.28 7.95 10.59 7.90 10.94 25 8.95 7.51 9.64 7.40 10.30 7.96 10.62 7.91 10.97 7.88 11.66 8.28 12.36 8.16 27 8.91 7.49 9.64 7.40 10.33 7.97 10.64 7.92 10.96 7.87 11.59 8.25 29 8.84 7.46 9.51 7.34 10.16 7.90 10.48 7.86 10.80 7.81 11.45 8.20 7.28 7.42 7.79 31 8.76 9.37 10.00 7.83 10.32 10.65 7.75 111.30 8.15 33 8.21 6.93 8.58 7.33 9.23 7.22 9.83 7.76 10.16 7.73 10.49 7.69 11.15 8.09 35 7.77 6.71 8.31 7.20 9.09 7.16 9.66 7.69 10.00 7.66 10.34 7.63 11.01 8.05 37 7.68 6.66 8.18 7.14 8.92 7.08 9 4 9 7.62 9.81 7.59 10.13 7.55 10.77 7.96 39 9.31 7.88 6.61 8.04 7.08 8.76 7.01 7.55 9.93 7.47 10.54 7.58 9.62 7.51 7.91 41 7.49 6.57 7.02 8.59 6.93 9.14 7.48 9.43 7.44 9.73 7.40 10.31 7.80 43 7.40 6.52 7.78 6.96 8.42 6.86 8.96 7.40 9.24 7.36 9.52 7.32 10.08 7.72

Notes(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously

These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity(KW)
SHC: Sensible heat capacity(KW)
HC: Heating capacity(KW)

Heating mode:HC Indoor air temperature Outdoor air temp °CDB CDB|CWB 16 18 20 22 -19.8 -20 11.29 11.20 11.11 11.02 10.93 11.34 11.25 11.16 11.06 10.97 17.7 -18 -15.7 -16 11.38 | 11.29 | 11.20 | 11.11 | 11.02 11.38 | 11.29 | 11.20 | 11.11 | 11.02 -13.5 -14 11.38 11.29 11.20 11.11 11.02 -11.5 -12 -9.5 11.38 | 11.29 | 11.20 | 11.11 | 11.02 -7.5 -8 |11.37 |11.29 |11.20 |11.11 |11.02 -5.5 -6 11.38 | 11.29 | 11.20 | 11.11 | 11.02 -3.0 -4 11.38 | 11.29 | 11.20 | 11.11 | 11.01 -1.0 -2 11.38 11.29 11.20 11.11 11.01 1.0 0 11.38 | 11.29 | 11.20 | 11.10 | 11.01 11.38 11.29 11.20 11.10 11.01 2.0 3.0 2 11.38 11.29 11.20 11.10 11.01 5.0 4 11.38 11.29 11.20 11.11 11.01 7.0 6 11.37 | 11.29 | 11.20 | 11.11 | 11.01 11.85 11.76 11.67 11.58 11.48 9.0 8 11.5 10 12.32 12.23 12.15 12.05 11.95 13.5 12 12.97 12.88 12.78 12.68 12.72 13.62 13.52 13.41 13.32 13.49 15.5 14 16.5 16 13.95 13.84 13.72 13.63 13.87

(kW)

PJG000Z012 A

Cooling	mode	9														(kW)
Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
all tomp.	12°0	CWB	14°(	CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(	CWB	24°(	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	9.01	11.05	9.80	11.37	9.71	11.72	9.62	12.42	10.20	13.12	9.98
13					10.79	9.16	11.46	9.94	11.79	9.84	12.16	9.76	12.91	10.34	13.65	10.12
15					11.16	9.30	11.87	10.08	12.22	9.99	12.61	9.90	13.39	10.48	14.17	10.25
17					11.54	9.44	12.27	10.22	12.64	10.13	13.05	10.04	13.87	10.62	14.69	10.39
19					11.80	9.55	12.55	10.32	12.93	10.23	13.34	10.14	14.18	10.71	15.02	10.48
21					12.05	9.64	12.83	10.42	13.21	10.32	13.64	10.24	14.49	10.80	15.34	10.56
23					12.05	9.64	12.85	10.43	13.24	10.34	13.67	10.25	14.54	10.82	15.40	10.58
25			11.19	9.88	12.05	9.64	12.88	10.44	13.27	10.35	13.71	10.26	14.58	10.83	15.45	10.59
27			11.14	9.86	12.05	9.64	12.91	10.45	13.30	10.36	13.70	10.25	14.49	10.80		
29			11.05	9.82	11.88	9.58	12.70	10.38	13.10	10.29	13.51	10.19	14.31	10.75		
31			10.95	9.78	11.71	9.51	12.49	10.30	12.90	10.22	13.31	10.13	14.13	10.69		
33	10.26	9.08	10.73	9.69	11.53	9.44	12.29	10.23	12.70	10.15	13.11	10.06	13.94	10.64		
35	9.71	8.83	10.39	9.55	11.36	9.37	12.08	10.16	12.50	10.08	12.92	10.00	13.76	10.59		
37	9.60	8.78	10.22	9.47	11.15	9.29	11.86	10.08	12.26	10.00	12.67	9.92	13.47	10.50		
39	9.48	8.73	10.05	9.40	10.94	9.21	11.64	10.00	12.03	9.92	12.41	9.84	13.18	10.42		
41	9.36	8.68	9.89	9.34	10.74	9.14	11.42	9.92	11.79	9.84	12.16	9.76	12.89	10.33		
43	9.25	8.63	9.72	9.27	10.53	9.06	11.21	9.85	11.55	9.76	11.90	9.68	12.60	10.25		

Indoor unit FDUM60VF (2 units)

Outdoor unit FDC125VNX

Hea	Heating mode:HC (kW)  Outdoor Indoor air temperature												
0	ut	door	ln	door a	ir tem	peratui	re						
air	r te	emp.			°CDB								
°CD	В	°CWB	16	18	20	22	24						
-19.	8.	-20	9.12	9.05	8.97	8.90	8.83						
-17.	.7	-18	9.67	9.60	9.52	9.44	9.37						
-15.	.7	-16	10.23	10.15	10.07	9.98	9.90						
-13.	.5	-14	10.67	10.59	10.50	10.42	10.33						
-11.	.5	-12	11.11	11.03	10.94	10.85	10.76						
-9.	5	-10	11.56	11.47	11.38	11.29	11.19						
-7.5	5	-8	12.00	11.91	11.82	11.72	11.62						
-5.5	5	-6	12.49	12.40	12.30	12.20	12.10						
-3.0	0	-4	12.99	12.89	12.79	12.68	12.57						
-1.0	0	-2	13.48	13.38	13.27	13.16	13.05						
1.0	)	0	13.98	13.87	13.76	13.64	13.52						
2.0	)	1	14.22	14.11	14.00	13.88	13.76						
3.0	)	2	14.22	14.11	14.00	13.88	13.76						
5.0	)	4	14.22	14.11	14.00	13.88	13.76						
7.0	)	6	14.22	14.11	14.00	13.88	13.77						
9.0	)	8	14.81	14.70	14.59	14.47	14.35						
11.	5	10	15.41	15.29	15.18	15.06	14.94						
13.	5	12	16.22	16.09	15.97	15.85	15.90						
15.	5	14	17.03	16.90	16.76	16.65	16.86						
16.	5	16	17.44	17.30	17.16	17.04	17.34						

## PJG000Z012A

Model Cooling	lodel FDUM125VSXPVF cooling mode				Indoo	r unit	FDUI	M60VF	(2 un	its)	Outo	loor ur	nit FC	OC125	VSX	(kW)
	Inouc						Indo	or air t	emper	ature						(KVV)
Outdoor	18°	CDB	21°	CDB	23°	CDB		CDB		CDB	28°	CDB	31°	CDB	33°	CDB
air temp.	12°0	C WB	14°(	CWB	16°0	CWB	18°(	CWB	19°(	CWB	20°0	CWB	22°(	CWB	24°(	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	9.01	11.05	9.80	11.37	9.71	11.72	9.62	12.42	10.20	13.12	9.98
13					10.79	9.16	11.46	9.94	11.79	9.84	12.16	9.76	12.91	10.34	13.65	10.12
15					11.16	9.30	11.87	10.08	12.22	9.99	12.61	9.90	13.39	10.48	14.17	10.25
17					11.54	9.44	12.27	10.22	12.64	10.13	13.05	10.04	13.87	10.62	14.69	10.39
19					11.80	9.55	12.55	10.32	12.93	10.23	13.34	10.14	14.18	10.71	15.02	10.48
21					12.05	9.64	12.83	10.42	13.21	10.32	13.64	10.24	14.49	10.80	15.34	10.56
23					12.05	9.64	12.85	10.43	13.24	10.34	13.67	10.25	14.54	10.82	15.40	10.58
25			11.19	9.88	12.05	9.64	12.88	10.44	13.27	10.35	13.71	10.26	14.58	10.83	15.45	10.59
27			11.14	9.86	12.05	9.64	12.91	10.45	13.30	10.36	13.70	10.25	14.49	10.80		
29			11.05	9.82	11.88	9.58	12.70	10.38	13.10	10.29	13.51	10.19	14.31	10.75		
31			10.95	9.78	11.71	9.51	12.49	10.30	12.90	10.22	13.31	10.13	14.13	10.69		
33	10.26	9.08	10.73	9.69	11.53	9.44	12.29	10.23	12.70	10.15	13.11	10.06	13.94	10.64		
35	9.71	8.83	10.39	9.55	11.36	9.37	12.08	10.16	12.50	10.08	12.92	10.00	13.76	10.59		
37	9.60	8.78	10.22	9.47	11.15	9.29	11.86	10.08	12.26	10.00	12.67	9.92	13.47	10.50		
39	9.48	8.73	10.05	9.40	10.94	9.21	11.64	10.00	12.03	9.92	12.41	9.84	13.18	10.42		
41	9.36	8.68	9.89	9.34	10.74	9.14	11.42	9.92	11.79	9.84	12.16	9.76	12.89	10.33		
43	9.25	8.63	9.72	9.27	10.53	9.06	11.21	9.85	11.55	9.76	11.90	9.68	12.60	10.25		

Notes(1) These data show average statuses.

Model FDUM125VNXPVF

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length :7.5m Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Heatin	Heating mode:HC (kW)  Outdoor Indoor air temperature												
Out	door	In	door a	ir temp	peratui	re							
air te	emp.			°CDB									
°CDB	°CWB	16	18	20	22	24							
-19.8	-20	14.11	14.00	13.89	13.78	13.66							
-17.7	-18	14.17	14.06	13.94	13.83	13.72							
-15.7	-16	14.23	14.11	14.00	13.89	13.77							
-13.5	-14	14.23	14.11	14.00	13.89	13.77							
-11.5	-12	14.22	14.11	14.00	13.89	13.77							
-9.5	-10	14.22	14.11	14.00	13.89	13.77							
-7.5	-8	14.22	14.11	14.00	13.89	13.77							
-5.5	-6	14.22	14.11	14.00	13.88	13.77							
-3.0	-4	14.22	14.11	14.00	13.88	13.77							
-1.0	-2	14.22	14.11	14.00	13.88	13.76							
1.0	0	14.22	14.11	14.00	13.88	13.76							
2.0	1	14.22	14.11	14.00	13.88	13.76							
3.0	2	14.22	14.11	14.00	13.88	13.76							
5.0	4	14.22	14.11	14.00	13.88	13.76							
7.0	6	14.22	14.11	14.00	13.88	13.77							
9.0	8	14.81	14.70	14.59	14.47	14.35							
11.5	10	15.41	15.29	15.18	15.06	14.94							
13.5	12	16.22	16.09	15.97	15.85	15.90							
15.5	14	17.03	16.90	16.76	16.65	16.86							
16.5	16	17.44	17.30	17.16	17.04	17.34							

Model		M140\	<b>VNXP</b>	VF1	Indoo	r unit	FDU	M71VI	=1 (2 u	nits)	Ou	tdoor ı	unit F	DC14	0VNX	
Cooling	mode	=					Indo	or air t	emper	ature						(kW)
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB		CDB		CDB	28°	CDB	31°	CDB	33°	CDB
all tellip.	12°	CWB	14°	CWB						CWB	24°(	CWB				
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	10.38	12.38	11.31	12.73	11.20	13.13	11.10	13.91	11.79	14.70	11.53
13					12.08	10.53	12.83	11.46	13.21	11.35	13.62	11.24	14.45	11.94	15.28	11.67
15					12.50	10.68	13.29	11.62	13.68	11.50	14.12	11.40	14.99	12.08	15.87	11.81
17					12.92	10.84	13.75	11.77	14.16	11.66	14.62	11.55	15.54	12.23	16.45	11.95
19					13.21	10.95	14.06	11.88	14.48	11.76	14.95	11.65	15.88	12.33	16.82	12.04
21					13.50	11.06	14.36	11.98	14.80	11.86	15.28	11.75	16.23	12.43	17.19	12.14

13.50 11.06 14.40 11.99 14.83 11.87 15.31 11.76 16.28 12.44 17.25 12.15

14.47 11.50

14.18 11.41

13.90 11.33

13.50 11.06 14.43 12.00 14.87 11.89 15.35 11.77 16.33 12.45

13.74 11.52

12.48 11.34 13.50 11.06 14.46 12.01 14.90 11.90 15.34 11.77 16.23 12.43

| 12.37 | 11.29 | 13.31 | 10.99 | 14.23 | 11.94 | 14.68 | 11.83 | 15.13 | 11.71 | 16.03 | 12.37

| 12.26 | 11.25 | 13.11 | 10.91 | 13.99 | 11.85 | 14.45 | 11.75 | 14.91 | 11.64 | 15.82 | 12.31

11 07 10 77 12 02 10 51 12 80 11 45 13 21 11 35 13 62 11 24 14 44 11 93

11.49|10.42|12.02|11.15|12.92|10.84|13.76|11.78|14.23|11.68|14.69|11.57|15.61|12.25

12.72 10.77 13.53 11.70 14.00 11.60

13.29 11.62

10.84 12.26 10.60 13.04 11.53 13.47 11.44

10.89 10.67 11.79 10.42 12.55 11.37 12.94 11.27

12.49 10.68

Heating mode:HC

17.30 12.16

12.20

15.41

15.08 12.11

13.33 11.16 14.11 11.84

14.76 12.02

(kW) Outdoor Indoor air temperature air temp CDB CDB CWB 16 18 20 24 -19.8 -20 10.42 10.34 10.26 10.17 10.09 11.06 10.97 10.88 10.79 10.70 -17.7 -18 -15.7 -16 11.69 11.60 11.50 11.41 11.32 12.20 12.10 12.00 11.91 11.81 -13.5 -14 -11.5 -12 -9.5 -10 -7.5 -8 -5.5 -6 14.28 14.17 14.06 13.94 13.83 -3.0 -4 14.84 14.73 14.61 14.49 14.37 15.41 15.29 15.17 15.04 14.91 -1.0 1.0 2.0 16.25 16.13 16.00 15.86 15.73 3.0 5.0 4 7.0 6 16.25 16.12 16.00 15.87 15.73 9.0 8 17.61 17.48 17.35 17.21 17.07 11.5 10 13.5 12

12.70 12.60 12.50 12.40 12.30 13.21 13.11 13.00 12.90 12.79 13.71 13.61 13.50 13.39 13.28 15.97 | 15.85 | 15.72 | 15.59 | 15.45 16.26 16.13 16.00 15.86 15.73 16.25 16.13 16.00 15.86 15.73 16.93 16.80 16.68 16.54 16.40 18.53 18.39 18.25 18.12 18.17 19.46 19.31 19.16 19.02 19.27 15.5

## PJG000Z012A

19.93 19.77 19.61 19.48 19.82

Model FDUM140VSXPVF1 Indoor unit FDUM71VF1 (2 units) Outdoor unit FDC140VSX Cooling mode

Indoor air temperature Outdoo 18°CDB 21°CDB 23°CDB 26°CDB 27°CDB 28°CDB 31°CDB 33°CDB air temp 14°CWB 12°CWB 16°CWB 18°CWB 19°CWB 20°CWB 22°CWB 24°CWB °CDB TC SHC SHC TC SHC TC SHC SHC TC SHC SHC TC SHC TC TC TC 11.66 10.38 12.38 11.31 12.73 11.20 13.13 11.10 13.91 11.79 14.70 11.53 11 13 12.08 10.53 12.83 11.46 13.21 11.35 13.62 11.24 14.45 11.94 15.28 11.67 12.50 10.68 13.29 11.62 13.68 11.50 14.12 11.40 14.99 12.08 15.87 11.81 15 12.23 17 12.92 10.84 13.75 11.77 14.16 11.66 14.62 11.55 15.54 16.45 11.95 13.21 10.95 14.06 11.88 14.48 11.76 14.95 11.65 15.88 12.33 16.82 12.04 19 13.50 11.06 21 14.36 | 11.98 | 14.80 | 11.86 | 15.28 | 11.75 | 16.23 | 12.43 | 17.19 | 12.14 13.50 11.06 14.40 11.99 14.83 15.31 11.76 16.28 12.44 17.25 12.15 11.87 23 13.50 11.06 14.43 12.00 14.87 11.89 15.35 11.77 16.33 12.45 17.30 12.16 27 12.48 11.34 13.50 11.06 14.46 12.01 14.90 11.90 15.34 11.77 16.23 12.43 12.37 11.29 13.31 10.99 14 23 11 94 14 68 11.83 15.13 11.71 16.03 12.37 29 12.26 11.25 13.11 10.91 13.99 11.85 14.45 11.75 14.91 11.64 15.82 12.31 31 33 11.49 10.42 12.02 11.15 12.92 10.84 13.76 11.78 14.23 11.68 14.69 11.57 15.61 12.25 35 10.88 10.15 11.63 10.99 12.72 10.77 13.53 11.70 14.00 11.60 14.47 11.50 15.41 12.20 37 10.75 10.10 11.45 10.92 12.49 10.68 13.29 11.62 13.74 11.52 |14.18|11.41|15.08|12.11 39 10.62 10.04 11.26 10.84 12.26 10.60 13.04 11.53 13.47 11.44 13.90 11.33 14.76 12.02 |10.49||9.98||11.07||10.77||12.02||10.51||12.80||11.45||13.21||11.35||13.62||11.24||14.44||11.93

16.5 16

(kW	) .	Heatir	ng mo	de:HC	)			(kW
	П	-	door	In	door a	ir tem	peratur	re
DΒ	П	air te	emp.			°CDB		
٧B	П	°CDB	°CWB	16	18	20	22	24
HC	П	-19.8	-20	16.13	16.00	15.87	15.74	15.61
1.53	П	-17.7	-18	16.19	16.07	15.94	15.81	15.68
1.67	П	-15.7	-16	16.26	16.13	16.00	15.87	15.74
1.81	П	-13.5	-14	16.26	16.13	16.00	15.87	15.74
1.95	П	-11.5	-12	16.25	16.13	16.00	15.87	15.74
2.04	П	-9.5	-10	16.25	16.13	16.00	15.87	15.74
2.14	П	-7.5	-8	16.25	16.12	16.00	15.87	15.74
2.15	П	-5.5	-6	16.25	16.13	16.00	15.87	15.74
2.16	П	-3.0	-4	16.25	16.13	16.00	15.87	15.73
	П	-1.0	-2	16.25	16.13	16.00	15.86	15.73
	П	1.0	0	16.25	16.13	16.00	15.86	15.73
	П	2.0	1	16.26	16.13	16.00	15.86	15.73
	П	3.0	2	16.25	16.13	16.00	15.86	15.73
	П	5.0	4	16.25	16.13	16.00	15.86	15.73
	П	7.0	6	16.25	16.12	16.00	15.87	15.73
	П	9.0	8	16.93	16.80	16.68	16.54	16.40
	П	11.5	10	17.61	17.48	17.35	17.21	17.07
	П	13.5	12	18.53	18.39	18.25	18.12	18.17
	'	15.5	14	19.46	19.31	19.16	19.02	19.27
		16.5	16	19.93	19.77	19.61	19.48	19.82

Notes(1) These data show average statuses

43

23

25

27

29

31

33

35

37

39

41

43

10.88 10.15

10.62 10.04

10 49 9 98

10 35 9 92

10.75 10.10 12.53 11.36

11.63 10.99

11.45 10.92

11.26

Depending on the system control, there may be ranges where the operation is not conducted continuously.

10.35 | 9.92 | 10.89 | 10.67 | 11.79 | 10.42 | 12.55 | 11.37 | 12.94 | 11.27 | 13.33 | 11.16 | 14.11 | 11.84

These data show the case where the operation frequency of a compressor is fixed

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length: 7.5m Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

Indoor air temperature

## (c) Triple type

Model FDUM140VNXTVF Indoor unit FDUM50VF (3 units) Outdoor unit FDC140VNX Cooling mode

0.444							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
un temp.	12°0	CWB	14°(	CWB	16°0	CWB	18°	CWB	19°0	CWB	20°0	CWB	22°(	CWB	24°(	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.87	12.38	10.68	12.73	10.61	13.13	10.55	13.91	11.16	14.70	11.00
13					12.08	10.05	12.83	10.86	13.21	10.79	13.62	10.73	14.45	11.35	15.28	11.18
15					12.50	10.23	13.29	11.05	13.68	10.98	14.12	10.92	14.99	11.53	15.87	11.36
17					12.92	10.42	13.75	11.23	14.16	11.16	14.62	11.11	15.54	11.72	16.45	11.55
19					13.21	10.54	14.06	11.36	14.48	11.29	14.95	11.23	15.88	11.84	16.82	11.67
21					13.50	10.67	14.36	11.48	14.80	11.42	15.28	11.36	16.23	11.97	17.19	11.79
23					13.50	10.67	14.40	11.50	14.83	11.43	15.31	11.37	16.28	11.98	17.25	11.81
25			12.53	10.84	13.50	10.67	14.43	11.51	14.87	11.45	15.35	11.39	16.33	12.00	17.30	11.83
27			12.48	10.81	13.50	10.67	14.46	11.52	14.90	11.46	15.34	11.38	16.23	11.97		
29			12.37	10.76	13.31	10.59	14.23	11.43	14.68	11.37	15.13	11.30	16.03	11.90		
31			12.26	10.71	13.11	10.50	13.99	11.33	14.45	11.28	14.91	11.22	15.82	11.82		
33	11.49	9.98	12.02	10.60	12.92	10.42	13.76	11.24	14.23	11.19	14.69	11.13	15.61	11.75		
35	10.88	9.67	11.63	10.41	12.72	10.33	13.53	11.14	14.00	11.10	14.47	11.05	15.41	11.68		
37	10.75	9.61	11.45	10.33	12.49	10.23	13.29	11.05	13.74	11.00	14.18	10.94	15.08	11.56		
39	10.62	9.55	11.26	10.24	12.26	10.13	13.04	10.94	13.47	10.89	13.90	10.84	14.76	11.45		
41	10.49	9.48	11.07	10.16	12.02	10.03	12.80	10.85	13.21	10.79	13.62	10.73	14.44	11.34		
43	10.35	9.41	10.89	10.07	11.79	9.93	12.55	10.75	12.94	10.69	13.33	10.63	14.11	11.23		

Notes(1) These data show average statuses

air temp. °CDB °CDB °CWB 20 24 16 18 22 -19.8 -20 10.42 10.34 10.26 10.17 10.09 -17.7 -18 |11.06|10.97|10.88|10.79|10.70 -15.7 -16 11.69 11.60 11.50 11.41 11.32 12.20 12.10 12.00 11.91 11.81 -13.5 -14 12.70 12.60 12.50 12.40 12.30 -11.5 -12 |13.21|13.11|13.00|12.90|12.79 |13.71|13.61|13.50|13.39|13.28 -7.5 -8 14.28 14.17 14.06 13.94 13.83 -5.5 -6 14.84 14.73 14.61 14.49 14.37 -3.0 -4 -1.0 15.41 15.29 15.17 15.04 14.91 15.97 15.85 15.72 15.59 15.45 1.0 2.0 16.26 16.13 16.00 15.86 15.73 16.25 16.13 16.00 15.86 15.73 3.0 2

(kW) Heating mode:HC

Outdoor

5.0 4

7.0 6

9.0

11.5 10

13.5 12

15.5 14

16.5

8

PJG000Z012 A

16.25 16.13 16.00 15.86 15.73

16.25 16.12 16.00 15.87 15.73

16.93 16.80 16.68 16.54 16.40

17.61 17.48 17.35 17.21 17.07 18.53 18.39 18.25 18.12 18.17

19.46 19.31 19.16 19.02 19.27

19.93 19.77 19.61 19.48 19.82

Model FDUM140VSXTVF Indoor unit FDUM50VF (3 units) Outdoor unit FDC140VSX Cooling mode

Cooling	oling mode (kW)															
Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
all tomp.	12°0	CWB	14°(	CWB	16°	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(	CWB	24°(	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66						13.13					
13											13.62					
15					12.50	10.23	13.29	11.05	13.68	10.98	14.12	10.92	14.99	11.53	15.87	11.36
17					12.92	10.42	13.75	11.23	14.16	11.16	14.62	11.11	15.54	11.72	16.45	11.55
19					13.21	10.54	14.06	11.36	14.48	11.29	14.95	11.23	15.88	11.84	16.82	11.67
21					13.50	10.67	14.36	11.48	14.80	11.42	15.28	11.36	16.23	11.97	17.19	11.79
23					13.50	10.67	14.40	11.50	14.83	11.43	15.31	11.37	16.28	11.98	17.25	11.81
25			12.53	10.84	13.50	10.67	14.43	11.51	14.87	11.45	15.35	11.39	16.33	12.00	17.30	11.83
27			12.48	10.81	13.50	10.67	14.46	11.52	14.90	11.46	15.34	11.38	16.23	11.97		
29			12.37	10.76	13.31	10.59	14.23	11.43	14.68	11.37	15.13	11.30	16.03	11.90		
31			12.26	10.71	13.11	10.50	13.99	11.33	14.45	11.28	14.91	11.22	15.82	11.82		
33	11.49	9.98	12.02	10.60	12.92	10.42	13.76	11.24	14.23	11.19	14.69	11.13	15.61	11.75		
35	10.88	9.67	11.63	10.41	12.72	10.33	13.53	11.14	14.00	11.10	14.47	11.05	15.41	11.68		
37	10.75	9.61	11.45	10.33	12.49	10.23	13.29	11.05	13.74	11.00	14.18	10.94	15.08	11.56		
39	10.62	9.55	11.26	10.24	12.26	10.13	13.04	10.94	13.47	10.89	13.90	10.84	14.76	11.45		
41	10.49	9.48	11.07	10.16	12.02	10.03	12.80	10.85	13.21	10.79	13.62	10.73	14.44	11.34		
43	10.35	9.41	10.89	10.07	11.79	9.93	12.55	10.75	12.94	10.69	13.33	10.63	14.11	11.23		

Notes(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m Level difference of Zero.

(3) Symbols are as follows. TC: Total cooling capacity (kW) SHC : Sensible heat capacity (kW) HC: Heating capacity (kW)

Heatir	Heating mode:HC (kW)												
	door	In	door a	ir tem	oeratui	re							
air te	emp.			°CDB									
°CDB	°CWB	16	18	20	22	24							
-19.8	-20	16.13	16.00	15.87	15.74	15.61							
-17.7	-18	16.19	16.07	15.94	15.81	15.68							
-15.7	-16	16.26	16.13	16.00	15.87	15.74							
-13.5	-14	16.26	16.13	16.00	15.87	15.74							
-11.5	-12	16.25	16.13	16.00	15.87	15.74							
-9.5	-10	16.25	16.13	16.00	15.87	15.74							
-7.5	-8	16.25	16.12	16.00	15.87	15.74							
-5.5	-6	16.25	16.13	16.00	15.87	15.74							
-3.0	-4	16.25	16.13	16.00	15.87	15.73							
-1.0	-2	16.25	16.13	16.00	15.86	15.73							
1.0	0	16.25	16.13	16.00	15.86	15.73							
2.0	1	16.26	16.13	16.00	15.86	15.73							
3.0	2	16.25	16.13	16.00	15.86	15.73							
5.0	4	16.25	16.13	16.00	15.86	15.73							
7.0	6	16.25	16.12	16.00	15.87	15.73							
9.0	8	16.93	16.80	16.68	16.54	16.40							
11.5	10	17.61	17.48	17.35	17.21	17.07							
13.5	12	18.53	18.39	18.25	18.12	18.17							
15.5	14	19.46	19.31	19.16	19.02	19.27							
16.5	16	19.93	19.77	19.61	19.48	19.82							

## (3) Duct connected-High static pressure type (FDU)

Model FDU71VNXVF1	Indoor unit	FDU71VF1	Outdoor unit	FDC71VNX
Cooling mode				

																(
044							Indo	or air t	emper	ature						
Outdoor air temp.	18°C	DB	21°0	CDB	23°0	CDB	26°	CDB	27°0	CDB	28°(	CDB	31°0	CDB	33°C	CDB
un temp.	12°C	CWB	14℃	CWB	16℃	CWB	18°0	CWB	19℃	CWB	20℃	CWB	22°C	CWB	24℃	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.87	4.77	6.02	5.60	6.59	5.67	6.79	5.62	7.19	5.96	7.59	5.82
13					5.33	5.01	6.32	5.70	6.82	5.74	7.03	5.69	7.45	6.03	7.88	5.89
15					5.79	5.17	6.63	5.80	7.05	5.82	7.27	5.76	7.71	6.10	8.16	5.96
17					6.26	5.35	6.94	5.91	7.27	5.89	7.51	5.84	7.97	6.17	8.44	6.03
19					6.59	5.47	7.16	5.98	7.44	5.95	7.68	5.89	8.15	6.22	8.63	6.08
21					6.93	5.60	7.38	6.06	7.60	6.00	7.84	5.94	8.33	6.27	8.82	6.13
23					6.91	5.59	7.35	6.05	7.57	5.99	7.81	5.93	8.30	6.26	8.78	6.11
25			6.46	5.76	6.89	5.58	7.32	6.04	7.54	5.98	7.78	5.92	8.26	6.25	8.74	6.10
27			6.45	5.75	6.87	5.57	7.30	6.03	7.52	5.97	7.74	5.91	8.18	6.23		
29			6.34	5.71	6.75	5.53	7.19	5.99	7.41	5.94	7.64	5.88	8.09	6.21		
31			6.23	5.66	6.64	5.49	7.08	5.96	7.31	5.90	7.54	5.85	7.99	6.18		
33	5.77	5.22	6.05	5.59	6.53	5.45	6.97	5.92	7.20	5.87	7.44	5.81	7.90	6.15		
35	5.67	5.18	5.95	5.55	6.42	5.40	6.86	5.88	7.10	5.83	7.34	5.78	7.81	6.13		
37	5.58	5.14	5.85	5.51	6.31	5.36	6.72	5.83	6.95	5.79	7.18	5.73	7.64	6.08		
39	5.49	5.10	5.76	5.47	6.20	5.32	6.59	5.79	6.81	5.74	7.03	5.69	7.46	6.03		
41	5.39	5.05	5.67	5.44	6.09	5.28	6.45	5.74	6.66	5.69	6.87	5.64	7.29	5.99		
43	5.30	5.02	5.57	5.40	5.97	5.24	6.31	5.70	6.51	5.65	6.71	5.59	7.12	5.94		

(kW)		Heatir	na mo	de·HC	:			(kW)
(KVV)	П		door			ir tem	neratui	, ,
DB			emp.		<u>uooi a</u>	°CDB	Jordia	
NΒ		℃DB	°CWB	16	18	20	22	24
SHC		-19.8	-20	3.95	3.93	3.91	3.88	3.86
5.82		-17.7	-18	4.18	4.16	4.14	4.11	4.09
5.89	П	-15.7	-16	4.42	4.39	4.37	4.34	4.32
5.96		-13.5	-14	4.68	4.65	4.63	4.60	4.57
6.03	П	-11.5	-12	4.94	4.91	4.88	4.85	4.82
6.08	П	-9.5	-10	5.20	5.17	5.14	5.11	5.08
6.13	П	-7.5	-8	5.46	5.43	5.40	5.36	5.33
6.11	П	-5.5	-6	5.59	5.55	5.52	5.48	5.44
6.10	П	-3.0	-4	5.71	5.68	5.64	5.60	5.56
	П	-1.0	-2	5.84	5.80	5.76	5.72	5.67
	П	1.0	0	5.97	5.92	5.88	5.83	5.79
	П	2.0	1	6.03	5.98	5.94	5.89	5.85
	П	3.0	2	6.45	6.40	6.35	6.30	6.25
	П	5.0	4	7.29	7.23	7.18	7.12	7.06
	П	7.0	6	8.13	8.06	8.00	7.93	7.87
	П	9.0	8	8.42	8.36	8.29	8.23	8.16
	П	11.5	10	8.72	8.65	8.59	8.52	8.46
		13.5	12	9.20	9.13	9.06	9.00	8.92
		15.5	14	9.69	9.61	9.53	9.47	9.39
		16.5	16	9.93	9.85	9.77	9.71	9.62

## PJG000Z045A

Model FDU100VNXVF2 Indoor unit FDU100VF2 Outdoor unit FDC100VNX Cooling mode

Cooling	Cooling mode (kW)															
Outdoor							Indo	or air te	emper	ature						
Outdoor air temp.	I 12℃	CDB	21℃	CDB	23°C	CDB	26℃	CDB	27℃	CDB	28℃	CDB	31℃	CDB	33℃	CDB
an temp.	12℃	CWB	14℃	CWB	16℃	CWB	18℃	CWB	19℃	CWB	20℃	:WB	22℃	CWB	24°C	CWB
℃DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.94	8.84	7.57	9.10	7.45	9.38	7.33	9.94	7.76	10.50	7.48
13				$\square'$	8.63	7.03	9.17	7.65	9.43	7.52	9.73	7.40	10.32	7.83	10.92	7.54
15				$\Box \Box'$	8.93	7.11	9.49	7.73	9.77	7.60	10.09	7.48	10.71	7.90	11.34	7.60
17				$\square'$	9.23	7.20	9.82	7.82	10.11	7.69	10.44	7.56	11.10	7.97	11.75	7.67
19					9.44	7.27	10.04	7.87	10.34	7.74	10.68	7.61	11.35	8.02	12.01	7.71
21					9.64	7.33	10.26	7.93	10.57	7.80	10.91	7.66	11.59	8.07	12.28	7.75
23					9.64	7.33	10.28	7.94	10.59	7.80	10.94	7.67	11.63	8.08	12.32	7.76
25			8.95	7.65	9.64	7.33	10.30	7.94	10.62	7.81	10.97	7.68	11.66	8.08	12.36	7.76
27			8.91	7.63	9.64	7.33	10.33	7.95	10.64	7.82	10.96	7.68	11.59	8.07		
29			8.84	7.61	9.51	7.29	10.16	7.91	10.48	7.78	10.80	7.64	11.45	8.04		
31			8.76	7.58	9.37	7.25	10.00	7.86	10.32	7.74	10.65	7.60	11.30	8.01		
33	8.21	7.04	8.58	7.52	9.23	7.20	9.83	7.82	10.16	7.70	10.49	7.57	11.15	7.98		
35	7.77	6.87	8.31	7.43	9.09	7.16	9.66	7.77	10.00	7.66	10.34	7.53	11.01	7.96		
37	7.68	6.84	8.18	7.39	8.92	7.11	9.49	7.73	9.81	7.61	10.13	7.49	10.77	7.91		
39	7.58	6.80	8.04	7.34	8.76	7.06	9.31	7.68	9.62	7.57	9.93	7.44	10.54	7.87		
41	7.49	6.77	7.91	7.30	8.59	7.02	9.14	7.64	9.43	7.52	9.73	7.40	10.31	7.83		
43	7.40	6.74	7.78	7.26	8.42	6.97	8.96	7.60	9.24	7.48	9.52	7.36	10.08	7.79		

Notes(1) These data show average statuses.

es(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Heating mode:HC (kW)												
	door	In	door a	ir temp	peratui	re						
	emp.			℃DB								
℃DB	℃WB	16	18	20	22	24						
-19.8	-20	7.30	7.24	7.18	7.12	7.06						
-17.7	-18	7.74	7.68	7.62	7.55	7.49						
-15.7	-16	8.18	8.12	8.05	7.99	7.92						
-13.5	-14	8.54	8.47	8.40	8.33	8.27						
-11.5	-12	8.89	8.82	8.75	8.68	8.61						
-9.5	-10	9.25	9.17	9.10	9.03	8.95						
-7.5	-8	9.60	9.53	9.45	9.38	9.30						
-5.5	-6	10.00	9.92	9.84	9.76	9.68						
-3.0	-4	10.39	10.31	10.23	10.14	10.06						
-1.0	-2	10.79	10.70	10.62	10.53	10.44						
1.0	0	11.18	11.09	11.01	10.91	10.82						
2.0	1	11.38	11.29	11.20	11.10	11.01						
3.0	2	11.38	11.29	11.20	11.10	11.01						
5.0	4	11.38	11.29	11.20	11.11	11.01						
7.0	6	11.37	11.29	11.20	11.11	11.01						
9.0	8	11.85	11.76	11.67	11.58	11.48						
11.5	10	12.32	12.23	12.15	12.05	11.95						
13.5	12	12.97	12.88	12.78	12.68	12.72						
15.5	14	13.62	13.52	13.41	13.32	13.49						
16.5	16	13.95	13.84	13.72	13.63	13.87						

		100VS	SXVF2	2 In	idoor u	ınit F	DU10	0VF2	Οι	utdoor	unit	FDC1	00VSX							_			
Cooling	mode	<del></del>														(kW)	He	ating m	ode:H0	<u> </u>			(kW)
Outdoor							Indo	or air t	emper	ature								Outdoor	In	ndoor a	ir tem	peratur	re
air temp.	18°C	DB	21°C	DB	23°C	DB	26°C	DB	27°C	DB	28℃	DB	31°C	DB	33℃	DB	ſ	ir temp.	$\perp$		℃DB		
	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19℃	WB	20°C	WB	22°C	WB	24°C	WB	℃	DB ℃WI	3 16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-1	9.8 -20	11.29	11.20	11.11	11.02	10.93
11					8.33	6.94	8.84	7.57	9.10	7.45	9.38	7.33	9.94	7.76	10.50	7.48	-1	7.7 -18	11.34	11.25	11.16	11.06	10.97
13					8.63	7.03	9.17	7.65	9.43	7.52	9.73	7.40	10.32	7.83	10.92	7.54	-1	5.7 -16	11.38	11.29	11.20	11.11	11.02
15					8.93	7.11	9.49	7.73	9.77	7.60	10.09	7.48	10.71	7.90	11.34	7.60	-1	3.5 -14	11.38	11.29	11.20	11.11	11.02
17					9.23	7.20	9.82	7.82	10.11	7.69	10.44	7.56	11.10	7.97	11.75	7.67	-1	1.5 -12	11.38	11.29	11.20	11.11	11.02
19					9.44	7.27	10.04	7.87	10.34	7.74	10.68	7.61	11.35	8.02	12.01	7.71	-6	.5 -10	11.38	11.29	11.20	11.11	11.02
21					9.64	7.33	10.26	7.93	10.57	7.80	10.91	7.66	11.59	8.07	12.28	7.75	-7	.5 -8	11.37	11.29	11.20	11.11	11.02
23					9.64	7.33	10.28	7.94	10.59	7.80	10.94	7.67	11.63	8.08	12.32	7.76	-5	.5 -6	11.38	11.29	11.20	11.11	11.02
25			8.95	7.65	9.64	7.33	10.30	7.94	10.62	7.81	10.97	7.68	11.66	8.08	12.36	7.76	-3	.0 -4	11.38	11.29	11.20	11.11	11.01
27			8.91	7.63	9.64	7.33	10.33	7.95	10.64	7.82	10.96	7.68	11.59	8.07				.0 -2	11.38	11.29	11.20	11.11	11.01
29			8.84	7.61	9.51	7.29	10.16	7.91	10.48	7.78	10.80	7.64	11.45	8.04			1	.0 0	11.38	11.29	11.20	11.10	11.01
31			8.76	7.58	9.37	7.25	10.00	7.86	10.32	7.74	10.65	7.60	11.30	8.01			2	.0 1	11.38	11.29	11.20	11.10	11.01
33	8.21	7.04	8.58	7.52	9.23	7.20	9.83	7.82	10.16	7.70	10.49	7.57	11.15	7.98			[3	.0 2	11.38	11.29	11.20	11.10	11.01
35	7.77	6.87	8.31	7.43	9.09	7.16	9.66	7.77	10.00	7.66	10.34	7.53	11.01	7.96			5	.0 4	11.38	11.29	11.20	11.11	11.01
37	7.68	6.84	8.18	7.39	8.92	7.11	9.49	7.73	9.81	7.61	10.13	7.49	10.77	7.91			7	.0 6	11.37	11.29	11.20	11.11	11.01
39	7.58	6.80	8.04	7.34	8.76	7.06	9.31	7.68	9.62	7.57	9.93	7.44	10.54	7.87			Ĝ	.0 8	11.85	11.76	11.67	11.58	11.48
41	7.49	6.77	7.91	7.30	8.59	7.02	9.14	7.64	9.43	7.52	9.73	7.40	10.31	7.83			1	.5 10	12.32	12.23	12.15	12.05	11.95
43	7.40	6.74	7.78	7.26	8.42	6.97	8.96	7.60	9.24	7.48	9.52	7.36	10.08	7.79			1:	.5 12	12.97	12.88	12.78	12.68	12.72
	15.6													.5 14	13.62	13.52	13.41	13.32	13.49				
																	16	.5 16	13.95	13.84	13.72	13.63	13.87

Outdoor unit FDC125VNX

PJG	000Z	045	Â
-----	------	-----	---

Cooling	ling mode (kW)															
Outdoor							Indo	or air t	emper	ature						
air temp.	18℃	DB	21℃	DB	23℃	DB	26℃	DB	27°C	DB	28℃	DB	31℃	DB	33℃	DB
all tomp.	12℃	WB	14°C	WB	16°C	WB	18℃	WB	19°C	WB	20℃	WB	22°C	:WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	9.34	11.05	10.16	11.37	10.10	11.72	10.04	12.42	10.66	13.12	10.51
13					10.79	9.50	11.46	10.32	11.79	10.25	12.16	10.20	12.91	10.83	13.65	10.67
15					11.16	9.66	11.87	10.48	12.22	10.42	12.61	10.36	13.39	10.99	14.17	10.83
17					11.54	9.82	12.27	10.64	12.64	10.58	13.05	10.52	13.87	11.15	14.69	10.99
19					11.80	9.93	12.55	10.75	12.93	10.69	13.34	10.63	14.18	11.25	15.02	11.10
21					12.05	10.04	12.83	10.86	13.21	10.79	13.64	10.74	14.49	11.36	15.34	11.20
23					12.05	10.04	12.85	10.87	13.24	10.81	13.67	10.75	14.54	11.38	15.40	11.22
25			11.19	10.21	12.05	10.04	12.88	10.88	13.27	10.82	13.71	10.77	14.58	11.39	15.45	11.23
27			11.14	10.19	12.05	10.04	12.91	10.89	13.30	10.83	13.70	10.76	14.49	11.36		
29			11.05	10.15	11.88	9.97	12.70	10.81	13.10	10.75	13.51	10.69	14.31	11.30		
31			10.95	10.10	11.71	9.89	12.49	10.72	12.90	10.67	13.31	10.62	14.13	11.24		
33	10.26	9.37	10.73	10.00	11.53	9.82	12.29	10.64	12.70	10.60	13.11	10.54	13.94	11.17		
35	9.71	9.10	10.39	9.84	11.36	9.74	12.08	10.56	12.50	10.52	12.92	10.47	13.76	11.11		
37	9.60	9.05	10.22	9.77	11.15	9.65	11.86	10.47	12.26	10.43	12.67	10.38	13.47	11.01		
39	9.48	8.99	10.05	9.69	10.94	9.57	11.64	10.39	12.03	10.34	12.41	10.29	13.18	10.92		
41	9.36	8.93	9.89	9.62	10.74	9.48	11.42	10.30	11.79	10.25	12.16	10.20	12.89	10.82		
43	9.25	8.88	9.72	9.53	10.53	9.39	11.21	10.22	11.55	10.16	11.90	10.10	12.60	10.72		

Model FDU125VNXVF

Notes(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Indoor unit FDU125VF

	Heatir	Heating mode:HC (kW)  Outdoor Indoor air temperature													
		door	In	door a	ir tem	peratur	е								
	air te	emp.			°CDB										
	℃DB	℃WB	16	18	20	22	24								
	-19.8	-20	9.12	9.05	8.97	8.90	8.83								
	-17.7	-18	9.67	9.60	9.52	9.44	9.37								
	-15.7	-16	10.23	10.15	10.07	9.98	9.90								
	-13.5	-14	10.67	10.59	10.50	10.42	10.33								
	-11.5	-12	11.11	11.03	10.94	10.85	10.76								
	-9.5	-10	11.56	11.47	11.38	11.29	11.19								
	-7.5	-8	12.00	11.91	11.82	11.72	11.62								
	-5.5	-6	12.49	12.40	12.30	12.20	12.10								
	-3.0	-4	12.99	12.89	12.79	12.68	12.57								
	-1.0	-2	13.48	13.38	13.27	13.16	13.05								
	1.0	0	13.98	13.87	13.76	13.64	13.52								
	2.0	1	14.22	14.11	14.00	13.88	13.76								
	3.0	2	14.22	14.11	14.00	13.88	13.76								
	5.0	4	14.22	14.11	14.00	13.88	13.76								
	7.0	6	14.22	14.11	14.00	13.88	13.77								
	9.0	8	14.81	14.70	14.59	14.47	14.35								
	11.5	10	15.41	15.29	15.18	15.06	14.94								
	13.5	12	16.22	16.09	15.97	15.85	15.90								
	15.5	14	17.03	16.90	16.76	16.65	16.86								
	16.5	16	17.44	17.30	17.16	17.04	17.34								
•															

Model																
Cooling	mode	,														(kW)
Outdoor									emper							
air temp.	18°C	CDB	21°0	CDB	23°0	CDB	26°0	CDB	27°0	CDB	28°0	CDB	31°0	CDB	33℃	CDB
	12℃	CWB	14°C	WB	16℃	WB	18℃	CWB	19℃	CWB	20°C	CWB	22°C	CWB	24℃	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	9.34	11.05	10.16	11.37	10.10	11.72	10.04	12.42	10.66	13.12	10.51
13					10.79	9.50	11.46	10.32	11.79	10.25	12.16	10.20	12.91	10.83	13.65	10.67
15					11.16	9.66	11.87	10.48	12.22	10.42	12.61	10.36	13.39	10.99	14.17	10.83
17					11.54	9.82	12.27	10.64	12.64	10.58	13.05	10.52	13.87	11.15	14.69	10.99
19					11.80	9.93	12.55	10.75	12.93	10.69	13.34	10.63	14.18	11.25	15.02	11.10
21					12.05	10.04	12.83	10.86	13.21	10.79	13.64	10.74	14.49	11.36	15.34	11.20
23					12.05	10.04	12.85	10.87	13.24	10.81	13.67	10.75	14.54	11.38	15.40	11.22
25			11.19	10.21	12.05	10.04	12.88	10.88	13.27	10.82	13.71	10.77	14.58	11.39	15.45	11.23
27			11.14	10.19	12.05	10.04	12.91	10.89	13.30	10.83	13.70	10.76	14.49	11.36		
29			11.05	10.15	11.88	9.97	12.70	10.81	13.10	10.75	13.51	10.69	14.31	11.30		
31			10.95	10.10	11.71	9.89	12.49	10.72	12.90	10.67	13.31	10.62	14.13	11.24		
33	10.26	9.37	10.73	10.00	11.53	9.82	12.29	10.64	12.70	10.60	13.11	10.54	13.94	11.17		
35	9.71	9.10	10.39	9.84	11.36	9.74	12.08	10.56	12.50	10.52	12.92	10.47	13.76	11.11		
37	9.60	9.05	10.22	9.77	11.15	9.65	11.86	10.47	12.26	10.43	12.67	10.38	13.47	11.01		
39	9.48	8.99	10.05	9.69	10.94	9.57	11.64	10.39	12.03	10.34	12.41	10.29	13.18	10.92		
41	9.36	8.93	9.89	9.62	10.74	9.48	11.42	10.30	11.79	10.25	12.16	10.20	12.89	10.82		
43	9.25	8.88	9.72	9.53	10.53	9.39	11.21	10.22	11.55	10.16	11.90	10.10	12.60	10.72		

	Heatir	ng mo	de:HC	,								
	Out	door	In	door a	ir tem	peratu	re					
	air te	emp.			℃DB							
	℃DB	°CWB	16	18	20	22	24					
	-19.8	-20	14.11	14.00	13.89	13.78	13.66					
	-17.7	-18	14.17	14.06	13.94	13.83	13.72					
	-15.7	-16	14.23	14.11	14.00	13.89	13.77					
	-13.5	-14	14.23	14.11	14.00	13.89	13.77					
	-11.5	-12	14.22	14.11	14.00	13.89	13.77					
	-9.5	-10	14.22	14.11	14.00	13.89	13.77					
	-7.5	-8	14.22	14.11	14.00	13.89	13.77					
	-5.5	-6	14.22	14.11	14.00	13.88	13.77					
	-3.0	-4	14.22	14.11	14.00	13.88	13.77					
	-1.0	-2	14.22	14.11	14.00	13.88	13.76					
	1.0	0	14.22	14.11	14.00	13.88	13.76					
	2.0	1	14.22	14.11	14.00	13.88	13.76					
	3.0	2	14.22	14.11	14.00	13.88	13.76					
	5.0	4	14.22	14.11	14.00	13.88	13.76					
	7.0	6	14.22	14.11	14.00	13.88	13.77					
	9.0	8	14.81	14.70	14.59	14.47	14.35					
	11.5	10	15.41	15.29	15.18	15.06	14.94					
	13.5	12	16.22	16.09	15.97	15.85	15.90					
'	15.5	14	17.03	16.90	16.76	16.65	16.86					
	16.5	16	17.44	17.30	17.16	17.04	17.34					

## PJG000Z045 A

Model Cooling		<b>140VN</b> e	1XVF	Ind	oor un	it FC	DU140	VF	Outd	oor un	nit FD	C140\	√NX			(kW)
							Indo	or air t	empera	ature						
Outdoor air temp.	18℃	CDB	21℃	CDB	23℃	CDB	26℃	CDB	27℃	CDB	28℃	CDB	31°	CDB	33℃	CDB
all terrip.	12℃	CWB	14℃	CWB	16℃	CWB	18℃	CWB	19℃	CWB	20℃	CWB	22℃	CWB	24℃	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11											13.13					
13					_		_		$\overline{}$		13.62				_	
15					_		_		-		14.12				_	
17											14.62					
19					13.21	10.60	14.06	11.49	14.48	11.35	14.95	11.22	15.88	11.85	16.82	11.52
21					13.50	10.71	14.36	11.59	14.80	11.45	15.28	11.31	16.23	11.94	17.19	11.60
23				$\overline{}$							15.31					
25											15.35					11.62
27											15.34					
29				-	_		$\overline{}$				15.13	_		_		
31			12.26	10.94	13.11	10.57	13.99	11.47	14.45	11.34	14.91	11.21	15.82	11.83		
				-							14.69					
35	10.88	9.90	11.63	10.70	12.72	10.43	13.53	11.32	14.00	11.21	14.47	11.08	15.41	11.73		
37	10.75	9.84	11.45	10.63	12.49	10.35	13.29	11.25	13.74	11.13	14.18	11.00	15.08	11.65		
39	10.62	9.79	11.26	10.56	12.26	10.27	13.04	11.17	13.47	11.05	13.90	10.92	14.76	11.57		
41	10.49	9.73	11.07	10.49	12.02	10.19	12.80	11.10	13.21	10.97	13.62	10.85	14.44	11.49		
43	10.35	9.68	10.89	10.42	11.79	10.11	12.55	11.02	12.94	10.90	13.33	10.77	14.11	11.41		

Notes(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (Cooling only) (2) Capacities are based on the following conditions.

(2) Capacities are based on the following condition
Corresponding refrigerant piping length: 7.5m
Level difference of Zero.
(3) Symbols are as follows.
TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

Heatir	ng mo	de:HC				(kW)
Out	door	In	door a	ir tem	peratu	re
air te	emp.			℃DB		
℃DB	°CWB	16	18	20	22	24
-19.8	-20	10.42	10.34	10.26	10.17	10.09
-17.7	-18	11.06	10.97	10.88	10.79	10.70
-15.7	-16	11.69	11.60	11.50	11.41	11.32
-13.5	-14	12.20	12.10	12.00	11.91	11.81
-11.5	-12	12.70	12.60	12.50	12.40	12.30
-9.5	-10	13.21	13.11	13.00	12.90	12.79
-7.5	-8	13.71	13.61	13.50	13.39	13.28
-5.5	-6	14.28	14.17	14.06	13.94	13.83
-3.0	-4	14.84	14.73	14.61	14.49	14.37
-1.0	-2	15.41	15.29	15.17	15.04	14.91
1.0	0	15.97	15.85	15.72	15.59	15.45
2.0	1	16.26	16.13	16.00	15.86	15.73
3.0	2	16.25	16.13	16.00	15.86	15.73
5.0	4	16.25	16.13	16.00	15.86	15.73
7.0	6	16.25	16.12	16.00	15.87	15.73
9.0	8	16.93	16.80	16.68	16.54	16.40
11.5	10	17.61	17.48	17.35	17.21	17.07
13.5	12	18.53	18.39	18.25	18.12	18.17
15.5	14	19.46	19.31	19.16	19.02	19.27
16.5	16	19.93	19.77	19.61	19.48	19.82

Model FDU140VSXVF Indoor unit FDU140VF Outdoor unit FDC140VSX Cooling mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°C	DB	21℃	DB	23°C	DB	26°0	CDB	27°C	DB	28℃	DB	31℃	DB	33℃	DB
un tomp.	12℃	:WB	14℃	:WB	16℃	WB	18°C	CWB	19℃	WB	20℃	:WB	22℃	:WB	24°C	:WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	10.07	12.38	10.97	12.73	10.84	13.13	10.71	13.91	11.36	14.70	11.06
13					12.08	10.21	12.83	11.10	13.21	10.97	13.62	10.85	14.45	11.49	15.28	11.18
15					12.50	10.35	13.29	11.25	13.68	11.11	14.12	10.98	14.99	11.63	15.87	11.31
17					12.92	10.50	13.75	11.39	14.16	11.26	14.62	11.12	15.54	11.76	16.45	11.43
19					13.21	10.60	14.06	11.49	14.48	11.35	14.95	11.22	15.88	11.85	16.82	11.52
21					13.50	10.71	14.36	11.59	14.80	11.45	15.28	11.31	16.23	11.94	17.19	11.60
23					13.50	10.71	14.40	11.60	14.83	11.46	15.31	11.32	16.28	11.95	17.25	11.61
25			12.53	11.05	13.50	10.71	14.43	11.61	14.87	11.47	15.35	11.33	16.33	11.96	17.30	11.62
27			12.48	11.03	13.50	10.71	14.46	11.62	14.90	11.48	15.34	11.33	16.23	11.94		
29			12.37	10.98	13.31	10.64	14.23	11.54	14.68	11.41	15.13	11.27	16.03	11.89		
31			12.26	10.94	13.11	10.57	13.99	11.47	14.45	11.34	14.91	11.21	15.82	11.83		
33	11.49	10.15	12.02	10.85	12.92	10.50	13.76	11.39	14.23	11.28	14.69	11.14	15.61	11.78		
35	10.88	9.90	11.63	10.70	12.72	10.43	13.53	11.32	14.00	11.21	14.47	11.08	15.41	11.73		
37	10.75	9.84	11.45	10.63	12.49	10.35	13.29	11.25	13.74	11.13	14.18	11.00	15.08	11.65		
39	10.62	9.79	11.26	10.56	12.26	10.27	13.04	11.17	13.47	11.05	13.90	10.92	14.76	11.57		
41	10.49	9.73	11.07	10.49	12.02	10.19	12.80	11.10	13.21	10.97	13.62	10.85	14.44	11.49		
43	10.35	9.68	10.89	10.42	11.79	10.11	12.55	11.02	12.94	10.90	13.33	10.77	14.11	11.41		

Notes(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed. (Cooling only) (2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

Cevel difference of Zero.

(3) Symbols are as follows.
TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

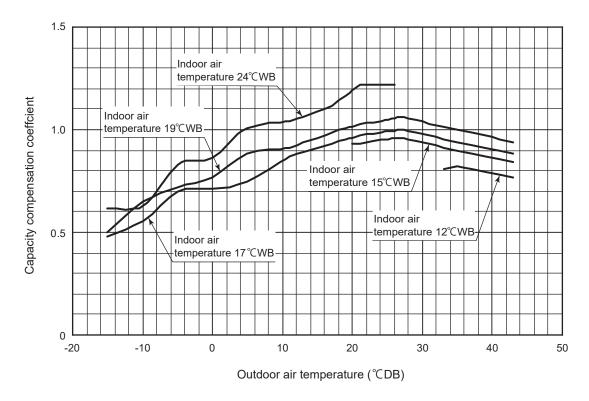
(kW) Heating mode:HC Outdoor Indoor air temperature air temp. °CDB °CWB 16 18 20 24 16.13 16.00 15.87 15.74 15.61 -19.8 -20 -17.7 -18 16.19 16.07 15.94 15.81 15.68 -15.7 -16 16.26 16.13 16.00 15.87 15.74 -13.5 -14 16.26 16.13 16.00 15.87 15.74 -11.5 -12 16.25 16.13 16.00 15.87 15.74 -9.5 -10 16.25 16.13 16.00 15.87 15.74 -7.5 -8 16.25 16.12 16.00 15.87 15.74 -5.5 -6 16.25 16.13 16.00 15.87 15.74 16.25 16.13 16.00 15.87 15.73 -3.0 16.25 16.13 16.00 15.86 15.73 -1.0 -2 1.0 |16.25|16.13|16.00|15.86|15.73 16.26 16.13 16.00 15.86 15.73 2.0 1 16.25 16.13 16.00 15.86 15.73 3.0 2 4 16.25 16.13 16.00 15.86 15.73 5.0 7.0 16.25 16.12 16.00 15.87 15.73 16.93 16.80 16.68 16.54 16.40 9.0 8 11.5 10 17.61 17.48 17.35 17.21 17.07 13.5 18.53 18.39 18.25 18.12 18.17 12 15.5 14 19.46 19.31 19.16 19.02 19.27 19.93 19.77 19.61 19.48 19.82 16 16.5

## [References data]

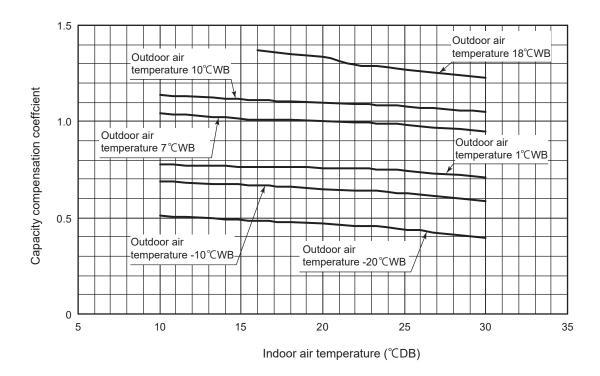
Capacity variation against outdoor and indoor temperature at the maximum compressor speed capacity compensation coefficient shows the ratio to nominal capacity.

## (I) Models SRC40, 50, 60ZSX-S

## 1 Cooling

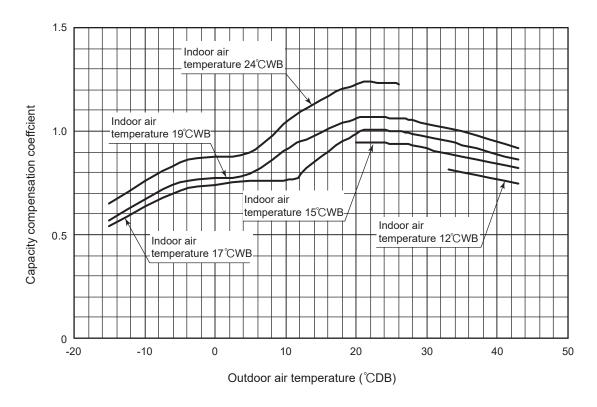


## 2 Heating

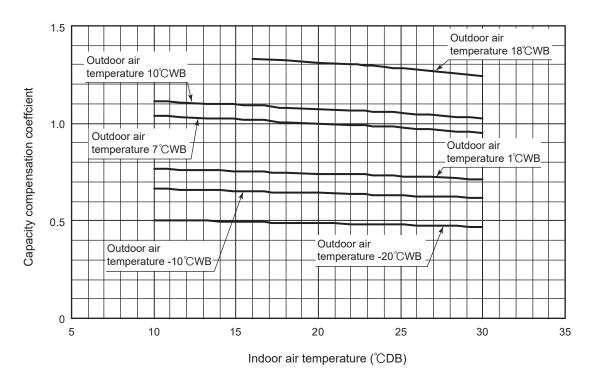


## $({\rm I\hspace{-.1em}I}) \ \text{Model FDC71VNX}$

## 1 Cooling

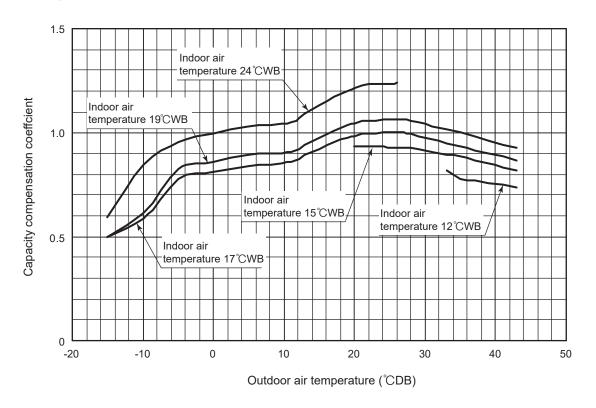


## 2 Heating

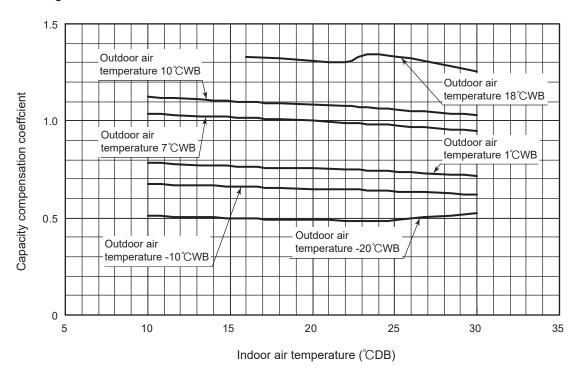


## (III) Models FDC100, 125, 140VNX, 100, 125, 140VSX

## ① Cooling



## 2 Heating



# 1.9.2 Correction of cooling and heating capacity in relation to air flow rate control (fan speed)

Fan speed	P-Hi or Hi	Me	Lo
Coefficient	1.00	0.97	0.95

# 1.9.3 Correction of cooling and heating capacity in relation to one way length of refrigerant piping

It is necessary to correct the cooling and heating capacity in relation to the one way equivalent piping length between the indoor and outdoor units.

## (1) Models SRC40-60

Piping length (m)	7	10	15	20	25	30
Cooling	1	0.99	0.975	0.965	0.95	0.935
Heating	1	1	1	1	1	1

## (2) Models FDC71-140

Equivale	nt piping length <sup>(1)</sup> (n	n)	7.5	10	15	20	25	30	35	40	45	50	55
Heating			1	1	1	1	1	0.998	0.998	0.993	0.993	0.988	0.988
	FDC71 model		1	0.996	0.989	0.982	0.975	0.968	0.961	0.954	0.947	0.940	0.933
	FDC100 model	φ 15.88	1	0.991	0.978	0.964	0.951	0.937	0.924	0.910	0.897	0.883	0.870
	FDC125 model	Ψ13.88	1	0.986	0.968	0.950	0.932	0.914	0.896	0.878	0.860	0.842	0.824
Cooling	FDC140 model		1	0.985	0.966	0.946	0.927	0.907	0.888	0.868	0.849	0.829	0.810
Cooling	FDC71 model		1.008	1.006	1.003	1	0.997	0.994	0.991	0.988	0.985	0.982	0.979
	FDC100 model	φ 19.05	1.016	1.013	1.007	1.002	0.996	0.991	0.985	0.980	0.974	0.969	0.963
	FDC125 model	Ψ 19.03	1.022	1.018	1.009	1.001	0.992	0.984	0.975	0.967	0.958	0.950	0.941
	FDC140 model		1.026	1.021	1.011	1.002	0.992	0.983	0.973	0.964	0.954	0.945	0.935

Equivale	Equivalent piping length (1)(m)			65	70	75	80	85	90	95	100	105
Heating			0.983	0.983	0.978	0.978	0.973	0.973	0.968	0.968	0.963	0.963
	FDC71 model		_	_	_	_	_	_	_	_	_	
	FDC100 model	φ 15.88	0.856	0.843	0.829	0.816	0.803	0.789	0.776	0.762	0.749	0.736
	FDC125 model	Ψ13.88	0.806	0.788	0.770	0.752	0.734	0.716	0.698	0.680	0.662	0.644
Cooling	FDC140 model		0.790	0.771	0.751	0.732	0.712	0.693	0.673	0.654	0.634	0.615
Cooming	FDC71 model		-	_	_	_	_	_	_	_	_	_
	FDC100 model	φ 19.05	0.959	0.955	0.951	0.948	0.944	0.940	0.936	0.932	0.929	0.926
	FDC125 model	Ψ 19.03	0.935	0.929	0.924	0.919	0.912	0.908	0.902	0.897	0.892	0.887
	FDC140 model		0.928	0.920	0.913	0.907	0.900	0.894	0.888	0.882	0.876	0.870

Note (1) Calculate the equivalent length using the following formula.

However, install the piping so that the piping length is within +5 m of the limit length (actual length) for the respective types.

• Equivalent length =Actual length + (Equivalent bend length x number of bends in the piping.) Equivalent length per bend. (Models FDC71-140 only)

Gas pipe diameter (mm)	φ 12.7	φ 15.88	φ 19.05
Equivalent bend length	0.20	0.25	0.30

## 1.9.4 Height difference between the indoor unit and outdoor unit

When the outdoor unit is located below indoor units in cooling mode, or when the outdoor unit is located above indoor units in heating mode, the correction coefficient mentioned in the below table should be subtracted from the value in the above table.

Height difference between the indoor unit and outdoor unit in the vertical height difference	5m	10m	15m	20m	25m	30m
Adjustment coefficient	0.99	0.98	0.97	0.96	0.95	0.94

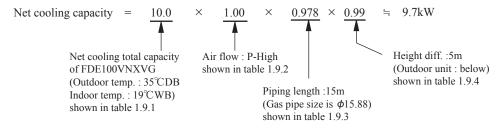
## **Piping length limitations**

Model	SRC40, 50, 60	FDC71	FDC100, 125, 140		
Max. one way piping length	30m	50m	100m		
Max. vertical height difference	Outdoor unit is higher 20m Outdoor unit is lower 20m	Outdoor unit is higher 30m Outdoor unit is lower 15m			

Note (1) Values in the table indicate the one way piping length between the indoor and outdoor units.

## How to obtain the cooling and heating capacity

Example : The net cooling capacity of the model FDE100VNXVG with the air flow "P-High", the piping length of 15m, the outdoor unit located 5m lower than the indoor unit, indoor wet-bulb temperature at  $19.0^{\circ}$ C and outdoor dry-bulb temperature  $35^{\circ}$ C is



Œ

0

0

a

0

## 1.10 APPLICATION DATA

## 1.10.1 Installation of indoor unit

(1) Ceiling suspended type (FDE)

This manual is for the installation of an indoor unit.

For electrical wiring work (Indoor), refer to the electrical wiring work installation manual. For remote control installation, refer to the installation manual attached to a remote control. For wireless kit installation, refer to the installation manual attached to a wireless kit. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to the installation manual attached to an outdoor unit.

### **SAFETY PRECAUTIONS**

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- <u>AWARNING</u>: Wrong installation would cause serious consequences such as injuries or death. ACAUTION: Wrong installation might cause serious consequences depending on circumstances Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown as follows:
- Never do it under any circumstances. • Always do it according to the instruction.

   After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit. Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

### **↑** WARNING

Installation should be performed by the specialist.

If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.

Install the system correctly according to these installation manuals.

Improper installation may cause explosion, injury, water leakage, electric shock, and fire

• When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage, referred by the formula (accordance with ISO5149).

If the density of refrigerant exceeds the limit, please consult the dealer and install the ventilation system, otherwise lack of oxygen can occur, which can cause serious accidents.

Use the genuine accessories and the specified parts for installation.

If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.

Ventilate the working area well in case the refrigerant leaks during installation.

If the refrigerant contacts the fire, toxic gas is produced

Install the unit in a location that can hold heavy weight.

Improper installation may cause the unit to fall leading to accid

• Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes. r installation may cause the unit to fall leading to accide

Do not mix air in to the cooling cycle on installation or removal of the air-conditioner.

If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries

• Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.

Power source with insufficient capacity and improper work can cause electric shock and fire Ouse specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in

order not to apply unexpected stress on the terminal.

Loose connections or hold could result in abnormal heat generation or fire

Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services

Improper fitting may cause abnormal heat and fire.

● Check for refrigerant gas leakage after installation is completed.

If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced

Use the specified pipe, flare nut, and tools for R410A.

Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle

● Tighten the flare nut according to the specified method by with torque wrench. If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period.

● Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur. Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak.

• Connect the pipes for refrigeration circuit securely in installation work before compressor is operated. If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due

to abnormal high pressure in the system Stop the compressor before removing the pipe after shutting the service valve on pump down work.

0 If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.

Only use prescribed option parts. The installation must be carried out by the qualified installer. If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks. fire.

● Do not repair by yourself. And consult with the dealer about repair.

Improper repair may cause water leakage, electric shock or fire

Consult the dealer or a specialist about removal of the air-conditioner.

Improper installation may cause water leakage, electric shock or fire. ● Turn off the power source during servicing or inspection work.

If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan

● Do not run the unit when the panel or protection guard are taken off

Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock,

Shut off the power before electrical wiring work.

It could cause electric shock, unit failure and improper running

## PFA012D628B/A

## **⚠ CAUTION** Perform earth wiring surely Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure, electric shock and fire due to a short circuit. Earth leakage breaker must be installed. If the earth leakage breaker is not installed, it can cause fire and electric shocks Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all Using the incorrect one could cause the system failure and fire • Do not use any materials other than a fuse of correct capacity where a fuse should be used. Connecting the circuit by wire or copper wire could cause unit failure and fire Do not install the indoor unit near the location where there is possibility of flammable gas leakages. If the gas leaks and gathers around the unit, it could cause fire. Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled. It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire. Do not use the indoor unit at the place where water splashes such as laundry.

 Secure a space for installation, inspection and maintenance specified in the manual. Insufficient space can result in accident such as personal injury due to falling from the installation place

Indoor unit is not waterproof. It could cause electric shock and fire. Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art.

It could cause the damage of the items.

Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics. Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air-conditioner and cause a malfunction and breakdown. Or the air-conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming

 Do not install the remote control at the direct sunlight. It could cause breakdown or deformation of the remote control

0

0

0

0

0

0

0

O

Do not install the indoor unit at the place listed below.

Places where flammable gas could leak.
Places where carbon fiber, metal powder or any powder is floated.
Place where the substances which affect the air-conditioner are generated

such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres. Places exposed to oil mist or steam directly.

On vehicles and shins Places where machinery which generates high harmonics is used. Places where cosmetics or special sprays are

Highly salted area such as beach

Heavy snow area Places where the system is affected by

smoke from a chimney Altitude over 1000m

 Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation) Locations with any obstacles which can prevent inlet and outlet air of the unit

Locations where vibration can be amplified due to insufficient strength of structure

Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit)

Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)

Locations where drainage cannot run off safely. It can affect performance or function and etc..

 Do not put any valuables which will break down by getting wet under the air-conditioner. Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user

Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use

It could cause the unit falling down and injury.

• Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit. If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water.

To avoid damaging, keep the indoor unit packed or cover the indoor unit Install the drain pipe to drain the water surely according to the installation manual.

Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings

 Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit. Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) to 🦯 user's health and safety.

 Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work. If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can ur, which can cause serious accidents

For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps, and not to make air-bleeding.

Check if the drainage is correctly done during commissioning and ensure the space for inspection and mai

 Ensure the insulation on the pipes for refrigeration circuit so as not to condense water. Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables

Do not install the outdoor unit where is likely to be a nest for insects and small animals

Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to eep the surroundings clean. Pay extra attention, carrying the unit by hand.

Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit

by hand. Use protective gloves in order to avoid injury by the aluminum fin

Make sure to dispose of the packaging material.

Leaving the materials may cause injury as metals like nail and woods are used in the package Do not operate the system without the air filter.

It may cause the breakdown of the system due to clogging of the heat exchanger.

 Do not touch any button with wet hands It could cause electric shock.

Do not touch the refrigerant piping with bare hands when in operation.

The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or fr

 Do not clean up the air-conditioner with water It could cause electric shock.

 Do not turn off the power source immediately after stopping the operation Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown

Do not control the operation with the circuit breaker.

It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury

**-** 122 **-**

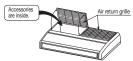
# **①Before installation**

- Install correctly according to the installation manual
- Confirm the following points:

Unit type/Power source specification OPipes/Wires/Small parts OAccessory items

## Accessory item

For unit hanging For retrigerant pipe			For drain pipe					For air return grille		
Flat washer (M10)	Paper pattern	Pipe cover (large)	Pipe cover (small)	Strap	Drain hose (with clamp)	Hose clamp	Fixing bracket	Screw	Heavy insulation	Screw
0					(1)	()				
8	1	1	1	4	1	1	1	2	1	4
For unit hanging	For unit hanging and adjustment	For heat insulation of gas pipe	For heat insulation of liquid pipe	For fixing of pipe cover	For drain pipe connection	For drain hose mounting		For installing of fixing bracket	For drain hose	For fixing air return grille



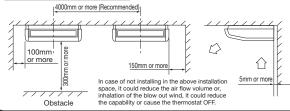
### 2 Selection of installation location for the indoor unit

- 1 Select the suitable areas to install the unit under approval of the user
  - Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.

    Areas where there is enough space to install and service.

  - Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
  - Areas where there is no obstruction of air flow on both air return grille and air supply port.
  - · Areas where fire alarm will not be accidentally activated by the air-conditioner.
  - · Areas where the supply air does not short-circuit.
  - · Areas where it is not influenced by draft air.
  - · Areas not exposed to direct sunlight.
  - Areas where dew point is lower than around 23°C and relative humidity is lower than 80%. This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air-conditioner is operated under the severer condition than mentioned above.
  - Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.) · Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
  - · Areas where there is no influence by the heat which cookware generates.
  - · Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- (2) Check if the place where the air-conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.
- 3 When plural indoor units are installed nearby, it is recommended to separate each other more than 4m.

## Space for installation and service



## ③Preparation before installation

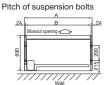
•If suspension bolt becomes longer, do reinforcement of earthquake resistant. O For grid ceiling

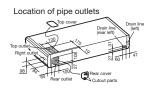
When suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.

O In case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.

When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt. Prepare four (4) sets of suspension bolt, nut and spring washer (M10) on site.

## Pitch of suspension bolts and pipe position





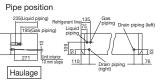
## ③Preparation before installation (continued)

			(mm	)
Series	type	Α	В	
Cinnle and (DAC)	40 to 50type	1070	1022	
Single split (PAC) series	60 to 71type	1320	1272	
	100 to 140type	1620	1572	
	36 to 56type	1070	1022	
VRF (KX) series	71type	1320	1272	
	112 to 140type	1620	1572	

\*Pipes can be taken out in 3 directions (rear, right or

- Cut out holes using nippers, etc.
   Cut out holes to take out pipes along the cutoff line on the rear cover.
   Cut out the top face cover aligning to the piping nosition.
- position. When taking pipe out to right-hand side, cut out a hole along the groove at the inside of side panel. After installing pipes and wires, seal clearances around pipes and wires with putty, etc. to shut off dust.

Make sure to install the covers at rear and top in order to protect the inside of unit from intrusion of dust or protect wires from damages by sharp edges. When taking then out to the right-hand side, remove burrs or sharp edge:



- •Move the box as close to the installation area as possible packed.
- olf it must be unpacked, wrap the unit with a nylon sling, and be careful not to damage the unit.
- \*Do not hold fragile plastic parts, such as the side panel,
- •If you need to lay the unit on a floor after unpacking, always put it with the intake grille facing upward.

### Preparation before instalation

1. Remove the air return grille. Slide stoppers (4 places) of the catches. then pull out the pins (4 or 6 places).

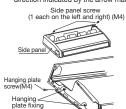


3. Remove the hanging plate

Remove the screw, and then loosen the fixing bolts. Unscrew 8-12mm

### 2. Remove the side panel.

Remove the screw and detach the side panel by sliding it toward the direction indicated by the arrow mark.



Hanging plat

## 4 Installation of indoor unit

Hanging plate

## **⚠ WARNING**

Completely seal the hole in the wall with putty. If not sealed properly, dust, insects, small animals, and highly humid air may enter the room from outside, which could result in fire

## **⚠** CAUTION

Completely seal the hole in the wall with putty.
If not sealed properly, furniture and other fixtures may be damaged by rater leakage or condensation



Paper pattern

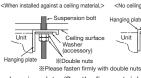
Ceiling

Hanging plate

## Work procedure

- Select the suspension bolt locations and the pipe hole location (1) Use enclosed paper pattern as a reference, and drill the holes for the suspension bolts and pipe. \*Decide the locations based on direct measurements
- (2) Once the locations are properly placed, the paper pattern can be removed.
- 2. Install the suspension bolts in place.
- 3. Fix with 4 suspension bolts, which can endure load of 500N.
- 4. Check the measurements given at the right figure for the length of the suspension bolts
- 5. Fasten the hanging plate onto the suspension bolts.







Install the unit to the hanging plate. (See the figure at right.)

- (1) Slide the unit in from front side to get it hanged on the hanging plate with the bolts.
- (2) Fasten the four fixing bolts (M8: 2 each on the left and right sides) firmly. (3) Fasten the two screws (M4: 1 each on

the left and right sides).

- **⚠WARNINIG**: Hang a side panel on from the panel side to the rear side and then fasten it securely onto the indoor unit with screws.
- \*To ensure smooth drain flow install the unit with a descending slope toward the drain outlet.
- ▲ CAUTION: Do not give the reversed slope, which may cause water leaks.



## ⑤ Refrigerant pipe

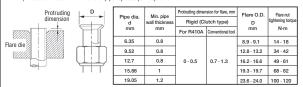
### Caution

Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product or a nut compatible with JIS B 8607, Class 2.

Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the outdoor unit, catalogue or technical data.

1) In case of reuse: Do not use old flare nut, but use the one attached to the unit or compatible with JIS B 8607, Class 2.

2) In case of reuse: Flare the end of pipe replaced partially for R410A.



Use phosphorus deoxidized copper alloy seamless pipe (C1220T specified in JIS H 3300) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.

Do not use any refrigerant other than R410A.

Using other refrigerant except R410A (R22 etc.) may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.

Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or

water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.

Ouse special tools for R410A refrigerant.

### Work procedure

1. Remove the flare nut and blind flanges on the pipe of the indoor unit.

Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them. (Gas may come out at this time, but it is not abnormal.)

Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)

Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit. When pulling out pipes backward or upward, install them passing through the attached cover together with the electrical cabling.

Seal the gap with putty, or other, to protect from dust, etc.

\*Bend radius of pipe must be 4D or larger. Once a pipe is bent, do not readjust the bending. Do not twist a pipe or collapse to 2/3D or smaller. \*\*Do a flare connection as follows:

- Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving. torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them.
- When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table above. Make sure to hold the pipe on the indoor unit securely by a spanner when tightening the nut in order to avoid unexpected stress on the copper pipe.

  Cover the flare connection part of the indoor unit with attached insulation material after a gas

leakage inspection, and tighten both ends with attached straps.

Make sure to insulate both gas pipes and liquid pipes completely.

※ Incomplete insulation may cause dew condensation or water dropping.
 ◆ Use heat-resistant (120 °C or more) insulations on the gas side pipes.
 ◆ In case of using at high humidity condition, reinforce insulation of refrigerant pipes.

Surface of insulation may cause dew condition or water dropping, if insulations are not reinfoced.

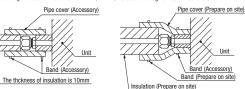
Refrigerant is charged in the outdoor unit.

As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

Refrigerating machine oil should not be applied to the threads of union or external surface of flare. It is because, even if the same tightening torque is applied, the oil is likely to decrease the slide friction force on the threads and increase, in turn, the axial component force so that it could crack the flare by the stress corrosion.

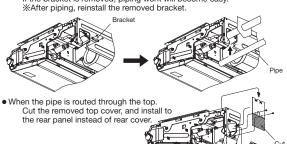
Refrigerating machine oil may be applied to the internal surface of flare only

<The case of using thicness of insulation is 10mm> <The case of using reinfoced insulation> Pipe cover (Accessory)



The pipe can be connected from three different directions. (back, reight, top)

When the pipe is routed through the back.
 If the bracket is removed, piping work will become easy



## **6 Drain pipe**

The drain pipes may pull out either from back, right or left side.

- . Install the drain pipe according to the installation manual in order to drain properly. Imperfection in draining may cause flood indoors and wetting the household goods, etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful andinflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- Connect the pipe securely to avoid water leakage from the joint.
- Insulate the pipe properly to avoid condensation drop.
- Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance

### Work procedure

1. Insert drain hose completely to the base, and tighten the drain hose clamp securely. ( adhesive must not be used.)

rubber plug and the cylindrical insulating materials by the pipe connecting hole on the

left side of the unit to the right side.

A Beware of a possible outflow of water that may occur upon removal of a drain plug.

2. Fix the drain hose at the lowest point with a hose clamp supplied as an accessory.

 Give a drain hose a gradient of 10mm as illustrated in the right drawing by laying

it without leaving a slack.

Take head of electrical cables so that they may not run beneath the drain hose.

A drain hose must be clamped down with a hose clamp. There is a possibility that drain water overflows.

Connect VP20(prepare on site) to drain hose. (Adhesive must not be used.) \* Use commercially available rigid PVC general pipe VP20 for drain pipe.

Do not to make the up-down bending and trap in the mid-way while assuming that the drain pipes is downhill. (more than 1/100)

Never set up air vent.5. Insulate the drain pipe.

Insulate the drain hose clamp with the heat insulation supplied as accessories.
When the unit is installed in a humid place, consider precautions against

dew condensation such as heat insulation for the drain pipe.

## Drain test

• After installation of drain pipe, make sure that drain system work in good

condition and no water leakage from joint and drain pan.

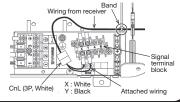
• Do drain test even if installation of heating season.

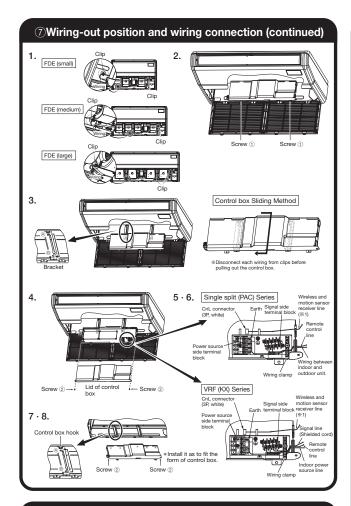
## Wiring-out position and wiring connection

- Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country Be sure to use an exclusive circuit.
- Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
- Be sure to do D type earth work.
- For the details of electrical wiring work, see attached instruction manual for electrical wiring work.
- Remove wiring from clips.
- Remove the control box (Screw 1), 2pcs).
- Pull out the control box by sliding along the groove on the bracket (Direction (A)→(B)).
- Remove the lid of control box (Screw ②, 2pcs).
- Hold each wiring inside the unit and connect to the terminal block surely.
- Fix the wiring by clamp.
- Install the lid of control box (Screw 2), 2pcs).
- Return the control box to the original place by sliding along the groove on the bracket (Direction ®→A).
- 9. Install the removed parts at their original places.
- %1 Wiring for the signal receiving section of wireless kit (Option) and motion sensor kit (Option) are connected at the time of shipping from the factory. It is not necessary to disconnect these wiring when wired remote control is connected. When the wired/wireless kits are used together, it becomes necessary to set the slaves and remote control. For the methods of installing the wireless kit and the motion sensor kit, refer to the attached installation manuals.

## NOTICE

When installing the Superlink adapter, remove the band fixed the wiring from receiver.





## **®Control mode switching**

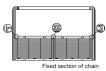
The control content of indoor units can be switched in following way. ( is the default setting)

Switch No.		Control Content				
SW8-4	ON	Indoor unit silent mode				
	OFF	Normal operation				

## 

- The air return grille must be attached when electrical cabling work is completed.
- 1. Fix the chains tied to the air return grille onto the indoor unit with screws supplied as accessories (4 pieces).
- 2. Close the air return grille. This completes the unit installtion





## **®Check list after installation**

• Check the following items after all installation work completed.

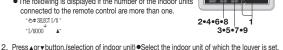
Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Power source voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
There is mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks air flow on air inlet and outlet?	Insufficient capacity	

## 11) How to set the air flow direction

It is possible to change the movable range of the louver on the air outlet from the wired remote control. Once the top and bottom position is set, the louver will swing within the range between the top and the bottom when swing operation is chosen. It is also possible to apply different setting to each louver.

Stop the air conditioner and press SET button and LOUVER button simultaneously for three seconds or

- - The following is displayed if the number of the indoor units connected to the remote control is one. Go to step 4. "DATA LOADING
  - The following is displayed if the number of the indoor units connected to the remote control are more than one. - 60 \$ SELECT I/U



DATA LOADING

10

**≜**"⇔"I/U001 ♦"⇔"I/U002 ♦"⇔

3. Press SET button.(determination of indoor unit) •Selected indoor unit is fixed.

[EXAMPLE]
" I/U00 | " (displayed for two seconds) "DATA LOADING ≂™.1 ▲

4. Press▲or▼ button.(selection of louver No.) •Select the louver No. to be set according to the right figure.

. --, '종구No.1 ▲'이동구No.2 ¢'이동구No.3 ¢'이 '종구No.4 ▼'

- 5. Press SET button.(Determination of louver No.)

  The louver No. to be set is confirmed and the display shows the upper limit of the movable range.

  [EXAMPLE] If No.1 louver is selected,

  "No.1 UPFER2 \* " «-current upper limit position

- 6. Press ▲ or ▼ button.(selection of upper limit position)
  - Select the upper limit of louver movable range.

    "position 1" is the most horizontal, and "position 6" is the most downward.

    "position --" is to return to the factory setting.

    If you need to change the setting to the default



- Hydu fleed to change the setting, use "position --".

  No.1 UPPR1 ▼ (the most horizotal)

  No.1 UPPR3 ◆

  . Press SET button. (Fixing of the upper limit position)
   The upper limit position is fixed and the setting position is displayed for two seconds. Then proceed to lower limit position selection display.

[EXAMPLE]
No.1 UPPER2 (displayed for two seconds Nn.110WFR5 \$ (shows current setting)

- 8. Press ₄or ▼button.(Selection of lower limit position)

Select the lower limit position of louver.
 "position 1" is the most horizontal, and "position 6" is the most downwards.
 "position --" is to return to the factory setting. If you need to change the setting to the default setting, use "position --".

- 9. Press SET button.(Fixing of the lower limit position)
- \*\*Upper limit position and lower limit position are fixed, and the set positions are displayed for two seconds, then setting is completed.

· After the setting is completed, the louver which was set moves from the original position to the lower limit position, and goes back to the original position again. (This operation is not performed if the indoor

unit and/or indoor unit fan is in operation.) [Example] No.1 U2 L6



SET COMPLETE

10.Press ⊕oN/oFF button.

Louver adjusting mode ends and returns to the original display.

If the upper limit position number and the lower limit position number are set to the same position, the louver is fixed at that position auto swing does not funtion.

If you press RESET button during settings, the display will return to previous display.If you press OONOFF button during settings, the mode will be ended and return to original display, and the settings that have completed will become invalid.

When plural remote controls are connected, louver setting operation cannot be set by slave remote control.

## (2) Duct connected-Low / Middle static pressure type (FDUM)



(a) Indoor unit

This manual is for the installation of an indoor unit.

For electrical wiring work (Indoor), refer to page 137. For remote control installation, refer to page 141. For wireless kit installation, refer to page 562. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to page 153

## SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, [AWARNING] and [ACAUTION] [AWARNING]: Wrong installation would cause serious consequences such as injuries or death. ACAUTION: Wrong installation might cause serious consequences depending on circumstances Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown on the right

Never do it under any circumstances.

After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit. Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

### **⚠ WARNING**

Installation should be performed by the specialist

If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn

Install the system correctly according to these installation manuals.

Improper installation may cause explosion, injury, water leakage, electric shock, and fire.

Check the density refered by the foumula (accordance with ISO5149).

If the density exceeds the limit density please consult the dealer and installate the ventilation system

• Use the genuine accessories and the specified parts for installation.

If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit

Ventilate the working area well in case the refrigerant leaks during installation.

If the refrigerant contacts the fire, toxic gas is produced

Install the unit in a location that can hold heavy weight.

ion may cause the unit to fall leading to accid

● Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes. Improper installation may cause the unit to fall leading to accidents

Do not mix air in to the cooling cycle on installation or removal of the air-conditioner.

If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries

Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit. Power source with insufficient capacity and improper work can cause electric shock and fire

•Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in

order not to apply unexpected stress on the terminal.

Loose connections or hold could result in abnormal heat generation or fire

● Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services

Improper fitting may cause abnormal heat and fire

● Check for refrigerant gas leakage after installation is completed.

If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced

●Use the specified pipe, flare nut, and tools for R410A.

ng existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cyclo ● Tighten the flare nut according to the specified method by with torque wrench.

If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period

Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can

Poisonous gases will flow into the room through drainage pine and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak

Connect the pipes for refrigeration circuit securely in installation work before compressor is operated. sor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries du

to abnormal high pressure in the system.

Stop the compressor before removing the pipe after shutting the service valve on pump down work. If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle

Only use prescribed option parts. The installation must be carried out by the qualified installer.

install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fi

Do not repair by yourself. And consult with the dealer about repair. Improper repair may cause water leakage, electric shock or fire.

Consult the dealer or a specialist about removal of the air conditioner.

Improper installation may cause water leakage, electric shock or fire. Turn off the power source during servicing or inspection work.

If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan

 $\ensuremath{\bullet}$  Do not run the unit when the panel or protection guard are taken off.

Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get

Shut off the power before electrical wiring work.

It could cause electric shock, unit failure and improper running

## **⚠ CAUTION**

### Perform earth wiring surely.

0

0

0

0

0

0

O

0

0

0

0

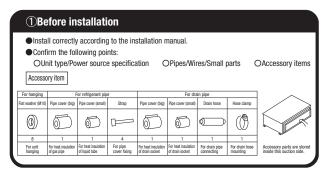
a

0

It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury

### Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could 😃 e unit failure and electric shock or fire due to a short circuit. Earth leakage breaker must be installed. 0 If the earth leakage breaker is not installed, it could cause electric shocks or fire. Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current. 0 Ising the incorrect one could cause the system failure and fire Do not use any materials other than a fuse of correct capacity where a fuse should be used nnecting the circuit by wire or copper wire could cause unit failure and fire Do not install the indoor unit near the location where there is possibility of flammable gas leakage. If the gas leaks and gathers around the unit, it could cause fire. Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled. t could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire Secure a space for installation, inspection and maintenance specified in the manual 0 ufficient space can result in accident such as personal injury due to falling from the installation place Do not use the indoor unit at the place where water splashes such as laundry. ndoor unit is not waterproof. It could cause electric shock and fire. Do not use the indoor unit for a special purpose such as food storage, cooling for precision ment, preservation of animals, plants, and a work of art. It could cause the damage of the items. Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics. quipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunica quipment might influence the air conditioner and cause a malfunction and breakdown. Or the air conditioner might uence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming Do not install the remote control at the direct sunlight. It could cause breakdown or deformation of the remote control. Do not install the indoor unit at the place listed below. Places where cosmetics or special sprays a Places where flammable gas could leak Places where carbon fiber, metal powder or any powder is floated. frequently used. Highly salted area such as beach. Place where the substances which affect the air condi such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres. Heavy snow area ed to oil mist or steam directly. Places where the system is affected by smoke from a chimney Altitude over 1000m Places where machinery which generates high harmonics is used. Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation) Locations with any obstacles which can prevent inlet and outlet air of the unit Locations where vibration can be amplified due to insufficient strength of structure Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the Locations where the inhaded receiver is exposed to the direct sumight of the strong light beant, (in case of the infared specification until) Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m) Locations where drainage cannot run off safely. It can affect performance or function and etc. Do not put any valuables which will break down by getting wet under the air conditioner. $\langle \rangle$ Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use. It could cause the unit falling down and injury. Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit f sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit. ø Install the drain pipe to drain the water surely according to the installation manual. Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit. Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) to user's health and safety. Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work 0 sity of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can ccur, which can cause serious accidents For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps, and not to make air-bleeding. Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenanc Ensure the insulation on the pipes for refrigeration circuit so as not to condense water. complete insulation could cause condensation and it would wet ceiling, floor, and any other value Do not install the outdoor unit where is likely to be a nest for insects and small animals. nsects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to cep the surroundings clean. Pay extra attention, carrying the unit by hand Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin. Make sure to dispose of the packaging material. 0 eaving the materials may cause injury as metals like nail and woods are used in the package. Do not operate the system without the air filter. It may cause the breakdown of the system due to clogging of the heat exchanger. Do not touch any button with wet hands. Do not touch the refrigerant piping with bare hands when in operation. The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or Do not clean up the air conditioner with water. It could cause electric shock. Do not turn off the power source immediately after stonning the operation. Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown Do not control the operation with the circuit breaker

OThis model is middle static ducted type air-conditioner unit. Therefore, do not use this model for direct blow type air-conditioner unit.



## 2 Selection of installation location for the indoor unit

- ① Select the suitable areas to install the unit under approval of the user.
  - Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use
    a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
  - Areas where there is enough space to install and service.
  - Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
  - $\,\cdot\,$  Areas where there is no obstruction of air flow on both air return grille and air supply port.
  - · Areas where fire alarm will not be accidentally activated by the air-conditioner.
  - Areas where the supply air does not short-circuit.
  - · Areas where it is not influenced by draft air.
  - · Areas not exposed to direct sunlight.
  - Areas where dew point is lower than around 28°C and relative humidity is lower than 80%. This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air-conditioner is operated under the severer condition than mentioned above. If there is a possibility to use it under such a condition, attach additional insulation of 10 to
  - if there is a possibility to use it under such a condition, attach additional insulation of 10 to , 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.

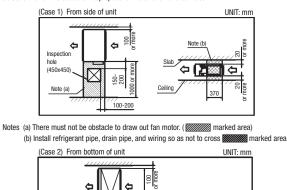
    Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
  - Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
  - · Areas where there is no influence by the heat which cookware generates.
  - ${\boldsymbol{\cdot}}$  Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
  - Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.
  - (A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air-conditioner might not work properly.)
- ② Check if the place where the air-conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

## Space for installation and service

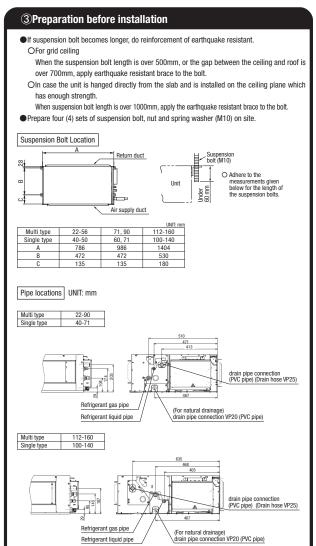
Make installation altitude over 2.5m.

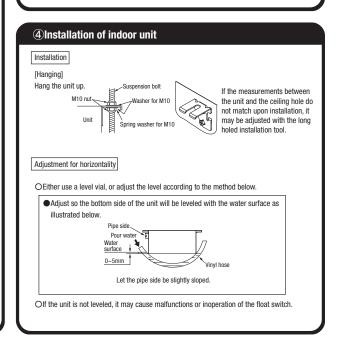
(Indoor Unit)

Select either of two cases to keep space for installation and services.



7//////	<del>]</del>	<u> </u>		
	(Size of inspe	ction hole	)	UNIT: mm
	Single type	40-50	60-71	100-140
	Multi type	22-56	71-90	112-160
	A	1100	1300	1720
	В	62	20	725





### **⑤Duct work**

- ① A corrugated board (for preventing sputtering) is attached to the main body of the air-conditione (on the outlet port). Do not remove it until connecting the duct.
  - An air filter can be provided on the main body of the air-conditioner (on the inlet port). Remove it when connecting the duct on the inlet port.

### ②Blowout duct

 Use rectangular duct to connect with unit. Duct size for each unit is as shown below

			UNIT: mm
Single type	40-50	60-71	100-140
Multi type	22-56	71-90	112-140
A	682	882	1202
В	172	172	172
В	•	•	(JB)

- Duct should be at their minimum length
- We recommend to use sound and heat insulated duct to prevent it from condensation. Connect duct to unit before ceiling attachment.

## ③Inlet port

- When shipped the inlet port lies on the back.
- When connecting the duct to the inlet port, remove the air filter if it is fitted to the inlet port.
- When placing the inlet port to carry out suction from the bottom side, use the following procedure to replace the suction duct joint and the bottom plate



bottom plate and the duct joint on the inlet port side of the unit.

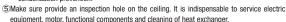


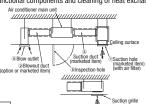
and duct joint

ecure with a band, etc



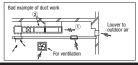
- Fit the duct join with a screw; fit the bottom plate
- Make sure to insulate the duct to prevent dewing on it
- (4)Install the specific blowout duct in a location where the air will circulate to the entire room
  - Conduct the installation of the specific blowout hole and the connection of the duct before attaching them to the ceiling.
  - •Insulate the area where the duct is secured by a band for dew condensation prevention.





## Bad example of duct work

- 1 If a duct is not provided at the suction side but it is substituted with the space over the ceiling, humidity in the space will increase by the influence of capacity of ventilation fan, strength of wind blowing against the out door air louver, weather (rainy day) and others
  - a)Moisture in air is likely to condense over the external plates of the unit and to drip on the ceiling. Unit should be operated under the conditions as listed in the above table and within the limitation of wind volume. When the building is a concrete structure, especially immediately after the construction, humidity tends to rise even if the space over the ceiling is not substituted in place of a duct. In such occasion, it is necessary to insulate the entire unit with glass wool (25mm). (Use a wire net or equivalent to hold the glass wool in place.)
- b)It may run out the allowable limit of unit operation (Example: When outdoor air te is 35°C DB, suction air temperature is 27°C WB) and it could result in such troubles as compressor overload. etc.
- c)There is a possibility that the blow air volume may exceed the allowable range of operation due to the capacity of ventilation fan or strength of wind blowing against external air louver so that drainage from be heat exchanger may fall to reach the drain pan but leak outside (Example: drip on to the ceiling) with consequential water leakage in the room.
- (2)If vibration damping is not conducted between the unit and the duct, and between the unit and the slab, vibration will be transmitted to the duct and vibration noise may occur. Also, vibration may be transmitted from the unit to the slab. Vibration damping must be performed.



## 5 Duct work (continued)

### Connecting the air intake/vent ducts

1) Fresh Air Intake

[for air intake duct only]

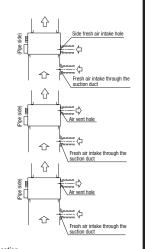
OUse the side fresh air intake hole, or supply through a part of the suction duct.

[for simultaneous air intake/vent] OIntake air through the suction duct (the side cannot be used)

2)Air Vent

OUse the side air vent hole (always use together with the air intake)

Oinsulate the duct to protect it from dew condensation.

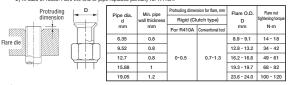


## **6**Refrigerant pipe

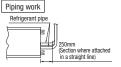
### Caution

- Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product or a nut compatible with JIS B 8607, Class 2.
  - on a mic companion with 0.5 o 0001 / OldSS Z.

    Regarding whether existing pieces can be reused or not, and the washing method, refer to the instruction manual of the outdoor unit, catalogue or technical data.
  - 1) In case of reuse: Do not use old flare nut, but use the one attached to the unit or compatible with JIS B 8607, Class 2 2) In case of reuse: Flare the end of pipe replaced partially for R410A



- Use phosphorus deoxidized copper alloy seamless pipe (C1220T specified in JIS H 3300) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
- ●Do not use any refrigerant other than R410A.
- Using other refrigerant except R410A (R22 etc.) may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.
- Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc. Use special tools for R410A refrigerant.



When conducting piping work, make sure to allow the pipes to be aligned in a straight line for at least 250 mm, as shown in the left illustration. (This is necessary for the drain pump to function)

## Work procedure

- Remove the flare nut and blind flanges on the pipe of the indoor unit.
   Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the
- nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them (Gas may come out at this time, but it is not abnormal.)

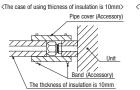
  Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)
- 2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit. \*Bend radius of pipe must be 4D or larger. Once a pipe is bent, do not readjust the bending
  - Do not twist a pipe or collapse to 2/3D or smaller \*Do a flare connection as follows:
  - Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them.
  - When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table above. Make sure to hold the pipe on the indoor unit securely by a spanner when tightening the nut in order to avoid unexpected stress on the copper pipe.
- Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
- Make sure to insulate both gas pipes and liquid pipes completely.
   %Incomplete insulation may cause dew condensation or water dropping.
   Use heat-resistant (120 °C or more) insulations on the gas side pipes.
- In case of using at high humidity condition, reinforce insulation of refrigerant pipes.
   Surface of insulation may cause dew condition or water dropping, if insulations are not

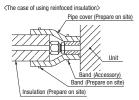
## **6**Refrigerant pipe (continued)

Refrigerant is charged in the outdoor unit As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit

Caution: Refrigerating machine oil should not be applied to the threads of union or external surface of flare. It is because, even if the same tightening torque is applied, the oil is likely to decrease the slide friction force on the threads and increase, in turn, the axial component force so that it could crack the flare

by the stress corrosion. Refrigerating machine oil may be applied to the internal surface of flare only





## 7 Drain pipe

### Caution

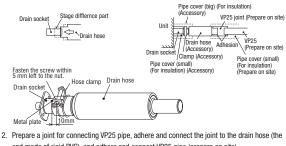
- Install the drain pipe according to the installation manual in order to drain properly. Imperfection in draining may cause flood indoors and wetting the household goods, etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- Connect the pipe securely to avoid water leakage from the joint.
- Insulate the pipe properly to avoid condensation drop.
- Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

## Work procedure

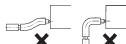
1. Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part of drain socket.

Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw within 5mm left to the nut.

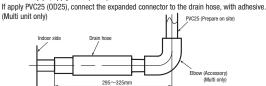
- Do not apply adhesives on this end.
- Do not use acetone-based adhesives to connect to the drain socket.



- end made of rigid PVC), and adhere and connect VP25 pipe (prepare on site) \*As for drain pipe, apply VP25 made of rigid PVC which is on the market.
  - Make sure that the adhesive will not get into the supplied drain hose. It may cause the flexible part broken after the adhesive is dried up and gets rigid.
  - The flexible drain hose is intended to absorb a small difference at installation of the unit or drain pipes. Intentional bending, expanding may cause the flexible hose broken and water leakage.



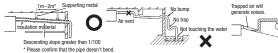
As for drain pipe, apply VP25 (OD32).



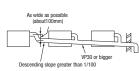
## 7 Drain pipe (continued)

Do not set up air vent.

- Make sure to make descending slope of greater than 1/100 and do not make up-down bend
  - Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe.



When sharing a drain pipe for more than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP30 or bigger size for main drain pipe

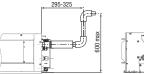


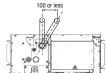
- 4. Insulate the drain pipe.
- Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.

XAfter drainage test implementation, cover the drain socket part with pipe cover (small size), then use the pipe cover (big size) to cover the pipe cover (small size), clamps and part of the drain hose, and fix and wrap it with tapes to wrap and make joint part gapless.

### Drain up

● The position for drain pipe outlet can be raised up to 600mm above the ceiling. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan on the indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure below.





Otherwise, the construction point makes it same as drain pipe construction.

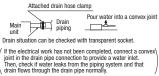
## Drain test

- Conduct a drain test after completion of the electrical work.
- 2. During the trail, make sure that drain flows properly through the piping and that no water leaks from connections.
- 3. In case of a new building, conduct the test before it is furnished with the ceiling.
- 4. Be sure to conduct this test even when the unit is installed in the heating season.

## Procedures

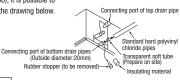
- Supply about 1000 cc of water to the unit through the air outlet by using a feed water pump.
- 2. Check the drain while cooling operation





## Outline of bottom drain piping work

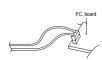
 $\ensuremath{\bullet}$  If the bottom drain piping can be done with a descending gradient (1/50-1/100), it is possible to connect the pipes as shown in the drawing below.



## Uncoupling the drain motor connector

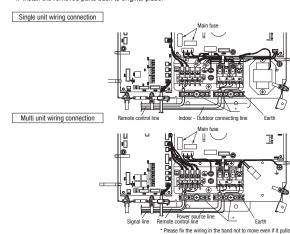
 Uncouple the connector CnR for the drain motor as illustrated in the drawing on the right.

Note: If the unit is run with the connector coupled. drain water will be discharged from the upper drain pipe joint, causing a water leak



## **®Wiring-out position and wiring connection**

- Electrical installation work must be performed according to the installation manual by an
  electrical installation service provider qualified by a power provider of the country, and be
  executed according to the technical standards and other regulations applicable to electrical
  installation in the country.
  - Be sure to use an exclusive circuit.
- Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
- Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
- For the details of electrical wiring work, see attached instruction manual for electrical wiring work
- 1. Remove a lid of the control box (2 screws).
- 2. Hold each wiring inside the unit and fasten them to terminal block securely.
- 3. Fix the wiring with clamps.
- 4. Install the removed parts back to original place.



## 

Port No.

SSA564A149AF SSA564A149AM

You can set External Static Pressure (E.S.P.) by either method of MANUAL SETTING or AUTO-MATIC SETTING by remote control.

Indoor unit will control fan-speed to keep rated air flow volume at each fan speed setting (Lo-Uhi)

## 1. MANUAL SETTING

Main fuse specification

Model Specification

71-160

22-56 T3.15A L250V

T5A L250V

You can set required E.S.P. by wired remote control that calculated with the set air flow rate and pressure loss of the duct connected.

Select No.1-10 (10Pa-100Pa) from following table according to calculation result. Refer to technical manual for details of air flow characteristic.

Setting No.	1	2	3	4	5	6	7	8	9	10
External Static Pressure (Pa)	10	20	30	40	50	60	70	80	90	100

- When you set No.11-19 by remote control, unit will control fan-speed with setting of No.10 Factory default is at No.5.
- How to set E.S.P by wired remote control
- ① Push "◆" marked button(E.S.P button).
- ② Select indoor unit No. by using \$\Display\$ button.
- ③ Select setting No. by using **♦** button and set E.S.P. by □ button. See detailed procedure in technical manual.



You can NOT set E.S.P. by wireless remote control.



## Caution

Be sure to set E.S.P. according to actual duct connected.

Wrong settings causes excessive air flow volume or water drop blown out.

## 2. AUTOMATIC SETTING

Indoor unit will recognize E.S.P. by itself automatically and select appropriate fan speed No.1-10.

## 9 External static pressure setting (continued)

- How to start automatic setting
- ①, ② Same setting as MANUAL SETTING.
- ③ Select [AUT] by using ♦ button and press ◯ button .
- ② After setting E.S.P. at "AUT", operate unit in FAN mode with certain fan speed (Lo-Uhi).

Indoor unit fan will run automatically and recognize E.S.P. by itself.

The operation for automatic E.S.P. recognition will last about 6 minutes, and it will be stopped after recognition is completed.

### Caution

- Be sure to execute AUTOMATIC SETTING by remote control AFTER ducting work is completed.

  When duct specification is changed after AUTOMATIC SETTING, be sure to execute AUTOMATIC SETTING again after power resetting and turning on again.
- · Be sure to execute AUTOMATIC SETTING before trial cooling operation.
- (See ELECTRICAL WIRING WORK INSTRUCTION about trial cooling operation)
- · Before AUTOMATIC SETTING, be sure to check that return air filter in duct is installed and damper is opened.

Wrong procedure causes excessive air flow or water drop blown out.

## Notice

- During operation for automatic recognition (the Auto Operation), fan rotates with certain speeds regardless of set fan speed by remote control.
- · When duct is set with low static pressure (around 10-50Pa), even if indoor unit operate with higher air flow volume than rated one, but it is not abnormal.
- · When you changed operation mode or stop operation with ON/OFF button during Auto Operation, the Auto operation will be canceled.
- In such case, be sure to execute AUTOMATIC SETTING again according to above procedure.

## **(11) Check list after installation**

Check the following items after all installation work completed.

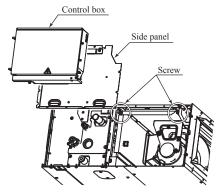
Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Power source voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
No mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks air flow on air inlet and outlet?	Insufficient capacity	
Is setting of E.S.P finished?	Excessive air flow, water drop blow out	

## (b) Replacement procedure of the fan unit

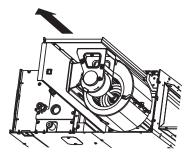
Notes(1) The unit is a heavy item. It must be supported securely and handled with care not to drop when it is necessary to replace. (2) For the maintenance space, refer to page 127.

## (i) Models FDUM40VF, 50VF

 Remove the control box and the side panel, and remove the screws marked in the circles (2 places) in the figure.

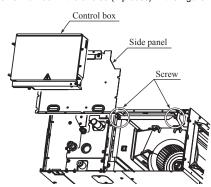


2) Take out the fan unit in the arrow direction.

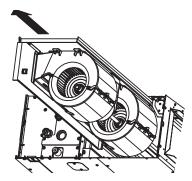


## (ii) Models FDUM60VF, 71VF1

1) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) in the figure.

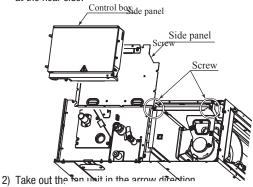


2) Take out the fan unit in the arrow direction.

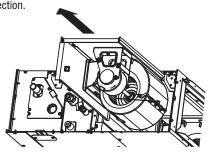


## (iii) Models FDUM100VF2, 125VF, 140VF

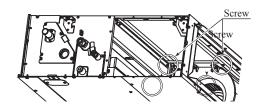
 Remove the control box and the side panel, and remove the screws marked in the circles (2 places) from the unit located at the near side.



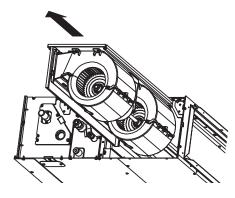
2) Take out the fan unit located at the near side in the arrow direction.



Remove the screws marked in the circles (2 places) from the fan unit located at the far side.



4) Take out the fan unit in the arrow direction.



0

 $\bigcirc$ 

0

0

0

0

0

0

0

## (3) Duct connected-High static pressure type (FDU)

PJG012D004B ∕∧

### (a) Indoor unit

- •This munual is for instaration of an indoor unit and an outdoor air processing unit (FDU-F).
- This manual is for the installation of an indoor unit.
- For electrical wiring work (flodor), refer to page 137. For remote control installation, refer to page 141. For wireless kit installation, refer to page 562. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to page 153.

### The case of FDU-F

- •The total connection capacity of the other air-conditioner units and the outdoor air processing units must be from 50% to 100% (the total includes the outdoor air processing unit).
  The connection capacity of the outdoor air processing unit must not exceed 30% of the capacity of the outdoor unit
- Single outdoor air processing unit can be used alone. The connection capacity of the outdoor air processing unit must be from 50% to 100% of the total capacity of the outdoor unit. Maximum number of outdoor air processing units that can be connected to the outdoor unit is
- Copacities of the suction air processing units can be calculated with the forllowing formulas. FDU850FKXEZ1 = 90, FDU1100FKXEZ1 = 140

## **SAFETY PRECAUTIONS** Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself. The precautionary items mentioned below are distinguished into two levels, [AWARNING] and [ACAUTION]. [AWARNING]: Wrong installation would cause serious consequences such as injuries or death. [ACAUTION]: Wrong installation might cause serious consequences depending on circumstances. Both mentions the important items to protect your health and safety so strictly follow them by any means. customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit. Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed. **⚠ WARNING** Installation should be performed by the specialist. If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn Install the system correctly according to these installation manuals. Ø n may cause explosion, injury, water leakage, electric shock, and fire Check the density refered by the found (accordance with ISO5149). 0 If the density exceeds the limit density please consult the dealer and installate the ventilation system

- Use the genuine accessories and the specified parts for installation. cified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of th
- Ventilate the working area well in case the refrigerant leaks during installation. ant contacts the fire, toxic gas is produc
- Install the unit in a location that can hold heavy weight. use the unit to fall le
- Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes. use the unit to fall leading to accident Do not mix air in to the cooling cycle on installation or removal of the air-conditioner.
- If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.
- Power source with insufficient capacity and improper work can cause electric shock and fire. Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely
  in order not to apply unexpected stress on the terminal. ose connections or hold could result in abnormal heat generation or fire.
- Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property. proper fitting may cause abnormal heat and fire.
- Check for refrigerant gas leakage after installation is completed. If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced
- Use the specified pipe, flare nut, and tools for R410A. Ising existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle
- Tighten the flare nut according to the specified method by with torque wrench. If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period.
- Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak.
- Connect the pipes for refrigeration circuit securely in installation work before compressor is operated. en the service valve is open without connecting the pipe, it could cause explosion and injuries due rmal high pressure in the system
- Stop the compressor before removing the pipe after shutting the service valve on pump down work.
- If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle. 0
- Only use prescribed option parts. The installation must be carried out by the qualified installer. Do not repair by yourself. And consult with the dealer about repair.
- Improper repair may cause water leakage, electric shock or fire Consult the dealer or a specialist about removal of the air-conditioner.
- Turn off the power source during servicing or inspection work 0 If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fail
- Do not run the unit when the panel or protection guard are taken off. ing the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get
- Shut off the power before electrical wiring work.

## **⚠** CAUTION

Perform earth wiring surely.

4 Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring, Improper earth could use unit failure and electric shock or fire due to a short ci

Earth leakage breaker must be installed.

If the earth leakage breaker is not installed, it could cause electric shocks or fire

Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.

sing the incorrect one could cause the system failure and fire

Do not use any materials other than a fuse of correct capacity where a fuse should be used. Connecting the circuit by wire or copper wire could cause unit failure and fire

Do not install the indoor unit near the location where there is possibility of flammable gas leakages. If the gas leaks and gathers around the unit, it could cause fire.

Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire

Secure a space for installation, inspection and maintenance specified in the manual.

sufficient space can result in accident such as personal injury due to falling from the installation place Do not use the indoor unit at the place where water splashes such as laundry.

Indoor unit is not waterproof. It could cause electric shock and fire Do not use the indoor unit for a special purpose such as food storage, cooling for precision

instrument, preservation of animals, plants, and a work of art. It could cause the damage of the items. Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics

Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air-conditioner and cause a malfunction and breakdown. Or the air-conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming.

Do not install the remote control at the direct sunlight. It could cause breakdown or deformation of the remote contro

Do not install the indoor unit at the place listed below.

- Places where flammable gas could leak.
  Places where carbon fiber, metal powder or any powder is floated.
  Place where the substances which affect the air-conditioner are generated such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres.
- Places exposed to oil mist or steam directly.
- On vehicles and ships

Œ

ø

0

0

0

0

0

0

0

0

- Places where machinery which generates high harmonics is used.
- Places where cosmetics or special sprays are
- requently used.
  Highly salted area such as beach.
  Heavy snow area
  Places where the system is affected by
- smoke from a chimney. · Altitude over 1000m
- Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit.) according to the installation manual for each model because each indoor unit has each limitation)

  Locations with any obstacles which can prevent inlet and outlet air of the unit.

  Locations were vibration can be amplified due to insufficient strength of structure.

  Locations where wibration can be amplified due to insufficient strength of structure.

  Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the

  - infrared specification unit)
- Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m) · Locations where drainage cannot run off safely. It can affect performance or function and etc..
- lacktriangle Do not put any valuables which will break down by getting wet under the air-conditioner.
- tion could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's be
- Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use. It could cause the unit falling down and injury.
- Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit. If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water.
- To avoid damaging, keep the indoor unit packed or cover the indoor unit Install the drain pipe to drain the water surely according to the installation manual. Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings
- Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) to
- er's health and safet Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work
- If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxyg occur, which can cause serious accidents.
- For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps and not to make air-bleeding. eck if the drainage is correctly done during commissioning and ensure the space for inspection and mai
- Ensure the insulation on the pipes for refrigeration circuit so as not to condense water mplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables
- Do not install the outdoor unit where is likely to be a nest for insects and small animals Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to
- keep the surroundings clean. Pay extra attention, carrying the unit by hand.
- Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin. Make sure to dispose of the packaging material. Leaving the materials may cause injury as metals like nail and woods are used in the package
- Do not operate the system without the air filter.
- It may cause the breakdown of the system due to clogging of the heat exchanger. Do not touch any button with wet hands.

It could cause electric shock.

- Do not touch the refrigerant piping with bare hands when in operation.
- The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or fros Do not clean up the air-conditioner with water
- It could cause electric shock.
- Do not turn off the power source immediately after stopping the operation
- Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown Do not control the operation with the circuit breaker.
- It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury

This model is high static ducted type air-conditioner unit. Therefore, do not use this model for direct blow type air-conditioning unit.

## **1**Before installation

- Install correctly according to the installation manual.
- Confirm the following points:

Accessory item

Ounit type/Power source specification OPipes/Wires/Small parts

Accessory items

	For hanging	For refrigerant pipe			For drain pipe					
	Flat washer (M10)	Pipe cover (big)	Pipe cover (small)	Strap	Pipe cover (big)	Pipe cover (small)	Drain hose	Hose clamp	Elbow (Multi only)	
Ī	0	6	6		6	5	<b>a</b>	()	<b>O</b>	
I	8	1	1	4	1	1	1	1	1	
	For unit hanging	For heat insulation of gas pipe	For heat insulation of liquid tube			For heat insulation of drain socket	For drain pipe connecting	For drain hose mounting	For drain pipe connecting	Acci

## **2**Selection of installation location for the indoor unit

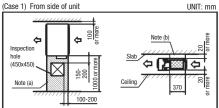
- ① Select the suitable areas to install the unit under approval of the use
- ·Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling. Areas where there is enough space to install and service.
- ·Areas where it can be drained properly. Areas where drain pipe descending slope can be
- ·Areas where there is no obstruction of air flow on both air return grille and air supply port.
- Areas where fire alarm will not be accidentally activated by the air-conditioner.
- ·Areas where the supply air does not short-circuit
- ·Areas where it is not influenced by draft air. Areas not exposed to direct sunlight.
- Areas where dew point is lower than around 28°C and relative humidity is lower than 80%.
- This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air-conditioner is operated under the severer condition than mentioned above.
- If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.
- -Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
  -Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
- Areas where there is no influence by the heat which cookware generates.
- Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.
- (A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air-conditioner might not work properly.)
- ·When operating the suction air processing unit independently, it operates in the outdoor air processing mode. Blowout temperatures are not same at the standard unit operation and the outdoor air
- processing mode operations.
- Since the temperatures become higher during cooling or lower during heating, take care of the direction of blowout outlet.
- Avoid directing the blowout outlet to the space where people are present
- ② Check if the place where the air-conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

## Space for installation and service

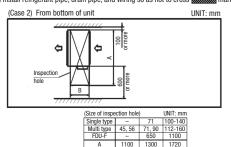
Make installation altitude over 2.5m.

(Indoor Unit)

Select either of two cases to keep space for installation and services.



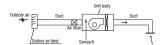
Notes (a) There must not be obstacle to draw out fan motor. ( marked area) (b) Install refrigerant pipe, drain pipe, and wiring so as not to cross



1100 1300 1720 620 725

## 3 Cautions for the handling and installation place of outdoor air processing unit

1) This unit monitors the outdoor air temperature at the position of sensor A in the figure, and controls the start and stop with the thermostat based on the value of sensor A and the setting temperature by the remote control



Remote control's setting temperature indicates the outdoor air temperature that controls the start and stop of operation by the thermostat.

When the thermostat is turned off, the operation is changed to the fan mode so that the outdoor air is blown out directly into the room. For example if the remote control is set to 22°C in cooling operation, and if the outdoor ai temperature is 22°C or lower at that time, the unit will go into fan operation.

- When there is a difference between the air-conditioner temperature in the room during cooling operation and the tempera ture of air blown out from the outdoor air processing unit, dewing water may drip from the unit. To prevent the dewing, provide a sufficient heat insulation means at the air blow outlet.
- 3 Since the air blow outlet on the outdoor air processing unit may blow out the outdoor air directly, orient the outlet in such a
- way that it will not blow air directly to persons in the room.

  4. Since the unit controls the thermostat start and stop by monitoring the outdoor air temperature, it is prohibited to monitor the room temperature by means of the room temperature monitoring by changing the thermostat setting at the remote control side and the optional remote thermistor. Otherwise, dewing water may drip from the unit at lower outdoor air temperatures during cooling operation.
- (5) Install the remote control of the outdoor air processing unit at a place closer to the administrator to avoid the end user from using the remote control.

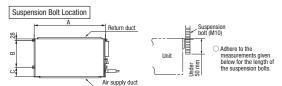
When handing over the unit to the end user, make sure to explain sufficiently about the foregoing cautions, the installation place of the remote control for the outdoor air processing unit and the position of air blow outle

## 4) Preparation before installation

- If suspension bolt becomes longer, do reinforcement of earthquake resistant.
  - OFor grid ceiling

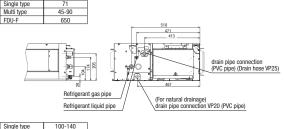
When the suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.

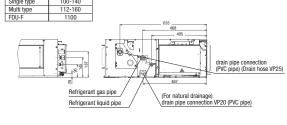
- Oln case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength
- When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt. Prepare four (4) sets of suspension bolt, nut and spring washer (M10) on site.

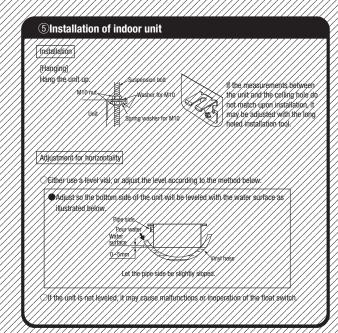


			UNIT: mm
Single type	_	71	100-140
Multi type	45, 56	71, 90	112-160
FDU-F	_	650	1100
A	786	986	1720
В	472	472	725
C	135	135	180

Pipe locations UNIT: mm







### **6** Duct Work

- progated board (for preventing spottering) is attached to the main body of th
- on the outlet porty, to not remove it until connecting the duct.

  Arrain titler can be provided on the main body of the air-condition it when connecting the eyet on the inlet port.

### Blowout duct

- Uşe rectangular duct to connect with unit,
- Drigt size for each unit is as shown below.

7		7///	7777		///	/djvrt:/mm/
/	Single type		7//	///		1,00-148
/	Multi typé	ZXZ	(5/58//	//7/,86)	////	112/160/
/	/ FGV-F/	/X//	7//	//650/		1,160//
/	// <i>K</i> //	///	882//	//882/	777	7/202//
/	///8//		1/2///	//1/2/	77/	/ XV2// X
/	7////	7777	////			7777
/	/////	*///	////	7///	///	
/	///*	-		_	-	1 1//
/	//z  -					10//
/	///↓					DB //
/	///					

- ♠Duct should be⁄at their minimum length
- We recommend to use sound and heat insulated duct to prevent it from

## Connect duct to unit before ceiling attachment

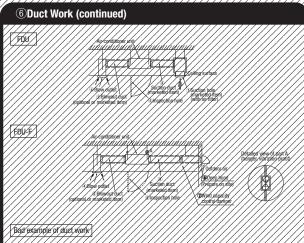
- When connecting the duct to the inlet port, remove the dir filter it it is fitted to the inlet po
- In let port size for each unit is as shown below

Single type	77777	///1/	//100-140	
Multi-Type	/45/58/	/71,80/	1/2/16/	
FDU-F/	///-//	//656//	///1100/	<i>Δ</i> ////
	//882//	//JA2//	///1282/	$\mathbb{Z}/////$
<u> </u>	//202//	//202//	X//281/	ZX////
/////	/////	/////	/////	//////
/////	/////	/////	/////	//////
/////	/////	////	////	/////
/////	//X///	/////	777X	//////
/////	77.77	7////	7////	X/////
V/XX/	/X///	/////	///X	<i>X/////</i>
Y/1/1/	/ <i>N</i> //	/////	///X	<i>V////</i>
Y/A/L	/////	444	44.A,	V////
///77	7/7///	/////	/////	<u> </u>
/////	//////	//////	'/////	//////

Make sure to insulate the duct to prevent dewing on it. l Install the specific blowout duct in a location where the air will circulate to the entire foom.

Conduct the installation of the specific blowout hole and the connection of the eluct before attaching them to the ceiling This utate the area where the duct is secured by a band for de

eondensation prevention.
Wake-sure provide an inspection hole on the ceiling/It/is indispensable to egujøment, motor, functional components and cleaning of heat exchanger



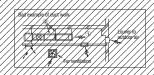
It a duct is not provided at the suction side but it is substituted with the space hurhibity in the space will increase by the influence of capacity of yeotilation (an, strength in which shows the but door air louver, wealther (rainy stay) and others.

a)Mildisture in air is likely to condense over the external plates of the unit and to drip on the ceiting. Unit should be operated under the conditions as listed in the above table and within the limitation of wind volume. When the building is a concrete structure, especially immediately after the construction, humidity tends to rise even if the space over the ceiling is not substituted in place of a dupt. In such occasion, it is necessary to insulate the entire unit with glass wood (25 mm). (Use a virte net or equivalent to hold the glass wood in place, i

bill may run out the allowable limit of unit operation (Example, the case of FDU: Winen outdoor air temperature is 35°CDB, suction air temperature is 27°CWB) and it could result in such troubles as compressor overload, etc.

e) There is a possibility that the blow air volume may exceed the allowable range of operation due to the capacity of ventilation fan or strength of wind blowing against external air louve so that drainage from he heat exchanger may tall to reach the drain pan blut leak outside

(Esample: drip on to the ceiling) with consequential water leakage in the room) It vibration damping is het conducted between the unit and the duct, and between the unit and the slab, vibration will be transpritted to the duct and vibration noise may eccur. Also, vibration may be transmitted from the unit to the slab. Vibration damping must be performed,



Connecting the air intake/vent ducts the case of FDV

XFresh Air Intake

řter eur intake duct enkil

Use the side trosh air intake hole, or supply intough a part of the suction duet

[for şimultangous air intake/vent] Intake air through the suction duct Athe side cannot be used?

Air Vent Use the side air vent hole. (always use together with the air intake

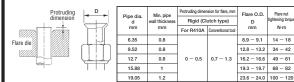
## **7**Refrigerant pipe

### Caution

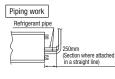
- Be sure to use new pines for the refrigerant pines. Use the flare put attached to the product or a nut compatible with JIS B 8607, Class 2.
- Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the outdoor unit, catalogue or technical data.

  1) In case of reuse: Do not use old flare nut, but use the one attached to the unit or compatible with JIS B 8607, Class 2.

  2) In case of reuse: Flare the end of pipe replaced partially for R410A.



- Use phosphorus deoxidized copper alloy seamless pipe (C1220T specified in JIS H 3300) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
- ●Do not use any refrigerant other than R410A. Using other refrigerant except R410A (R22 etc.) may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.
- Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.
- Use special tools for R410A refrigerant.



When conducting piping work, make sure to allow the pipes to be aligned in a straight line for at least 250 mm, as shown in the left illustration. (This is necessary for the drain pump to function)

## Work procedure

- 1. Remove the flare nut and blind flanges on the pipe of the indoor unit.
- Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them.

  (Gas may come out at this time, but it is not abnormal.)

  Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)
- 2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit.
  - \*\*Bend radius of pipe must be 4D or larger. Once a pipe is bent, do not readjust the bending. Do not twist a pipe or collapse to 2/3D or smaller.
    \*\*Do a flare connection as follows:

  - Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving. torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them.
  - When fastening the flare nut, align the refrigeration nine with the center of flare nut, screw. the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table above. Make sure to hold the pipe on the indoor unit securely by a
- spanner when tightening the nut in order to avoid unexpected stress on the copper pipe. Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.

  - Make sure to insulate both gas pipes and liquid pipes completely.
     \*\*Minomplete insulation may cause dew condensation or water dropping.
     Use heat-resistant (120 °C or more) insulations on the gas side pipes.
- In case of using at high humidity condition, reinforce insulation of refrigerant pipes.
   Surface of insulation may cause dew condition or water dropping, if insulations are not reinfoced.

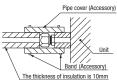
Refrigerant is charged in the outdoor unit.

As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

Refrigerating machine oil should not be applied to the threads of union or external surface of flare. It nemygraung macmine on snoun not be applied to the threads of union or external surface of mare. It is because, even if the same tightening torque is applied, the oil is likely to decrease the slide friction force on the threads and increase, in turn, the axial component force so that it could crack the flare

Refrigerating machine oil may be applied to the internal surface of flare only.

(The case of using thickness of insulation is 10mm)



Pipe cover (Prepare on site) Band (Accessory) Insulation (Prepare on site)

## **®Drain pipe**

### Caution

Flare nut

14 - 18

34 - 42

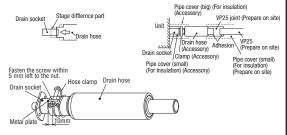
49 - 61

68 - 82

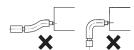
- Install the drain pipe according to the installation manual in order to drain properly. Imperfection in draining may cause flood indoors and wetting the household goods, etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen) In addition, it may cause corrosion of heat exchanger and bad smell.
- Connect the pipe securely to avoid water leakage from the joint.
- Insulate the pipe properly to avoid condensation drop.
- Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance

### Work procedure

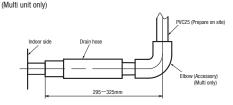
- 1. Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part of drain socket.
  - Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw within 5mm left to the nut.
- Do not apply adhesives on this end.
- Do not use acetone-based adhesives to connect to the drain socket.



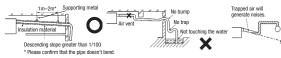
- Prepare a joint for connecting VP25 pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP25 pipe (prepare on site). \*As for drain pipe, apply VP25 made of rigid PVC which is on the market.
  - Make sure that the adhesive will not get into the supplied drain hose.
  - It may cause the flexible part broken after the adhesive is dried up and gets rigid. The flexible drain hose is intended to absorb a small difference at installation of the unit or drain pipes. Intentional bending, expanding may cause the flexible hose broken and water leakage.



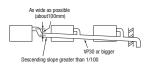
As for drain pipe, apply VP25 (0D32). If apply PVC25 (OD25), connect the expanded connector to the drain hose, with adhesive



- 3. Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway.
  - Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe
  - Do not set up air vent.



When sharing a drain pine for more. than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP30 or bigger size for main drain pipe



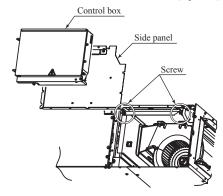
## (b) Replacement procedure of the fan unit

Notes(1) The unit is a heavy item. It must be supported securely and handled with care not to drop when it is necessary to replace.

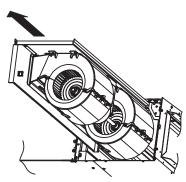
(2) For the maintenance space, refer to page 133.

## (i) Model FDU71VF1

1) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) in the figure.

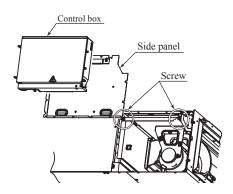


2) Take out the fan unit in the arrow direction.

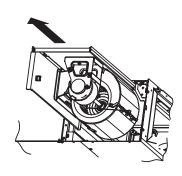


## (ii) Models FDU100VF2, 125VF, 140VF

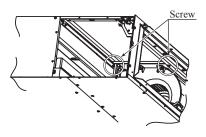
 Remove the control box and the side panel, and remove the screws marked in the circles (2 places) from the unit located at the near side.



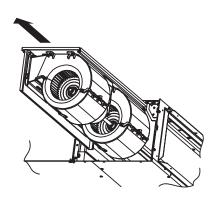
Take out the fan unit located at the near side in the arrow direction.



3) Remove the screws marked in the circles (2 places) from the fan unit located at the far side.



4) Take out the fan unit in the arrow direction.



## 1.10.2 Electric wiring work installation



Electrical wiring work must be performed by an electrician qualified by a local power provider according to the electrical installation technical standards and interior wiring regulations applicable to the installation site.

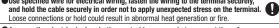
- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, AWARNING and ACAUTION.

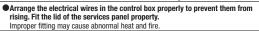
AWARNING: Wrong installation would cause serious consequences such as injuries or death. ACAUTION: Wrong installation might cause serious consequences depending on circumstances. Both mentions the important items to protect your health and safety so strictly follow them by any means.

- The meanings of "Marks" used here are as shown on the right:
- Never do it under any circumstances.
- Accord with following items. Otherwise, there will be the risks of electric shock and fire caused by overheating or short circuit.

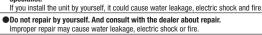
### **∆WARNING**

- Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit
- Power source with insufficient capacity and improper work can cause electric shock and fir Use specified wire for electrical wiring, fasten the wiring to the terminal securely,





Ouse the genuine option parts. And installation should be performed by a



Consult the dealer or a specialist about removal of the air-conditioner.

Improper installation may cause water leakage, electric shock or fire. ●Turn off the power source during servicing or inspection work

the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.

Shut off the power before electrical wiring work. It could cause electric shock, unit failure and improper running.

Perform earth wiring surely.
Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock due to a short circuit

● Earth leakage breaker must be installed.

If the earth leakage breaker is not installed, it can cause electric shocks.

Make sure to install earth leakage breaker on power source line. (countermeasure thing to high harmonics.)
Absence of breaker could cause electric shock

 Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current. Using the incorrect one could cause the system failure and fire.

Do not use any materials other than a fuse of correct capacity where a fuse

Connecting the circuit by wire or copper wire could cause unit failure and fire.

• Use power source line of correct capacity.

Using incorrect capacity one could cause electric leak, abnormal heat generation and fire. Do not mingle solid cord and stranded cord on power source and signal side

In addition, do not mingle difference capacity solid or stranded cord. Inappropriate cord setting could cause loosing screw on terminal block, bad electrical confact, smoke and fire contact, smoke and fire.

Do not turn off the power source immediately after stopping the operation. Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.

 Do not control the operation with the circuit breaker.
It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.

# $\bigcirc$

0

0

0

0

0

0

0

0

 $\bigcirc$ 

### ■The control content of indoor units can be switched in following way. ( is the default setting) SW2 Indoor unit address (0-Fh) SW5-1 Master/Slave Switching (plural /Slave unit Setting) SW5-2 SW6-1-4 Model capacity setting Operation check, Drain motor test run SW7 - 1 OFF Normal operation

## **1** Electrical Wiring Connection

- Electrical wiring work must be performed by an electlician an qualified by a local power Electrical wiring work must be performed by an electlician an qualified by a local power provider. These wiring specifications are determined on the assumption that the following instructions are observed:

  ① Do not use ords other than copper ones.
  Do not use any power source line lighter than one specified in parentheses for each type below.

  -braided cord (code designation 60245 (EC 51), if allowed in the relevant part 2;

  -ordinary tough rubber sheathed cord (code designation 60245 (EC 53);

  -flat twin tinsel cord (code designation 60227 (EC 41);

  -ordinary polyiny chloride sheathed cord (code designation 60227 (EC 53);

  ② Connect the power source to the outdoor unit.
  3 Pay extra attention os as not to confuse signal line and power source line connection, because an error in their connection can be burn all the boards at once.
- Connect ground wires before connecting wires between the indoor and outdoor units and Connect ground wries before connecting wires between the indoor and outdoor units and between indoor units. The ground wires need to be longer than the wires between the indoor and outdoor units, and protected from undue stress.

  Do not turn on the power source before completing the work. Round crimp terminal The ground wires must be connected by the Class D grounding connection.

  Use the round crimp terminals for connections to the terminal block.

  Use dedicated branch circuits, avoiding combination with other devices. Otherwise, it could this the payer neuron before requiring in percentage residents.

- trip the power source breaker, resulting in secondary accidents.

  Install the overcurrent and earth leakage breakers (sensitivity current: 30 mA) specified to
- respective models
- Do not connect indoor and outdoor signal cables to extension cables on the way. If the joint is wetted with intruding water, it could cause a ground insulation failure or poor connection, resulting in communication errors. (If it is inevitable to connect cables on the way, make sure to prevent the water intrusion completely.)
- When running wires (wires for power source, remote control, connecting between indoor and outdoor units, or other) behind the ceiling, protect them using copper or other pipes against assault by rat, or other
- It is up to 3.5 mm<sup>2</sup> the size of power source cables connected to indoor units. When using cables
- Intis by to 3.5 mini-ties have up owners source causes connected to mooth office, when using causes of 5.5 mm? or larger, provide a dedicated pull box for branching connection to indoor units. If signal and power source cables are connected mistakenly, it could burn down all PCBs. © Even if the power source of AC 202040300415 Vis connected mistakenly to A-8 signal cable, it is protected at initial occasion only. 2011 the remote control fails to detect the unit No. (address) at 15 minutes after turning the power on, check and repair all signal.
- cables for misconnection.

  © Cit the jumper wire J10SL1 of burnt PCB, and reconnect connectors CnK (yellow) and CnK1 (white) to CnK2 (black; <sup>AM</sup> var vanomashs is fainnt on wires between the A-B terminal block and the PCB, replace them.
- At the outside of indoor and outdoor units, take care to avoid direct contacts between remote
- At the obside of micro and obtained, take tale to avoid direct contacts between remote control and power source cables.

  In no event connect the power source of AC 220/240/380/415 V to the remote control terminal block. It could cause failures.
- Connections of wiring between units, ground wire and remote control cable
- en connecting wires between units, ground wire or remote control wire, connect them according to the ni power source terminal block or signal terminal block in the control box. Connect the ground wire to the g wer source terminal block.
- power source terminal block.

  2 Make sure to install an earth leakage breaker for the power source. Select a breaker for inverter circuit.

  3 When the earth leakage breaker is exclusive for the earth leakage protection, it is necessary to connect also an is Swinton + Class St lead or wring circuit breaker in series to the earth leakage breaker.

  3 Install the isolating switch close to the unit.
- Connect wires securing by tightening screws firmly. Confirm also no connector or wire (from terminal) is disconnected in the control box.
- When installing an auxiliary electric heater, consult the electric heater manual or technical data.

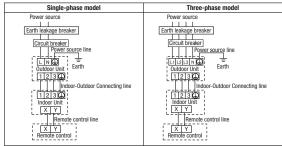
## Cable connection for single unit installation

①As for connecting method of power source, select from following connecting patterns. In principle, do

not directly connect power source line to inside unit.

As for exceptional connecting method of power souce, discuss with the power provider of the country with referring to technical documents, and follow its instruction.

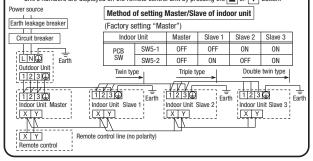
2) For cable size and circuit breaker selection, refer to the outdoor unit installation manual.



## Cable connection for a V multi configuration installation

- ①Connect the same pairs number of terminal block "①, ②, and ③"and " X and Y" between master and slave indoor units.
- ②Do the same address setting of all inside units belong to same refrigerant system by rotary switch SW2 on indoor unit's PCB (Printed circuit board).
- (3) Set slave indoor unit as "slave 1" through "slave 3" by address switch SW5-1, 5-2 on PCB.

   (4) When the AIR CON No. button on the remote control unit is pressed after turning on the power, an indoor unit's address number will be displayed. Do not fail to confirm that the connected indoor unit's numbers are displayed on the remote control unit by pressing the 🛕 or 🔻 button.



## 2 Remote control, wiring and functions

- Do not install it on the following places
- 1)Places exposed to direct sunlight
- 2Places near heat devices
- 3High humidity places
- 4 Hot surface or cold surface enough to generate condensation
- ⑤Places exposed to oil mist or steam directly
- **6** Uneven surface

## Installation and wiring of remote control

- 1) Install remote control referring to the attached installation manual.
- ②Wiring of remote control should use 0.3mm<sup>2</sup> ×2 core wires or cables.

The insulation thickness is 1mm or more. (on-site configuration)

3 Maximum prolongation of remote control wiring is 600 m.

If the prolongation is over 100m, change to the size below.

But, wiring in the remote control case should be under  $0.5 \text{mm}^2$  . Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire connecting section. Be careful about contact failure.

100 - 200m	0.5mm <sup>2</sup> × 2 cores
Under 300m	0.75mm <sup>2</sup> × 2 cores
Under 400m	1.25mm <sup>2</sup> × 2 cores
Under 600m	2.0mm <sup>2</sup> × 2 cores

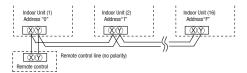
- (4) Avoid using multi-core cables to prevent malfunction
- ⑤Keep remote control line away from earth (frame or any metal of building).
- 6Make sure to connect remote control line to the remote control and terminal block of indoor unit. (No polarity)

## Control plural indoor units by a single remote control

①A remote control can control plural indoor units (Up to 16).

In above setting, all plural indoor units will operate under same mode and temperature setting. (2)Connect all indoor units with 2 core remote control line.

(3) Set unique remote control communication address from "0" to "F" to each inside unit by the rotary switch SW2 on the indoor unit's PCB.



## Master/ slave setting when more than one remote control unit are used

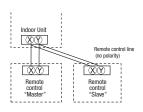
A maximum of two remote control units can be connected to one indoor unit (or one group of indoor units.)

The air-conditioner operation follows the last operation of the remote control regardless of the master/slave setting of it.

Acceptable combination is "two (2) wired remote controls". "one (1) wired remote control and one (1) wireless kit" or "two (2) wireless kits".

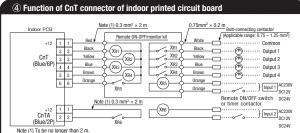
Set one to "Master" and the other to "Slave".

Note: The setting "Remote control unit sensor enabled" is only selectable with the master remote control unit in the position where you want to check room temperature.



No.	Item	Operation from the eco touch remote control (RC-EX3)	Operation from the standard remote contro (RC-E4, RC-E5)
1	Check the number of units connected in the multi remote control system.	[Menu] ⇒ [Service setting] ⇒ [Service & Maintenance] ⇒ [Service password] ⇒ [IU address]	<ul> <li>Press the AIR CON No. Dutton to display the IJ address.</li> <li>Press the A or ▼ button and check addresses of connected indoor units one by one.</li> </ul>
2		[Menu] ⇒ [Service setting] ⇒ [Service & Maintenance] ⇒ [Service password] ⇒ [IU address] ⇒ [Check run mode]	① Press the AIR CON No.   button to display the IU address. ② Press the ▲or ▼ button and select one of IU addresses. ③ Press the ⑤ (MODE) button. The unit starts to blow air.
3	Setting main/sub remote controls		Set SW1 to "Sub" for the sub remote control unit.
4	Checking operation data	[Menu] ⇒ [Service setting] ⇒ [Service & Maintenance] ⇒ [Service password] ⇒ [Operation data]	Press the ☐HECKI button. ⇒ "@FR DATA v" is displayed. ⇒ Press the ☐ (SET) button ⇒ "markillamin" is displayed. ⇒ Select one of addresses for connected indoor units by pressing the ☐ or [v] button. ⇒ Press the ☐ (SET) button. ⇒ Press the ☐ (SET) button. ⇒ "markillamin" is displayed. ⇒ Select data by pressing the ☐ or [v] button.
5	Checking inspection display	[Menu] ⇒ [Service setting] ⇒ [Service & Maintenance] ⇒ [Service password] ⇒ [Error display]	Press the CHECKI button. ⇒ "IFFE DATA T" displayed. ⇒ Press the ▼ button. ⇒ "BRIR DATA A" is displayed. ⇒ Press the ⑤ (SET) button. ⇒ "IAME DATA" is displayed. ⇒ Data is displayed.
6	Cooling test run from remote control	[Menu] ⇒ [Service setting] ⇒ [Installation settings] ⇒ [Service password] ⇒ [Test run] ⇒ [Cooling test run] ⇒ [Start]	1) Start the system by pressing the ONDOFF button.  3) Select **s. (Cool)** with the ONDOFF button.  3) Press the ISSI button for 3 seconds or longer. The screen display will switch to **\$ IESTRIN **J.  4) Pressing the (SET) button, while the **STETRIN **J.  5) sidsplayed, starts the cooling test run. The screen display will switch to **\$ TESTRIN **J.
7	Trial operation of drain pump from remote control	$ \begin{aligned} &  Menu] \Rightarrow  Service \ setting] \Rightarrow \\ &  Installation \ settings] \Rightarrow \\ &  Service \ password] \Rightarrow  Test \ run] \Rightarrow \\ &  Drain \ pump \ test \ run] \Rightarrow  Run] \end{aligned} $	① Start the system by pressing the  ○○NOFF button. The display will chang to ** BIETAIN **. ② Press the ③ button once to display  "BMINFIP \$*. ③ Pressing the ⑤ (SET) button starts the drain pump operation. The display will show **-5€0 TM \$100.**

control is different, refer to the installation manual attached to the remote control.



- ■XR1-4 are DC 12 V relays. (Equivalent to Omron's LY2F)
- XR5 is a DC 12 V, 24 V or AC230 V relay. (Equivalent to Omron's MY2F)

Maker and model of CnT connector (Site side)

Connector : Molex 5264-06 Terminal : Molex 5263T

● CnTA connector is used on FDT, or other. < Check with the specifications. > (Site side) Maker and model

Connector : J.S.T. Mfg. XAP02V-1-E Terminal : J.S.T. Mfg. SXA-01T-P0.6

Output 1 – 4 and input1/2 can be selected/set as required from following items.
 Factory default is set as shown below.

Output

RUN output	Fan ON output 3
Heating output	Defrost/oil return output
3 Compressor ON output	10 Ventilation output
Inspection (error) output	Heater output
Cooling output	Free cleaning output
6 Fan ON output 1	Indoor overload error output
7 Fan ON output 2	
Input	
① RUN/STOP	<li>Setting temp. shift</li>
<ul> <li>RUN permit prohibition</li> </ul>	6 Compulsory thermostat OFF
3 Emergency stop	Temporary stop
Cooling/Heating	Silent mode

Factory default setting							
	CnT-2	Output 1	RUN output	Ш	CnT-5	Output 4	Inspection (error) output
	CnT-3	Output 2	Heating output		CnT-6	Input 1	RUN/STOP
	CnT-4	Output 3	Compressor ON output		CnTA	Input 2	RUN/STOP

●For the setting method, refer to the technical data.

## ⑤ Operation and setting from remote control

A : Refer to the instruction manual for RC-EX series

O : Nearly same function setting and operations are possible.

Setting & d	lisplay item	Description	RC-EX3	RC-
lemote control network				
Control plural indoor units	by a single remote control	A remote control can control plural indoor units up to 16 (in one group of remote control network).		c
2 Main/sub setting of remote	controls	An address is set to each indoor unit.  A pair of remote controls (including optional wireless remote control) can be connected within the remote control network. Set		<u> </u>
I want sub setting of remote	Controls	one to "Main" and the other to "Sub".	В	
OP scrren, Switch manipulati	on			
Menu Operation mode		"Control", "State", or "Details" can be selected. (3-8) "Cooling", "Heating", "Fan", "Dry" or "Auto" can be set.	A A	
Set temp.		"Set temperature" can be set by 0.5°C interval.	A	
Air flow direction		"Air flow direction" [Individual flap control] can be set.		
		Select Enable or Disable for the "3D AUTO" (in case of FDK).	А	4
Fan speed		"Fan speed" can be set.	A	
Timer setting ON/OFF		"Timer operation" can be set. "On/Off operation of the system" can be done.	A A	
B F1 SW		The system operates and is controlled according to the function specified to the F1 switch.	A	
F2 SW		The system operates and is controlled according to the function specified to the F2 switch.	Α	
Iseful functions				
I Individual flap control		The moving range (the positions of upper limit and lower limit) of the flap for individual flap can be set.	Α	4
2 Anti draft setting		Set also the left and right limit positions for FDK.  When the panel with the anti draft function is assembled, select to Enable or Disable the anti draft setting for each operation		
	nti-draft function is assembled.	mode and for each blow outlet.	Α	
Timer settings	Set On timer by hour	The period of time to start operation after stopping can be set.		
	,	• The period of set time can be set within range of 1hour-12houres (1hr interval).	Α	4
	C-t-Off time on book or one	• The operation mode, set temp and fan speed at starting operation can be set.		
	Set Off timer by hour	The period of time to stop operation after starting can be set.  • The period of set time can be set within range of 1hour-12houres (1hr interval).	Α	4
	Set On timer by clock	The clock time to start operation can be set.		
		The set clock time can be set by 5 minutes interval.	A	١.
		<ul> <li>[Once (one time only)] or [Everyday] operation can be switched.</li> <li>The operation mode, set temp and fan speed at starting operation can be set.</li> </ul>		
	Set Off timer by clock	The clock time to stop operation can be set.		
		• The set clock time can be set by 5 minutes interval.	Α	4
	5 6 11 611 111	• [Once (one time only)] or [Everyday] operation can be switched.		
Favorite setting	Confirmation of timer settings	Status of timer settings can be seen.  Set the operation mode, setting temperature, air flow capacity and air flow direction for the choice setting operations.	A	
[Administrator password]		Set them for the Favorite set 1 and the Favorite set 2 respectively.	Α	
Weekly timer		On timer and Off timer on weekly basis can be set.		
		8-operation patterns per day can be set at a maximum.     The setting clock time can be set by 5 minutes interval.	A	١.
		Holiday setting is available.	A	
		The operation mode, set temp and fan speed at starting operation can be set.		
Home leave mode		When leaving home for a long period like a vaction leave, the unit can be operated to maintain the room temperature not to be		
[Administrator password]		hotter in summer or not to be colder in winter.  The judgment to switch the operation mode (Cooring⇔Heating) is done by the both factors of the set temp, and outdoor air temp.	Α	
		• The set temp. and fan speed can be set.		
External Ventilation		On/Off operation of the external ventilator can be done.	_	١.
When the ventilator is com	oined.	It is necessary to set from [Menu] $\Rightarrow$ [Service setting] $\Rightarrow$ [R/C function settings] $\Rightarrow$ [Ventilation setting].  • If the "Independent" is selected for the ventilation setting, the ventilator can be operated or stopped.	A	(
Select the language		Select the language to display on the remote control.		
		Select from English, German, French, Spanish, Italian, Dutch, Turkish, Portuguese, Russian,	Α	
noray saying setting		Polish, Japanese and Chinese.  Administrator password		
nergy-saving setting I Sleep timer		To prevent the timer from keeping ON, set hours to stop operation automatically with this timer.		
, sicep time.		The selectable range of setting time is from 30 to 240 minutes. (10 minutes interval)	Α	_
		When setting is "Enable", this timer will activate whenever the ON timer is set.		
Peak-cut timer		Power consumption can be reduced by restructing the maximum capacity.		
		Set the [Start time], the [End time] and the capacity limit % (Peak-cut %).  • 4-operation patterns per day can be set at maximum.		
		• The setting time can be changed by 5-minutes interval.	A	
		The selectable range of capacity limit % (Peak-cut % ) is from 0% to 40-80% (20% interval) Holiday setting is available.		
Automatic temp set back		After the elapse of the set time period, the current set temp, will be set back to the [Set back time.]		$\vdash$
Automatic temp set back		The setting can be done in cooling and heating mode respectively.	_	
		Selectable range of the set time is from 20 min. to 120 min. (10 min. interval).	A	
Information and a second secon		• Set the [Set back temp.] by 1°C interval.		-
Infrared sensor control (Moti When the panel with the infrared	on sensor control) I sensor (motion sensor) is assembled	When the infrared sensor (motion sensor) is used, it is necessary to set Enable or Disable for the "Power control" and the "Auto-off".	Α	
ilter	, , , , , , , , , , , , , , , , , , ,			
Filter sign reset	Filter sign reset	The filter sign can be reset.	Α	
<u> </u>	Setting next cleaning date	The next cleaning date can be set.	Α	
Jser setting	Clack satting	The current date and time can be set or revised.		-
I Internal settings	Clock setting	<ul> <li>If a power failure continues no longer than 80 hours, the clock continues to tick by the built-in power source.</li> </ul>	Α	
	Date and time display	[Display] or [Hide] the date and/or time can be set, and [12H] or [24H] display can be set.	Α	
	Summer time	When select [Enable], the +1hour adjustment of current time can be set. When select [Disable], the [Summer time] adjustment	А	
	Combinat	can be reset.		-
	Contrast Backlight	The contrast of LCD can be adjusted higher or lower.  Switching on/off a light can be set and period of the lighting time can be set within the range of 5sec-90 sec (5sec interval).	A A	
	Control sound	Switching on/orr a light can be set and period of the lighting time can be set within the range of Sect-90 sec (Sect Interval).  It can set with or without [Control sound (beep sound)] at touch panel.	A	
	Operation lamp luminance	This is used to adjust the luminance of operation lamp.	A	
Administrator settings	Permission/Prohibition setting	Permission/Prohibition setting of operation can be set. [On/Off]		
[Administrator password]		[Change set temp] [Change operation mode] [Change flap direction] [Change fan speed] [High power operation] [Energy-saving operation] [Timer]	A	١.
[Administrator password]		Request for administrator can be set.	A	
		[Individual flap control] [Weekly timer] [Select the language] [Anti draft setting]		
	Lance to the second second	The period of time to operate the outdoor unit by prioritizing the quiteness can be set.		
	Outdoor unit silent mode time			
	Outdoor unit silent mode time	The [Start time] and the [End time] for operating outdoor unit in silent mode can be set.	A	4
		The [Start time] and the [End time] for operating outdoor unit in silent mode can be set. The period of the operation time can be set once aday by 5 minutes interal.		
	Outdoor unit silent mode times Setting temp. range	The [Start time] and the [End time] for operating outdoor unit in silent mode can be set.	A A	4

Setting & c	display item	Description	RC-EX3	RC
Administrator settings	R/C display setting	Register [Room name] [Name of I/U]		
_		Display [Indoor temp. display] or not.	A	
[Administrator password]		Display [Error code display] or not. Display (Heating stand-by display] [Defrost operation display] [Auto cooling/heating display] [Display temp of R/C, Room, Outdoor] or not		
		The administrator password can be changed. (Default setting is "0000")	Α	
		The administrator password can be reset.	В	
		Functions can be set for F1 and F2. Selectable functions: [High power operation], [Energy-saving operation], [Silent mode cont.], [Home leave mode], [Favorite set 1],	A	
		[Favorite set 2] and [Filter sign reset].	^	
ervice setting				
Installer settings	Installation date	The [Installation date] can be registed.  • When registering the [Instaration date], the [Next service date] is displayed automatically.	В	
[Service password]		(For changing the [Next service date], please refer the item of [Service & Maintenance])		
	Company information	The [Company information] can be registed and can be displayed on the R/C.		
		The [Company] can be registered within 26 characters.  The [Phone No.] can be registed within 13 digits.	В	
	Test run	On/Off operation of the test run can be done.		
		The [Cooling test run] can be done at 5°C of set temp. for 30 minutes.	В	
		Only drain pump can be operated.		
	Staric pressure adjustment	In case of combination with only the ducted indoor unit which has a function of static pressure adjustment, the static pressure is adjustable.  • It can be set for each indoor unit individually.	В	
	Change auto-address	The set address of each indoor unit decided by auto-address setting method can be changed to any other address.	В	
		(For multiple KX units only)	ь	
	Address setting of main IU	Main indoor unit address can be set. •Only the Main indoor unit can change operation mode and the Sub indoor units dominated by the Main indoor shall follow.	В	
		The Main indoor unit can domain 10 indoor units at a maximum.		
		When a pair of indoor units (2 groups) is connected to one unit of remote control, it can be set Enable or Disable for the [IU	В	
		rotation], [IU capacity back-up] and [IU fault back-up]  Set Enable or Disable for the infrared sensor detectors of indoor units connected to the remote control.		
	sensor setting)	If Disable is selected, it cannot be control the infrared sensor control for the energy-saving setting.	В	
	When the panel with the infrared sensor (motion sensor) is assembled.		ь	
R/C function setting	Main/Sub R/C	The R/C setting of [Main/Sub] can be changed.	В	
_		When two or more indoor units are connected to one unit of remote control, suction sensors, which are used for the		
[Service password]		judgement by thermostat, can be selected.	В	
	R/C sensor	<ul> <li>It can be selected from [Individual], [Master IU] and [Average temp].</li> <li>It can be set the mode to switch to the remote control sensor. It can be selected from cooling and heating.</li> </ul>	В	
	R/C sensor adjustment	The offset value of [R/C sensor] sensing temp. can be set respectively in heating and cooling.	В	
	Operation mode	Enable or Disable can be set for each operation mode.	В	
	°C / °F	Set the unit for setting temperatures.	В	
	Fan speed	• °C or °F can be selected. Fan speeds can be selected.	В	
		When two or more indoor units are connected to one unit of remote control, the range to apply CnT inputs can be set.	В	
		[Stop at fixed position] or [Stop at any position] can be selected for the upper and lower louvers.	В	
		[Fixed position stop] or [Stop at any position] can be selected for the right and left louvers.	B B	
	Ventilation setting Auto-restart	Combination control for ventilator can be set.  The operation control method after recovery of power failure happened during operation can be set.	В	_
		[Enable] or [Disable] of [Auto temp setting] can be selected.	В	
		[Enable] or [Disable] of [Auto fan speed] can be selected.	В	
IU settings		The fan speed for indoor units can be set.	В	
[Service password]		The setting of filter sign display timer can be done from following patterns.  The connect of control by external input 1 can be changed.	B B	
[Service passivora]		The type of external input 1 signal can be changed.	В	
		The connect of control by external input 2 can be changed.	В	
		The type of external input 2 signal can be changed.  The judgement temp, of heating themo-off can be adjusted within the range from 0 to +3°C (1°C interval)	B B	
		The sensing temp, of return air temp, sensor built in the indoor unit can be adjusted within the range of ±2°C.	В	
		Fan control, when the cooling thermostat is turned OFF, can be changed.	В	
		Fan control, when the heating thermostat is turned OFF, can be changed.	В	
	Anti-frost temp. Anti-frost control	Judgment temperature for the anti-frost control during cooling can be changed.  When the anti-frost control of indoor unit in cooling is activated, the fan speed can be changed.	B B	
		In any operation mode in addition to cooling and dry mode, the setting of drain pump operation can be done.	В	
	Keep fan operating after cooling	The time period residual fan operation after stopping or thermo-off in cooling mode can be set.	В	
	is stopped	The time period residual fan energtion ofter stepping or the series of the besting and the series of		
	is stopped	The time period residual fan operation after stopping or thermo-off in heating mode can be set.	В	
	Intermittent fan operation in heating	The fan operation rule following the residual fan operation after stopping or themo-off in heating mode can be set.	В	
		In case that the fan is operated as the circulator, the fan control rule can be set.	В	
		When only the OA processing units are operated, control pressure value can be changed. The [Auto rule selection] for switching the operation mode automatically can be selected from 3 patterns.	B B	
		When selecting [Outdoor air temp. control], the judgment temp. can be offset by outdoor temp	В	
	Auto fan speed control	Auto switching range for the auto fan speed control can be set.	В	
		If the difference between the setting temperature and the suction temperature becomes larger than the temperature difference set for the	В	
	External output setting	overload alarm, at 30 minutes after the start of operation, the overload alarm signal is transmitted from the external output (CnT-5).  Functions assigned to the external outputs 1 to 4 can be changed.	В	
Service & Maintenance	III address	Max 16 indoor units can be connected to one remote control, and all address No. of the connected indoor units can be displayed.	В	
[Service password]		• The indoor unit conforming to the address No. can be identified by selecting the address No. and tapping [Check] to operate the indoor fan.		
	Next service date	The [Next service date] can be registered.  • The [Next service date] and [Company information] is displayed on the message screen.	ΑB	
		The [Operation data] for indoor unit and outdoor unit can be displayed.	В	
	Error display			
		The error history can be displayed. The operation data just before the latest error stop can be displayed.	В	
		Anomaly operation data can be erased.	ט	
	Reset periodical check	The timer for the periodical check can be reset.		
	Saving IU settings	The I/U settings memorized in the indoor PCB connected to the remote control can be saved in the memory of the remote control.	В	
	Special settings	[Erase IU address] [CPU reset] [Restore of default setting] [Touch panel calibration]	В	
ntact company		Address No. and capacities of indoor units connected to the remote control are displayed.  Shows registered [Contact company] and [Contact phone].	В	
spection				
Confirmation of Inspection		This is displayed when any error occurs.	Α	
PC connection				

# 1.10.3 Installation of wired remote control (Option parts) (1) Model RC-EX3

PJZ012A131A

## 1. Safety precautions

Please read this manual carefully before starting installation work to install the unit properly. Every one of the followings is important information to be observed strictly.

<u></u> <b>MARNING</b>	Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc.
<b>⚠</b> CAUTION	Failure to follow these instructions properly may cause injury or property damage.

It could have serious consequences depending on the circumstances.

The following pictograms are used in the text.



Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, this manual should be given to a new owner.

## **MARNING**

- Consult your dealer or a professional contractor to install the unit.

  Improper installation made on your own may cause electric shocks, fire or dropping of the unit.
- Installation work should be performed properly according to this installation manual.

Improper installation work may result in electric shocks, fire or break-down.

- Be sure to use accessories and specified parts for installation work.
  Use of unspecified parts may result in drop, fire or electric shocks.
- Install the unit properly to a place with sufficient strength to hold the weight.

If the place is not strong enough, the unit may drop and cause injury.

Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.

Power source with insufficient and improper work can cause electric shock and fire.

Shut OFF the main power source before starting electrical work. Otherwise, it could result in electric shocks, break-down or malfunction.

Do not modify the unit.

It could cause electric shocks, fire, or break-down.

Be sure to turn OFF the power circuit breaker before repairing/ inspecting the unit.

Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.

## **↑** WARNING

# Do not install the unit in appropriate environment or where inflammable gas could generate, flow in, accumulate or leak.

If the unit is used at places where air contains dense oil mist, steam, organic solvent vapor, corrosive gas (ammonium, sulfuric compound, acid, etc) or where acidic or alkaline solution, special spray, etc. are used, it could cause electric shocks, break-down, smoke or fire as a result of significant deterioration of its performance or corrosion.

Do not install the unit where water vapor is generated excessively or condensation occurs.

It could cause electric shocks, fire, or break-down.

Do not use the unit in a place where it gets wet, such as laundry room.

It could cause electric shocks, fire, or break-down.

Do not operate the unit with wet hands.

It could cause electric shocks.

Do not wash the unit with water.

It could cause electric shocks, fire, or break-down.

Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces.

Improper connections or fixing could cause heat generation, fire, etc.

Seal the inlet hole for remote control cable with putty.

If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

If dew or water enters the unit, it may cause screen display anomalies.

When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.

It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc.

The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.

Do not leave the remote control with its upper case removed.

If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

## **ACAUTION**

## Do not install the remote control at following places.

- (1) It could cause break-down or deformation of remote control.
  - · Where it is exposed to direct sunlight
  - Where the ambient temperature becomes 0 °C or below, or 40 °C or above
  - Where the surface is not flat
  - Where the strength of installation area is insufficient
- (2) Moisture may be attached to internal parts of the remote control, resulting in a display failure.
  - Place with high humidity where condensation occurs on the remote control
  - Where the remote control gets wet
- (3) Accurate room temperature may not be detected using the temperature sensor of the remote control.
  - Where the average room temperature cannot be detected
  - Place near the equipment to generate heat
  - Place affected by outside air in opening/closing the door
  - Place exposed to direct sunlight or wind from air-conditioner
  - Where the difference between wall and room temperature is large

To connect to a personal computer via USB, use the dedicated software.

Do not connect other USB devices and the remote control at the same time.

It could cause malfunction or break-down of the remote control/personal computer.

## 2. Accessories & Prepare on site

Following parts are provided.

Accessories R/C main unit, wood screw (ø3.5 x 16) 2 pcs, Quick reference

Following parts are arranged at site. Prepare them according to the respective installation procedures.

Item name	Q'ty	Remark
Switch box For 1 piece or 2 pieces (JIS C 8340 or equivalent)	1	
Thin wall steel pipe for electric appliance directly on a wall. (JIS C 8305 or equivalent)	As required	These are not required when installing directly on a wall.
Lock nut, bushing (JIS C 8330 or equivalent)	As required	
Lacing (JIS C 8425 or equivalent)	As required	Necessary to run R/C cable on the wall.
Putty	Suitably	For sealing gaps
Molly anchor	As required	
R/C cable (0.3 mm <sup>2</sup> x 2 pcs)	As required	See right table when longer than 100 m

When the cable length is longer than 100 m, the max size for wires used in the R/C case is 0.5 mm². Connect them to wires of larger size near the outside of R/C. When wires are connected, take measures to prevent water, etc. from entering inside.

≦ 200 m	0.5 mm <sup>2</sup> x 2 cores
≦ 300m	0.75 mm <sup>2</sup> x 2 cores
≤ 400m	1.25 mm <sup>2</sup> x 2 cores
≦ 600m	2.0 mm <sup>2</sup> x 2 cores

## 3. Installation place

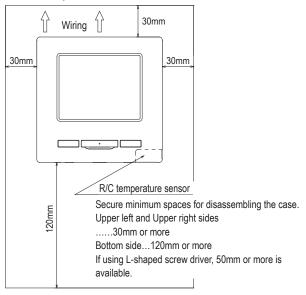
Secure the installation space shown in the figure.

For the installation method, "embedding wiring" or "exposing wiring" can be selected.

For the wiring direction, "Backward", "Upper center" or "Upper left" can be selected.

Determine the installation place in consideration of the installation method and wiring direction.

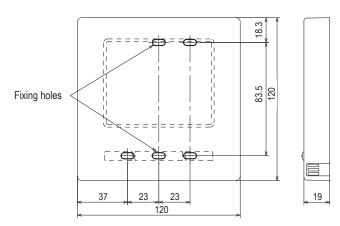
## Installation space



## 4. Installation procedure

Perform installation and wiring work for the remote control according to the following procedure.

Dimensions (Viewed from front)



To remove the upper case from the bottom cases of R/C

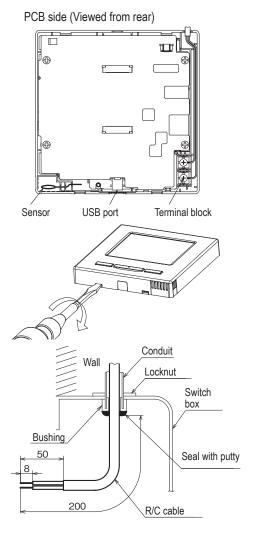
· Insert the tip of flat head screwdriver or the like in the recess at the lower part of R/C and twist it lightly to remove. It is recommended that the tip of the screwdriver be wrapped with tape to avoid damaging the case.

Take care to protect the removed upper case from moisture or dust.

In case of embedding wiring

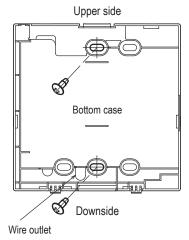
(When the wiring is retrieved "Backward")

① Embed the switch box and the R/C wires beforehand. Seal the inlet hole for the R/C wiring with putty.

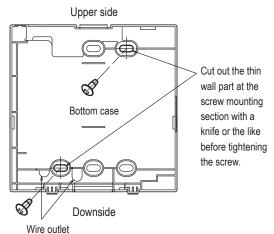


② When wires are passed through the bottom case, fix the bottom case at 2 places on the switch box.

Switch box for 1 pcs



Switch box for 2 pcs

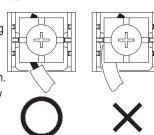


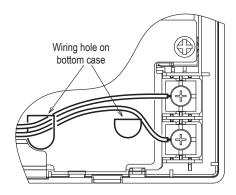
- ③ Connect wires from X and Y terminals of R/C to X and Y terminals of indoor unit. R/C wires (X, Y) have no polarity. Fix wires such that the wires will run around the terminal screws on the top case of R/C.
- 4 Install the upper case with care not to pinch wires of R/C.

## **Cautions for wire connection**

Use wires of no larger than 0.5 mm<sup>2</sup> for wiring running through the remote control case. Take care not to pinch the sheath.

Tighten by hand  $(0.7\ N\cdot m$  or less) the wire connection. If the wire is connected using an electric driver, it may cause failure or deformation.





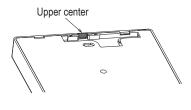
## In case of exposing wiring

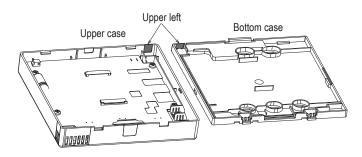
(When the wiring is taken out from the "upper center" or "upper left" of R/C)

1 Cut out the thin wall sections on the cases for the size of wire.

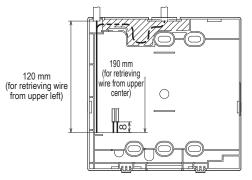
When taking the wiring out from the upper center, open a hole before separating the upper and bottom cases. This will reduce risk of damaging the PCB and facilitate subsequent work.

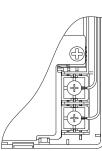
When taking the wiring out from the upper left, take care not to damage the PCB and not to leave any chips of cut thin wall inside.





- ② Fix the bottom R/C case on a flat surface with two wood screws.
- ③ In case of the upper center, pass the wiring behind the bottom case. (Hatched section)
- ④ Connect wires from X and Y terminals of R/C to X and Y terminals of indoor unit. R/C wires (X, Y) have no polarity. Fix wires such that the wires will run around the terminal screws on the top case of R/C.
- (5) Install the top case with care not to pinch wires of R/C.
- 6 Seal the area cut in 1 with putty.



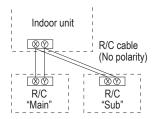


## 5. Main/Sub setting when more than one remote control are used

Up to two units of R/C can be used at the maximum for 1 indoor unit or 1 group.

One is main R/C and the other is sub R/C.

Operating range is different depending on the main or sub R/C.



Set the "Main" and "Sub" as described at Section 8.

R/C operations			Main	Sub
Run/Stop, Change set temp, Change flap direction, Auto swing, Change fan speed operations				0
High power o	peration, En	ergy-saving operation	0	0
Silent mode of	control		0	×
Useful	Individual f	ap control	0	×
functions	Anti draft se	etting	0	×
	Timer		0	0
	Favorite se	tting	0	0
	Weekly tim	er	0	×
	Home leave	e mode	0	×
	External ve	ntilation	0	0
	Select the I	anguage	0	0
Energy-saving setting			0	×
Filter	Filter sign r	eset	0	0
User setting	Initial settin	gs	0	0
	Administrator settings	Permission/ Prohibition setting	0	×
		Outdoor unit silent mode timer	0	×
		Setting temp. range	0	×
		Temp. increment setting	0	×
		Set temp. display	0	0
		R/C display setting	0	0
		Change administrator password	0	0
		F1/F2 function setting	0	0

o: operable x: not operable					
R/C operation	Main	Sub			
Service			on date	0	×
setting	settings	Compan	0	0	
		Test run			×
		Static pr	essure adjustment	0	×
		Change	auto-address	0	×
		Address	setting of main IU	0	×
		IU back-	up function	0	×
		Infrared setting	sensor (motion sensor)	0	×
	R/C function	Main/Su	b of R/C	0	0
	settings	Return a	ir temp.	0	×
		R/C sen	sor	0	×
		R/C sen	sor adjustment	0	×
		Operation	n mode	0	×
		°C / °F		0	×
		Fan spe	0	×	
		External	0	×	
		Upper/lo	0	×	
		Left/righ	0	×	
		Ventilation	0	×	
		Auto-res	0	×	
		Auto ten	0	×	
		Auto fan	0	×	
	IU settings				×
	Service &	IU address		0	0
	Maintenance	Next service date		0	×
		Operation	n data	0	×
		Error	Error history	0	0
		display	Display/erase anomaly data	0	×
			Reset periodical check	0	0
		Saving I	U settings	0	×
		Special	Erase IU address	0	×
		settings	CPU reset	0	0
			Restore of default setting	0	×
			Touch panel calibration	0	0
		Indoor u	nit capacity display	0	×
			. , , ,		

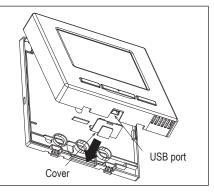
## **Advice: Connection to personal computer**

It can be set from a personal computer via the USB port (mini-B). Connect after removing the cover for USB port of upper case.

Replace the cover after use.

Special software is necessary for the connection.

For details, view the web site or refer to the engineering data.



## Advice: Initializing of password

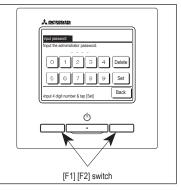
Administrator password (for daily setting items) and service password (for installation, test run and maintenance) are used.

oThe administrator password at factory default is "0000". This setting can be changed (Refer to User's Manual).

If the administrator password is forgotten, it can be initialized by holding down the [F1] and [F2] switches together for five seconds on the administrator password input screen.

 $\circ\mbox{Service}$  password is "9999", which cannot be changed.

When the administrator password is input, the service password is also accepted.



## PJA012D730,

## (2) Model RC-E5

Read together with indoor unit's installation manual.

## **MARNING**

- Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal.
  - Loose connection or hold will cause abnormal heat generation or fire.
- Make sure the power source is turned off when electric wiring work. Otherwise, electric shock, malfunction and improper running may occur.

## **ACAUTION**

- Do not install the remote control at the following places in order to avoid malfunction.
  - (1) Places exposed to direct sunlight (4) Hot surface or cold surface enough to generate condensation
    - (5) Places exposed to oil mist or steam directly
  - (2) Places near heat devices (3) High humidity places
    - (6) Uneven surface



Do not leave the remote control without the upper case.

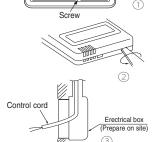
In case the upper cace needs to be detached, protect the remote control with a packaging box or bag in order to keep it away from water and dust.



Accessories	Remote control, wood screw (ø3.5×16) 2 pieces
Prepare on site Remote control cord (2 cores) the insulated thickness in 1mm or more.	
	[In case of embedding cord] Erectrical box, M4 screw (2 pieces)
	[In case of exposing cord] Cord clamp (if needed)

## Installation procedure

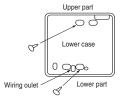
- Open the cover of remote control, and remove the screw under the buttons without fail.
- Remove the upper case of remote control. Insert a flat-blade screwdriver into the dented part of the upper part of the remote control, and wrench slightly.

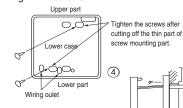


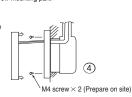
## [In case of embedding cord]

3 Embed the erectrical box and remote control cord beforehand.

Prepare two M4 screws (recommended length is 12-16mm) on site, and install the lower case to erectrical box. Choose either of the following two positions in fixing it with screws.



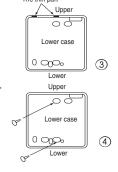




- Connect the remote control cord to the terminal block. Connect the terminal of remote control (X,Y) with the terminal of indoor unit (X,Y). (X and Y are no polarity)
- Install the upper case as before so as not to catch up the remote control cord, and tighten with the screws.

## [In case of exposing cord]

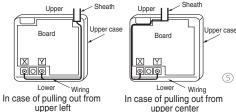
- You can pull out the remote control cord from left upper part or center upper part. Cut off the upper thin part of remote control lower case with a nipper or knife, and grind burrs with a file etc.
- ④ Install the lower case to the flat wall with attached two wooden screws.



S Connect the remote control cord to the terminal block.

Connect the terminal of remote control (X,Y) with the terminal of indoor unit (X,Y). (X and Y are no polarity)

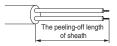
Wiring route is as shown in the right diagram depending on the pulling out direction.



The wiring inside the remote control case should be within 0.3mm<sup>2</sup> (recommended) to 0.5mm<sup>2</sup>. The sheath should be peeled off inside the remote control case.

The peeling-off length of each wire is as below.

Pulling out from upper left	Pulling out from upper center
X wiring : 215mm	X wiring : 170mm
Y wiring: 195mm	Y wiring: 190mm



- Install the upper case as before so as not to catch up the remote control cord, and tighten with the screws.
- In case of exposing cord, fix the cord on the wall with cord clamp so as not to slack.

## Installation and wiring of remote control

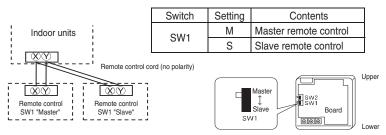
- ① Wiring of remote control should use 0.3mm<sup>2</sup> × 2 cores wires or cables. (on-site configuration)
- 2 Maximum prolongation of remote control wiring is 600 m.

If the prolongation is over 100m, change to the size below.

But, wiring in the remote control case should be under 0.5mm<sup>2</sup>. Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire connecting section. Be careful about contact failure.

## Master/ slave setting when more than one remote controls are used

A maximum of two remote controls can be connected to one indoor unit (or one group of indoor units.)



Set SW1 to "Slave" for the slave remote control. It was factory set to "Master" for shipment.

Note: The setting "Remote control sensor enabled" is only selectable with the master remote control in the position where you want to check room temperature.

The air-conditioner operation follows the last operation of the remote control regardless of the master/ slave setting of it.

## The indication when power source is supplied

When power source is turned on, the following is displayed on the remote control until the communication between the remote control and indoor unit settled.

At the same time, a mark or a number will be displayed for two seconds first.

This is the software's administration number of the remote control, not an error cord.



When remote control cannot communicate with the indoor unit for half an hour, the below indication will appear

Check wiring of the indoor unit and the outdoor unit etc.



3 . 5 . 6-3

## The range of temperature setting

When shipped, the range of set temperature differs depending on the operation mode as below.

Heating: 16-30°C (55-86°F)

Except heating (cooling, fan, dry, automatic): 18-30°C (62-86°F)

## ●Upper limit and lower limit of set temperature can be changed with remote control.

Upper limit setting: valid during heating operation. Possible to set in the range of 20 to 30°C (68 to 86°F). Lower limit setting: valid except heating (automatic, cooling, fan, dry) Possible to set in the range of 18 to 26°C (62 to 79°F).

When you set upper and lower limit by this function, control as below.

 When @TEMP RANGE SET, remote control function of function setting mode is "INDN CHANGE" (factory setting), [ If upper limit value is set ]

During heating, you cannot set the value exceeding the upper limit.

[ If lower limit value is set ]

During operation mode except heating, you cannot set the value below the lower limit.

2. When ② TEMP RANGE SET, remote control function of function setting mode is "NO INDN CHANGE" [If upper limit value is set ]

During heating, even if the value exceeding the upper limit is set, upper limit value will be sent to the indoor unit. But, the indication is the same as the temperature set.

[ If lower limit value is set ]

During except heating, even if the value lower than the lower limit is set, lower limit value will be sent to the indoor unit. But, the indication is the same as the temperature set.

## How to set upper and lower limit value

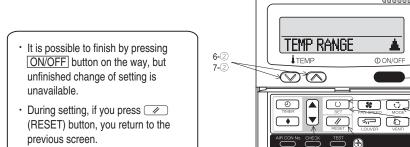
1. Stop the air-conditioner, and press (SET) and (MODE) button at the same time for over three seconds .

The indication changes to "FUNCTION SET ▼".

- 2. Press ▼ button once, and change to the "TEMP RANGE ▲ " indication.
- 3. Press (SET) button, and enter the temperature range setting mode.
- 4. Select "UPPER LIMIT ▼" or "LOWER LIMIT ▲" by using ▲ ▼ button.
- 5. Press (SET) button to fix.
- 6. When "UPPER LIMIT ▼" is selected (valid during heating)
  - ① Indication: "  $\bigcirc \lor \land$  SET UP"  $\rightarrow$  "UPPER 30°C  $\lor$ "
  - ② Select the upper limit value with temperature setting button \( \subseteq \) \( \subseteq \). Indication example: "UPPER 26°C ∨ ∧" (blinking)
  - ③ Press ◯ (SET) button to fix. Indication example: "UPPER 26°C" (Displayed for two seconds)

    After the fixed upper limit value displayed for two seconds, the indication will return to "UPPER LIMIT ▼".
- 7. When "LOWER LIMIT ▲" is selected (valid during cooling, dry, fan, automatic)
  - ① Indication: " $^{\bullet}$   $\vee$   $\wedge$  SET UP"  $\rightarrow$  "LOWER 18°C  $\wedge$ "
  - ② Select the lower limit value with temperature setting button ☑ △. Indication example: "LOWER 24°C ∨ ∧" (blinking)
  - ③ Press (SET) button to fix. Indication for example: "LOWER 24°C" (Displayed for two seconds)

    After the fixed lower limit value displayed for two seconds, the indication will return to "LOWER LIMIT"."
- 8. Press ON/OFF button to finish.



2 . 4

Previous button

## The functional setting

The initial function setting for typical using is performed automatically by the indoor unit connected, when remote control and indoor unit are connected.

As long as they are used in a typical manner, there will be no need to change the initial settings. If you would like to change the initial setting marked "C", set your desired setting as for the selected item. The procedure of functional setting is shown as the following diagram.

[Flow of function setting] Record and keep the setting Consult the technical data etc. for each control details Stop air-conditioner and press

Stop air-conditioner and press

(MODE) buttons at the same time for over three seconds

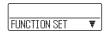
Function No.	Item	Default	Model
Remote control	AUTO RUN SET	AUTO RUN ON	"Auto-RUN" mode selectable indoor unit.
function02 Remote control function06 Remote control		AUTO RUN OFF	Indoor unit without "Auto-RUN" mode
	FAN SPEED SW	⊕⊠ VALID	Indoor unit with two or three step of air flow setting
		⊕ 🗺 INVALID	Indoor unit with only one of air flow setting
	■ LOUVER SW	⊕ ZZZ VALID	Indoor unit with automatically swing louver
function07		ర్జా INVALID	Indoor unit without automatically swing louver
Remote control	I/U FAN	HI-MID-LO	Indoor unit with three step of air flow setting
function13		HI-LO	Indoor unit with two step of air flow setting
		HI-MID	
		1 FAN SPEED	Indoor unit with only one of air flow setting
Remote control	MODEL TYPE	HEAT PUMP	Heat pump unit
function15		COOLING ONLY	Exclusive cooling unit

| Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Including | Incl

		FUNCTION SET ▼					
_	-		Indoor unit I	No. are indicated only who	en	Note2: Fan setting of *H	IGH SPEED*  Indoor unit air flow setting
N ▼ (Remote control fun	iction)	(Indoor unit function) I/L	J FUNCTION A Plural Indoo	r units are connected.		Fan tap	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Function			ITZIIOO A	02 FAN SPEED SET	setting		
O1 POREERSE	setting		I/U001 ¢	UZ THIN OFFEED OCT	STANDARD   X	FAN STANDARI	D UH - Hi - Me - Lo Hi - Me - Lo Hi - Lo Hi -
011222000	SOMES WILD	Validate setting of ESP:External Static Pressure	1/0002 Φ		HIGH SPEED 1 X	SPEED HIGH	UH-UH-Hi-Me UH-Hi-Me UH-Me UH
	(A)© (B) ESP INVALID	Invalidate setting of ESP	I/U003 Φ		HIGH SPEED 2	SPEED1,	On-on-ni-me on-ni-me on-me on
02 AUTO RUN SET	TAUTO RUN ON	_	1/0004 Φ	03 FILTER SIGN SET	IINDICATION OFF	Initial function setting of	some indoor unit is "HIGH SPEED".
		Automatical operation is impossible			TYPE 1 O	The filter sign is indicated a	after running for 180 hours
03 IZIZI TEMP SW					TYPE 2	The filter sign is indicated a	after running for 600 hours.
	⊕⊠⊠ VALID		her indoor unit, press		TYPE 3	The filter sign is indicated a	after running for 1000 hours.
04 © MODE SW	&⊠⊠ INVALID		No. button, which		TYPE 4	The filter sign is indicated a compulsion after 24 hours.	after running for 1000 hours, then the indoor unit will be stopped by
04   CSCI MODE SW	TAGET VALID.		ou to go back to the indoor	04 I≂ POSITION			nction "04 ≒; POSITION",
	승호 VALID 승호 INVALID		ction screen nole: I/U 000 ▲ ).	01   71   100111011	7	vou must change the muour to	te control function "14 % POSITION" accordingly.
05 ON/OFF SW			ipie: I/U 000 ▲ ).		4POSITION STOP	You can select the louver s	stop position in the four.
	⊕⊕ VALID ⊕⊕ INVALID	의		05 TEXTERNAL INPUT	FREE STOP	The louver can stop at any	position.
06 [Se] FAN SPEED SW	- ΘΦ INVALID	On/Off button is not working		05 EXTERNAL INPUT	LEVEL INPUT		
OD TREET LUK OF EED OW	(원조로 VALID	*			PULSE INPUT		
	632 INVALID	Fan speed button is not working		06 NAMURAMESSIRAMORRUM	TOLOC IN OT		
07 🖾 LOUVER SW					INVALID O		
	⊕ SEZ VALID	<u>*                                    </u>			VALID	Permission/prohibition con	trol of operation will be valid.
OB © TIMER SW	5⊡ INVALID	Eouver button is not working		07 EMERGENCY STOP	TINVALID LO		
No Less Litter on	TAIGNAIN I	ਰ			INVALID O	With the VDE series it is	sed to stop all indoor units connected with the same outdoor unit im
	는	Timer button is not working			(THEAD	When ston signal is inputed	sed to stop all indoor units connected with the same outdoor unit im d from remote on-off terminal "CNT-6", all indoor units are stopped i
09 @ SENSOR SET		· ·				orop orgras to Elpator	on tommus over o , as moos offic die stopped i
	SENSOR OFF	Remote thermistor is not working.					
	■ SENSOR ON	Remote thermistor is working.	to account to be account to		OFFSET +3.05	To be reset for producing -	3.0°C increase in temperature during heating.
	■SENSOR +3.0°c ■SENSOR +2.0°c	Remote thermistor is working, and to be set for producing +3.0°C Remote thermistor is working, and to be set for producing +2.0°C	increase in temperature.	OR I X SP OFFSET	OFFSET +2.0% OFFSET +1.0%	To be reset for producing -	2.0°C increase in temperature during heating. -1.0°C increase in temperature during heating.
	■SBNSOR +1.05	Remote thermistor is working, and to be set for producing +2.0 C	increase in temperature.	DO I W OF OFFICE	NO OFFSET	10 be reser for producing 4	1.0 O moreage in temperature during reating.
	SENSOR -1.0℃	Remote thermistor is working, and to be set for producing -1.0°C in	increase in temperature.		•		
	SENSOR -2.0℃	Remote thermistor is working, and to be set for producing -2.0°C in			OFFSET +2.0%	To be reset producing +2.0	°C increase in return air temperature of indoor unit.
LA LAUTO PEOTADE	■SBNSOR -3.0%	Remote thermistor is working, and to be set for producing -3.0°C in	ncrease in temperature.	a a Incrumu are your	OFFSET +1.5%	To be reset producing +1.5	'C increase in return air temperature of indoor unit.
10 AUTO RESTART	TIMUALID I	_		09 RETURN AIR TEMP	OFFSET +1.0%	To be reset producing +1.0	"C increase in return air temperature of indoor unit.
	INVALID VALID	<del>-</del>			OFFSET - 1.0%	T. b	'C increase in return air temperature of indoor unit.
11 VENT LINK SET	THEE	_			DFFSET - 1.5%	To be reset producing -1.0	C increase in return air temperature of indoor unit. C increase in return air temperature of indoor unit.
	NO VENT	5			OFFSET -2.0%	To be reset producing -1.3	C increase in return air temperature of indoor unit.
		In case of Single split series, by connecting ventilation de	evice to CNT of the	10 X FAN CONTROL			
	VENT LINK	indoor printed circuit board (in case of VRF series, by co indoor printed circuit board), the operation of ventilation	innecting it to CND of the		LOW FAN SPEED	When heating thermostat is	s OFF, fan speed is low speed. s OFF, fan speed is set speed.
		operation of indoor unit.	device is linked with the		SET FAN SPEED	when heading theimostat to	s OFF, lall speed is set speed.
		In case of Single split series, by connecting ventilation device to C	CNT of the indoor printed		INTERMITTENCE	When heating thermostat is	s OFF, fan speed is operated intermittently.
	NO VENT LINK	circuit board (in case of VRF series, by connecting it to CND of the	ne indoor printed circuit		FAN OFF	When heating thermostat is	s OFF, the fan is stopped.
12 TEMP RANGE SET		board), you can operate /stop the ventilation device independentl	ly by (VENT) button.			When the remote thermisto	or is working, "FAN OFF" is set automatically.  In the indoor unit's thermistor is working.
12 TEMP KANGE SET	Т Т	If you change the range of set temperature, the indication				DUTIOLSEL FAIN OFF WITE	in the moder units thermister is working.
	INDN CHANGE	If you change the range of set temperature, the indication will vary following the control.	n or set temperature	1.1 FROST PREVENTION TEMP		Change of indoor heat exc	hanger temperature to start frost prevention control.
	NO INDN CHANGE	If you change the range of set temperature, the indication	in of set temperature		TEMP HIGH		
		will not vary following the control, and keep the set tempor	erature.		TEMP LOW		
13 I/U FAN	HI-MID-LO			4.0 Imper morphism mercel			
	HI-MID-LO	∴ Air flow of fan becomes the three speed of   ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♣ all - ♠ all - ♠	LUI SEEL-SEEL-SEEL.	IS Intro incommunity	TEAN CONTROL ON O	Working only with the Sing	le split series. the indoor fan tap is raised.
	HI-MID	Air flow of fan becomes the two speed of & all - & all .  Air flow of fan becomes the two speed of & all - & all .			FAN CONTROL OF	10 cuntrol trost prevention,	the mooor ian tap is raised.
	1 FAN SPEED	Air flow of fan is fixed at one speed.		13 DRAIN PUMPLINK			
		If you should the remain controller (most) - 544	erriou!		80 0	Drain pump is run during o	ooling and dry.
14   歩戸 POSITION	7	If you change the remote controller function "14 => POS you must change the indoor function "04 => POSITION" a	accordingly		© Ó AND X © Ó AND X AND EL	Drain pump is run during o	poling, dry and heating.
	4POSITION STOP	You can select the louver stop position in the four.	accordingly.		© O AND≅	Drain pump is run during o Drain pump is run during o	poling, dry, heating and fan.
	FREE STOP	The louver can stop at any position.		14 © FAN REMAINING		pump to run duling o	
15 MODEL TYPE					NO REMAINING	After cooling is stopped is	OFF, the fan does not perform extra operation.
	HEAT PUNP	<u>**</u>		1	0.5 HOUR	After cooling is stopped is	OFF, the fan perform extra operation for half an hour.
16 EXTERNAL CONTROL SET	COOLING ONLY	<u> </u>			1 HOUR 6 HOUR	After cooling is stopped is	OFF, the fan perform extra operation for an hour.  OFF, the fan perform extra operation for six hours.
TO T ENTENNER PORTING SCI	T	If you input signal into CnT of the indoor printed circuit I	hoard from external the	15   SE FAN REMAINING	V-100N	Annet Cooling is stopped is i	or it, the half perform extra operation for SIX nours.
	INDIVIDUAL	indoor unit will be operated independently according to	the input from external.		NO REMAINING	After heating is stopped or	heating thermostat is OFF, the fan does not perform extra operation
	FOR ALL UNITS	If you input into CnT of the indoor printed circuit board from e	external, all units which		0.5 HOUR	After heating is stopped or	heating thermostat is OFF, the fan perform extra operation for half a
		connect to the same remote control are operated according t	to the input from external.		2 HOUR	After heating is stopped or	heating thermostat is OFF, the fan perform extra operation for two h
		$\forall$		16   * FAN INTERNITTENCE	6 HOUR	After heating is stopped or	heating thermostat is OFF, the fan perform extra operation for six h
17 ROOM TEMP INDICATION SET	TINDICATION OFF		and the second for second or a fulfiller.	10 Incustrations (1985)	IND REMAINING I C		
17 ROOM TEMP INDICATION SET	INDICATION OFF	In normal working indication, indoor unit temperature is in		1			or heating thermostat is OFF, the fan perform intermittent operation
	INDICATION OFF INDICATION ON		ndicated instead of airliow.				
17 ROOM TERP INDICATION SET	INDICATION ON	In normal working indication, indoor unit temperature is in (Only the master remote control can be indicated.)	ndicated instead of airliow.		zoninOFF sminON	with low fan speed after tw	
	INDICATION ON  INDICATION ON	(Only the master remote control can be indicated.)				During heating is stopped of	or heating thermostat is OFF, the fan perform intermittent operation
18 ***MOLICATION	INDICATION ON			47 Introduct courte	zoninOFF sminON sminOFF sminON		or heating thermostat is OFF, the fan perform intermittent operation
	INDICATION ON  INDICATION ON	(Only the master remote control can be indicated.)  Heating preparation indication should not be indicated.		17 PRESSURE CONTROL	sminOFF sminON	During heating is stopped of	or heating thermostat is OFF, the fan perform intermittent operation
18 ***MOLICATION	INDICATION ON  INDICATION ON	(Only the master remote control can be indicated.)  Heating preparation indication should not be indicated.  Temperature indication is by degree C		17 PRESSURE CONTROL		During heating is stopped of with low fan speed after five	or heating thermostat is OFF, the fan perform intermittent operation e minutes' OFF.
18 ***MOLICATION	INDICATION ON  INDICATION ON	(Only the master remote control can be indicated.)  Heating preparation indication should not be indicated.		17 PRESSURE CONTROL	sminOFF sminON  STANDARD  ***	During heating is stopped of with low fan speed after five	or heating thermostat is OFF, the fan perform intermittent operation
18 ***MOLICATION	INDICATION ON  INDICATION ON	(Only the master remote control can be indicated.)  Heating preparation indication should not be indicated.  Temperature indication is by degree C		17   PRESSURE CONTROL	sminOFF sminON  STANDARD  ***	During heating is stopped of with low fan speed after five	or heating thermostat is OFF, the fan perform intermittent operation in the minutes' OFF.

## How to set function

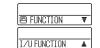
Stop air-conditioner and press ○ (SET) (MODE) buttons at the same time for over three seconds, and the "FUNCTION SET ▼" will be displayed.



- 2. Press (SET) button.
- Make sure which do you want to set, "

  FUNCTION ▼"

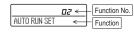
  (remote control function) or "I/U FUNCTION ▲" (indoor unit function).
- Press ▲ or ▼ button.
   Selecct "■ FUNCTION ▼" (remote control function) or "I/U FUNCTION ▲" (indoor unit function).



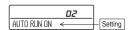
5. Press (SET) button.

- 6. [On the occasion of remote control function selection]

  - ② Press ▲ or ▼ button. "No. and function" are indicated by turns on the remote control function table, then you can select from them. (For example)



Press ()(SET) button. The current setting of selected function is indicated. (for example) "AUTO RUN ON" — If "02 AUTO RUN SET" is selected



④ Press ▲ or ▼ button. Select the setting.



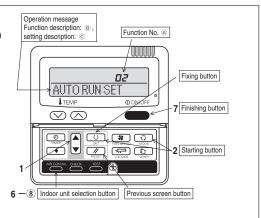
⑤ Press 〇 (SET)

"SET COMPLETE" will be indicated, and the setting will be completed.

Then after "No. and function" indication returns, Set as the same procedure if you want to set continuously ,and if to finish, go to 7.



Press ON/OFF button. Setting is finished.



## [On the occasion of indoor unit function selection]

"DATA LOADING" (Blinking for 2 to 23 seconds to read the data)
 ↓
 Indication is changed to "02 FAN SPEED SET".
 Go to ②.

## [Note]

 If plural indoor units are connected to a remote control, the indication is "I/U 000" (blinking) ← The lowest number of the indoor unit connected is indicated.



- (2) Press ▲ or ▼ button. Select the number of the indoor unit you are to set If you select "ALL UNIT ▼", you can set the same setting with all unites.
- (3) Press (SET) button.
- ② Press ▲ or ▼ button.

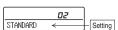
"No. and function" are indicated by turns on the indoor unit function table, then you can select from them.

(For example)



③ Press O (SET) button.

The current setting of selected function is indicated. (For example) "STANDARD" ← If "02 FAN SPEED SET" is selected.



- ④ Press ▲ or ▼ button. Select the setting.
- Press ()(SET) button. "SET COMPLETE" will be indicated, and the setting will be completed.

Then after "No. and function" indication returns, set as the same procedure if you want to set continuously , and if to finish, go to 7.



When plural indoor units are connected to a remote control, press the AIR CON No. button, which allows you to go back to the indoor unit selection screen. (example "I/U 000 ▲")

...

\*\*

When plural indoor units are connected to a remote control, press the AIR CON No.

\*\*

Indoor units are connected to a remote control, press the AIR CON No.

\*\*

Indoor units are connected to a remote control, press the AIR CON No.

\*\*

\*\*

Indoor units are connected to a remote control, press the AIR CON No.

\*\*

Indoor units are connected to a remote control, press the AIR CON No.

\*\*

Indoor units are connected to a remote control, press the AIR CON No.

\*\*

Indoor units are connected to a remote control, press the AIR CON No.

\*\*

Indoor units are connected to a remote control, press the AIR CON No.

\*\*

Indoor units are connected to a remote control, press the AIR CON No.

\*\*

Indoor units are connected to a remote control, press the AIR CON No.

\*\*

Indoor units are connected to a remote control to a remote control

- It is possible to finish by pressing ON/OFF button on the way, but unfinished change of setting is unavailable.
- During setting, if you press (RESET) button, you return to the previous screen.
- Setting is memorized in the control and it is saved independently of power failure.

## [ How to check the current setting ]

When you select from "No. and funcion" and press set button by the previous operation, the "Setting" displayed first is the current setting.

(But, if you select "ALL UNIT  $\ensuremath{\mathbf{v}}$  ", the setting of the lowest number indoor unit is displayed.)

## 1.10.4 Installation of outdoor unit

## (1) Models SRC40-60ZSX-S

RWC012A060 🛦

Model SRC20.25.35.40.50.60ZSX-S SRC20.25.35ZSX-SA R410A REFRIGERANT USED

This installation manual deals with an outdoor unit installation only. For an indoor unit installation, refer to page 122.

## **SAFETY PRECAUTIONS**

Before installation, read the "SAFETY PRECAUTIONS" carefully and strictly follow it during the installation work in order to protect yourself.

The precautionary items mentioned below are distinguished into two levels, (AWARNING) and (ACAUTION).

WARNING Indicates a potentially hazardous situation which, if not avoided, can result in serious consequences such as death or severe injury.

CAUTION Indicates a potentially hazardous situation which, if not avoided, can result in personal injury or property damage.

Both mention the important items to protect your health and safety. Therefore, strictly follow them by any means.

## **MARNING**

- Be sure to use only for residential purpose.
  If this unit is installed in inferior environment such as machine shop, vehicle (like ship), warehouse, etc., it can malfunction.
  Installation must be carried out by the qualified installer completely in accordance with the installation manual.
- dance with the installation manual.

  Installation by non qualified person or incorrect installation can cause serious troubles such as water leak, electric shock, fire and personal injury.

  Be sure to wear protective goggles and gloves while performing installation work. Improper safety measures can result in personal injury.

  Use the original accessories and the specified components for the installation. Using a control that the theat the specified components for the installation.

- Using parts of the ministrations. Using parts of the ministration to the mistallation. Using parts of the ministration to the

- If refrigerant density exceeds the limit, consult the dealer and install the ventilation system.

  Otherwise lack of oxygen can occur resulting in serious accident.

  Install the unit in a location where unit will remain stable, horizontal and free of any vibration transmission.

  Unsuitable installation location can cause the unit to fall resulting in material damage and personal injury.

  Do not run the unit with removed panels or protections.

  Touching rotating equipments, hot surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric shock.

  This unit is designed specifically for R410A.

  Using any other refrigerant can cause unit failure and personal injury.

  Do not vent R410A into atmosphere.

  R410A is a fluorinated greenhouse gas with a Global Warming Potential(GWP)=2088.

  Make sure that no air enters the refrigerant circuit when the unit is installed and removed.

  If air enters the refrigerant circuit, the pressure in the refrigerant circuit will become too high, which can cause burst and personal injury.

  Be sure to use the prescribed pipes, flare nuts and tools for R410A.
- Be sure to use the prescribed pipes, flare nuts and tools for R410A.

  Using existing parts (for R22 or R407C) can cause refrigerant circuit burst resulting in unit failure and personal injury.

  Be sure to connect both liquid and gas connecting pipes properly before op-
- erating the compressor.

  Do not open the liquid and gas service valves before completing piping work, and evacuation.
- If the compressor is operated when connecting pipes are not connected and service valves are open, air can be sucked into the refrigerant circuit which can cause anomalous high pressure resulting in
- burst or personal injury.

  Be sure to tighten the flare nuts to specified torque using the torque wrench.

  Tightening flare nuts with excess torque can cause burst and refrigerant leakage after a long period.

- During pump down work, be sure to stop the compressor before closing service valves and removing connecting pipes.

  If the connecting pipes are removed when the compressor is in operation and service valves are open, air can be sucked into the refrigerant circuit which can cause anomalous high pressure resulting in burst or personal injury.

  - Ing in burst or personal injury.

    In the event of refrigerant leakage during installation, be sure to ventilate the working area properly.

    If the refrigerant comes into contact with naked flames, poisonous gases will be produced.

    Electrical work must be carried out by the qualified electrician, strictly in accordance with national or regional electricity regulations.

    Incorrect installation can cause electric shook, fire or personal injury.

    Make sure that earth leakage breaker and circuit breaker of appropriate canacities are installed.

  - pacities are installed.

    Circuit breaker should be able to disconnect all poles under over current. Absence of appropriate breakers can cause electric shock, personal injury or property damage.

    Be sure to switch off the power source in the event of installation, mainte-
  - nance or service.
  - If the power source is not switched off, there is a risk of electric shock, unit failure or personal injury. Be sure to tighten the cables securely in terminal block and relieve the cables properly to prevent overloading the terminal blocks.

  - Loose connections or cable mountings can cause anomalous heat production or fire.

    Do not process, splice or modify the power cable, or share the socket with other power plugs.

    Improper power cable or power plug can cause fire or electric shock due to poor connection, insufficient insulation or over-current.

  - netent insulation or over-current.

    Do not perform any change in protective device or its setup condition yourself.

    Changing protective device specifications can cause electric shock, fire or burst.

    Be sure to clamp the cables properly so that they do not touch any internal component of the unit.

    If cables touch any internal component, it can cause overheating and fire.

  - Be sure to install service cover properly.

    Improper installation can cause electric shock or fire due to intrusion of dust or water.

    Be sure to use the prescribed power and connecting cables for electrical work.

    Using improper cables can cause electric leak, anomalous heat production or fire.

    This appliance must be connected to main power source by means of a circuit breaker or switch with a contact separation of at least 3mm.

    Improper electrical work can cause unit failure or personal injury.
  - When plugging this unit, a plug conforming to the norm IEC60884-1 must be used. Using improper plug can cause electric shock or fire.

    Be sure to connect the power source cable with power source properly. Improper connection can cause intrusion of dust or water resulting in electric shock or fire.

## **↑** CAUTION

- Take care when carrying the unit by hand.

  If the unit weight is more than 20kg, it must be carried by two or more persons. Do not carry the unit by the plastic straps. Always use the carry handle.
- Do not install the outdoor unit in a location where insects and small animals
- can inhabit.
  Insects and small animals can enter the electrical parts and cause damage resulting in fire or per-

- Insects and small animals can enter the electrical parts and cause damage resulting in fire or personal injury. Instruct the user to keep the surroundings clean.

  If the outdoor unit is installed at height, make sure that there is enough space for installation, maintenance and service.

  Insufficient space can result in personal injury due to falling from the height.

  Do not install the unit near the location where neighbours are bothered by noise or air generating from the unit.

  It can affect surrounding environment and cause a claim.

  Do not install in the locations where unit is directly exposed to corrosive gases (like sulphide gas, chloride gas), sea breeze or salty atmosphere.

  It can cause corrosion of heat exchanger and damage to plastic parts.

  Do not install the unit close to the equipments that generate electromagnetic \*
- Do not install the unit close to the equipments that generate electromagnetic
- waves and/or high-harmonic waves.

  Equipment such as inverters, standby generators, medical high frequency equipments and telecommunication equipments can affect the system, and cause malfunctions and breakdowns.
- The system can also affect medical equipment and telecommunication equipment, and obstruct its function or cause jamming.

- Do not install the unit in the locations where:
  There are heat sources nearby.
  Unit is directly exposed to rain or sunlight.
  There is any obstacle which can prevent smooth air circulation from inlet and outlet side of the unit.
  Unit is directly exposed to oil mist and steam such as kitchen.
  Chemical substances like ammonia (organic fertilizer), calcium chloride (snow melting agent) and acid (sulfurous acid etc.), which can harm the unit, will generate or accumulate.
  Drain water can not be discharged properly.
  TV set or radio receiver is placed within 1m.
  Height above sea level is more than 1000m.

- Height above sea level is more than 1000m.
   It can cause performance degradation, corrosion and damage of components, unit malfunction and fire.
   Dispose of all packing materials properly.
   Packing materials contain nails and wood which can cause personal injury.
- Keep the polybag away from children to avoid the risk of suffocation.
- Do not put anything on the outdoor unit.
- Object may fall causing property damage or personal injury.

  Do not touch the aluminum fin of the outdoor unit.

  Aluminium fin temperature is high during heating operation. Touching fin can cause burn.
- Do not touch any refrigerant pipe with your hands when the system is in operation. During operation the refrigerant pipes become extremely hot or extremely cold depending on the operating condition. Touching pipes can cause personal injury like burn (hot/cold). Install isolator or disconnect switch on the power source wiring in accordance with the local codes and regulations.

  The isolator should be locked in OFF state in accordance with EN60204-1.

## 1. ACCESSORIES AND TOOLS

Standard accessories (Supplied with outdoor unit)	Q'ty	Locally procured parts	Tools for installation work		
(1) Drain grommet (2)	4	(a) Anchor bolt(M10-M12)×4 pcs	Plus headed driver	Spanner wrench	Vacuum pump*
	-	(b) Putty	Knife	Torque wrench [14.0-62.0N/m(1.4-6.2kgf•m)]	Gauge manifold *
(2) Drain elbow	1	(c) Electrical tape	Saw	Wrench key (Hexagon) [4mm]	Charge hose *
*Not included for SRC20, 25, or 35ZSX	(-SA.	(d) Connecting pipe	Tape measure	Flaring tool set *	Vacuum pump adapter*
(e) Connecting cable		Tape measure	Flatting tool set	(Anti-reverse flow type)	
(f) Power cable		Pipe cutter	Flare adjustment gauge	Gas leak detector *	
		(g) Clamp and screw (for finishing work)			*Designed specifically for R410A

## 2. OUTDOOR UNIT INSTALLATION

## 1. Haulage

- Always carry or move the unit with two or more persons.
   The right hand side of the unit as viewed from the front (outlet side) is heavier

sue) is neavier.

A person carrying the right hand side must take care of this fact. A person carrying the left hand side must hold the handle provided on the front panel of the unit with his right hand and the corner column section of the unit with his left hand.



## **↑** CAUTION

When a unit is hauled, take care of its gravity center position which is shifted towards right hand side. If the unit is not hauled properly, it can go off balance and fall resulting in serious injury.

## 2. Selecting the installation location

- ielect the suitable installation location where:
  Unit will be stable, horizontal and free of any vibration transmission.
  There is no obstacle which can prevent smooth air circulation from inlet and outlet side of the unit.
  There is enough space for service and maintenance of unit.
- Neighbours are not bothered by noise or air generating from the unit. Outlet air of the unit does not blow directly to animals or plants.

- Drain water can be discharged properly.
   There is no risk of flammable gas leakage.
   There are no other heat sources nearby.
- Unit is not directly exposed to rain or sunlight.
- Unit is not directly exposed to oil mist and steam.

  Unit is not directly exposed to oil mist and steam.

  Chemical substances like ammonia (organic fertilizer), calcium chloride (snow melting agent) and acid (sulfurous acid etc.), which can harm the unit, will not generate or accumulate.

  Unit is not directly exposed to corrosive gases (like sulphide gas, chloride gas), sea breeze or salty at-
- mosphere.
- No TV set or radio receiver is placed within 1m.
- Unit is not affected by electromagnetic waves and/or high-harmonic waves generated by other equipments.

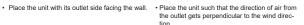
  Strong wind does not blow against the unit outlet.

  Heavy snowfalls do not occur (If installed, provide proper protection to avoid snow accumulation).

## NOTE

If the unit is installed in the area where there is a possibility of strong wind or snow accumulation, the fol-lowing measures are required.

## (1) Location of strong wind

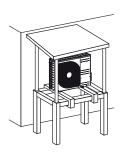






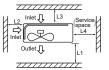
## (2) Location of snow accumulation

- Install the unit on the base so that the bottom is higher than snow cover surface.
- . Install the unit under eaves or provide the roof on site



## 3. Installation space

There must be 1 meter or larger space between the unit and the wall in at least 1 of the 4 sides. Walls surrounding the unit from 4 sides is not acceptable. The wall height on the outlet side should be 1200 mm or less. Refer to the following figure and table for details.



				()
Example installati	on I	II	III	IV
L1	Open	280	280	180
L2	100	75	Open	Open
L3	100	80	80	80
L4	250	Open	250	Open

## NOTE

When more than one unit are installed side by side, provide a 250mm or wider interval between them

## **⚠** CAUTION

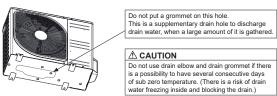
When more than one unit are installed in parallel directions, provide sufficient inlet space so that shortcircuiting may not occur

## 4. Drain piping work (If necessary)

Carry out drain piping work by using a drain elbow and a drain grommet supplied separately as accessories if condensed water needs to be drained out.

(1) Install drain elbow and drain grommet.
(2) Seal around the drain elbow and drain grommet with putty or adequate caulking material.

<SRC20/25/35/40/50/60ZSX-S>



<SRC20/25/35ZSX-SA>

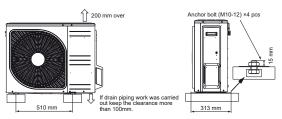


Do not block the drain holes when installing the

## 5. Installation

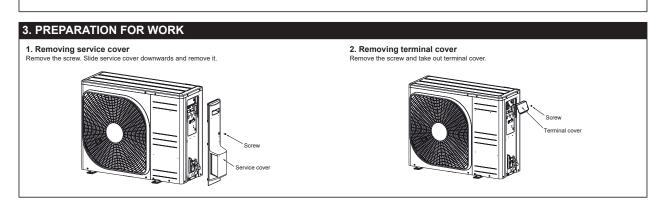
- Install the unit on a flat level base.

  While installing the unit, keep space and fix the unit's legs with 4 anchor bolts as shown in the figure below. The protrusion of an anchor bolt from the foundation surface must be kept within 15mm



## **⚠** CAUTION

- Install the unit properly so that it does not fall over during earthquake, strong wind, etc.
- Make sure that unit is installed on a flat level base. Installing unit on uneven base may result in unit malfunction



## 4. CONNECTING PIPING WORK

## 1. Restrictions on unit installation

Abide by the following restrictions on unit installation

Improper installation can cause compressor failure or performance degradation

	'		
	Dimensional r	restrictions	Ì
	Model SRC20/25/35	Model SRC40/50/60	
Connecting pipe length(L)	25m or less	30m or less	1
Elevation difference between indoor and outdoor units(H)*	15m or less	20m or less	



<sup>\*</sup> Outdoor unit installation position can be higher as well as lower than the indoor unit installation position

## 2. Preparation of connecting pipe

2.1. Selecting connecting pipe
Select connecting pipe according to the follo

solder definitioning pipe decorating to the following table.						
	Model SRC20/25/35	Model SRC40/50/60				
Gas pipe	ø9.52	ø12.7				
Liquid pipe	ø6.35	ø6.35				

Pipe wall thickness must be greater than or equal to 0.8 mm.
Pipe material must be O-type (Phosphorus deoxidized se 77.150.30). d seamless copper pipe ICS 23.040.15, ICS

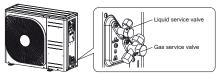
## NOTE

If it is required to reuse the existing connecting pipe system, refer to 5. UTILIZATION OF EXISTING PIPE.

## 2.2. Cutting connecting pipe

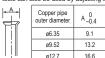
- (1) Cut the connecting pipe to the required length with pipe cutter.
  (2) Hold the pipe downward and remove the burrs. Make sure that no foreign material enters the pipe.
  (3) Cover the connecting pipe ends with the tape.

Check that both liquid and gas service valves are fully closed Carry out the piping work with service valves fully closed.



- Take out flare nuts from the service valves of outdoor unit and engage them onto connecting pipes

(2) Flare the pipes according to table and figure shown below.
Flare dimensions for R410A are different from those for conventional refrigerant.
Although it is recommended to use the flaring tools designed specifically for R410A, conventional flaring tools can also be used by adjusting the measurement of protrusion B with a flare adjustment gauge.

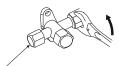




Copper pipe	Rigid (	clutch) type
outer diameter	R410A	Conventional
ø6.35		
ø9.52	0-0.5	1.0-1.5
ø12.7		

- 3.2. Connecting pipes
  (1) Connect pipes on both liquid and gas sides.
  (2) Tighten nuts to specified torque shown in the table belo

Tightening torque (N·m)
14-18
34-42
49-61



Do not hold the valve cap area with a spanne

## **⚠** CAUTION

Do not apply refrigerating machine oil to the flared surface. It can cause refrigerant leakage.
 Do not apply excess torque to the flared nuts. The flared nuts may crack resulting in refrigerant leakage.

## 4. Evacuation

- (1) Connect vacuum pump to gauge manifold. Connect charge hose of gauge manifold to service port of outdoor unit.
- (2) Run the vacuum pump for at least one hour after the vacuum gauge shows -0.1MPa (-76cm Hg).

  (3) Confirm that the vacuum gauge indicator does not rise even if the system is left for 15 minutes or more. Vacuum gauge indicator will rise if the system has moisture left inside or has a leakage point. Check the system for the leakage point. If leakage point is found, repair it and return to (1) again.
- (4) Close the Handle Lo and stop the vacuum pump. Keep this state for a few minutes to make sure that the compound pressure gauge pointer does not
- swing back.
  (5) Remove valve caps from liquid service valve and gas service valve.
  (6) Turn the liquid service valve's rod 90 degree counterclockwise with a hexagonal wrench key to open
- Close it after 5 seconds, and check for gas leakage.

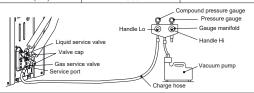
  Using soapy water, check for gas leakage from indoor unit's flare and outdoor unit's flare and valve rods.

  Wipe off all the water after completing the check.

  (7) Disconnect charging hose from gas service valve's service port and fully open liquid and gas service
- valves. (Do not attempt to turn valve rod beyond its stop.)

  (8) Tighten service valve caps and service port cap to the specified torque shown in the table below

,		
Service valve size (mm)	Service valve cap tightening torque (N·m)	Service port cap tightening torque (N·m)
ø6.35 (1/4")	20-30	
ø9.52 (3/8")	20-30	10-12
ø12 7 (1/2")	25-35	



## **⚠** CAUTION

- To prevent the entering of different oil into the refrigeration system, do not use tools designed for any other refrigerant type (R22, R407C, etc.).
- To prevent vacuum pump oil from entering into the refrigerant system, use a counterflow prevention adapter.

## 5. Additional refrigerant charge

Additional refrigerant charge is required only when connecting pipe length exceeds 15 m.

5.1 Calculating additional refrigerant charge
Additional refrigerant charge can be calculated using the formula given below.
Additional refrigerant charge (g) = { Connecting pipe length (m) – Factory charged length 15 (m) } x 20 (g/m)

## NOTE

- If additional refrigerant charge calculation result is negative, there is no need to remove the refrigerant.
- If refrigerant recharge is required for the unit with connecting pipe length 15m or shorter, charge the factory charged volume as shown in the table below.

	Model SRC 20/25/35	Model SRC40/50/60
Factory charged volume(kg)	1.45	1.50

- 5.2 Charging refrigerant(1) Charge the R410A refrigerant in liquid phase from service port with both liquid and gas service (1) orlange lief won't fininger in miduo prises from service but with obtaining as gas service valves shut. Since R410A refrigerant must be charged in the liquid phase, make sure that refriger and is discharged from the cylinder in the liquid phase all the time.

  (2) When it is difficult to charge a required refrigerant volume, fully open both liquid and gas service
- valves and charge refrigerant, while running the unit in the cooling mode. When refrigerant is charged with the unit being run, complete the charge operation within 30 minutes.

  (3) Write the additional refrigerant charge calculated from the connecting pipe length on the label attached on the service cover.

## **⚠** CAUTION

Running the unit with an insufficient quantity of refrigerant for a long time can cause unit malfunction

## 5. UTILIZATION OF EXISTING PIPE

(1) Check whether an existing pipe system is reusable or not by using the following flow chart. Are the outdoor and indoor units connected to the existing pipe system? Is it possible to run the un YES Does the existing unit use any of the following refrigerant oils ? Suniso, MS,Barell Freeze, HAB, Freol, ether oil, ester oil. YES corrosion, flaws and dents? NO Repair the damaged parts Is the existing pipe system from YES ----Check the pipe system for air tightness. YES free of peel-off or deterioration?
(Heat insulation is necessary for both gas and liquid pipes.) Repair is impossible. Repair the damaged parts. YES .... e of any loose pipe support ? NO Repair the loose pipe support. Is the existing piping system YES The existing pipe system is not reusal Install the new pipe system. The existing pipe system is reusable

- · Consult with our distributor in the area, if you need to recover refrigerant and charge it again.

- Consult with our distributor in the area, if you need to recover reirigerant and cnarge it again.

  (2) Clean the existing pipe system according to the procedure given below.

  (a) Carry out forced cooling operation of existing unit for 30 minutes.

  For Forced cooling operation' refer to the indoor unit installation manual.

  (b) Stop the indoor fan and carry out forced cooling operation for 3 minutes (Liquid return).

  (c) Close the liquid service valve of the outdoor unit and carry out pump down operation (Refer to 6.

- PUMP DOWN).

  (d) Blow with nitrogen gas. If discolored refrigeration oil or any foreign matter is discharged by the blow, wash the pipe system or install a new pipe system.

  (3) Remove the flare nuts from the existing pipe system. Go back to 4.Connecting Piping work and proceed to the 2.3 Certified connecting pipe. ceed to step 2.2 Cutting connecting pipe.

## **△** CAUTION

Do not use the old flare nuts (of existing unit). Make sure that the flare nuts supplied with the (new) outdoor unit are used.

If the existing piping is specified as liquid pipe ø9.52 or gas pipe ø12.7, refer to the following. (SRC40,50 and 60 only)

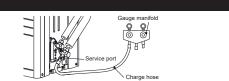
<Table of pipe size restrictions>

Additional charge	volume per meter of pipe	0.06kg/m
Pipe size	Liquid pipe	ø9.52
ripe size	Gas pipe	ø12.7
Maximum one-way	pipe length	10
Length covered wi	thout additional charge	5

Additional charge volume (kg) = {Main pipe length (m) - Length covered without additional charge shown in the table (m)} X Additional charge volume per meter of pipe shown in the table (kg/m)

## 6. PUMP DOWN

- Connect charge hose of gauge manifold to service port of outdoor unit.
   Colose the liquid service valve with hexagonal wrench key.
   Fully open the gas service valve with hexagonal wrench key.
   Carry out forced cooling operation (For forced cooling operation procedure, refer to indoor unit installation
- manual). (5) When the low pressure gauge becomes 0.01MPa, close the gas service valve and stop forced cooling



## 7. ELECTRICAL WIRING WORK

## **↑** WARNING

- Make sure that all the electrical work is carried out in accordance with the national or regional electri-
- cal standards.

  Make sure that the earth leakage breaker and circuit breaker of appropriate capacities are installed (Refer to the table given below).

  Do not turn on the power until the electrical work is completed.

  Do not turn on condensive capacitor for power factor improvement under any circumstances. (It does not improve power factor. Moreover, it can cause an abnormal overheat accident).

## Breaker specifications

Model	Phase	Earth leakage breaker	Circuit breaker
SRC20/25/35	6:!	Leakage current: 30mA,	Over current: 16A
SRC40/50/60	Single phase	0.1sec or less	Over current: 20A

## Main fuse specification

Model	Specification	Parts No.	Code on LABEL,WIRING
SRC20/25/35	250V 15A	SSA564A136	F7
CDC40/F0/C0	2501/201	CCAECAAACA	Ε4

## 1.Preparing cable

- 1.Preparing cable

  Select the power source cable and connecting cable in accordance with the specifications mentioned below.

  (a) Power source cable

  3-core? 2.0mm² or more, conformed with 60245 IEC57(CENELEC H05RN-F)

  When selecting the power source cable length, make sure that voltage drop is less than 2%. If the wire length gets longer, increase the wire diameter.

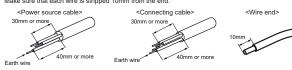
  (b) Connecting cable

  4-core\* 1.5mm², conformed with 60245 IEC57(CENELEC H05RN-F)

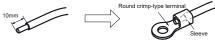
  1 Earth wire is included (Yellow/Green).

  (2) Arrange each wire length as shown below.

  Make sure that each wire is stripped 10mm from the end.



(3) Attach round crimp-type terminal to each wire as shown in the below Select the size of round crimp-type terminal after considering the specifications of terminal block and wire diameter.



## **⚠** CAUTION

Power source cable and connecting cable must conform to the specifications mentioned in the manual Using cables with wrong specifications may result in unit malfunction.

## 2.Connecting cable

- (1) Remove the service cover.

  (2) Connect the cables according to the instructions and figures given below.

  (a) Connect the earth wire of power source cable.

  An earth wire must be connected before connecting the other wires of power source cable.

  Keep the earth wire longer than the remaining two wires of power source cable.

  (b) Connect the remaining two wires (N and L) of power source cable.

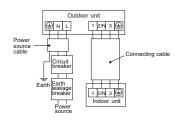
  (c) Connect the wires of connecting cable. Make sure that for each wire, outdoor and indoor side terminal numbers match.

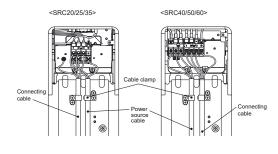
Faster to Goods process.

Total tions.

Moreover, make sure that cables do not touch the piping, etc. When cables are connected, make sure that all electrical components within the electrical component box are free of loose connector coupling or terminal connection.

<Circuit diagram>





## 8. FINISHING WORK

## 1. Heating and condensation prevention

- Dress the connecting pipes (both liquid and gas pipes) with insulation to prevent it from heating and dew condensation.

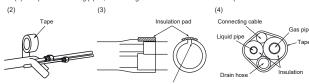
  Use the heat insulating material which can withstand 120°C or higher temperature. Make sure that insulation is wrapped tightly around the pipes and no gap is left between them.

  Wrap the refrigerant pipings of indoor unit with indoor unit heat insulation using tape.

  Cover the flare-connected joints (indoor side) with the indoor unit hour insulation and wrap it with an insulation pad (standard accessory provided with indoor unit).

  Wran the connection pines connection calle and drain hose with the tape.

- (4) Wrap the connecting pipes, connecting cable and drain hose with the tape.



## NOTE

where relative humidity exceeds 70%, both liquid and gas pipes need to be dressed with 20mm or thicker heat insulation materials

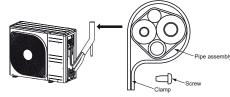
## **⚠** CAUTION

- Improper insulation can cause condensate(water) formation during cooling operation.
   Condensate can leak or drip causing damage to household property.
   Poor heat insulating capacity can cause pipe outer surface to reach high temperature during heating operation. It can cause cable deterioration and personal injury.

## 2.Finishing work

- 2.F-missiling work
  (1) Make sure that the exterior portion of connecting pipes, connecting cable and drain hose is wrapped properly with tape. Shape the connecting pipes to match with the contours of the pipe assembly route.
  (2) Fix the pipe assembly with the wall using clamps and screws. Pipe assembly should be anchored every 1.5m or less to isolate the vibration.
  (3) Install the service cover securely. Water may enter the unit if service cover is not installed properly, resulting in unit mailunction and failure.





## **⚠** CAUTION

Make sure that the connecting pipes do not touch the components within the unit. If pipes touch the internal components, it may generate abnormal sounds and/or vibrations.

## 9. INSTALLATION TEST CHECK POINTS

After finishing the installation work, check the following points again before turning on the power Conduct test run (Refer to indoor unit installation manual) and ensure that the unit operates properties of the conduct test run (Refer to indoor unit installation manual) and ensure that the unit operates properties of the conduct test run (Refer to indoor unit installation manual) and ensure that the unit operates properties of the conduct test run (Refer to indoor unit installation manual) and ensure that the unit operates properties of the conduct test run (Refer to indoor unit installation manual) and ensure that the unit operates properties of the conduct test run (Refer to indoor unit installation manual) and ensure that the unit operates properties of the conduct test run (Refer to indoor unit installation manual) and ensure that the unit operates properties of the conduct test run (Refer to indoor unit installation manual) and ensure that the unit operates properties of the conduct test run (Refer to indoor unit installation manual) and ensure that the unit operates properties of the conduct test run (Refer to indoor unit installation manual) and ensure that the unit operates properties of the conduct test run (Refer to indoor unit installation manual) and ensure that the unit operates properties of the conduct test run (Refer to indoor unit installation manual) and the conduct test run (Refer to indoor unit installation manual) and the conduct test run (Refer to indoor unit installation manual) and the conduct test run (Refer to indoor unit installation manual) and the conduct test run (Refer to indoor unit installation manual) and the conduct test run (Refer to indoor unit installation manual) and the conduct test run (Refer to indoor unit installation manual) and the conduct test run (Refer to indoor unit installation manual) and the conduct test run (Refer to indoor unit installation manual) and the conduct test run (Refer to indoor unit installation manual) and the conduct test run (Refer to indoor

Power source voltage complies with the rated voltage of air-conditioner. Earth leakage breaker and circuit breaker are installed. Power cable and connecting cable are securely fixed to the terminal block Both liquid and gas service valves are fully open

•	
No gas leaks from the joints of the service valves.	
Indoor and outdoor side pipe joints have been insulated.	
Drain hose (if installed) is fixed properly.	
Screw of the service cover is tightened properly.	

## PSC012D062F

∂This installation manual deals with outdoor units and general installation specifications only. For indoor units, refer to page 122.

(2) Model FDC71VNX

When install the unit, be sure to check whether the selection of installation place, power source specifications, usage limitation (piping length, height differences between indoor and outdoor units, power source voltage and etc.) and installation spaces

## SAFETY PRECAUTIONS

●We recommend you to read this "SAFETY PRECAUTIONS" carefully before the installation work in order to gain full advantage of the functions of the unit and to avoid malfunction due to

These are very important precautions for safety. Be sure to observe all of them without fail injury due to erroneous handling are listed in the AMARNING and the matters with possibilities leading to personal injury or damage of the unit due to erroneous handling including probability leading to serious consequences in some cases are listed in ACAUTION. These are very important precautions for safety. Be sure to observe all of them without fail ●The precautions described below are divided into AWARNING and ACAUTION. The matters with possibilities leading to serious consequences such as death or serious personal

Piping, wiring and miscellaneous small parts

Indoor unit installation manual

Check before installation work

Model name and power source

Refrigerant piping length

Designed for R410A refrigerant

Inverter driven single split PAC

The meaning of "Marks" used here are as shown below.

Never do it under any circumstance.

Always do it according to the instruction

Des sure to confirm no anomaly on the equipment by commissioning after completed installation and explain the operating methods as well as the maintenance methods of this equipment

# •Keep the installation manual together with owner's manual at a place where any user can read at any time. Moreover if necessary, ask to hand them to a new user to the user according to the owner's manual.

## WARNING

Tighten the flare nut by using double spanners and torque wrench according to prescribed method. Be sure not to
tighten the than tut too much.
 Lose sine connection or damage on the flare part by tightening with excess torque can cause burst or refrigerant leaks which
Lose sine connection or damage on the flare part by tightening with excess torque can cause burst or refrigerant leaks which

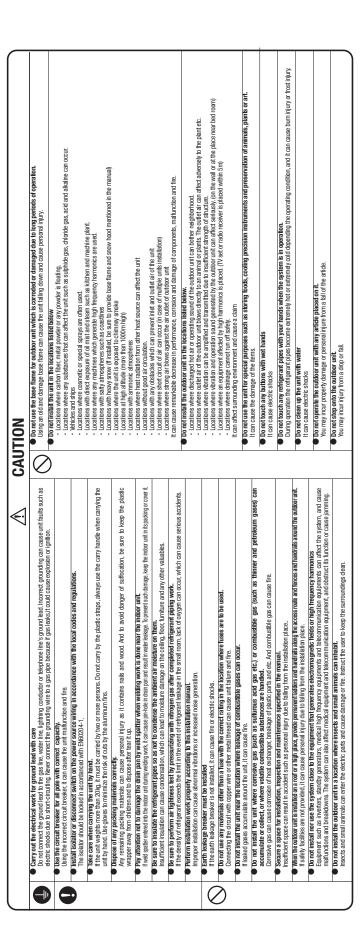
Do not open the service valves for liquid line and gas line until completed refrigerant piping work, air tightness test

Only use prescribed optional parts. The installation must be carried out by the qualified installer. If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.

personal injury.

Stop the compressor before closing valve and disconnecting refrigerant pipes in case of pump down operation. If disconnecting refrigerant pipes in state of opening service valves before compressor stopping, you may incur frost bite or injury from an abrupt refrigerant outliew and air can be sucked, which can cause burst or personal injury due to anomalously high pressure in the refrigerant circuit. If the compressor is operated in state of opening service valves before completed connection of refrigerant piping work, you may from trest blee up up and an advant refrigerant outlow and are an be sucked into refrigerant circuit, which can ceause bust or personal nijury due a anomatously high pressure in the refrigerant injury due a anomatously high pressure in the refrigerant. • Do not perform any change of protective device itself or its setup condition. The forced operation by sinct-ctuding protective device of pressure switch and temperature controller or the use of non specified component can cause fire or burst. ● Ensure that no air enters in the refrigerant circuit when the unit is installed and removed.

If air enters in the refrigerant circuit, the pressure in the refrigerant circuit becomes too high, which can cause burst and Do not run the unit with removed panels or protections
 Touching rotating equipments, hot surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric Be sure to switch off the power source in the event of installation, inspection or servicing.
 If the power source is not shut off, there is a risk of electric shocks, unit fallure or personal injury due to the unexpected start of fan. Use the prescribed pipes, flare nuts and tools for R410A.
 Using existing parts (for R22 or R407C) can cause the unit failure and serious accidents due to burst of the refrigerant circuit. Do not perform any repairs or modifications by yourself. Consult the dealer if the unit requires repair.
 If you repair or modify the unit, it can cause water leaks, electric shocks or fire. Be sure to fix up the service panels.
 Incorrect fixing can cause electric shocks or fire due to intrusion of dust or water. • Consult the dealer or an expert regarding removal of the unit incorrect installation can cause water leaks, electric shocks or fire. Do not perform brazing work in the airtight room it can cause lack of oxygen. may result in lack of oxygen. 0 Hang up the unit at the specified points with ropes which can support the weight in lifting for portage. And to avoid joting out of alignment, be sure to hang up the unit at 4-plants support.
 An improper manner of portage such as 3-point support can cause death or serious personal injury due to falling of the unit Use the original accessories and the specified components for installation.
 If parts other than those prescribed by its are used, it may cause fall of the unit, water leaks, electric shocks, fire, refrigerant leak, substandand performance, control fallue and personal injury. The electrical installation must be carried out by the qualified electrician in accordance with "the norm for electrical work" and "national wining regulation", and the system must be connected to the dedicated circuit. Use the prescribed cables for electrical connection, tighten the cables securely in terminal block and relieve the cables correctly to prevent overloading the terminal blocks. Installation must be carried out by the qualified installer.
 If you install the system by yourself, it may cause serious trouble such as water leaks, electric shocks, fire and personal injury, as a result of a system When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage accordance with ISO5149. Consult the expert about prevention measures. If the density of refrigerant exceeds the limit in the event of leakage, lack of oxygen can occur, which • Arrange the wiring in the control box so that it cannot be pushed up further into the box. Install the service panel correctly, Incorrect installation may result in overheating and fire. Power source with insufficient capacity and incorrect function done by improper work can cause electric shocks and fire, After completed installation, check that no refrigerant leaks from the system.
 If refrigerant leaks into the room and comes into contact with an oven or other hot surface, poisonous gas is produced. Be sure to use the cables conformed to safety standard and cable ampacity for power distribution work.
 Unconformable cables can cause electric leak, anomalous heat production or fire. Install the unit in a location with good support.
 Unsuitable installation locations can cause the unit to fall and cause material damage and personal injury. Ensure the unit is stable when installed, so that it can withstand earthquakes and strong winds.
 Unsuitable installation locations can cause the unit to fall and cause material damage and personal injury. Be sure to shut off the power before starting electrical work.
 Failure to shut off the power can cause electric shocks, unit failure or incorrect function of equipment. Install the system in full accordance with the instruction manual.
 Incorrect installation may cause bursts, personal injury, water leaks, electric shocks and fire. • Ventilate the working area well in the event of refrigerant leakage during installation if the refrigerant comes into contact with naked flames, poisonous gas is produced. ons or cable mountings can cause anomalous heat production or fire.



Notabilia as a unit designed for R410A		Dedicated R410A tools	
● Do not use any refrigerant other than R410A R410A will rise to pressure about 1.6 times bioher than that of a conventional refrigerant.	a)	Gauge manifold	
A cylinder containing R410A has a pink indication mark on the top.	(q	Charge hose	
<ul> <li>A unit designed for R410A has adopted a different size indoor unit service valve change port and a different size check joint provided in the unit to prevent the changing of a wrong refrigerant by mistake.</li> </ul>	(c)	c)   Electronic scale for refrigerant charging	
The processed dimension of the flared part of a refrigerant pipe and a flare nut's parallel side measurement have also been attered to raise strength against pressure. Accordingly, you are required to	(p	d) Torque wrench	
arrange dedicated R410A tools listed in the table on the right before installing or servicing this unit.	e	Flare tool	
<ul> <li>Do not use a charge cylinder. The use of a charge cylinder will cause the refrigerant composition to change, which results in performance degradation.</li> </ul>	` ←	f) Protrusion control conner nine gauge	
<ul> <li>In charging refrigerant, always take it out from a cylinder in the liquid phase.</li> </ul>	: 6	office and code of the common	T
• All indoor units must be models designed exclusively for R410A. Check connectable indoor unit models in a cataloa, etc. (A wrong indoor unit, if connected into the system, will impair proper system	6	vacuum pump adapter	_
operation)	Ē	h)   Gas leak detector	_

# . HAULAGE AND INSTALLATION (Take particular care in carrying in or moving the unit, and always perform such an operation with two or more persons.) 2) Portage When a unit is hoisted with slings for haulage, take into consideration the offset of its gravity center position. If not properly balanced, the unit can be thrown off-balance and fall. **○ CAUTION**

Notabilia as a unit designed for R410A



Deliver the unit as close as possible to the installation site before removing it from the packaging.

When some compelling reason necessitates the unpacking of the unit before it is carried in, use nylon slings or protective wood pieces so as not to damage the unit by ropes lifting it.

Wooden pallet

carrying the right hand side must take heed of this fact. A person carrying the left hand side must hold with his right hand the handle provided on the front panel of the unit and side must hold with his right hand the handle provided on the front panel of the unit and The right hand side of the unit as viewed from the front (diffuser side) is heavier. A person with his left hand the corner column section.

# Selection of installation location for the outdoor unit

Be sure to select a suitable installation place in consideration of following conditions.

⊑

When more than one unit are installed side by side, provide a 250mm or wider internal between them as a service space, order to facilitate servicing of controllers, please provide a sufficient space between units so that their top plates can be

Walls surrounding the unit in the four sides are not acceptable.
 There must be a 1-meter or larger space in the above.

removed easily.

5) Installation space

Where a danger of short-circuiting exists, install guide louvers.
 When more than one unit are installed, provide sufficient intake space consciously so that short-circuiting may not occur.
 Where piling snow can bury the outdoor unit, provide proper snow guards.

(service)

Ourtlet

0pen 100 250 200 Ħ

150

2 2

0pen 250 250

0pen 300 250 100

П

Example installation

Size

② Notabilia for installation

Anchor bolt fixed position

6) Installation

∏ Intake

Intake 1

A place where it is horizontal, stable and can endure the unit weight and will not allow vibration transmittance of the unit.

A place where it can be free from possibility of tothering neighbors due to noise or exhaust air from the unit.

A place where the unit is not exposed to disamenable gas leafage.

A place where the can be free from danger of flammable gas leafage.

A place where the unit will not be affected by heat radiation from other heat source.

A place where the unit will not be affected by heat radiation from other heat source.

A place where the unit and be kept warp 3 nor more from TV set and/or radio receiver in order to avoid any radio or TV interference. A place where the unit can be kept warp 3 nor more from TV set and/or radio receiver in order to avoid any radio or TV interference. A place where the unit will not be affected by electromagnetic waves and/or high-harmonic waves generated by other equipment.

unit, will not be generated and not remain.

A place where strong wind will not blow against the outlet air blow of the unit.

# 4) Caution about selection of installation location

(1) If the unit is installed in the area where the snow will accumulate, following measures are required. The bottom plate of unit and intake, outlet may be blocked by snow.

Install the unit on the base so that the bottom is higher than snow cover surface.

3. Install the unit under eaves or provide the roof on site. 2. Provide a snow hood to the outdoor unit on site. Regarding outline of a snow hood, refer to our technical manual.

Since drain water generated by defrost control may freeze, following measures are required,

Son to execute drain piping work by using a drain elbow and drain grommets (option paris). [Refer to Drain piping work.]

Recommend setting persect Corord (SWS-1) and Show Guard Fan Cortrol (SWS-2), [Refer to Setting SWS-1, SWS-2).

Use a thicker block to anchor deeper.

Use a long block to extend the width.

Outlet

(2) If the unit can be affected by strong wind, following measures are required. Strong wind can cause damage of fan (fan noton), or can cause performance degradation, or can trigger anomalous stop of the unit due to rising of high pressure. 3. The unit should be installed on the stable and level foundation. If the foundation is not level, tie down the unit with wires. 2.Install the outlet air blow side of the unit in a position perpendicular to the direction of wind.

Wind direction

6

## To run the unit for a cooling operation, when the outdoor temperature is -5°C or lower.

Improper installation can result in a compressor failure, broken piping within the unit and abnormal noise generation.

Securely install the unit so that it does not fall over during earthquakes or strong winds, etc.
 Refer to the above listrations for information regarding concrete foundations.
 Install the unit in a level area, (With a gradient of 5 mm or less.)

In installing the unit, fix the unit's legs with bolts specified on the above.
 The protrusion of an anchor bolt on the front side must be kept within 15 mm.

Anchor bolt position

When the outdoor air temperature is -5°C or lower, provide a snow hood to the outdoor unit on site. So that strong wind
will not blow against the outdoor heat exchanger directly. Regarding outline of a snow hood, refer to our technical manual.

< Single type >

# REFRIGERANT PIPING WORK

Wind direction

Over 500 mm

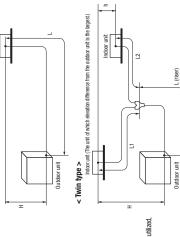
# 1) Restrictions on unit installation and use

Check the following points in light of the indoor unit specifications and the installation site.

Observe the following restrictions on unit installation and use. Improper installation can result in a compressor failure or performance degradation.

	on of the control of	Dimensional	Marks appearing in the drawing on the right	urawing on the right
	Restrictions	restrictions	Single type	Twin type
One-way pipe length of refrigerant piping	Wed 174V	000  10 000	٦	11+11+12
Main pipe length	A L L L L L L L L L L L L L L L L L L L	SSSI IO IIIOC	٦	٦
One-way pipe length afte	One-way pipe length after the first branching point	20m or less	I	11, L2
Difference of pipe length a	Difference of pipe length after the first branching point	10m or less	I	11–12
Elevation difference between	When the outdoor unit is positioned higher,	30m or less	Ξ	Ξ
indoor and outdoor units	When the outdoor unit is positioned lower,	15m or less	н	н
Elevation difference between indoor units	ween indoor units	0.5m or less	1	r.

 The use restrictions appearing in the table above are applicable to the standard pipe size combinations shown in the table bellow. Where an existing pipe system is utilized, different one-way pipe length restrictions should apply depending on its pipe size. For more information, please see "6. UTILIZATION OF EXISTING PPING." **○**CAUTION



1.Install the outlet air blow side of the unit to face a wall of building, or provide a fence or a windbreak screen.

## 2) Determination of pipe size

Determine refrigerant pipe size pursuant to the following guidelines based on the indoor unit specifications.

		Mode	Model 71V
		Gas pipe	Liquid pipe
Outdoor uni	Outdoor unit connected	φ15.88 Flare	φ9.52 Flare
Refrigerant pipir	Refrigerant piping (branch pipeL)	$\phi$ 15.88	φ9.52
out observe a go occoo ode al	Indoor unit connected	φ15.88	φ9.52
III the case of a single type	Capacity of indoor unit	Mode	Model 71V
	Branching pipe set	-SIQ	DIS-WA1
on the change of	Refrigerant piping (branch pipe L1,L2)	φ12.7	$\phi_{9.52}$
in the case of a twin type	Indoor unit connected	Φ12.7	φ6.35
	Capacity of indoor unit	Model	Model 40V×2

About Diazing
Brazing must be performed under a nitrogen gas flow.
Without nitrogen gas, a large quantity of foreign matters (oxidized film) are created, causing a critical fallure from capillary tube or expansion valve clogging.
Primary side Secondary side material, and fill the pipe with nitrogen gas.  Reping < < k >

 •When the 40V model is connected as an indoor unit, always use a φ9.52 liquid pipe for the branch (branching pipe – indoor unit) and a different diameter joint supplied with the branching pipe set for connection with a branching pipe, a refrigerant distribution disorder may occur, causing one of the indoor units to fall short of the rated capacity.
 •A riser pipe must be a part of the main. A pranching pipe set should be installed horizontally at a point as close to an indoor unit as possible.
 •A branching part must be dressed with a hard-insulation material supplied as an accessory.
 •For the defails of installation work required at and near a branching area, see the installation manual supplied with your branching pipe set. **△CAUTION** 

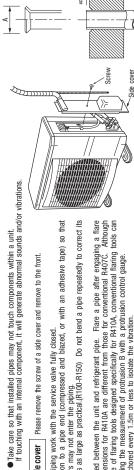
# 3) Refrigerant pipe wall thickness and material

Select refrigerant pipes of the table shown on the right wall thickness and material as specified for each pipe size.

4) On-site piping work **<b>∴IMPORTANT** 

Pipe diameter [mm]	6.35	9.52	12.7	15.88	NOTE
Minimum pipe wall thickness [mm]	0.8	8.0	0.8	1.0	
Pipe material*	0-type pipe	0-type pipe	0-type pipe	0-type pipe	*Phoenh

chorus deoxidized seamless copper pipe C1220T, JIS H 3300 Select pipes having a wall thickness larger than the specified minimum pipe thickness. Flared pipe end: A (mm)



					B (mm)	In the case of a rigid (clutch) type	With a conventional tool			0.7-1.3	
0 -0.4	9.1	13.2	16.6	19.7	Copper pipe protrusion for flaring: B (mm)	In the case of a	With an R410A tool			0-0.5	
pipe outer A	φ6.35	φ9.52	φ12.7	φ15.88	Copper pipe pr	Copper	diameter	φ6.35	φ9.52	φ12.7	φ15.88
₹ -	-				= -	8					

Use a torque wrench. If a torque wrench is not available, fasten the flare nut manually first and then tighten it further, using the left table as a guide. nt, and then fasten them, applying appropriate fastening torque. Do not hold the valve cap area with a spanner.

Do not apply force beyond proper fastening torque in tightening the flare nut. • Carry out the on site piping work with the service valve fully closed.

• Give sufficient portection to a pipe end (compressed and blazed, or with an adhesive tape) so that water or foreign matters may not enter the piping.

• Bend a pipe to a radius as large as practical.(R10C+H1S0) Do not bend a pipe repeatedly to correct its form.

• Flare connection is used between the unit and refrigerant pipe. Flare a pipe after engaging a flare nut onto it. Flare dimensions for R410A are different from those for conventional R407C. Although we recommend the use of flaring tools designed specifically for R410A, conventional flaring tools can also be used by adjusting the measurement of profusion B with a profusion control gauge.

• The pipe should be anchored every 1.5m or less to isolate the vibration.

• Tighten a flare joint securely with a double spanner. CAUTION

 $\triangleleft$ 

Fix both liquid and gas service valves at the valve main bodies as illustrated on the right service valve size   Tightening toque   Tightening angle   Recommended length   Rec
Fix both liquid and gas service valves at the valve.     Service valve size   Tightening torque   Tightening torque   Tightening torque   Tightening torque   Tightening torque   Tightening   Charles   Cha
Fix both liquid and gas service valves (mm)         Tightening to (h-m)           φ6.35 (14")         14-18           φ5.22 (38")         34-42           φ12.7 (12")         49-61
Fix both liquid and ga Service valve size (mm) φ6.35 (1/4") φ9.52 (3/8") φ12.7 (1/2")

150	200	250	300	
45-60	30-45	30-45	15-20	
14-18	34-42	49-61	68-82	
Φ6.35 (1/4")	φ9.52 (3/8")	φ12.7 (1/2")	φ15.88(5/8")	
	14-18 45-60	14-18 45-60 34-42 30-45	14-18     45-60       34-42     30-45       49-61     30-45	14-18     45-60       34-42     30-45       49-61     30-45       68-82     15-20

Please remove the screw of a side cover and remove to the front.

How to remove the side cover

## 5) Air tightness test

- ① Although outdoor and indoor units themselves have been tested for air tightness at the factory, check the connecting pipes after the installation work for air tightness from the service valve's check joint equipped on the outdoor unit side. While conducting a test, keep the service valve shut all the time.
  - a) Raise the pressure to 0.5 MPa, and then stop. Leave it for five minutes to see if the pressure drops. b) Then raise the pressure to 1.5 MPa, and stop. Leave it for five more minutes to see if the pressure drops.
- c) Then raise the pressure to the specified level (4.15 MPa), and record the ambient temperature and the pressure of pressure drop is observed with an installation pressurated to the specified level and left for about one day, it is acceptable. When the ambient Temperature fall 1°C, the pressure also fall approximately 0.01 MPa. The pressure, if changed, should be compensated for.

  If a pressure drop is observed in checking e) and a) 0), a leak exists somewhere. Find a leak by applying bubble test liquid to welded parts and flare joints and repair it. After repair, e) if a pressure drop is observed in checking e) and a) 0), a leak exists somewhere. Find a leak by applying bubble test liquid to welded parts and flare joints and repair it. After repair,
  - ② In conducting an air-tightness test, use nitrogen gas and pressurize the system with nitrogen gas from the gas side. Do not use a medium other than nitrogen gas under any conduct an air-tightness test again.

## ndoor unit Outdoor unit

## Pay attention to the following points in addition to the above for the R410A and compatible machines.

Airtighteness test completed

tools, etc. to each refrigerant type. Under no circumstances must a gauge manifold and a charge hose in particular be  $\supset$ To prevent a different oil from entering, assign dedicated shared with other refrigerant types (R22, R407C, etc.).

Use a counterflow prevention adapter to prevent vacuum bump oil from entering the refrigerant system.

## 6) Evacuation

<Work flow>

When the system has remaining moisture Check the system for a leaky point and then draw air to create a vacuum again. inside or a leaky point, the vacuum gauge indicator will rise.

Vacuuming completed Vacuum gauge check Run the vacuum pump for at least one hour after the vacuum gauge shows -101kPa or lower. (-755mmHg or lower) Confirm that the vacuum gauge indicator does not rise even if the system is left for one hour or more.

Fill refrigerant

Vacuuming begins

## 7) Additional refrigerant charge

(1) Calculate a required refrigerant charge volume from the following table.

_	
Installation's pipe length (m) covered without additional refrigerant charge	30
Refrigerant volume charged for shipment at the factory (kg)	2.95
Additional charge volume (kg) per meter of refrigerant piping (liquid pipe $arphi$ 6.35)	90'0
Pipe length for standard refrigerant charge volume (m)	20
Standard refrigerant charge volume (kg)	2.35
	Model 71V

● This unit contains factory charged refrigerant covering 30m of refrigerant piping and additional refrigerant charge on the installation site is not required for an installation with up to 30m refrigerant piping. When refrigerant piping exceeds 30m, additionally charge an amount calculated from the pipe length and the above table for the portion in excess of 30m.

When refrigerant piping is shorter than 3m, reduce refrigerant by 1kg from the factory charged volume and adjust to 1.95kg.

● if an existing pipe system is used, a required refrigerant charge volume will vary depending on the liquid pipe size. For further information, please see "6. UTILIZATION OF EXISTING PIPING."

Formula to calculate the volume of additional refrigerant required

 For an installation measuring 3m or longer, but not more than 20m, in pipe length, please charge the standard refrigerant charge volume, when you recharge refrigerant after servicing etc.
 When refrigerant piping is shorter than 3m, recharge 1.95kg of refrigerant.
 Ex. for a 10m installation, charge 2.35 kg of refrigerant.
 For a 20m installation, charge "2.35 + (25-20) x 0.06 = 2.65 kg." Additional charge volume (kg) = { Main pipe length (m) - Length covered without additional charge 30 (m) } x 0.06 (kg/m) + Total length of branch pipes (m) x 0.06 (kg/m)

\*When an additional charge volume calculation result is negative, it is not necessary to charge refrigerant

(2) Charging refrigerant

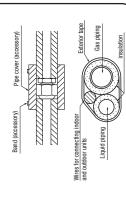
Since R410A refrigerant must be charged in the liquid phase, you should charge it, keeping the container cylinder upside down or using a refrigerant cylinder equipped with a siphon tube.
Charge refrigerant always from the liquid sale service port with the service valve shut. When you find it difficult to charge a required amount, fully open the outdoor unit valves on both liquid and gas sides and charge refrigerant in the cooling mode. In doing so, care must be taken so that refrigerant may be discharged from the cylinder in the liquid phase all the time. When the cylinder valve is through down or a declared conversion tool to charge liquid-phase refrigerant into mist is used to protect the compressor, however, adjust charge conditions so that refrigerant will gasify upon entering the unit.
In charging refrigerant, always charge a calculated volume by using a scale to measure the charge volume.
When refrigerant is charged with the unit being run, complete a charge operation within 30 minutes. Running the unit with an insufficient quantity of refrigerant for a long time can cause a compressor failure.

Put down the refrigerant volume calculated from the pipe length onto the caution label attached on the back side of the service panel

# 8) Heating and condensation prevention

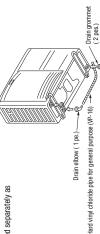
- (1) Dress refrigerant pipes (both gas and liquid pipes) for heat insulation and prevention of dew condensation.
- Improper heat insulation/anti-dew dressing can result in a water leak or dripping causing damage to household effects, etc.
- All gas pipes must be securely heat insulated in order to prevent damage from dripping water that comes from the condensation formed on them during a cooling operation or personal (2) Use a heat insulating material that can withstand 120°C or a higher temperature. Poor heat insulating capacity can cause heat insulation problems or cable deterioration. injury from burns because their surface can reach quite a high temperature due to discharged gas flowing inside during a heating operation. Wrap indoor units' flare joints with heat insulating parts (pipe cover) for heat insulation (both gas and liquid pipes).

  - Give heat insulation to both gas and liquid side pipes. Bundle a heat insulating material and a pipe tightly together so that no gaps may be left between them and wrap them together with a connecting cable by a dressing tape.
- Although it is verified in a test that this air-conditioning unit shows satisfactory performance under JIS condensation test conditions, both gas and liquid pipes need to be dressed with 20 mm or thicker heat insulation materials above the ceiling where relative humidity exceeds 70%.



## 3. DRAIN PIPING WORK

 Execute drain piping by using a drain elbow and drain grommets supplied separately as optional parts, where water drained from the outdoor unit is a problem



There are 3 drain holes provided on the bottom plate of an outdoor unit to discharge When condensed water needs to be led to a drain, etc., install the unit on a flat base (supplied separately as an optional part) or concrete blocks.

Oconnect a drain elbow as shown in the illustration and close the other two drain holes with

# For details of electrical cabling, refer to the indoor unit installation manual 4. ELECTRICAL WIRING WORK

Electrical installation work must be performed by an electrical installation service provider qualified by a power provider of the country. Electrical installation work must be executed according to the technical standards and other regulations applicable to electrical installations in the country.

Do not use any supply oord lighter than one specified in parentheses for each type below.
 braided cord (code designation 60245 IEC 51),

ordinary tough rubber sheathed cord (code designation 60245 IEC 53)

Do not use anything lighter than polychloroprene sheathed flexible cord (code designation 60245 IEG57) for supply cords of parts of appliances for outdoor use Ground the unit. Do not connect the grounding wire to a gas pipe, water pipe, lightning rod or telephone grounding wire. - flat twin tinsel cord (code designation 60227 IEC 41);

If impropery grounded, an electric shock or malfunction may result.

•A grounding wire must be connected before connecting the power cable. Provide a grounding wire longer than the power cable.
• The installation of an impulse withstanding type earth leakage breaker is necessary. A failure to install an earth leakage breaker can result in an acccident such as

an electric shock or a fire.

• Do not turn on the power until the electrical work is completeted.

Do not use a condensive capacitor for power factor improvement under any circumstances. (It dose not improve power factor, while it can cause an abnormal

 For power source cables, use conduits. overheat accident)

• Do not lay electronic control cables (remote control and signaling wires) and other cables together outside the unit. Laying them together can result in the malfunctioning or a failure of the unit due to electric noises. Fasten cables so that may not touch the piping, etc.

When cables are connected, make sure that all electrical components within the electrical component box are free of loose connector coupling or terminal
connection and then attach the cover securely. (Improper cover attachment can result in malfunctioning or a failure of the unit, if water penetrates into the box.)
 Always use a three-core cable for an indoor-outdoor connecting cable. Never use a shield cable.

## Power cable, indoor-outdoor connecting wires

Always perform grounding system installation work with the power cord unplugged.

Always use an earth leakage circuit breaker designed for inverter circuits to prevent a faulty operation

Cable length (m) MAX. over current (A) 17 Power cable thickness (mm²) 3.5 Single phase 3 wire Power source 220-240V Model 717 Outdoor unit Switchgear or Circuit breaker - | 2/N 3 | ± 구 N I 2/N 3 CAUTION

Indoor-outdoor wire thickness

Grounding wire thickness

φ1.6mm x 3

φ1.6mm

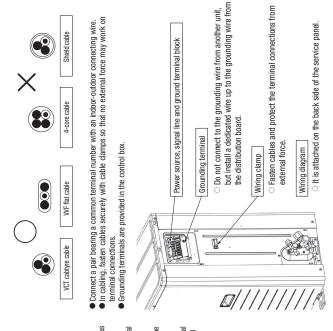
The specifications shown in the above table are for units without heaters. For units with heaters, refer to the installation instructions or the construction instructions of the indoor unit.

Indoor unit

Z | X | X X Y Z

Remote control

Switchgear or Circuit breaker capacity which is calculated from MAX, over current should be chosen along the regulations in each country.
 The cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a working ed dop is 2%. For an installation falling outside of these conditions, follow the internal cabling regulations. Adapt it to the regulation in effect in each country.



## 5. TEST RUN

**△** WARNING

Before conduct a test run, do not fail to make sure that the service valves are closed.
 Turn on power b fours prior be a test run to energize be careful case heater.
 In on no power b fours prior be a test run on energize be careful case heater.
 Always give a 3-minute or longer interval before you start the unit again whenever it is stopped.
 Removing the service panel will expose high-voltage live parts and high-temperature parts, which are quite dangerous.
 Take utmost care not to insur an electric shock or burns. Do not leave the unit with the service panel open.

A failure to observe these instructions can result in a compressor breakdown.

CAUTION
 CAUTION
 CAUTION

When you operate switches for on-site setting, be careful not to bouch a live part.
 Nou cannot check discharge pressure from the liquid service valve charge port.
 The 4-way valve (2018) is energized during a healting operation.
 When power source is cut of it neses the unit, give 3 or more minutes before you turn on power again after power is cut off.
 If this procedure is not observed in turning on power again, "E-5" (Communication error) may occur.

## About insulation resistance

• An insulation resistance value may drop to several M ohms immediately after installation or when the unit is left for a long time without power, because refrigerant is gathered in the compressor. When the earth-leakage breaker is actualed due to low insulation resistance, please check the following:

(1) Check whether a normal insulation resistance value is restored about 6 hours after power is turned. Turning on power will energize the compressor and heat it to evaporate refrigerant gathered in it.

(This ket whether is earth-leaded are breaker as I breaking is a breaking as I breaking in the setupped with an inverter and therefore, the use of a harmonic resistant type earth-leakage breaker is necessary to prevent a false actuation.

When you leave the outdoor unit with power supplied to it, be sure to close the panel.

Items to checkbefore a test run

Item

Refrigerant plumbing

Normal or After the test operation

Cooling during a test run Heating during a test run

OPF ON

NO

## 1) Test run method

Please remove a side cover.

In case of the first operation after turning on the power source, when the unit runs in the cooling mode at outside temperature 5°C or lower, it automatically changes into the cooling mode after it runs in the heating mode for 10 minutes.

## 2) Checking the state of the unit in operation Please remove a service panel.

Use check joints provided on the piping before and after the four-way valve installed inside the outdoor unit for checking discharge pressure and suction pressure.
As indicated in the table shown on the right, pressure detected at each point will vay depending on whether a cooling or healing operation has been selected.

Discharge pressure (High pressure) Cooling operation Heating operation

Suction pressure (Low pressure) Discharge pressure (High pressure) Check joint of the pipe

Indoor unit

Electric

Charge port of the gas service valve

Test run procedure Always carry out a test run and check the following in order as listed. Turn

(1) Defrost control switching (SW3-1) -When this switch is turned ON, the unit will run in the defrost mode more frequently. -Set this switch to ON, when installed in a region where outdoor temperature falls below zero during the season the unit is run for a heating operation.

Please remove a service panel. 3) Setting SW3-1, SW3-2.

The contents of operation

SW7 SW3 Switches for on-site setting All set to OFF for shipment ₹\$ 1. Check whether the service valves are open.
2. If an error has been canceled when 3 minutes have elapsed since a compressor stop, you can restart the unit by effecting Check Reset from the remote control unit. Check power cables for loose contact or disconnection When this switch is turned on, the outdoor unit fan will run for 30 seconds in every 10 minutes, when outdoor temperature falls to 3°C or lower and the compressor is not running.

Action

Failure event

Blinking continuously Open phase

Blinking once Blinking once

E34 E40 E49

Blinking once Blinking continuously Blinking continuously

•When the unit is used in a very snowy country, set this switch to ON.

(2) Snow guard fan control (SW3-2)

4) Failure diagnosis in a test run

Error indicated on the Printed dircuit board LED(The cycles of 5 seconds) remote control unit Red LED Green LED

Power source, signal line and ground terminal block SW5 SW5 SW8 SW8 SW8 Û≅

If an error code other than those listed above is indicated, refer to the wiring diagram of the outdoor unit and the indoor unit.

63H1 actuation or operation with service valves shut locusus mainly during a heading operation)
Low pressure error or operation with service valves shut (occurs mainly during a cooling operation)

## The state of the electronic expansion valve.

The following table illustrates the steady states of the electronic expansion valve.

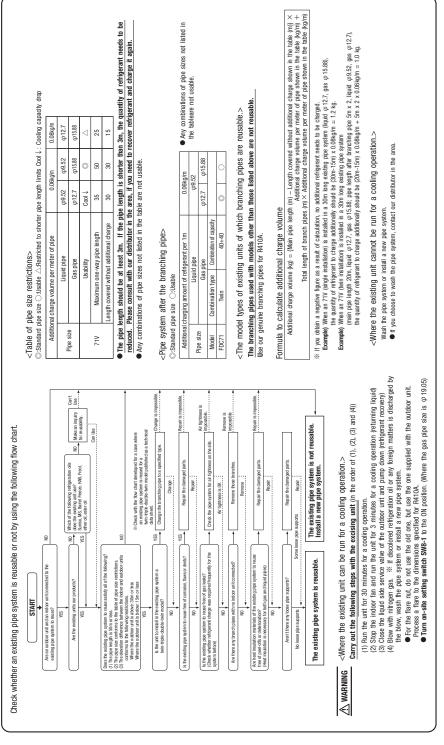
to an abnormal stop	During a heating operation	Full open position	Full open position	
When the unit comes	During a cooling operation	Full open position	Full open position	
es to a normal stop	During a heating operation	Full open position	Complete shut position	
When the unit com	During a cooling operation	Complete shut position	Full open position	
bomit of romon	witeri power is turred un	Complete shut position	Full open position	
		Valve for a cooling operation	Valve for a heating operation	

# 6) Heed the following on the first operation after turning on the circuit breaker.

This outdoor unit may start in the standby mode (waiting for a compressor startup), which can continue up to 30 minutes, to prevent the oil level in the compressor from lowering on the first operation after turning on the circuit breaker. If that is the case, do not suspect a unit failure.

※1 Do not operate SW3-3, SW5-1, SW5-2, SW8.
※2 Refer to TECHNICAL MANUAL about SW9. (Pump down SW)

# 6. UTILIZATION OF EXISTING PIPING.





100VNX~140VNX,100VSX~140VSX 100VN~140VN,100VS~140VS Designed for R410A refrigerant Inverter driven split PAC

# (3) Models FDC100-140VNX, 100-140VSX

OWhen install the unit, be sure to check whether the selection of installation place, power source specifications, usage limitation (piping length, height ∂This installation manual deals with outdoor units and general installation specifications only. For indoor units, refer to page 122.

differences between indoor and outdoor units, power source voltage and etc.) and installation spaces

## SAFETY PRECAUTIONS

■ We recommend you to read this "SAFETY PRECAUTIONS" carefully before the installation work in order to gain full advantage of the functions of the unit and to

● The precautions described below are divided into [△WARNING] and [△CAUTION]. The matters with possibilities leading to serious consequences such as death or serious personal injury due to erroneous handling are listed in the [△WARNING] and the matters with possibilities leading to personal injury or damage of the unit due to erroneous handling including probability leading to serious consequences in some cases are listed in [△CAUTION] . These are very important precautions for safety. Be sure to observe all of them without fail.

The meaning of "Marks" used here are as shown below.

Never do it under any circumstance.

Always do it according to the instruction 

● For 3 phase power source outdoor unit,EM61000-3-2 is not applicable if consent by the utility company or nortification to the utility company is given before usage. ● 3 phase power source unit, both indoor and outdoor, is suitable for installation in a commercial and light industrial environment. If installed as a house-hold

appliance it could cause electromagnetic interference.

• 5 and 6 Hp units of single phase power source are equipment complying with IEC 61000-3-12.

• Be sure to confirm no anomaly on the equipment by commissioning after completed installation and explain the operating methods as well as the maintenance methods of this equipment to the user according to the owner's manual.

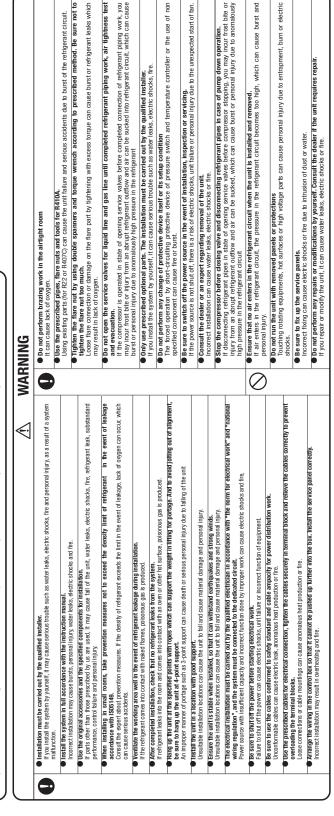
● Keep the installation manual together with owner's manual at a place where any user can read at any time. Moreover if necessary, ask to hand them to a new user

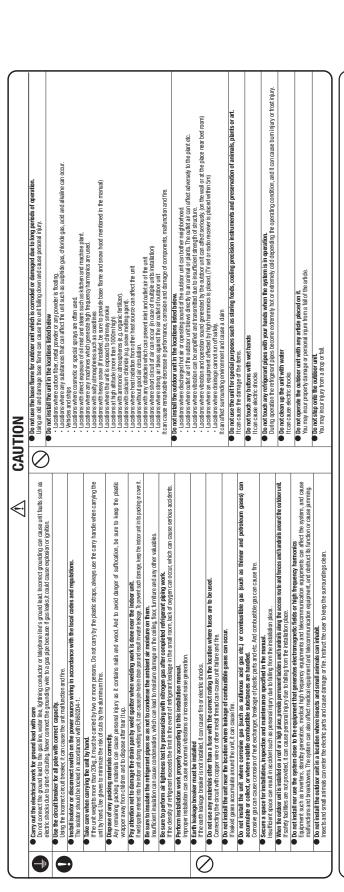
# Accessory

Check before installation work



- Model name and power source
- Piping, wiring and miscellaneous small parts Refrigerant piping length
  - Indoor unit installation manual





• Do not use any refrigerant other than R410A. R410A will rise to pressure about 1.6 times higher than that of a conventional refrigerant.	(q	Charg	Charge hose
A cylinder containing R410A has a pink indication mark on the top.	(Э	Electro	Electronic scale for refrigerant charging
● A unit designed for R410 has adopted a different size indoor unit service valve charge port and a different size check joint provided in the unit to prevent the charging of a wrong refrigerant by mistake. The	(р	Torque	) Torque wrench
DATOR-SENDER CHIRDRING IN THE LIBER OF AT OF A TERIPRATIN IDEP DEATH OF ATTRIBUTED TO STATISTICS OF THE SENDER OF THE LIBER OF THE STATISTICS OF THE STATIST	(ә	Flare tool	tool
The tribute was breath if the safe is a change of the	(J	Protru	Protrusion control copper pipe gauge
• In charqing refrigerant, always take if out from a cylinder in the liquid phase.	(g	Vacuu	) Vacuum pump adapter
Check connectable indoor unit models in a catalog, etc. (A wrong indoor unit, if connected into the system, will impair proper system operation)	٦	Gas le	h) Gas leak detector

Dedicated R410A tools

a) Gauge m

# . HAULAGE AND INSTALLATION (Take particular care in carrying in or moving the unit, and always perform such an operation with two or more persons.) **ACAUTION** When a unit is hoisted with slings for haulage, take into consideration the offset of its gravity center position.

Wooden pallet-



Deliver the unit as close as possible to the installation site before removing it from the packaging.
 When some compelling reason necessitates the unpacking of the unit before it is carried in, use nylon slings or protective wood pieces so as not to damage the unit by ropes lifting it.

If not properly balanced, the unit can be thrown off-balance and fall.

1) Delivery

• The right hand side of the unit as viewed from the front (diffuser side) is heavier. A person carrying the right hand side must take head of this fact. A person carrying the left hand side must hold with his right hand the handle provided on the front panel of the unit and with his left hand the concre rolumn section.

Notabilia as a unit designed for R410A

# Selection of installation location for the outdoor unit

Walls surrounding the unit in the four sides are not acceptable.
 There into the a 1-inefer or larges space in the above.
 Where a dampe of short-criticity and exists, install guide lowers.
 When more than one unit are installed, provide a Mifcient intake gaace consciously so that short-circuiting may not occur.
 Where pinns snow can buy the auchdor unit, provide proper snow gards.
 A barrier wall placed in front of the exhaust diffuser must not be higher than the unit.

5) Installation space

Outlet ( service )

(mm)

I II III
Open Open 500
300 5 Open
150 300 150

- De sure to select a suitable installation place in consideration of following conditions.

  On place where it is historial, stable and no reduce he mut weight and into allow withation transmittance of the unit.

  On place where it can be not impossibly of bothering heliphous due to mose or extraus air from the unit.

  On place where the rule is not represently of bothering heliphous due to mose or extraus air from the unit.

  On place where the facility and in a dispension of places.

  On place where the rule is a dispension without any forbile see.

  On place where the rule is being and in the dispension without any forbile see.

  On place where the rule is being any and in more from ITV as and/or and nowners pension any radio or ITV interference.

  On place where the rule in the language without any service space and be secured for maintenance and service of the rull safely.

  On place where the rule in the language without any service space and be secured for maintenance and service of the rull safely.

  On place where the rule in the language without any service space and be shall including armonial, when can harm the unit, will not be agreed and on tenamin.

  On the resting wind will not be agreed by graphic secured for maintenance and service or harm the contribution of the rull in the beginning any service or the rule of

# 4) Caution about selection of installation location

(1) If the unit is installed in the area where the snow will accumulate, following measures are required. The bottom plate of unit and intake, cutlet may be blocked by snow.

1.Install the unit on the base so that the bottom is higher than snow cover surface.

2. Provide a snow hood to the outdoor unit on site. Regarding outline of a snow hood, refer to our technical manual.

3.Install the unit under eaves or providen the roof on site.

Since drain water generated by defrest control may freeze, following measures are required.

• Don't excete drain plaing work by using a care frow a forward my gommers (option parts). (Refer to Drain plaing work.)

• Boon't excete drain plaing work by using a care frow a forward my gommers (option parts). (Refer to Drain plaing work.)

• Personment setting beforest Control (SNA-3.) and Snow duran't Fan Control (SNA-2.); (Refer to Setting SNR-3.), SNR-2.) De Albach heater on a beseghele on sigh. If there is possibility to freeze drain water.
In case that the product has a corrective drainage system, the drainage paths should have suitable measure against freezing but be sue mot to melt the material of drainage paths with leat.

Notabilia for installation

① Anchor bolt fixed position

6) Installation

Intake

Outet t

(2) If the unit can be affected by strong wind, following measures are required.
Strong wind can cause damage of far flar motion, or can cause performance degradation, or can trigger anomalious stop of the unit due to rising off thip pressor far far flar motion, or can cause performance degradation, or the installed on out to the outlet are how side of the can can be considered to the can be considered to the can be considered to the can be considered to the can be considered to the countries of the countries o 3.The unit should be installed on the stable and level foundation. If the foundation is not level, tie down the unit with wires.



## 7) To run the unit for a cooling operation, when the outdoor temperature is —5°C or lower. • When the outdoor air temperature is -5°C or lower, provide a snow hood to the outdoor unit on site. So that storoig wind will not how against the outdoor heat exchanger directly. Regarding outline of a snow hood, refer to our bechnical manual. — The reprogram of an anchor both of the front side must be keart within 15 mm. — Securely install the unit so that it does not fall over during earthquekes or strong winds, etc. — Refer to the first listed shows for information regarding contracte foundations. — Reset to the first listed shows for within a gradient of 5 mm or less.) — install from or an east in such in a compressor siture, to been poing within the unit and abnormal noise generation, improper missilation can ensure in a compressor siture, to been poing within the unit and abnormal noise generation. Use a long block to extend the In installing the unit, fix the unit's legs with bolts specified on the left. < Single type > 500

# 2. REFRIGERANT PIPING WORK

# 1) Restrictions on unit installation and use

Check the following points in light of the indoor unit specifications and the installation site.

<ul> <li>Observe the following restr</li> </ul>	ictions on u	nit installation and use	. Improper insta	llation can re	sult in a co	<ul> <li>Observe the following restrictions on unit installation and use. Improper installation can result in a compressor failure or performance degradation.</li> </ul>	dation.
						Marks appearing in the drawing	
		One-way pipe length difference from the first branching point to the indoor unit	from the first branching po	ant to the indoor un	#	< 3m	₹
Descriptions	Mod	Model for outdoor units	Dimensional limitations	Single type	Twin type	Triple type A	Triple type B
	100M, 125W,	100AN,125VN,100VS,125VS	1			1	1
One-way pipe length of	14 OW, 140 VS		mnc /l			L+L1+L2+L3	L+La+L1+L2+L3
refrigerant piping	100MW,125VP	100MIX,125VIX,100VSX,125VSX		_	1+11+12	1	1
	140MX,140VSX	XS	E N			L+U1+L2+U3	L+La+L1+L2+L3
	100M, 125W,	100AN,125VN,100VS,125VS	1			1	
	14 OW, 140 VS		Enc /I			1	_
Main pipe length	100MW,125VP	100MIX,125VIX,100VSX,125VSX	100		_	1	1
	140MX,140VSX	SX	mor /I			1	_
One-way pipe length between the first branching point from to the second branching point	Triple type	140VN,140VS, 140VNX,140VSX	Ę, VI	ı	ı	1	La
	Twin type	All Models			11, 12	1	1
One-way pipe length after the first branching point	Triple type	140VN,140VS, 140VNX,140VSX	IN 30m	ı	1	11,12,13	E1 (3)
One-way pipe length after the first branching point and second branching point	Triple type	14 O/W, 14 O/S 14 O/WO, 14 O/SX	≥ 27m	ı	ı	1	La+L2, La+L3(1)
One-way nine length difference	Twin type	All Models	MD 10m		11-12	1	
from the first branching point to		140VN,140VS,	IIV 3M	1		111-121, 12-131, 13-11	_
the indoor unit	Triple type	140VNX;140VSX	M 10m		ı	_	11—(La+L2), L1—(La+L2
One-way pipe length difference from the second branching point to the indoor unit	Triple type	140W,140VS, 140WX,140VSX	≥ 10m	1	-	I	ध-य
Bevation difference between	When the outd	When the outdoor unit is positioned higher,	™ 30m		-		2
indoor and outdoor units	When the outd	When the outdoor unit is positioned lower,	15m	-	Ε	E	E
Bevation difference between indoor units			≥ 0.5m	1	£	M.h2.h3	M1, h2, h3

◆ The use restrictions appearing in the table above are applicable to the standard pipe size combinations shown in the table below. Where an existing pipe system is utilized. Inferent one-way pipe length restrictions should apply depending on its pipe size. For more information, see "6. UTILCATION OF PEXSTINAT PIPING."

With the triple pipe connection, the way of use is different when the difference of one-way pipe length after the first branching point is 5m to 10m. For details, refer to the above table and diffiriting.

(The unit of which elevation difference from the outdoor unit is the largest.)

< Triple type A >

Note (1) Install the indoor units so that L+L1 becomes the longest one-way pipe. Keep the pipe length difference between L1 and (La +L2) or (La +L3) within 10m.

## Determination of pipe size

Determine refrigerant pipe size pursuant to the following guidelines based on the indoor unit specifications

Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   Charge   C								
Oddox not concled			Gas pipe	Liquid pipe	Gas pipe	Liquid pipe	Gas pipe	Liquid pipe
Makes and controlled   Physics   Physics   Physics   Physics			φ15.88	φ 9.25	φ15.88	φ 9.25	φ 15.88	φ825
Pedigener propy learn report   \$0.51.20   \$0.51.50   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20   \$0.52.20	Outde	oor unit connected	Rare	Flare	Flare	Flare	Rare	Rare
Indexer recovered   6'158   6'92   6'152   6'158     Control of one of the control of	Refrigeran	nt piping (Main pipe L)	Ø15.88	φ 9.25	φ15.88	φ 9.52	φ 15.88	φ8:25
Capacity of entirece vert   Modes 100V   Modes 120V		Indoor unit connected	ф 15.88	Z5'6φ	φ15.88	φ 9.25	φ 15.88	φ8:25
	in the case of a single type	Capacity of indoor unit	Mode	100V	Model	125V	Model	Model 140V
Independent place of place 1,1,2,3   0,1,2,7   0,6,1,2,2   0,6,1,2,2     Independent place of place 1,1,2,3   0,1,2,7   0,6,1,2,2     Independent place of		Branching pipe set	N-SIG	1/0/1	-SIG	WAI	-SIO	DIS-WA1
Procure recovered   0-12.7   0-6.35   0-6.35   0-6.35     Company of microscored   0-12.7   0-6.35   0-6.35     Exercising control correction   0-12.7   0-6.35   0-6.35     Exercising control correction   0-12.7   0-12.7     Exercising correction   0-12.7   0-12.7     Exercising correction   0-12.7   0-12.7     Exercising correction   0-12.7   0-12.7     Exercising correction   0-12.7   0-12.7     Exercising correction   0-12.7   0-12.7     Exercising correction   0-12.7   0-12.7     Exercising correction   0-12.7   0-12.7     Exercising correction   0-12.7   0-12.7     Exercising correction   0-12.7   0-12.7     Exercising correction   0-12.7   0-12.7     Exercising correction   0-12.7   0-12.7     Exercising correction   0-12.7   0-12.7     Exercising correction   0-12.7   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercising correction   0-12.7     Exercisi		Refrigerant piping (branch pipe L1, L2)	Ø12.7	φ 9.25	φ12.7	φ 9.25	φ 15.88	ф 9.52
Copposity of introver with   Macka 900x2   Macka 600x2	in the case of a twin type	Indoor unit connected	Ø12.7	9 e.35	Ø 12.7	φe32	φ 15.88	φ <sub>9.52</sub>
Reacting goes and the transition of the transiti		Capa dty of indoor unit	Model	50V×2	Model 6	0V×2	Model 71V×2	1V×2
Hedrogens (proposed pean of page 1, 1, 1, 2, 1)  Hedrogens (proposed pean of page 1, 1, 2, 2, 1)  Hedrogens (proposed pean of page 1, 1, 1, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2		Branching pipe set					DIS-TA1	TA1
Indicor and contested Capacity of instruction Capacity of instruction Exercises of instruction o		Refrigerant piping (branch pipe L1,L2,L3)					φ12.7	φ 9.25
Capacity of intox unit  Burdown place in the many land in	n the case of a triple type A	Indoor unit connected					φ12.7	\$6.35
Restarching per est est est est est est est est est est		Capacity of indoor unit					Model 50V/3	OWS
Refrigeration (pose man pipe Li) Refrigeration (pose man pipe Li) Refrigeration (pose man pipe Li) Refrigeration (pose man pipe Li) Refrigeration (pose pipe man pipe Li) Refrigeration (pose pipe man pipe Li) Refrigeration (pose pipe man pipe Li) Refrigeration (pose pipe man pipe Li)		Branching pipe set					DIS-WAT	VAI
Refrigeration (part of part of		Refrigerant pip ing (branch pipe La)						\$9.52
Benoming goe set (After tranship lou La) Reference propriet LLL3 Indexor and content prote LLL3 Indexor and content prote LLL3		Refrigerant piping (branch pipe L1)					φ12.7	\$9.52
	in the case of a triple type B	Branching pipe set (After branch pipe La)		1	1		DIS-WA1	MA.1
		Refrigerant piping (branch pipe L2, L3)					φ12.7	φ 9.25
Caga dity of indoor unit		Indoor unit connected					φ12.7	\$6.35
		Capacity of indoor unit					Model	Model 50V×3

< Triple type B >

Plug the end of the pipe with tape, or other material, and fill the pipe with nitrogen gas. When the 50V or 60V model is connected as an indoor unit, always use a 49.95 liquid pipe for the branch (branching pipe – indoor unit) and a different danneter joint supilied with the branching pipe set for connection with the indoor unit (46.55 on the liquid pipe site).
 If a 46.35 pipe is used for connection with a branching pipe, a refrigerant distribution disorder may occur, causing one of the indoor units to fall short of the rate (capacity. A riser pice must be a part of the main. A branching pice set should be installed brotzontally at a point as close to an indoor unit as possible.
 A branching part must be dressed with a heat-insulation material supplied as an accessory.
 For the dealis of installation work required at and mean branching area, see the installation manual supplied with your branching pipe set. Brazing Only use nitrogen gas (Nz) Taping Nitrogen

## Secondary side 0.5MPa Relief valve Primary side Station valve

 Select pipes having a wall thickness larger than the specified minimum pipe thickness. NOTE

In the case of a rigid (clutch) type With an R410A tool | With a conventions pper pipe protrusion for flaring: 8 (mm)
"Opper In the case of a rigid (clutr
e outer With an R410A tool | With a con For side right connection 
 9.52
 12.7
 15.88
 22.22
 25.4

 0.8
 0.8
 1.0
 1.0
 1.0

 O-type pipe
 O-type pipe
 1.2H-type pipe
 1.2H-type pipe
 For front connection \*Phosphorus deoxidized seamless copper pipe C1220T, JIS H 3300

В					Н	
Copper pipe p	Copper pipe outer diameter	φ6.35	φ9.52	φ12.7	φ15.88	
-					0	_
end: A (mm)	A 0.4	9.1	13.2	16.6	19.7	
Flared pipe end: A (mm)	Copper pipe outer	φ6.35	φ9.52	φ12.7	φ 15.88	
		=			=	-

0.7-1.3

0-0.5

Do not hold the valve cap area with a spanner. Tightening angle

Use a torque wrench. If a torque wrench is not available, fasten the flare nut manually first and then tighten it further, using the left table as a guide.

250 300 30-45 30-45 15-20 
 Service valve size
 Tightening torque
 Tig

 (N-m)
 (N-m)
 (N-m)

 \triangle 6.35 (1/4")
 14-18

 \triangle 9.52 (3)8")
 34-42

## About brazing

**△CAUTION** 

Brazing must be performed under a nitrogen gas flow.

Without nitrogen gas, a large quantity of foreign matters (oxidized film) are created, causing a critical failure from capillary tube or expansion valve clogging.

# Refrigerant pipe wall thickness and material

Select refrigerant pipes of the table shown on the right wall thickness and material as specified for each pipe size.
 This unit see R410A. Always use 1/2H pipes having a 1,0mm or thicker wall for \(\phi\)1,005
 Triage pipes, Decause 0-1/pe pipes do not meet the pressure resistence requirement.

Pipe diameter [mm] 6.35
Minimum pipe wall thickness [mm] 0.8
Pipe material\* 0-type pipe

## On-site piping work

AIMPORTANT

• Take care so that installed pipes may not bouch components within a unit. If touching with an internal component, it will generate abnormal sounds and/or vibrations.

How to remove the service panel arrow mark and then remove it by pulling it toward you.

• The pipe can be laid in any of the following directions: side right, front, rear and downward.

• Remove a knock-out plage provided on the pipe pentetrion to open a minimum necessary area and attach an edging material supplied as an accessory by cutting it is an appropriate length before laying an pipe.

• Carry out the no site points work with the service valve fully obsect.

• Give sufficient portection a pipe end (compressed and bazed, or with an adhesive tape) so that water or foreign matters may not enter the pip influencion to a pipe end (compressed and bazed, or with an adhesive tape) so that water or foreign matters may not enter the pip influencion to a pipe and compressed and bazed, or with an adhesive tape) so that water or foreign matters may not enter the bar a pipe a large as purposed and bazed, or with an adhesive tape) so that water or foreign matters may not enter the bar a pipe alone repeatedly to correct its form.

• Flare connection is used between the unit and refrigerant pipe. Flare a pipe after engaging a flare run on it. Flare dimensions for R410A, are different from those for conventional R407C. All hough we recommend the use of flaring bods designed specifically for R410A, are different from those for can also be used by adjusting the measurement of protusion B with a protusion control or protuction.

gauge.

The pipe should be anchored every 1.5m or less to isolate the vibration. Tighten a flare joint securely with a double spanner. Do not apply force beyond proper fastening torque in tightening Fix both liquid and gas service valves at the valve main bodies as illustrated on the right, and then fasten them, applying appropriate fastening torque. the flare nut. CAUTION

-168 -

## 5) Air tightness test

① Although outdoor and indoor units themselves have been tested for air tightness at the factory, check the connecting pipes after the installation work for air tightness from the service valve's check joint equipped on the outdoor unit side. While conducting a test, keep the service valve shut all the time.
a) Raise the pressure to 5. MPa, and then stop, Lave if for five minutes to see if the pressure drops.
b) Then raise the pressure to 1.5 MPa, and stop, Lazenet from five more minutes to see if the pressure drops.
c) Then raise the pressure to the specified level (4.15 MPa), and record the ambient temperature and the pressure.

d) if no pressure drop is observed with an installation pressurized to the specified level and left for about one day, it is acceptable. When the ambient Temperature fall 1°C, the pressure also fall approximately 0.01 MPa. The pressure, if changed, should be compensated for.
e) if a pressure drop is observed in checking e) and a) – d), a leak exists somewhere. Find a leak by applying bubble test liquid to welded parts and flare joints and repair it. After repair, conduct an air-tightness test again.

980[3

# D in conducting an air-lightness test, use nitrogen gas and pressurize the system with nitrogen gas from the gas side. Do not use a medium other than nitrogen gas under any circumstances 6) Evacuation

Work flow > When the system has remaining moisture inside or a leaky point, the vacuum gauge Check the system for a leaky point and then draw air to create a vacuum again. indicator will rise.

(1) Calculate a required refrigerant charge volume from the following table

7) Additional refrigerant charge

Pipe length for standard refrigerant charge volume (m)

Item Standard refrigerant charge volume (kg)

<Single type>

2.0 2.7

100VNX-140VNX 100VSX-140VSX 100VN-140VN 100VS-140VS Capacity

shows Run the vacuum pump for at least one hour after the vacuum gauge -101kPa or lower. (-755mmHg or lower)

Vacuuming completed Confirm that the vacuum gauge indicator does not rise even if the system is left for one hour or more.

Airtighteness test completed

OTo prevent a different oil from entering, assign dedicated tools, etc. to each refrigerant type. Under no circumstances must a gauge manifold and a change hose in particular be shared with other refrigerant types (R2Z, R407C, etc.). Use a counterflow prevention adapter to prevent vacuum pump oil from entering the refrigerant system. Pay attention to the following points in addition to the above for the R410A and compatible machines.

Vacuum gauge check Vacuuming begins Fill refrigerant <Twin, triple type>

Additional charge volume (kg) per meter of refrigerant piping (liquid pipe) Branch pipe 90.0 Main pipe Pipe length for standard refrigerant charge volume (m) 0 Standard refrigerant charge volume (kg) 2.0 2.7 100VS-140VS 100VNX-140VNX Item 100VSX-140VSX 100VN-140VN Capacity

Installation's pipe length (m) covered without additional refrigerant charge

Refrigerant volume charged for shipment at the factory (kg)

30

4.5 3.8

30

Installation's pipe length (m) covered without additional refrigerant charge 4.5

Additional charge volume (kg) Refrigerant volume per meter of refrigerant piping charged for shipment (liquid pipe) 90.0

 A standard refrigerant charge volume means a refrigerant charge volume for an installation with 0m long refrigerant piping.
 This unit contains factory charged refrigerant covering 30m of refrigerant piping and additional verticerant charge on the installation site is not required for an installation with up to 30m refrigerant piping acceeds 30m, additionally exceeds 30m, additionally exage an amount calculated from the pipe length and the above table for the portion in excess of 30m.
 When refrigerant piping is shorter than 3m, reduce refrigerant by 1kg from the factory charged volume and adjust to 2.8kg or 3.5kg.
 If an existing pipe system is used, a required refrigerant charge volume will vary depending on the liquid pipe size. For further information, see "6. UTILIZATION OF EXISTING PIPING." Formula to calculate the volume of additional refrigerant required

\*When an additional charge volume calculation result is negative, it is not necessary to charge refrigerant additionally. Additional charge volume (kg) = { Main pipe length (m) – Length covered without additional charge 30 (m) \$ x 0.06 (kg/m) + Total length of branch pipes (m) x 0.06 (kg/m)

● To charge refrigerant again, recover refrigerant from the system first and then charge the volume calculated from the above table (Standard refrigerant charge volume + additional charge volume for total pipe length.)

(2) Charging refrigerant

● Since R410A refrigerant must be charged in the liquid phase, you should charge it, keeping the container cylinder upside down or using a refrigerant cylinder equipped with a siphon tube.

● Charge refrigerant must be charged in the liquid phase, you should charge refrigerant from the liquid and gas sides and charge refrigerant from the liquid phase all the time. When you find it difficult to charge are equived amount, fully open the outdoor unit valves on both liquid and gas sides and charge refrigerant may be descharged from the cylinder in the liquid phase all the time. When the cylinder valve is throttled down or a dedicated conversion too to change liquid-phase refrigerant into mist is used to protect the compressor, however, adjust charge conditions so that refrigerant will gasify upon entering the unit.

■ In the standard part of the charge volume by using a scale to measure the charge volume.

When refrigerant is charged with the unit being unit complete a charge operation within 30 minutes. Running the unit with an insufficient quantity of refrigerant for a long time can cause a compressor failure.

Put down the refrigerant volume calculated from the pipe length onto the caution label attached on the back side of the service panel.

8) Heating and condensation prevention

(2) Use a heat insulating material that can withstand 120°C or a higher temperature. Poor heat insulating capacity can cause heat insulation problems or cable deterioration (1) Dress refrigerant pipes (both gas and liquid pipes) for heat insulation and prevention of dew condensation.

- All gas pipes must be securely heat insulated in order to prevent damage from dripping water that comes from the condensation formed on them during a cooling operation or personal injury from burns because their surface can reach quite a high temperature due to discharged gas flowing inside during a heating operation. - Improper heat insulation/anti-dew dressing can result in a water leak or dripping causing damage to household effects, etc.

Wrap indoor units' flare joints with heat insulating parts (pipe cover) for heat insulation (both gas and liquid pipes).

Give heat insulation to both gas and liquid side pipes. Bundle a heat insulating material and a pipe tightly together so that no gaps may be left between them and wrap them together with a connecting cable by a dressing tape.

Although it is verified in a test that this air-conditioning unit shows satisfactory performance under JIS condensation test conditions, both gas and liquid pipes need to be dressed with 20 mm or thicker heat insulation materials above the ceiling where relative humidity exceeds 70%.

Exterior tape Gas piping Pipe cover (accessory) sulation Band (accessory) Wires for connecting indoor and outdoor units Liquid piping

## 3. DRAIN PIPING WORK

- Execute drain piping by using a drain elbow and drain grommets supplied separately as option parts, where water drained from the outdoor unit is a problem.
   Water may drip where there is a larger amount of drain water. Seal around the drain elbow and drain grommets with putty or adequate caulking material.

  - •Condensed water may flow out from vicinity of service valve or connected pipes.
    •Where you are likely to have several days of sub-zero temperatures in a row, do not use a drain elbow and drain grommets. (There is a risk of drain water freezing
- inside and blocking the drain.)

  To not use drain elbow and grommet made of plastic for drain piping when base on to use drain elbow and grommet made of plastic drain blastic drain the blaster for outdoor unit is used. Plastic grommet and elbow will be damaged and the heater for outdoor unit is used. burnt in worst case.

 Prepare another drain tray made of metallic material for collecting drain when base heater is used.

the unit on a flat base (supplied separately as an option part) or concrete blocks. Then, please secure space for the drain elbow and the drain hose. When condensed water needs to be led to a drain, etc., install

0



Drain hose (To be procured on the installer's part)

# For details of electrical cabling, refer to the indoor unit installation manual **ELECTRICAL WIRING WORK**

Drain elbow

Grommet

Electrical installation work must be performed by an electrical installation service provider qualified by a power provider of the country. Electrical installation work must be executed according to the technical standards and other regulations applicable to electrical installations in the country.

Do not turn on the power until the electrical work is completeted.
 Do not use a condensive capacitor for power factor improvement under any circumstances. (It dose not improve power factor,

When cables are connected, make sure that all electrical components within the electrical component box are free of loose

together can result in the malfunctioning or a failure of the unit due to electric noises.

Connect a pair bearing a common terminal number with an indoor-outdoor connecting wire.
 In cabling, fasten cables securely with cable clamps so that no external force may work on terminal connections.

Always use a three-core cable for an indoor-outdoor connecting cable. Never use a shield cable.

connector coupling or terminal connection and then attach the cov malfunctioning or a failure of the unit, if water penetrates into the box.)

• Do not lay electronic control cables (remote control and signaling wires) and other cables together outside the unit. Laying them

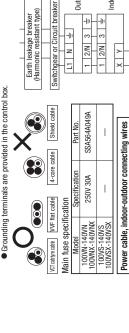
while it can cause an abnormal overheat accident) • For power source cables, use conduits.

cover securely. (Improper cover attachment can result in

- - Do not use any supply cord lighter than one specified in parentheses for each type below.
     braided cord (code designation 60245 IEC 51),
    - ordinary tough rubber sheathed cord (code designation 60245 IEC 53) flat twin tinsel cord (code designation 60227 IEC 41);
- Do not use anything lighter than polychloroprene sheathed flexible cord (code designation 60245 IEC57) for supply cords of parts
  - •Ground the unit. Do not connect the grounding wire to a gas pipe, water pipe, lightning rod or telephone grounding wire. of appliances for outdoor use.
- If impropery grounded, an electric shock or malfunction may result.

  A grounding wire must be connected before connecting the power cable. Provide a grounding wire longer than the power cable.

  The mistallation of an impulse withstanding type acarth leakage foreaker is necessary A failure to install an earth leakage breaker.
  - can result in an acccident such as an electric shock or a fire



Do not connect to the grounding wire from another unit, but install a dedicated wire up to the grounding wire from the distribution board.

Power source, signal line and ground terminal block

Outdoor unit

Switchgear or Circuit breaker Earth leakage breaker (Harmonic resistant type)

L1 | L2 | L3 | N | +

Indoor unit

1 2/N 3 ±

Indoor unit

2/N 3

Outdoor unit

| X | Y | Remote control

| Y | Remote control

Always use an earth leakage circuit breaker designed for inverter circuits to prevent a faulty operation. Always perform grounding system installation work with the power cord unplugged. **△** CAUTION

Model 100VNX - 140VNX 100VSX - 140VSX

As like the refrigerant pipe, it can be let out in any of the following directions: side right, front, rear and downward.

Model 100VN-140VN 100VS-140VS

Of t is attached on the back side of the service panel

Wiring diagram Wiring guide

Outgoing cable direction

\*\*At the connection with the duct type indoor unit.

100VS - 140VS 100VSX - 140VSX Model 100VS 100VNX - 140VNX Model 100VN - 140VN

Power source		Single phase	220-240V 50	220V 60H		
Model	100W1,100VNX	125W	140W	125VNX	140VNX	100VS.100VSX
Grounding wire thickness Indoor-outdoor wire thickness × number			φ1.6mm x 3			
Grounding wire thickness			.6mm			
Cable length (m)		52	23		27	
MAX. over current (A)		24	26	,	15	
Power cable thickness(mm²)   MAX. over current (A)   Cable length (m)		5.5			3.5	
Power source	Single phase 3 wire	220-240V 50Hz	220V 60Hz	3 phase 4 wire	380V 60Hz	
Model	100VN-140VN	100WX	125WIX,140VNX	100VS-140VS	100VSX-140VSX	

•The specifications shown in the above table are for units without heaters. For units with heaters, refer to the installation instructions or the construction instructions of the indoor unit.
•Switchgear or Circuit breaker capacity which is calculated from MAX, over current should be chosen along the regulations in each country.
•Differ cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, follow the internal cabling regulations. Adapt it is the regulation in effect in each country.

×number	Model	Power source	Power cable thickness(mm²)	MAX. over current (A)	Cable length (m)	Grounding wire thickness	Power source Power cable thiskness(mm²) MAX, over current (A) Cable length (m) Grounding wire thiskness   Indoor-outdoor wire thiskness × number	
	100/N,100VNX		i.	25	24			
	125W	Cincle phase 3 wire	0.0	27	22			
	140WI	220-240V 50Hz		28	32			
	125VNX	220V 60Hz	8	29	31	cal farm	601.6mm x 3	
	140VNX			30	30			
nothinglion	100VS,100VSX	3 nhase 4 wire		16	26			
iononio.	125VS,125VSX	380-415V 50Hz	3.5	18	23			
	140VS,140VSX	380V 60Hz		19	21			
duit and a								

## 5. TEST RUN

## **△** WARNING

Before conduct a test run, make sure that the service valves are closed.
 Turn on power 6 hours prior to a test run to energize the crank case heater.
 Turn on power 6 hours prior to a test run to energize the crank case heater.
 In case of the first operation after turning on power, even if the unit does not move for 30 minutes, it is not a breakdown.
 Aways give a 3-minute or longer interval before you start the unit again whenever it is stopped.
 Removing the service panel will expose high-voltage live parts and high-temperature parts, which are quite dangerous.
 Take utmost care not to incur an electric shock or burns. Do not leave the unit with the service panel open.

When you operate switches (SW3, SW5) for on-site setting, be careful not to touch a live part.
 A bro cannot check discharge pressure from the liquid desvices whe charge port.
 The 4-way valve (20S) is energical during a heating operation.
 When power source is cut off to reset the unit, give 3 or more minutes before you turn on power again after power is cut off. If this procedure is not observed in turning on power again, "Communication error between outdoor and indoor unit" may occur.

## 1) Test run

(1) A test run can be initiated from an outdoor unit by using SW3-3 and SW3-4 for on-site

SW-3-3 SW-3-4 ON OFF method

## (2) Switching SW3-3 to ON will start the compressor. (3) The unit will start a cooling operation, when SW3-4 is OFF or a heating operation, when SW3-4 is ON. (4) Do not fail to switch SW3-3 to OFF when a test run is completed. 2) Checking the state of the unit in operation

Check joint of the pipe Cooling operation Heating operation Use check joints provided on the piping before and after the four-way valve installed inside the outdoor unit for checking discharge pressure and suction pressure. As indicated in the table shown on the right, pressure detected at each point will vary depending on whether a cooling or heating operation has been selected.

Charge port of the gas service valve Suction pressure (Low pressure)

Discharge pressure (High pressure)

Normal or After the test operation Heating during a test run Cooling during a test run

PF.

## 3) Setting SW3-1, SW3-2, on-site

(1) Defrost control switching (SW3-1) When this switch is turned ON, the unit will run in the defrost mode more frequently. Set this switch to ON, when installed in a region where outdoor temperature falls below zero during the season the unit is run for a heating.

(2) Show guard fan control (SW3-2) -When this switch is turned on, the outdoor unit fan will run for 10 seconds in every 10 minutes, when outdoor temperature falls to 3°C or lower and the compressor is not running. When the unit is used in a very snowy country, set this switch to ON

## Failure diagnosis in a test run

			ъ	
Action		Check power cables for loose contact or disconnection	Check whether the service valves are open.     If an error has been canceled when 3 minutes have elapsed.	since a compressor stop, you can restart the unit by
toom online	ralidie event	Open phase	63H1 actuation or operation with service valves shut (occurs mainly during a heating operation)	Low pressure error or operation with service valves shut
he cycles of 5 seconds) Green LED		Blinking continuously	Blinking continuously	Blinking continuously
Printed circuit board LED (The cycles of 5 seconds)  Red LED Green LED		Blinking once	Blinking once	Blinking once
Error indicated on the	remote control unit	E34	E40	E49

E39 primining other planning continuously (loccurs mainly during a cooling operation) effecting Check Reset from the remote continuously flocurs mainly during a cooling operation)

If an error code other than those listed above is indicated, refer to the wiring diagram of the outdoor unit and the indoor unit.

# 5) The state of the electronic expansion valve.

all olds gillwollo	suates are steady see	the following table measures are steady states of the closured valve.	Apailsion valve.		
	out of some	When the unit comes t	nes to a normal stop	When the unit comes to an abnorma	to an abnormal stop
	when power is mined on	During a cooling operation	During a heating operation	During a cooling operation	During a heating operation
Valve for a cooling operation	Complete shut position	Complete shut position	Full open position	Full open position	Full open position
Valve for a heating operation	Full open position	Full open position	Complete shut position	Full open position	Full open position

# Heed the following on the first operation after turning on the circuit breaker. 6

This outdoor unit may start in the standby mode (waiting for a compressor startup), which can continue up to 30 minutes, to prevent the oil level in the compressor from lowering on the first operation after turning on the circuit breaker. If that is the case, do not suspect a unit failure.

A failure to observe these instructions can result in a compressor breakdown

Items to chec	Items to check before a test run	when you leave the outdoor unit with power supplied to it, be sure to close the panel.	to it,
Item No.used in the installation manual	Item	Check Item	Check
		If brazed, was it brazed under a nitrogen gas flow?	
	Refricerant	Were air-tightness test and vacuum extraction surely performed?	
2	plumbing	Are heat insulation materials installed on both liquid and gas pipes?	
	D	Are service valves surely opened for both liquid and gas systems?	
		Have you recorded the additional refrigerant charge volume and refrigerant pipe length on the panel's label?	
		Is the unit free of cabling errors such as uncompleted connection, an absent or reversed phase?	
		Are properly rated electrical equipments used for circuit breakers and cables?	
		Doesn't cabling cross-connect between units, where more than one unit are installed?	
		Aren't indoor-outdoor signal wires connected to remote control wires?	
4	Electric	Do indoor-outdoor connecting cables connect between the same terminal numbers?	
	wiring	Are either VCT cabtyre cables or WF flat cables used for indoor-outdoor connecting cables?	
		Does grounding satisfy the D type grounding (type III grounding) requirements?	
		Is the unit grounded with a dedicated grounding wire not connected to another unit's grounding wire?	
		Are cables free of loose screws at their connection points?	
		Are cables held down with cable clamps so that no external force works onto terminal connections?	
ı	diam's and bear	ls indoor unit installation work completed?	
	indoor unit	Where a face cover should be attached onto an indoor unit, is the face cover attached to the indoor unit?	

Ď.	Che
Test run procedure	The contents of operation
ın	
Test	Turn

Tīn	The contents of operation	Check
Θ	Open the gas side service valve fully.	
6	Open the liquid side service valve fully.	
(m)	Close the panel.	
4	Where a remote control unit is used for unit setup on the installation site, follow instructions for unit setup on the installation site with a remote control unit.	
(4	SW3-3 ON / SW3-4 OFF; the unit will start a cooling operation.	
9	SW3-3 ON / SW3-4 ON: the unit will start a heating operation.	
0	When the unit starts operation, press the wind direction button provided on the remote control unit to check its operation.	
6	Place your hand before the indoor unit's diffuser to check whether cold (warm) winds come out in a cooling (heating) operation.	
(8)	Make sure that a red LED is not blinking.	
6	When you complete the test run, do not forget to turn SW3-3 to the OFF position.	
(1)	Where options are used, check their operation according to the respective instruction manuals.	



# 6. UTILIZATION OF EXISTING PIPING.

Check whether an existing pipe system is reusable or not by using the following flow chart.	ig the following flow chart.	<table< th=""><th><table of="" pipe="" restrictions="" size=""></table></th><th>&gt;SUI</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></table<>	<table of="" pipe="" restrictions="" size=""></table>	>SUI							
START		©:Stand	⊘:Standard pipe size ⊘:Usable △:Restricted to shorter pipe length limits X:Not usable	limits X:Not	usable						
Are an outdoor unit and an indoor unit connected to the existent in reuse?	NO	Additional	Additional charging amount of refrigerant per 1 m	0.06kg/m	0.08kg/m	Addition	Additional charging amount of refrigerant per 1m 0.02kg/m	0.02kg/m	0.06kg/m	0.08kg/m	m/b:
SHA		i	Liquid pipe	φ9.52 φ9.52	\$12.7 \$12.7		Liquid pipe	φe.35 φ	φ9.52 φ9.52	φ12.7	φ12.7
	8	azis adı.	Gas pipe	\$15.88 \$\phi\$1.05	\$15.88 \$p\$ 9.05	Libe size	Gas pipe	φ15.88 φ1	φ15.88 φ19.05	$\varphi$ 15.88	φ19.05
s our products?	does the existing unit use? Suniso MS Barrel Freeze HAR Free!		Usability	0	△ ×1	-	Usability	◁	0	⊲	\   
VES VES	YES curried, may be considered in the construction of the construc	100VN 100VS	Maximum one-way pipe length	20 20	25 25	100VNX	Maximum one-way pipe length	20 1	100 100	20	20
*,	osu uso		Length covered without additional charge	$\dashv$	$\neg$		-	+	$\dashv$	一	15
Does the existing pipe system to reuse satisfy all of the following?		125VN	Usability	4	a	125VM		+	~	7	- - -
(1) The pipe length is 50m or less. (2) The pipe size conforms to the table of pipe size restrictions.		125VS	Maximum one-way pipe length	20 20	25 25	125VSX	Maximum one-way pipe length	20 1	100 %	20	20
(3) The elevation difference between the indoor and outdoor units	. NO		Length covered without add tong dauge	+	Ŧ	<u> </u>	Length covered while administration	+	+	$^{+}$	2 %
Where the outdoor unit is above: 30m or less Where the outdoor unit is below; 15m or less	**Check with the flow chart developed for a case where	140VN	Maximum one-way pipe length	1		140VNX		+	1_		20
YES	an existing pipe system is reused for a twin-riple-double-twin model published as a	14000	Length covered without additional charge	30 30	15 15	14008	Length covered without additional charge	10	30 30	15	15
Is the unit to install in the existing pipe system a	YES Change the branching pipe to a specified type.	<pipe< th=""><th>system after the branching pipe&gt;</th><th>oching pipe</th><th>Λ</th><th></th><th></th><th></th><th></th><th></th><th></th></pipe<>	system after the branching pipe>	oching pipe	Λ						
: IDPOLIT HAT GOTOD-ON TO THAT	Channe				After 1st	After 1st branch **4	4 After 2nd branch				
* DN	- Carrier	Add	Additional charging amount of refrigerant per 1m	nt ber 1m	0.06kg/m	m/g;	0.06kg/m	_			
Is the existing pipe system to reuse free of corrosion, flaws or dents?	YES Repair the damaged parts.	Pipe size			Ø12.7 Ø15.88	(d) 5.88 (d) 9.05 % 7	#1 Ø12.7   Ø15.88  Ø19.05	T-			
ON	Repair	Model	type 1	Combination of capacity							
Is the existing nine system to reuse free of as leake?	Air tightness is	1000	Twin	50+50	+	+	I	_			
(Check whether refrigerant charge was required frequently for	Check the pipe system for air tightness on the site.	1250	Twin	71+71	) (C	× 0	1 1				
Une system belone)	Air tightness is OK	140V		50+50+50	H		1 (				
	si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si avoirioni si av		Inple B	20+20+20	×	C**5	× 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7			
Are there any branch pipes with no indoor unit connected?		%1 Beca	use of its insufficient pressure res	stance, turn the	dip switch SW	5-1 provide	Because of its insufficient pressure resistance, turn the dip switch SW6-1 provided on the outdoor unit board to the ON position for $\varphi$ 19.05 $\times$ 11.0.	N position f	or φ19.05	× 11.0.	
NO NO	Remove	# LE	e case of a twin-triple-double-twin r.	odel, this also app	lies to the case v	where φ19.0	(In the case of a twin-triple-double-twin model, this also applies to the case where $\phi$ 19.05 $ imes$ 11.0 is used in a pipe system after the first branching point.) Housings you need not turn the discounted SULS 1 to the ON coching 14.79 He times or place housing 19.0 or this or walls are used	ir the first big	ınching point	·	
Are heat insulation materials of the existing pipe system to	Possisting demonstrational possible.	*** Wher	ever, you need not turn ure dip st the main nine length exceeds 40	m. a sinnificant o	anacity drop ma	v he exneri	nowever, you need not tuil tie only switch swizer to tie on bosinon, it lizt pipes of pipes having 1.2 of tilcker wans are used.  3. When the main pipe length exceeds 40m a significant canadry drop may be experienced due to pressure loss in the light pipe system. Her or 227 for	are useu.	o asl mat	12.7 for	
reuse free of peel-offs or deterioration? (Heat insulation is necessary for both gas and liquid pipes)	. E	the l	the liquid main.	m, a organisam o	aparity arop inte	il ne cyheil	ahii aiii iii gool olngoold ol onn nooli	ofe odid out	960	2	
ON 0N	Helpall	%3 Keep	33 Keep the total pipe length, not one-way pipe length, below the specified maximum pipe length. An British and other beauth should be smaller than main aims aims.	pipe length, belo	ow the specified	maximum p	ipe length.				
Aren't there any loose pipe supports?	Repair the damaged parts.	*** *** Pipin	$\%4$ riping size aren planch should be equal of sinaler until main pipe size. $\%5$ Piping size from first branch to indoor unit should be $\varphi$ 9.52 (Liquid) $/\varphi$ 12.7 (Gas).	ar or sinarer uran unit should be ⊄	9.52 (Liquid) /q	p 12.7 (Gas)					
	Some lones nine sumonte	• When r	• When refrigerant piping is shoter than 3m, reduce refrigerant by 1kg from factory charged volume.	, reduce refrigera	int by 1kg from	factory chai	aed volume.				
or auro	se pipe authories	● Any col	■ Any combinations of pipe sizes not listed in the table or marked with X in the table are not usable.	in the table or m	arked with X ir	n the table	re not usable.				
The existing pipe system is reusable.	The existing pipe system is not reusable.	<the< th=""><th><the are="" branching="" existing="" model="" of="" pipes="" reusable.="" types="" units="" which=""></the></th><th>g units of</th><th>which bra</th><th>nching</th><th>oipes are reusable.&gt;</th><th></th><th></th><th></th><th></th></the<>	<the are="" branching="" existing="" model="" of="" pipes="" reusable.="" types="" units="" which=""></the>	g units of	which bra	nching	oipes are reusable.>				
Ι.		PoW (	Models later than Type 8.								
<b>MARNING</b> < Where the existing unit can be run for a cooling operation.>	run for a cooling operation.>	•									
Carry out the following steps with the excising unit (in the	excising unit (in the order of (1), (2), (3) and (4))	i									
(1) Run the unit for 30 minutes for a cooling operation.	poling operation.	Ine br	The branching pipes used with models other than those listed above are pressure resistance. Please use our genuine branching pipes for R410A	models other	r than thos	e listed a	The branching pipes used with models other than those listed above are not reusable because of their insufficient pressure resistance. Please use our genuine branching pipes for R410A.	cause or	meir ins	uTiclent	
(z) Stop the Indoor fan and run the uni (3) Close the liquid side service valve o	Stop the Indoor fan and run the unit for 3 minutes for a cooling operation (returning liquid) Close the liquid side service valve of the outdoor unit and pump down (refriderant recovery)	*	* * * *are numbers representing horsebower.	na horsepower		an alpha	numeric letter.				
(4) Blow with nitrogen gas. * If discolored refrigeration oil			Formula to calculate additional charge volume	nal charge	volume						
wash the pipe system or install a new pipe system.  Por the flare nut do not use the old one but use	wash the pipe system or install a new pipe system.  • For the flare nut do not use the old one, but use the one supplied with the outdoor unit	Addition	nal charge volume (kg) = {N	Tain pipe lend	h (m) – Lenc	ath covere	Additional charge volume (kg) = {Main pipe length (m) - Length covered without additional charge shown in the table (m)	thown in the	ne table (r		
Process a flare to the dimensions specified for R8410A  Turn on-site setting switch SWE-1 to the ON position	Process a flare to the dimensions specified for R410A.  • Turn on-site setting switch SNG-1 to the ON nostlinn. Where the nas nine size is \(\thi \theta \)		Total length o	f branch pipes	Additiona (m) × Additi	i charge vonal char	Additional charge volume per meter of pipe shown in the table ( $kg/m$ ) + fotal length of branch pipes (m) $\times$ Additional charge volume per meter of pipe shown in the table ( $kg/m$ )	wn in the shown in	table (kg/ the table	m) + (kg/m)	
	(Social 4 or pain odid one are social)							-			
<where a="" be="" cannot="" cooling="" existing="" for="" install="" new="" operation="" or="" p="" pipe="" run="" system="" system.<="" the="" unit="" was=""> It was the pipe system or install a new pipe system.</where>	«Where the existing unit cannot be run for a cooling operation.» Assist the pipe system or install a new pipe system. After our phone a breast the pipe cardon control control control control.	% If yo Exal	u obtain a negative figure <i>i</i> <b>uple)</b> When an 140V (single the cuantity of refrine	s a result of c installation) is	alculation, no s installed in	additions a 20m lo should be	If you obtain a negative figure as a result of adclustion, no additional refrigerant needs to be charged. Example) When an 140V (single installation) is installed in a 20m long existing pipe system (liquid φ12.7, gas φ19.05), The numbrity of perficient to Amana additionally should be 20m-15m v 108vm = 14 km.	rged. d φ12.7, 4 kn	gas $\phi$ 19	.05),	
II you choose to wash the pipe system	III, COITIACL OUI UISUIDULOI III UIE AIEA.		and dealing of longs	lain to original	additionally	ninoile ninoile	- III (BYDO:) v (IIIC) - IIIC)	ż			

## 1.10.5 Instructions for branching pipe set (DIS-WA1, WB1, TA1, TB1)

For R410A PSB012D865 A

## **WARNING / CAUTION**

- This set is for R410A refrigerant.
- Select a branching pipe set correctly rated for the combined total capacity of connected indoor units and install it according to this manual. An improperly installed branching pipe set can cause degraded performance or an abnormal unit stop.
- Provide good heat insulation to the pipes by following instructions contained in this manual.
- Improper heat insulation can result in degraded performance or a water leak accident from condensation.
- Please make sure that only parts supplied as accessories or the manufacturer's approved parts are used in installing the unit, because a leak of refrigerant can result in a lack-of-oxygen accident, if it reaches a concentration beyond the tolerable limit.

This manual explains how to use a branching pipe set that is indispensable in connecting pipes for a twin/triple/double-twin configuration installation (system). For the details of piping work, unit installation work and electrical installation work, please refer to the installation manuals and installation guides supplied with your outdoor and indoor units.

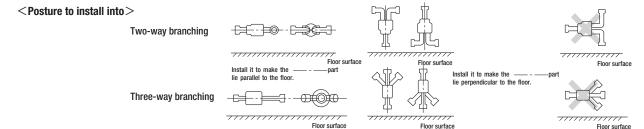
## 1. Branching pipe set specifications

- (1) Please make sure that you have chosen the right branching pipe set and the specifications of the parts contained in it by checking with the table below.
- (2) Connect pipes as illustrated in the table below. The pipe from an outdoor unit must be brazed to the pipe connection port "①" and the pipes from indoor units to "②," "③" and "④."

Branching pipe set type	Supported outdoor/inc	door unit combinations	Part lists			
branching pipe set type	Outdoor unit model	Indoor unit model	Branching pipe set for a liquid pipe	Branching pipe set for a gas pipe	Different diameter pipe joint	Heat insulation material
	3HP	1.5HP+1.5HP	ID9.52	ID15.88	Joint A	
	4HP	2HP+2HP			ID9.52	
DIS-WA1	4111	1.5HP+2.5HP		① ① ②	Flare joint (for indoor unit side connection)	
(Two-way branching set)	5HP	2.5HP+2.5HP	109.52 (3) (1015.99)	(tot indoor drift side conficction)		
		2HP+3HP 3HP+3HP		Joint B 2 pieces		
	6HP	2HP+4HP	1 piece	103.00	0D15.88 D12.7	One each for liquid and gas
		ZIIF T4RF		'		
		4HP+4HP	ID9.52	<u>ID15.88</u>		
	8HP			Inited States	1 15h P	
DIS-WB1		3HP+5HP			Joint C 1 piece   OD12.7   D9,52	The state of the s
(Two-way branching set)			ID12.7 3	] [] [] []		
	10HP	5HP+5HP	/ ID9.52	1 piece 1 piece 1 piece		One each for liquid and gas
			1 piece	i piece		one outsi for inquite and gate
DIS-TA1 (Three-way branching set)	6НР	2HP+2HP+2HP	1D9.52 1D9.52 1 piece	1 piece	Joint A  ID9.52 ☐ 3 pieces Flare joint (for indoor unit side connection)	One each for liquid and gas
DIS-TB1 (Three-way branching set)	8HP	3HP+3HP+3HP	109.52 1 piece	1015.88 1015.88 1025.4 1025.4	ID9.52	One each for liquid and gas

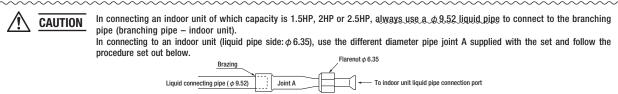
(3) To connect pipes for a Double Twin installation (involving 4 indoor units), please see 2-7. "Double Twin configuration." (4) A branching pipe set must always be installed into the posture as illustrated in the drawing below.

ID stands for inner diameter and OD, outer diameter.



## 2. Pipe connecting procedure

Braze the different diameter pipe joint found in the set matching the connected outdoor and indoor unit capacities according to the instructions set out below.



## 2-1 DIS-WA1

Supported combinations Outdoor unit model Indoor unit model		Liquid branching pipe	Gas branching pipe
Jutdoor unit mode	Indoor unit model		
ЗНР	1.5HP+1.5HP		Joint B
	2HP+2HP	Flare joint (φ6.35)   Joint A	Joint B 3   ID12.7
4HP	1.5HP+2.5HP	Connecting pipe (\$\phi 9.52\$)  ID9.52  ID9.52  ACAUTION Reference  Joint A  Flare joint	Joint B JD12.7 Joint B JD12.7 Joint B JD12.7 JD15.88 JD15.88 JD15.88 JD15.88 JD15.88
2.5HP+2	2.5HP+2.5HP	(φ6.35)	Joint B D15.88 D15.88 D15.88 D15.88 D15.88
5HP	2HP+3HP	Flare joint ( $\phi$ 6.35) Joint A Connecting pipe ( $\phi$ 9.52) $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ CAUTION ID9.52 Reference	Joint B
	ЗНР+ЗНР	ID9.52 ID9.52 ID9.52	ID15.88 (2) (3) (10) (15) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4
6НР	2HP+4HP	Flare joint $(\phi 6.35)$ Connecting pipe $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$ $(\phi 9.52)$	Joint B

## 2-2 DIS-WB1

	ombinations	Liquid branching pipe	Gas branching pipe
Outdoor unit model	Indoor unit model	Liquid branching pipe	das branching pipe
8HP	3HP+5HP	ID9.52	ID15.88
	4HP+4HP	↑① ↓③ Joint C ID9.52	ID15.88
10HP	5HP+5HP	ID9.52 ID12.73————————————————————————————————————	ID15.88 ID25.4 ] (2) ID15.88

## 2-3 DIS-TA1 Applicable to the difference in length of pipes after the branch being less than 3 m \* Connection is not allowed when the difference in length of pipes is larger than 3 m.

Supported of Outdoor unit model	ombinations Indoor unit model	Liquid branching pipe	Gas branching pipe
6НР	2HP+2HP+2HP	Connecting pipe Joint A ( $\phi$ 9.52)  ID9.52 Flare joint ( $\phi$ 6.35)  Joint A CAUTION Reference	1D12.7 ① ② ③ ④ ID15.88 3

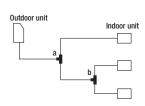
## 2-4 DIS-TB1 Applicable to the difference in length of pipes after the branch being less than 3 m \* Connection is not allowed when the difference in length of pipes is larger than 3 m.

Supported of	ombinations	Liquid branching pipe	Gas branching pipe
Outdoor unit model	Indoor unit model	Liquid branching pipe	uas branching pipe
8НР	3HP+3HP+3HP	ID9.52 3 ID9.52	① ② ③ ④ ID25.43

use the joint supplied with the branch piping set like \*A

## 2-5. Triple type for same model/same capacity or different model/same capacity

When the difference in length of pipe

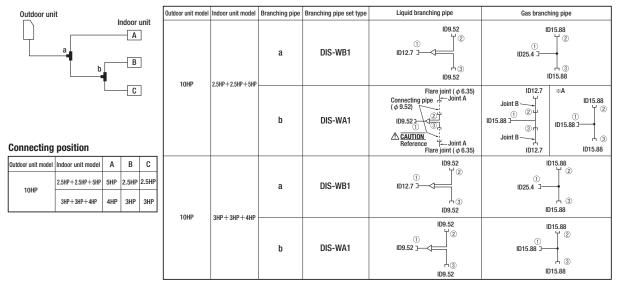


Outdoor unit model	Indoor unit model	Branching pipe	Branching pipe set type	Liquid branching pipe	Gas branching pipe
		a		Flare joint (\$\phi 6.35\$)  Joint A  Connecting pipe  (\$\phi 9.52\$)  ID9.52 \(\begin{array}{c} \phi \\ \phi \\ \\ \end{array}\)  DB.52 \(\begin{array}{c} \phi \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	ID12.7 Joint B ② IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
6НР	2HP+2HP+2HP	b	DIS-WA1	Flare joint $(\phi 6.35)$ — Joint A  Connecting pipe $(\phi 9.52)$ ID9.52 — $\bigcirc$ CAUTION Reference $\downarrow$ Flare joint $(\phi 6.35)$	Joint B  Joint B  Joint B  Joint B
		a	DIS-WB1	ID9.52   D9.52	ID15.88 ID25.4 3 3 ID15.88
8HP	3HP+3HP+3HP	b	DIS-WA1	ID9.52 ID9.52 3	ID15.88 (2) (3) (D15.88

## 2-6. Triple type for same model/different capacity or different model/different capacity

Applicable to the difference in length of pipes after the branch being less than 3 m

\* Connection is not allowed when the difference in length of pipes is larger than 3 m.



Note When connect the indoor unit of an old model that is shown in the model list, use the joint supplied with the branch piping set like \*\* A.

## 2-7. Double Twin type

Pipes should be connected as follows for a Double Twin installation (4 connected indoor units. The capacity of an outdoor unit available for this configuration is either 8HP or 10HP only):

s either 8HP or 10 Outdoor unit capacity	Indoor unit capacity	Branching pipe	Branching pipe set type	Outdoor unit model	Liquid branching pipe	Gas branc	hing pipe
8HP 10HP	8HP 2HP×4 units			8HP	ID9.52 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	ID15.88 ID25.4 ]	
Outdoor unit b Indoor unit		a DIS-WB1	DIS-WB1	10HP	ID9.52  ID9.52  ID9.52  ID9.52		
				8HP	Flare joint (\$\phi\$ 6.35)  Connecting pipe	Joint B  Joint B	ID12.7
		b	DIS-WA1	10HP	D9.52 → Signature   Signatur	#A ID15.88  ID15.88 J 2 3 ID15.88	Joint B 2 Joint B Joint B Joint B Joint B JD12.7

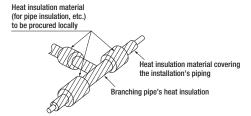
Note When connect the indoor unit of an old model that is shown in the model list, use the joint supplied with the branch piping set like \* A.

## 3. Heat insulation work

(1) Condensation can also occur on liquid pipes with this model. Please provide good heat insulation to both liquid and gas pipes.

(2) For the heat insulation of a branching pipe, always use the heat insulation material supplied with the set and provide heat insulation according to the instructions set out below.

It has an adhesive layer on the entire inner face.
 Remove a separator and wrap it around the branching pipe.



2. Apply a heat insulation material (to be procured locally) to the joint between the branching pipe's heat insulation and the heat insulation material covering the installation's piping as described above and wrap a tape over the gap shown as a hatched (///) area to complete dressing of the piping.

## 1.11 TECHNICAL INFORMATION

## (1) Ceiling suspended type (FDE)

FDE40ZSXVG	71- ( )				
Information to identify the mod	del(s) to which the information	on relates to:	If function includes heating: Indicate	the heating seas	son the
Indoor unit model name	FDE40VG		information relates to. Indicated value	es should relate	to one
Outdoor unit model name	SRC40ZSX-S		heating season at a time. Include at I	east the heating	season 'Average'.
Function/indicate if present)			Average (mendeten)	Vac	
Function(indicate if present)	Yes		Average(mandatory) Warmer(if designated)	Yes No	
cooling heating	Yes		Colder(if designated)	No	
nearing	103		Colder (II designated)	110	
Item	symbol value	unit	Item	symbol	value class
Design load			Seasonal efficiency and energy efficiency	ency class	
cooling	Pdesignc 4.0	kW	cooling	SEER	6.46 A++
heating / Average	Pdesignh 3.0	kW	heating / Average	SCOP/A	3.93 A
heating / Warmer	Pdesignh -	kW	heating / Warmer	SCOP/W	
heating / Colder	Pdesignh -	kW	heating / Colder	SCOP/C	
Daalanad aanaaitu at autdaan			Deals up heating consits at authorit		unit
Declared capacity at outdoor the heating / Average (-10°C)	Pdh 3.0	kW	Back up heating capacity at outdoor the heating / Average (-10°C)	temperature i de elbu	esignn <b>0</b> kW
heating / Warmer (2°C)	Pdh —	kW	heating / Warmer (2°C)	elbu	- kW
heating / Colder (-22°C)	Pdh —	kW	heating / Colder (-22°C)	elbu	- kW
		1			
Declared capacity for cooling,	at indoor temperature 27(19	9)°C and	Declared energy efficiency ratio, at in	door temperatur	re 27(19)°C and
outdoor temperature Tj			outdoor temperature Tj		
Tj=35°C	Pdc <b>4.00</b>		Tj=35°C	EERd	3.92 -
Tj=30°C	Pdc <b>2.95</b>		Tj=30°C	EERd	5.67 -
Tj=25°C	Pdc <b>1.90</b>		Tj=25°C	EERd	8.26 -
Tj=20°C	Pdc <b>1.38</b>	kW	Tj=20°C	EERd	13.14 -
Dodarod consoits for booth	/ Avorago coccer =t := J - · ·		Declared coefficient of the formation of	Avorosa	n at indeer
Declared capacity for heating temperature 20°C and outdoo			Declared coefficient of performance / temperature 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and o		ii, at iiiuoof
Tj=-7°C	Pdh 2.66	kW	Tj=-7°C	COPd	3.09 -
Tj=2°C	Pdh <b>1.61</b>		Ti=2°C	COPd	4.20 -
Tj=7°C	Pdh 1.04		Tj=7°C	COPd	3.92 -
Tj=12°C	Pdh <b>0.77</b>		Tj=12°C	COPd	5.13 -
Tj=bivalent temperature	Pdh <b>3.00</b>		Tj=bivalent temperature	COPd	2.73 -
Tj=operating limit	Pdh <b>2.47</b>		Tj=operating limit	COPd	2.47 -
, ,	•				
Declared capacity for heating			Declared coefficient of performance /		n, at indoor
temperature 20°C and outdoo			temperature 20°C and outdoor temperature		
Tj=2°C	Pdh	kW	Tj=2°C	COPd	
Tj=7°C	Pdh	kW	Tj=7°C	COPd	
Tj=12°C	Pdh —	kW	Tj=12°C	COPd	
Tj=bivalent temperature	Pdh —	kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh -	kW	Tj=operating limit	COPd	
Declared capacity for heating	/ Colder season, at indoor		Declared coefficient of performance /	Colder season	at indoor
temperature 20°C and outdoo			temperature 20°C and outdoor temperature		at illuool
Ti=-7°C	Pdh -	kW	Ti=-7°C	COPd	<u> </u>
Tj=2°C	Pdh —	kW	Tj=2°C	COPd	
Tj=7°C	Pdh —	kW	Ti=7°C	COPd	
Tj=12°C	Pdh —	kW	Tj=12°C	COPd	
Tj=bivalent temperature	Pdh —	kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh —	kW	Tj=operating limit	COPd	
Tj=-15°C	Pdh —	kW	Ti=-15°C	COPd	
Bivalent temperature			Operating limit temperature		
heating / Average	Tbiv -10	°C	heating / Average	Tol	<b>-20</b> °C
heating / Warmer	Tbiv	°C	heating / Warmer	Tol	°C
heating / Colder	Tbiv —	°C	heating / Colder	Tol	− ℃
Oveling internal consists			Cualing internal off days		
Cycling interval capacity for cooling	Pcycc -	kW	Cycling interval efficiency for cooling	EERcyc	
for heating	Pcych —		for heating	COPcyc	<del>-</del> -
ioi noading	i cycli —	Lizaa		OOF Cyc	<u> </u>
Degradation coefficient			Degradation coefficient		
cooling	Cdc <b>0.25</b>	<u>-</u>	heating	Cdh	0.25 -
Electric power input in power			Annual electricity consumption		
off mode	Poff 13	W	cooling	Qce	<b>217</b> kWh/a
standby mode	Psb <b>13</b>	W	heating / Average	Qhe	1,069 kWh/a
thermostat-off mode	Pto 13	W	heating / Warmer	Qhe	- kWh/a
crankcase heater mode	Pck 0	W	heating / colder	Qhe	– kWh/a
Capacity control(indicate one	of three ontions		Other items		
Capacity control(indicate one	or timee obtions)		Sound power level(indoor)	Lwa	<b>60</b> dB(A)
			Sound power level(indoor)	Lwa	63 dB(A)
fixed	No		Global warming potential	GWP	1,975 kgCO <sub>2</sub> ec
IIVEA	NO		41 <u>* '</u>	GWF	
	A.1		Rated air flow(indoor)	-	<b>780</b> m <sup>3</sup> /h
staged	No		11		
	No Yes		Rated air flow(outdoor)	-	<b>2,160</b> m <sup>3</sup> /h
staged variable	Yes				<b>2,160</b> m³/h
staged variable  Contact details for obtaining	Yes  Name and addre		nufacturer or of its authorised represent		<b>2,160</b> m³/h
staged variable	Yes  Name and addre Mitsubishi Heavy Indust	ries Air-Cond	nufacturer or of its authorised represent ditioning Europe, Ltd.		2,160 m³/h
staged variable  Contact details for obtaining	Yes  Name and addre  Mitsubishi Heavy Indust 5 The Square, Stockley	ries Air-Cond	nufacturer or of its authorised represent		2,160  m³/h
staged variable  Contact details for obtaining	Yes  Name and addre Mitsubishi Heavy Indust	ries Air-Cond	nufacturer or of its authorised represent ditioning Europe, Ltd.		2,160  m³/h
staged variable  Contact details for obtaining	Yes  Name and addre  Mitsubishi Heavy Indust 5 The Square, Stockley	ries Air-Cond	nufacturer or of its authorised represent ditioning Europe, Ltd.		2,160  m³/h

Information to identify the model(s) to			If function includes heating: Indicate the h			
Indoor unit model name FDE50VG Outdoor unit model name SRC50ZSX-S		information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.				
Function(indicate if present)			Average(mandatory)	Yes		
cooling	Yes		Warmer(if designated)	No		
heating	Yes		Colder(if designated)	No		
Item Design load	symbol v	/alue unit	Item Seasonal efficiency and energy efficiency	symbol	value	class
cooling	Pdesigno	<b>5.0</b> kW	cooling	SEER	6.10	A++
heating / Average	Pdesignh	3.8 kW	heating / Average	SCOP/A	3.92	Α
heating / Warmer	Pdesignh	– kW	heating / Warmer	SCOP/W		_
heating / Colder	Pdesignh	– kW	heating / Colder	SCOP/C	_	
Declared capacity at outdoor tempera	turo Tdocianh		Pack up hosting capacity at outdoor tom	oraturo Td	ocianh	unit
heating / Average (-10°C)	Pdh	3.8 kW	Back up heating capacity at outdoor temp heating / Average (-10°C)	elbu	0	kW
heating / Warmer (2°C)	Pdh	- kW	heating / Warmer (2°C)	elbu		kW
heating / Colder (-22°C)	Pdh	- kW	heating / Colder (-22°C)	elbu	_	kW
	•	•			•	
Declared capacity for cooling, at indoo	or temperature	e 27(19)℃ and	Declared energy efficiency ratio, at indoor	temperatu	re 27(19)℃	c and
outdoor temperature Tj Tj=35°C	Pdc	<b>5.00</b> kW	outdoor temperature Tj Tj=35°C	EERd	3.29	7_
Tj=30°C	Pdc	3.69 kW	Tj=30°C	EERd	5.12	+[
Tj=25°C	Pdc	2.37 kW	Tj=25℃	EERd	7.18	1_
Tj=20°C	Pdc	1.38 kW	Tj=20°C	EERd	13.14	1-
	•	•			•	•
Declared capacity for heating / Average		indoor	Declared coefficient of performance / Ave		n, at indoo	r
temperature 20°C and outdoor temper Tj=-7°C	rature Tj Pdh - F	3.36 kW	temperature 20°C and outdoor temperatu	re Tj COPd	2.97	7_
Ti=2°C	Pdh	2.04 kW	Tj=2°C	COPd	4.32	-[
Tj=7°C	Pdh	1.31 kW	Ti=7°C	COPd	3.72	1
Ti=12°C	Pdh	0.77 kW	Tj=12°C	COPd	5.13	┪_
Tj=bivalent temperature	Pdh	3.80 kW	Tj=bivalent temperature	COPd	2.53	<b>1</b> -
Tj=operating limit	Pdh	3.15 kW	Tj=operating limit	COPd	2.22	-
			11			
Declared capacity for heating / Warme		ndoor	Declared coefficient of performance / Wa		n, at indoor	r
temperature 20°C and outdoor temper Tj=2°C	Pdh [	– kW	temperature 20°C and outdoor temperatu	COPd	_	٦_
Tj=2°C	Pdh	- kW	Tj=7°C	COPd	_	+[
Ti=12°C	Pdh	- kW	Tj=12°C	COPd	_	┪_
Tj=bivalent temperature	Pdh	– kW	Tj=bivalent temperature	COPd	_	1-
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd	_	1-
Declared capacity for heating / Colder	season, at in	door	Declared coefficient of performance / Colo	der season	, at indoor	
temperature 20°C and outdoor temper			temperature 20°C and outdoor temperatu			_
Tj=-7°C	Pdh	kW	Tj=-7°C	COPd		<u> </u> -
Tj=2°C	Pdh	– kW	Tj=2°C	COPd	_	
Tj=7°C Tj=12°C	Pdh Pdh	– kW		COPd COPd		
Tj=12 C Tj=bivalent temperature	Pdh	- kW	Tj=12 C Tj=bivalent temperature	COPd	_	+[
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd	_	1_
Tj=-15°C	Pdh	– kW	Tj=-15°C	COPd	_	1-
,			,			1
Bivalent temperature			Operating limit temperature			٦.
heating / Average	Tbiv	<u>-10</u> °C	heating / Average	Tol	-20	°C
heating / Warmer heating / Colder	Tbiv Tbiv	°C	heating / Warmer heating / Colder	Tol Tol		_°C  °C
rieating / Colder	IDIV	_   0	fleating / Colder	101		C
Cycling interval capacity			Cycling interval efficiency			
for cooling	Pcycc	– kW	for cooling	EERcyc		]-
for heating	Pcych	– kW	for heating	COPcyc	_	-
			115			
Degradation coefficient cooling	Cdc	0.25 -	Degradation coefficient heating	Cdh	0.25	7_
Cooling	Cuc	0.23	Heating	Cuii	0.23	<u> </u>
Electric power input in power modes of	ther than 'act	ive mode'	Annual electricity consumption			
off mode	Poff	13 W	cooling	Qce	288	kWh/a
standby mode	Psb	13 W	heating / Average	Qhe	1,358	kWh/a
thermostat-off mode	Pto	13 W	heating / Warmer	Qhe		kWh/a
crankcase heater mode	Pck	0 W	heating / colder	Qhe	_	kWh/a
Capacity control(indicate one of three	ontions)		Other items			
Supporty Sommon(maloute one of three	-puonoj		Sound power level(indoor)	Lwa	60	dB(A)
			Sound power level(outdoor)	Lwa	63	dB(A)
fixed	No		Global warming potential	GWP	1,975	kgCO₂eq.
staged	No		Rated air flow(indoor)	_	780	m <sup>3</sup> /h
variable	Yes		Rated air flow(outdoor)	_	2,400	m <sup>3</sup> /h
	1 .50					
Contact details for obtaining			nufacturer or of its authorised representative	).		
			litioning Europe, Ltd.			
	ie Square, Sto ed Kingdom	ockiey Park, Uxbridi	ge, Middlesex, UB11 1ET,			
Online	ou minguoni					
					PFA00	4Z080 🛦

FDE60ZSXVG				
	del(s) to which the information relates to			
Indoor unit model name	FDE60VG	information relates to. Indicated value		
Outdoor unit model name	SRC60ZSX-S	heating season at a time. Include at I	east the heating se	ason 'Average'.
Function(indicate if present)		Average(mandatory)	Yes	
cooling	Yes	Warmer(if designated)	No	
heating	Yes	Colder(if designated)	No	
	•			
Item	symbol value unit	Item		lue class
Design load	D	Seasonal efficiency and energy effici		0.00
cooling	Pdesignc 5.6 kW Pdesignh 4.3 kW	cooling	SEER SCOP/A	6.72 A++ 4.08 A+
heating / Average heating / Warmer	Pdesignh 4.3 kW Pdesignh - kW	heating / Average heating / Warmer	SCOP/W	4.08 A+ 
heating / Colder	Pdesignh — kW	heating / Warrier	SCOP/W SCOP/C	<del>-   -</del>
Heating / Colder	Fuesigiiii — Kvv	Heating / Colder	300F/0	unit
Declared capacity at outdoor t	emperature Tdesignh	Back up heating capacity at outdoor	temperature Tdesig	
heating / Average (-10°C)	Pdh <b>4.30</b> kW	heating / Average (-10°C)	elbu	<b>0.00</b> kW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu	- kW
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu	- kW
	•		·	
	at indoor temperature 27(19)°C and	Declared energy efficiency ratio, at in	door temperature 2	7(19)°C and
outdoor temperature Tj	- · · · · · · · · · · · · · · · · · · ·	outdoor temperature Tj		
Tj=35°C	Pdc <b>5.60</b> kW	Tj=35°C	EERd	3.20 -
Tj=30°C	Pdc <b>4.13</b> kW	Tj=30°C	EERd	5.74 -
Tj=25°C	Pdc <b>2.65</b> kW	Tj=25°C	EERd	8.55 -
Tj=20°C	Pdc 1.55 kW	Tj=20°C	EERd	13.48  -
Dodgrod consoits for house	/ Average seesen at inde	Declared coefficient of newforms	Avorage section	t indocr
Declared capacity for heating temperature 20°C and outdoor		Declared coefficient of performance / temperature 20°C and outdoor temperature		it iTidOOF
Ti=-7°C	Pdh 3.81 kW	Tj=-7°C	COPd	3.00 -
Ti=2°C	Pdh <b>2.31</b> kW	Ti=2°C	COPd	4.44 -
Tj=7°C	Pdh <b>1.49</b> kW	Tj=2 0	COPd	4.12
Tj=12°C	Pdh <b>0.81</b> kW	Tj=12°C	COPd	5.06 -
Tj=bivalent temperature	Pdh <b>4.30</b> kW	Tj=bivalent temperature	COPd	2.56 -
Tj=operating limit	Pdh <b>3.64</b> kW	Tj=operating limit	COPd	2.30 -
, ,	-			
Declared capacity for heating		Declared coefficient of performance /		t indoor
temperature 20°C and outdoo		temperature 20°C and outdoor temperature		
Tj=2°C	Pdh <u> </u>	Tj=2°C	COPd	<u> </u>
Tj=7°C	Pdh – kW	Tj=7°C	COPd	
Tj=12°C	Pdh – kW	Tj=12°C	COPd	
Tj=bivalent temperature	Pdh <u>–</u> kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd	-  -
Declared capacity for heating	/ Colder season, at indoor	Declared coefficient of performance	Colder season, at i	indoor
temperature 20°C and outdoor		temperature 20°C and outdoor temperature		iridooi
Tj=-7°C	Pdh - kW	Ti=-7°C	COPd	
Tj=2℃	Pdh – kW	7j=2°C	COPd	
Tj=7°C	Pdh - kW	Tj=7°C	COPd	
	Pdh – kW	Tj=12°C	COPd	
I Ti=12℃		Tj=bivalent temperature	COPd	
Tj=12°C Ti=bivalent temperature	5 "			
Tj=bivalent temperature			COPd	_  -
	Pdh – kW	Tj=operating limit Tj=-15℃	COPd COPd	<del>-</del>
Tj=bivalent temperature Tj=operating limit	Pdh — kW Pdh — kW	Tj=operating limit		
Tj=bivalent temperature Tj=operating limit	Pdh — kW Pdh — kW Pdh — kW	Tj=operating limit	COPd	
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average	COPd Tol	
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer	Tol Tol	°C °C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average	COPd Tol	
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder	Tol Tol	°C °C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency	Tol Tol Tol	°C °C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling	Tol Tol Tol	°C °C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency	Tol Tol Tol	°C °C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating	Tol Tol Tol	°C °C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling	Tol Tol Tol	°C °C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating	Tol Tol Tol COPeyc	°C - °C - °C - °C - °C - °C - °C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power in the color of the colo	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption	Tol Tol Tol COPeyc	°C - °C - °C - °C - °C - °C - °C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power i	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling	COPd  Tol Tol Tol COPcyc  Cdh  Qce	°C - °C - °C - °C - °C - °C - °C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average	COPd  Tol Tol Tol COPcyc  COPcyc  Cdh  Qce Qhe	°C - °C - °C - °C - °C - °C - °C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer	COPd  Tol Tol Tol COPcyc  COPcyc  Cdh  Qce Qhe Qhe Qhe	°C °C °C °C °C °C °C °C °C °C °C °C °C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average	COPd  Tol Tol Tol COPcyc  COPcyc  Cdh  Qce Qhe	°C - °C - °C - °C - °C - °C - °C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power i off mode standby mode thermostat-off mode crankcase heater mode	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder	COPd  Tol Tol Tol COPcyc  COPcyc  Cdh  Qce Qhe Qhe Qhe	°C °C °C °C °C °C °C °C °C °C °C °C °C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder	COPd  Tol Tol Tol COPcyc  EERcyc COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe	°C - °C - °C - °C - °C - °C - °
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power i off mode standby mode thermostat-off mode crankcase heater mode	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor)	COPd  Tol Tol Tol COPcyc  COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe Qhe Qhe	°C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor)	COPd  Tol Tol Tol COPcyc  COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe Lwa Lwa Lwa	°C
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the standby)	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential	COPd  Tol Tol Tol COPcyc  COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe Qhe Qhe Qhe Qhe Qh	
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of tixed staged	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor)	COPd  Tol Tol Tol COPcyc  COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe Qhe Qhe Che Copcyc  Copcyc  Copcyc  Copcyc  Copcyc	
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the standby)	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential	COPd  Tol Tol Tol COPcyc  COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe Qhe Qhe Che Copcyc  Copcyc  Copcyc  Copcyc  Copcyc	
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	COPd  Tol Tol Tol Tol  COPcyc  COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe Qhe Che Copcyc  Copcyc  Copcyc  Copcyc  Copcyc	
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable  Contact details for obtaining	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	COPd  Tol Tol Tol Tol  COPcyc  COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe Qhe Che Copcyc  Copcyc  Copcyc  Copcyc  Copcyc	
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  anufacturer or of its authorised represent ditioning Europe, Ltd.	COPd  Tol Tol Tol Tol  COPcyc  COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe Qhe Che Copcyc  Copcyc  Copcyc  Copcyc  Copcyc	
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable  Contact details for obtaining	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  anufacturer or of its authorised represent ditioning Europe, Ltd.	COPd  Tol Tol Tol Tol  COPcyc  COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe Qhe Che Copcyc  Copcyc  Copcyc  Copcyc  Copcyc	
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable  Contact details for obtaining	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  anufacturer or of its authorised represent ditioning Europe, Ltd.	COPd  Tol Tol Tol Tol  COPcyc  COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe Qhe Che Copcyc  Copcyc  Copcyc  Copcyc  Copcyc	
Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable  Contact details for obtaining	Pdh	Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  anufacturer or of its authorised represent ditioning Europe, Ltd.	COPd  Tol Tol Tol Tol  EERcyc COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe Qhe ative.	

FDE71VNXVG			
	del(s) to which the information relates to:	If function includes heating: Indicate t	
Indoor unit model name FDE71VG		information relates to. Indicated value	
Outdoor unit model name	FDC71VNX	heating season at a time. Include at le	east the heating season 'Average'.
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
	•		
Item	symbol value unit	Item	symbol value class
Design load	5. · · · · ·	Seasonal efficiency and energy efficiency	
cooling	Pdesignc 7.1 kW Pdesignh 6.0 kW	cooling	SEER 4.87 B SCOP/A 4.00 A+
heating / Average heating / Warmer	Pdesignh - kW	heating / Average heating / Warmer	SCOP/W
heating / Colder	Pdesignh – kW	heating / Warmer	SCOP/W = = =
Heating / Colder	Fdesigiiii — KVV	rieating / Colder	unit
Declared capacity at outdoor t	emperature Tdesignh	Back up heating capacity at outdoor t	
heating / Average (-10°C)	Pdh 6.0 kW	heating / Average (-10°C)	elbu <b>0</b> kW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu – kW
heating / Colder (-22°C)	Pdh - kW	heating / Colder (-22°C)	elbu – kW
	·		·
	at indoor temperature 27(19)°C and	Declared energy efficiency ratio, at in-	door temperature 27(19)°C and
outdoor temperature Tj	Dda Was IIII	outdoor temperature Tj	EED4 COO
Tj=35°C	Pdc 7.10 kW	Tj=35°C	EERd 3.36 -
Tj=30°C	Pdc 5.23 kW	Tj=30°C	EERd 4.75 -
Tj=25°C	Pdc 3.37 kW	Tj=25°C	EERd 6.95 -
Tj=20°C	Pdc 2.95 kW	Tj=20°C	EERd <b>10.17</b> -
Declared capacity for heating	/ Average season, at indoor	Declared coefficient of performance /	Average season, at indoor
temperature 20°C and outdoor		temperature 20°C and outdoor tempe	
Tj=-7°C	Pdh <b>5.31</b> kW	Tj=-7°C	COPd <b>2.75</b> -
Tj=2°C	Pdh <b>3.23</b> kW	Tj=2°C	COPd 3.89 -
Tj=7°C	Pdh <b>2.08</b> kW	Tj=7°C	COPd <b>5.10</b> -
Tj=12℃	Pdh <b>2.42</b> kW	Tj=12℃	COPd <b>6.24</b> -
Tj=bivalent temperature	Pdh <b>6.00</b> kW	Tj=bivalent temperature	COPd <b>2.53</b> -
Tj=operating limit	Pdh <b>4.30</b> kW	Tj=operating limit	COPd <b>2.10</b> -
Declared capacity for heating		Declared coefficient of performance /	
temperature 20°C and outdoo		temperature 20°C and outdoor tempe	
Tj=2°C	Pdh – kW	Tj=2°C	COPd – -
Tj=7°C	Pdh – kW	Tj=7°C	COPd
Tj=12°C	i dii	Tj=12°C	001 u
Tj=bivalent temperature	Pdh — kW Pdh — kW	Tj=bivalent temperature	COPd – -
Tj=operating limit	Pali   —  KVV	Tj=operating limit	COPa   -  -
Declared capacity for heating	/ Colder season, at indoor	Declared coefficient of performance /	Colder season, at indoor
temperature 20°C and outdoor		temperature 20°C and outdoor tempe	
Tj=-7°C	Pdh – kW	Tj=-7°C	COPd – -
Tj=2°C	Pdh – kW	Tj=2°C	COPd – -
Tj=7°C	Pdh — kW	Tj=7°C	COPd – -
Tj=12°C	Pdh – kW	Tj=12°C	COPd – -
Tj=bivalent temperature	Pdh — kW	Tj=bivalent temperature	COPd – -
Tj=operating limit	Pdh <u> </u>	Tj=operating limit	COPd – -
Tj=-15°C	Pdh	Tj=-15°C	COPd – -
Divolent temperature		Operating limit temperature	
Bivalent temperature	Tbiv <b>-10</b> °C	Operating limit temperature	Tol <b>-20</b> °C
heating / Average heating / Warmer	Tbiv -10 °C	heating / Average heating / Warmer	Tol
heating / Colder	Tbiv — °C	heating / Warrier	Tol – °C
outing / Coluct	1517		101   0
Cycling interval capacity		Cycling interval efficiency	
for cooling	Pcycc - kW	for cooling	EERcyc
for heating	Pcych - kW	for heating	COPcyc
	· ·		
Degradation coefficient	C4-	Degradation coefficient	Calls 0.05
cooling	Cdc <b>0.25</b> -	heating	Cdh <b>0.25</b> -
Electric nower input in newer	modes other than 'active mode'	Annual electricity consumption	
off mode	Poff 18 W	cooling	Qce 511 kWh/a
standby mode	Psb 18 W	heating / Average	Qhe <b>2,102</b> kWh/a
thermostat-off mode	Pto 20 W	heating / Warmer	Qhe
crankcase heater mode	Pck <b>25</b> W	heating / variner	Qhe - kWh/a
	20   11	1	
Capacity control(indicate one	of three options)	Other items	
, ,		Sound power level(indoor)	Lwa <b>60</b> dB(A)
		Sound power level(outdoor)	Lwa <b>66</b> dB(A)
fixed	No	Global warming potential	GWP <b>1,975</b> kgCO <sub>2</sub> eq
staged	No	Rated air flow(indoor)	- <b>1,200</b> m <sup>3</sup> /h
variable	Yes	Rated air flow(indoor)	- 3,600 m <sup>3</sup> /h
variable	163	Trated all How(buttb01)	- 3,000  111 /11
Contact details for obtaining	Name and address of the ma	nufacturer or of its authorised representa	ative.
more information	Mitsubishi Heavy Industries Air-Cond		au. v.
	5 The Square, Stockley Park, Uxbrid		
	United Kingdom	•	
			1 55,000
			PFA004Z080 A

FDE100VNXVG				
	lel(s) to which the information relates to			
Indoor unit model name	FDE100VG	information relates to. Indicated value		
Outdoor unit model name	FDC100VNX	heating season at a time. Include at I	east the heating	season 'Average'.
Function(indicate if present)		Average(mandatory)	Yes	
cooling	Yes	Warmer(if designated)	No	
heating	Yes	Colder(if designated)	No	
Item	symbol value unit	Item	symbol	value class
Design load	D. J	Seasonal efficiency and energy efficiency		
cooling heating / Average	Pdesignc 10.0 kW Pdesignh 11.2 kW	cooling	SEER SCOP/A	5.89 A+ 4.18 A+
heating / Average	Pdesignh 11.2 kW Pdesignh - kW	heating / Average heating / Warmer	SCOP/W	4.10 A+
heating / Colder	Pdesignh – kW	heating / Vvarner	SCOP/W	<del>-   -</del>
rieating / Colder	i designin — Kvv	rieating / Colder	300170	unit
Declared capacity at outdoor t	emperature Tdesignh	Back up heating capacity at outdoor	temperature Tde	
heating / Average (-10°C)	Pdh 11.2 kW	heating / Average (-10°C)	elbu	<b>0</b> kW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu	- kW
heating / Colder (-22°C)	Pdh - kW	heating / Colder (-22°C)	elbu	- kW
	•			•
	at indoor temperature 27(19)°C and	Declared energy efficiency ratio, at in	door temperatui	re 27(19)°C and
outdoor temperature Tj	- · · · · · · · · · · · · · · · · · · ·	outdoor temperature Tj		
Tj=35°C	Pdc 10.0 kW	Tj=35°C	EERd	3.92 -
Tj=30°C	Pdc <b>7.37</b> kW	Tj=30°C	EERd	5.80 -
Tj=25°C	Pdc <b>5.50</b> kW	Tj=25°C	EERd	8.70 -
Tj=20°C	Pdc <b>5.70</b> kW	Tj=20°C	EERd	11.52  -
Doctored conscitutor besting	/ Average copeen of indeer	Declared coefficient of performance	Avorage seess	n at indocr
Declared capacity for heating temperature 20°C and outdoor		Declared coefficient of performance / temperature 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and o		11, at 1110001
Ti=-7°C	Pdh <b>9.91</b> kW	Tj=-7°C	COPd	2.83 -
Tj=2°C	Pdh <b>6.03</b> kW	Ti=2°C	COPd	3.92 -
Tj=7°C	Pdh <b>4.13</b> kW	Tj=7°C	COPd	5.73 -
Tj=12°C	Pdh <b>4.90</b> kW	Tj=12°C	COPd	6.85 -
Tj=bivalent temperature	Pdh <b>11.2</b> kW	Tj=bivalent temperature	COPd	2.59 -
Tj=operating limit	Pdh <b>7.80</b> kW	Tj=operating limit	COPd	2.26 -
, , ,	<u> </u>			
Declared capacity for heating		Declared coefficient of performance /		n, at indoor
temperature 20°C and outdoo		temperature 20°C and outdoor temperature		
Tj=2°C	Pdh – kW	Tj=2°C	COPd	
Tj=7°C	Pdh – kW	Tj=7°C	COPd	
Tj=12°C	Pdh – kW	Tj=12°C	COPd	
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd	_  -
Declared capacity for heating	/ Colder season, at indoor	Declared coefficient of performance /	Colder season	at indoor
temperature 20°C and outdoor		temperature 20°C and outdoor temperature		at illucoi
Tj=-7°C	Pdh – kW	Ti=-7°C	CÓPd	
Tj=2°C	Pdh – kW	Tj=2°C	COPd	
Tj=7°C	Pdh – kW	Tj=7°C	COPd	
Tj=12°C	Pdh – kW	Tj=12°C	COPd	
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd	
Tj=-15℃	Pdh – kW	Tj=-15°C	COPd	
	1 311		001 u	
	1 (41)	1	001 u	
Bivalent temperature		Operating limit temperature		20 100
heating / Average	Tbiv -10 °C	heating / Average	Tol	-20 °C
heating / Average heating / Warmer	Tbiv	heating / Average heating / Warmer	Tol Tol	°c
heating / Average	Tbiv -10 °C	heating / Average	Tol	
heating / Average heating / Warmer heating / Colder	Tbiv	heating / Average heating / Warmer heating / Colder	Tol Tol	°c
heating / Average heating / Warmer	Tbiv	heating / Average heating / Warmer	Tol Tol	°c
heating / Average heating / Warmer heating / Colder Cycling interval capacity	Tbiv -10 °C Tbiv - °C Tbiv - °C	heating / Average heating / Warmer heating / Colder	Tol Tol Tol	°c
heating / Average heating / Warmer heating / Colder Cycling interval capacity for cooling	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling	Tol Tol Tol EERcyc	°c
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient	Tbiv -10 °C Tbiv - °C Tbiv - °C  Peyec - kW Peych - kW	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient	Tol Tol Tol EERcyc COPcyc	- °C - °C
heating / Average heating / Warmer heating / Colder Cycling interval capacity for cooling for heating	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating	Tol Tol Tol EERcyc	°c
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating	Tol Tol Tol EERcyc COPcyc	- °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power in	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption	Tol Tol Tol EERcyc COPcyc	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power i off mode	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling	Tol Tol Tol  EERcyc COPcyc  Cdh	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average	Tol Tol Tol EERcyc COPcyc	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer	Tol Tol Tol COPcyc  Cdh  Qce Qhe Qhe	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average	Tol Tol Tol EERcyc COPcyc	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power i off mode standby mode thermostat-off mode crankcase heater mode	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder	Tol Tol Tol COPcyc  Cdh  Qce Qhe Qhe	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder	Tol Tol Tol COPcyc  Cdh  Qce Qhe Qhe	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power i off mode standby mode thermostat-off mode crankcase heater mode	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder	Tol Tol Tol  EERcyc COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor)	Tol Tol Tol COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Lwa Lwa	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the fixed	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential	Tol Tol Tol EERcyc COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the control	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor)	Tol Tol Tol Tol  EERcyc COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe Che Che Che Che Che Che Che Che Che C	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the fixed	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential	Tol Tol Tol COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Lwa Lwa	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	Tol Tol Tol Tol  EERcyc COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Che CWA CWA CWA CWA CWA CWA CWA CWA CWA CWA	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable  Contact details for obtaining	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	Tol Tol Tol Tol  EERcyc COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Che CWA CWA CWA CWA CWA CWA CWA CWA CWA CWA	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  anufacturer or of its authorised represent ditioning Europe, Ltd.	Tol Tol Tol Tol  EERcyc COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Che CWA CWA CWA CWA CWA CWA CWA CWA CWA CWA	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable  Contact details for obtaining	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  anufacturer or of its authorised represent ditioning Europe, Ltd.	Tol Tol Tol Tol  EERcyc COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Che CWA CWA CWA CWA CWA CWA CWA CWA CWA CWA	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable  Contact details for obtaining	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  anufacturer or of its authorised represent ditioning Europe, Ltd.	Tol Tol Tol Tol  EERcyc COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Che CWA CWA CWA CWA CWA CWA CWA CWA CWA CWA	- °C - °C - °C - °C - °C - °C - °C - °C
heating / Äverage heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable  Contact details for obtaining	Tbiv	heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  anufacturer or of its authorised represent ditioning Europe, Ltd.	Tol Tol Tol Tol  EERcyc COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Che CWA CWA CWA CWA CWA CWA CWA CWA CWA CWA	- °C - °C - °C - °C - °C - °C - °C - °C

FDE100VSXVG			
	lel(s) to which the information relates to		
Indoor unit model name	FDE100VG	information relates to. Indicated value	
Outdoor unit model name	FDC100VSX	heating season at a time. Include at	least the heating season 'Average'.
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
	·		<u> </u>
Item	symbol value unit	Item	symbol value class
Design load	D. J	Seasonal efficiency and energy effici	
cooling heating / Average	Pdesignc 10.0 kW Pdesignh 11.2 kW	cooling	SEER 5.84 A+ SCOP/A 4.17 A+
heating / Average	Pdesignh 11.2 kW Pdesignh - kW	heating / Average heating / Warmer	SCOP/W
heating / Colder	Pdesignh — kW	heating / Colder	SCOP/W = = =
Heating / Colder	rdesignin — KW	rieating / Colder	unit
Declared capacity at outdoor t	emperature Tdesignh	Back up heating capacity at outdoor	
heating / Average (-10°C)	Pdh <b>11.2</b> kW	heating / Average (-10°C)	elbu <b>0</b> kW
heating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu – kW
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu – kW
	·		•
	at indoor temperature 27(19)°C and	Declared energy efficiency ratio, at ir	ndoor temperature 27(19)°C and
outdoor temperature Tj	- · · · · · · · · · · · · · · · · · · ·	outdoor temperature Tj	
Tj=35°C	Pdc 10.0 kW	Tj=35°C	EERd 3.92 -
Tj=30°C	Pdc <b>7.37</b> kW	Tj=30°C	EERd <b>5.80</b> -
Tj=25°C	Pdc <b>5.50</b> kW	Tj=25°C	EERd <b>8.70</b> -
Tj=20°C	Pdc <b>5.70</b> kW	Tj=20°C	EERd 11.52 -
Dodgrod consoits for head in	/ Avorago popper at indees	Declared coefficient of a sufficient	/ Average seeses of indees
Declared capacity for heating temperature 20°C and outdoor		Declared coefficient of performance temperature 20°C and outdoor temperature	
Ti=-7°C	Pdh <b>9.91</b> kW	Ti=-7°C	COPd <b>2.83</b> -
Ti=2°C	Pdh <b>6.03</b> kW	Tj=2°C	COPd 3.92 -
Tj=7°C	Pdh <b>4.13</b> kW	Tj=2°C	COPd 5.73 -
Tj=12°C	Pdh <b>4.90</b> kW	Tj=12°C	COPd 6.85 -
Tj=bivalent temperature	Pdh <b>11.2</b> kW	Tj=bivalent temperature	COPd <b>2.59</b> -
Tj=operating limit	Pdh <b>7.80</b> kW	Tj=operating limit	COPd <b>2.26</b> -
, ,			<u> </u>
Declared capacity for heating		Declared coefficient of performance	
temperature 20°C and outdoo		temperature 20°C and outdoor temperature	
Tj=2°C	Pdh <u> </u>	Tj=2°C	COPd – -
Tj=7°C	Pdh – kW	Tj=7°C	COPd – -
Tj=12°C	Pdh – kW	Tj=12°C	COPd – -
Tj=bivalent temperature	PdhkW	Tj=bivalent temperature	COPd – -
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd – -
Declared capacity for heating	/ Colder season, at indoor	Declared coefficient of performance	/ Colder season at indoor
temperature 20°C and outdoor		temperature 20°C and outdoor temperature	
tomporataro 20 o anta outabo	Pdh - kW	Tj=-7°C	COPd
Ti=-7°C		Tj=2°C	COPd
Tj=-7°C Ti=2°C			
Tj=2℃	Pdh — kW		COPd -
,	Pdh — kW	Tj=7°C Tj=12°C	
Tj=2°C Tj=7°C	Pdh — kW Pdh — kW	Tj=7°C	COPd – -
Tj=2°C Tj=7°C Tj=12°C	Pdh — kW Pdh — kW Pdh — kW	Tj=7°C Tj=12°C	COPd — - COPd — -
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	Pdh         —         kW           Pdh         —         kW           Pdh         —         kW           Pdh         —         kW	Tj=7°C Tj=12°C Tj=bivalent temperature	COPd — - COPd — - COPd — -
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh         —         kW           Pdh         —         kW           Pdh         —         kW           Pdh         —         kW           Pdh         —         kW	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	COPd — - COPd — - COPd — - COPd — -
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh         —         kW           Pdh         —         kW           Pdh         —         kW           Pdh         —         kW           Pdh         —         kW           Pdh         —         kW	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	COPd — - COPd — - COPd — - COPd — - COPd — -
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average	COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - Tol — -20 °C
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer	COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — -
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average	COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - Tol — -20 °C
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder	COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — -
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity	Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Tbiv — cC Tbiv — cC	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency	COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - Tol — °C Tol — °C
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling	COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COP
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity	Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Tbiv — cC Tbiv — cC	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency	COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - Tol — °C Tol — °C
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling	COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COP
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Average heating / Colder  Cycling interval efficiency for cooling for heating	COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COP
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating	COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — -  Tol — °C Tol — °C Tol — °C  Tol — °C
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power in	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption	COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COP
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power i	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling	COPd — COPd — COPd — COPd — COPd — COPd — - COPd — COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPcyc — - COP
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average	COPd — COPd — COPd — COPd — COPd — COPd — - COPd — COPd — -
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer	COPd — COPd — COPd — COPd — COPd — COPd — COPd — COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPD — -
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average	COPd — COPd — COPd — COPd — COPd — COPd — - COPd — COPd — -
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder	COPd — COPd — COPd — COPd — COPd — COPd — COPd — COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPD — -
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder	COPd — COPd — COPd — COPd — COPd — COPd — COPd — COPd — COPd — - COPd — - COPd — - COPd — - COPcyc —
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor)	COPd — COPd — COPd — COPd — COPd — COPd — COPd — COPd — COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPD — - COPD — - COPD — - COPD — COPD — - COPD —
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power i off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor)	COPd — COPd — COPd — COPd — COPd — COPd — COPd — COPd — COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — - COPd — COP
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power i off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Odder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential	COPd —
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power i off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one i	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor)	COPd —
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power i off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Odder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential	COPd —
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	COPd — COPd — COPd — COPd — COPd — COPd — COPd — COPd — °C Tol —
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable  Contact details for obtaining	Pdh	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	COPd — COPd — COPd — COPd — COPd — COPd — COPd — COPd — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol —
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of tixed staged variable	Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — c C Tbiv — °C Tbiv — °C Tbiv — °C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C C Tbiv — C C C Tbiv — C C C Tbiv — C C C Tbiv — C C C Tbiv — C C C Tbiv — C C C C Tbiv — C C C C C C C C C C C C C C C C C C	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Odder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(outdoor) Rated air flow(outdoor)  anufacturer or of its authorised represent ditioning Europe, Ltd.	COPd — COPd — COPd — COPd — COPd — COPd — COPd — COPd — °C Tol —
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable  Contact details for obtaining	Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pcycc — kW Pcycc — kW Pcych — kW Pcych — kW  Cdc 0.25	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Odder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(outdoor) Rated air flow(outdoor)  anufacturer or of its authorised represent ditioning Europe, Ltd.	COPd — COPd — COPd — COPd — COPd — COPd — COPd — COPd — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol —
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of the staged variable  Contact details for obtaining	Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — c C Tbiv — °C Tbiv — °C Tbiv — °C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C Tbiv — C C C Tbiv — C C C Tbiv — C C C Tbiv — C C C Tbiv — C C C Tbiv — C C C Tbiv — C C C C Tbiv — C C C C C C C C C C C C C C C C C C	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Odder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(outdoor) Rated air flow(outdoor)  anufacturer or of its authorised represent ditioning Europe, Ltd.	COPd — COPd — COPd — COPd — COPd — COPd — COPd — COPd — °C Tol —
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of tixed staged variable  Contact details for obtaining	Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pdh — kW Pcycc — kW Pcycc — kW Pcych — kW Pcych — kW  Cdc 0.25	Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Odder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(outdoor) Rated air flow(outdoor)  anufacturer or of its authorised represent ditioning Europe, Ltd.	COPd — COPd — COPd — COPd — COPd — COPd — COPd — COPd — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol — °C Tol —

FDE71VNXPVG			
	l(s) to which the information relates to:	If function includes heating: Indicate t	
Indoor unit model name	FDE40VG (2 units)	information relates to. Indicated value	
Outdoor unit model name	FDC71VNX	heating season at a time. Include at le	east the heating season 'Average'.
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
Itam	aymbal yalua yait	Itam	aymbal yalua alaa
Item Design load	symbol value unit	Item Seasonal efficiency and energy efficiency	symbol value class
cooling	Pdesignc 7.1 kW	cooling	SEER 5.26 A
heating / Average	Pdesignh 6.0 kW	heating / Average	SCOP/A 4.09 A+
heating / Warmer	Pdesignh – kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh – kW	heating / Colder	SCOP/C
D. J. J. J. J. J. J. J. J. J. J. J. J. J.		10-1	unit
Declared capacity at outdoor te heating / Average (-10°C)	mperature I designh Pdh <b>6.0</b> kW	Back up heating capacity at outdoor to heating / Average (-10°C)	emperature I designh elbu <b>0</b> kW
heating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu – kW
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu – kW
,	<del>'</del>		<del> </del>
	t indoor temperature 27(19)°C and	Declared energy efficiency ratio, at inc	door temperature 27(19)°C and
outdoor temperature Tj	B	outdoor temperature Tj	55D L
Tj=35°C Tj=30°C	Pdc <b>7.10</b> kW	Tj=35°C	EERd 3.46 -
Tj=30 C Tj=25°C	Pdc 5.23 kW Pdc 3.37 kW	Tj=30°C Tj=25°C	EERd <b>5.30</b> - <b>7.93</b> -
Tj=20°C	Pdc 3.15 kW	Ti=20°C	EERd <b>11.25</b> -
1, 200	. 45   0.10   1.44	] [ 1] 20 0	
Declared capacity for heating / /	Average season, at indoor	Declared coefficient of performance /	Average season, at indoor
temperature 20°C and outdoor t		temperature 20°C and outdoor tempe	rature Tj
Tj=-7°C	Pdh <b>5.31</b> kW	Tj=-7°C	COPd 2.95 -
Tj=2°C	Pdh 3.23 kW Pdh 2.08 kW	Tj=2°C	COPd 3.94 - COPd 5.20 -
Tj=7°C Tj=12°C	Pdh <b>2.08</b> kW Pdh <b>2.44</b> kW	Tj=7°C Tj=12°C	COPd 5.20 - COPd 6.39 -
Tj=bivalent temperature	Pdh <b>6.00</b> kW	Tj=12 C	COPd <b>2.40</b> -
Ti=operating limit	Pdh 4.38 kW	Tj=operating limit	COPd <b>2.19</b> -
, , ,			
Declared capacity for heating / '		Declared coefficient of performance /	
temperature 20°C and outdoor t		temperature 20°C and outdoor tempe	
Tj=2°C	Pdh – kW	Tj=2°C	COPd — -
Tj=7°C Tj=12°C	Pdh – kW Pdh – kW	Tj=7°C Tj=12°C	COPd – - COPd – -
Tj=bivalent temperature	Pdh – kW	Tj=12 C	COPd
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd -
., -p		.) -h	
Declared capacity for heating /		Declared coefficient of performance /	
temperature 20°C and outdoor t		temperature 20°C and outdoor tempe	
Tj=-7°C	Pdh – kW	Tj=-7°C	COPd – -
Tj=2°C	Pdh – kW	Tj=2°C	COPd
Tj=7°C Tj=12°C	Pdh – kW Pdh – kW	Tj=7°C Tj=12°C	COPd – -
Tj=bivalent temperature	Pdh – kW	Tj=12 C	COPd -
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd -
Tj=-15°C	Pdh – kW	Tj=-15°C	COPd
,			
Bivalent temperature		Operating limit temperature	
heating / Average	Tbiv -10 °C	heating / Average	Tol -20 °C
heating / Warmer heating / Colder	Tbiv — °C Tbiv — °C	heating / Warmer heating / Colder	Tol − °C Tol − °C
ricaling / Coluct	TDIV C	Treating / Coluct	101   -  0
Cycling interval capacity		Cycling interval efficiency	
for cooling	Pcycc – kW	for cooling	EERcyc -
for heating	Pcych - kW	for heating	COPcyc – -
Demodefier of "		[D	
Degradation coefficient cooling	Cdc <b>0.25</b> -	Degradation coefficient	Cdh <b>0.25</b> -
Cooling	Ouc   <b>0.23</b>  -	heating	Guii   0.23  -
Electric power input in power m	odes other than 'active mode'	Annual electricity consumption	
off mode	Poff 18 W	cooling	Qce 473 kWh/a
standby mode	Psb 18 W	heating / Average	Qhe <b>2,054</b> kWh/a
thermostat-off mode	Pto <b>26</b> W	heating / Warmer	Qhe – kWh/a
crankcase heater mode	Pck <b>25</b> W	heating / colder	Qhe – kWh/a
Canacity control/indicate are	three ontions)	Other items	
Capacity control(indicate one of	unee opuons)	Sound power level(indoor)	Lwa <b>60</b> dB(A)
		Sound power level(indoor)	Lwa <b>66</b> dB(A)
fixed	No	Global warming potential	GWP 1,975 kgCO <sub>2</sub> eq
	No		- <b>780</b> m <sup>3</sup> /h
staged		Rated air flow(autdoor)	
variable	Yes	Rated air flow(outdoor)	- <b>3,600</b> m³/h
Contact details for obtaining	Name and address of the ma	nufacturer or of its authorised representa	ative.
more information	Mitsubishi Heavy Industries Air-Cond		
	5 The Square, Stockley Park, Uxbrid		
	United Kingdom		
			PFA004Z080 A

Information to identify the model(s) to					
Indoor unit model name Outdoor unit model name	FDE50VG (2 units) FDC100VNX	information relates to. Indicated values heating season at a time. Include at le			verage'.
Function(indicate if present)		Average(mandatory)	Yes		
cooling	Yes	Warmer(if designated)	No		
heating	Yes	Colder(if designated)	No		
Item	symbol value unit	Item	symbol	value	class
Design load cooling	Pdesignc 10.0 kW	Seasonal efficiency and energy efficiency cooling	SEER	5.53	Α
heating / Average	Pdesignh 10.8 kW	heating / Average	SCOP/A	3.94	Α
heating / Warmer	Pdesignh – kW	heating / Warmer	SCOP/W	_	_
heating / Colder	Pdesignh – kW	heating / Colder	SCOP/C	_	-
Declared capacity at outdoor temper	ature Tdesignh	Back up heating capacity at outdoor te	mnerature Tde	eianh	unit
heating / Average (-10°C)	Pdh 10.8 kW	heating / Average (-10°C)	elbu	0	kW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu	_	kW
heating / Colder (-22°C)	Pdh - kW	heating / Colder (-22°C)	elbu	_	kW
		11-			
Declared capacity for cooling, at indo	oor temperature 27(19)°C and	Declared energy efficiency ratio, at ind	oor temperatur	re 27(19)°C	and
outdoor temperature Tj Tj=35°C	Pdc <b>10.0</b> kW	outdoor temperature Tj Tj=35°C	EERd	3.33	٦.
Ti=30°C	Pdc <b>7.37</b> kW	Tj=30°C	EERd	5.34	1_
Tj=25°C	Pdc <b>5.13</b> kW	Tj=25°C	EERd	8.02	1-
Tj=20°C	Pdc <b>5.34</b> kW	Tj=20°C	EERd	10.47	]-
Declared capacity for heating / Avera temperature 20°C and outdoor temperature 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and 00°C an		Declared coefficient of performance / A		n, at indoo	r
Ti=-7°C	Pdh <b>9.56</b> kW	temperature 20°C and outdoor temper	COPd	2.72	7-
Tj=2°C	Pdh <b>5.81</b> kW	Ti=2°C	COPd	3.75	-
Tj=7°C	Pdh <b>4.06</b> kW	Tj=7°C	COPd	5.27	1-
Tj=12°C	Pdh <b>4.82</b> kW	Tj=12°C	COPd	6.16	1-
Tj=bivalent temperature	Pdh <b>10.8</b> kW	Tj=bivalent temperature	COPd	2.36	]-
Tj=operating limit	Pdh <b>7.60</b> kW	Tj=operating limit	COPd	2.05	-
Declared capacity for heating / Warn	nor soason, at indoor	Declared coefficient of performance / \	Marmar sassa	n at indoor	r
temperature 20°C and outdoor temperature		temperature 20°C and outdoor temper		i, at indoor	
Tj=2°C	Pdh — kW	Tj=2°C	COPd	_	7-
Tj=7°C	Pdh – kW	Tj=7°C	COPd	_	1-
Tj=12°C	Pdh – kW	Tj=12°C	COPd	_	]-
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd	_	]-
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd	_	-
Declared capacity for heating / Colde	er season, at indoor	Declared coefficient of performance / 0	Colder season.	at indoor	
temperature 20°C and outdoor temperature		temperature 20°C and outdoor temper		ataoo.	
Tj=-7°C	Pdh – kW	Tj=-7°C	CÓPd	_	]-
Tj=2°C	Pdh — kW	Tj=2°C	COPd	_	]-
Tj=7°C	Pdh – kW	Tj=7°C	COPd		<u> </u> -
Tj=12°C	Pdh – kW	Tj=12°C	COPd		<b>-</b>
Tj=bivalent temperature Tj=operating limit	Pdh — kW Pdh — kW	Tj=bivalent temperature Tj=operating limit	COPd COPd		
Tj=-0perating limit	Pdh – kW	Tj=-15°C	COPd		-[
1, 100	T GIT   INTV	] 1, 10 0	001 4		
Bivalent temperature		Operating limit temperature			_
heating / Average	Tbiv -10 °C	heating / Average	Tol	-20	°C
heating / Warmer	Tbiv – °C	heating / Warmer	Tol		°C
heating / Colder	Tbiv – °C	heating / Colder	Tol		°C
Cycling interval capacity		Cycling interval efficiency			
for cooling	Pcycc - kW	for cooling	EERcyc	_	7-
for heating	Pcych - kW	for heating	COPcyc	_	1-
		1.5			
Degradation coefficient cooling	Cdc <b>0.25</b> -	Degradation coefficient heating	Cdh	0.25	1
Cooling	CdC 0.23 -	lieating	Cuii	0.25	-
Electric power input in power modes	other than 'active mode'	Annual electricity consumption			
off mode	Poff 20 W	cooling	Qce	634	kWh/a
standby mode	Psb <b>20</b> W	heating / Average	Qhe	3,836	kWh/a
thermostat-off mode	Pto <b>26</b> W	heating / Warmer	Qhe		kWh/a
crankcase heater mode	Pck <b>25</b> W	heating / colder	Qhe	_	kWh/a
Capacity control(indicate one of three	e options)	Other items			
		Sound power level(indoor)	Lwa	60	dB(A)
		Sound power level(outdoor)	Lwa	70	dB(A)
fixed	No	Global warming potential	GWP	1,975	kgCO₂ed
staged	No	Rated air flow(indoor)	-	780	m <sup>3</sup> /h
variable	Yes	Rated air flow(outdoor)	-	6,000	m <sup>3</sup> /h
		, ,			
Contact details for obtaining		anufacturer or of its authorised representa	tive.		
	subishi Heavy Industries Air-Con The Square, Stockley Park, Uxbrid				
	ited Kingdom	ago, middlesex, ODTT TET,			
		<u> </u>			
	<del></del>			PFA004	4Z080 🛦

#### FDF100VSXPVG

Information to identify the model(s) t	o which the information rela	ates to:	If function includes heating: Indicate th	ne heating seas	on the	
Indoor unit model name	FDE50VG (2 units		information relates to. Indicated values	s should relate	to one	
Outdoor unit model name	FDC100VSX		heating season at a time. Include at le	ast the heating	season 'A	verage'.
Function(indicate if present)			Average(mandatory)	Yes		
cooling	Yes		Warmer(if designated)	No		
heating	Yes		Colder(if designated)	No		
Item	symbol value ui	nit	Item	symbol	value	class
Design load cooling	Pdesignc 10.0 k	w	Seasonal efficiency and energy efficiency cooling	ncy class SEER	5.49	Α
heating / Average		w	heating / Average	SCOP/A	3.94	A
heating / Warmer		W	heating / Warmer	SCOP/W	_	_
heating / Colder	Pdesignh – k\	W	heating / Colder	SCOP/C	_	_
						unit
Declared capacity at outdoor temper heating / Average (-10°C)		w	Back up heating capacity at outdoor te heating / Average (-10°C)	emperature I de elbu	esignh <b>0</b>	kW
heating / Warmer (2°C)		w	heating / Warmer (2°C)	elbu		kW
heating / Colder (-22°C)		w	heating / Colder (-22°C)	elbu	_	kW
(== -)			···( == -/			1
Declared capacity for cooling, at inde	oor temperature 27(19)°C a	and	Declared energy efficiency ratio, at ind	loor temperatui	re 27(19)°C	and
outdoor temperature Tj	D		outdoor temperature Tj	·		1
Tj=35°C		W	Tj=35°C	EERd	3.33	
Tj=30°C Tj=25°C		W W	Tj=30°C Tj=25°C	EERd EERd	5.34 8.02	-
Ti=20°C		w	Tj=20°C	EERd	10.47	-
., 20 0			., 200			l .
Declared capacity for heating / Avera			Declared coefficient of performance / A		n, at indoo	r
temperature 20°C and outdoor temp			temperature 20°C and outdoor temper		0.70	7
Tj=-7°C		W	Tj=-7°C	COPd	2.72	
Tj=2°C Tj=7°C		W W	Tj=2°C Tj=7°C	COPd COPd	3.75 5.27	
Tj=12°C		w	Ti=12°C	COPd	6.16	-[
Tj=12 0 Tj=bivalent temperature		w	Tj=bivalent temperature	COPd	2.36	-
Tj=operating limit		W	Tj=operating limit	COPd	2.05	1-
	•					
Declared capacity for heating / Warn			Declared coefficient of performance / \		n, at indoor	-
temperature 20°C and outdoor temp Tj=2°C		w	temperature 20°C and outdoor temper Tj=2°C	COPd		1_
Tj=2 C		w	Ti=7°C	COPd		-[
Tj=12°C		w	Tj=12°C	COPd		-
Tj=bivalent temperature		W	Tj=bivalent temperature	COPd	_	-
Tj=operating limit	Pdh – k\	W	Tj=operating limit	COPd	_	1-
De de la comparis de			Delegation to the first terms of the	2.11	. 6 3	
Declared capacity for heating / Colde			Declared coefficient of performance / ( temperature 20°C and outdoor temper		at indoor	
temperature 20°C and outdoor temp		w	Tj=-7°C	COPd	_	1_
Tj=2°C		w	Tj=2°C	COPd		-
Ti=7°C		W	Tj=7°C	COPd	_	-
Tj=12°C	Pdh – k\	W	Tj=12℃	COPd	_	1-
Tj=bivalent temperature	Pdh – k\	W	Tj=bivalent temperature	COPd	_	]-
Tj=operating limit		W	Tj=operating limit	COPd	_	]-
Tj=-15°C	Pdh – k\	W	Tj=-15°C	COPd	_	-
Bivalent temperature			Operating limit temperature			
heating / Average	Tbiv -10 °C	2	heating / Average	Tol	-20	°c
heating / Warmer	Tbiv – °C		heating / Warmer	Tol	_	°C
heating / Colder	Tbiv – °C		heating / Colder	Tol	_	°C
Cycling interval capacity	Davies Util	١٨/	Cycling interval efficiency	EEDava		7
for cooling for heating		W W	for cooling for heating	EERcyc COPcyc	$\vdash =$	-[
ioi neating	r GyGri   —  K	* *	ior nearing	OOI-tyt		1-
Degradation coefficient			Degradation coefficient			
cooling	Cdc <b>0.25</b> -		heating	Cdh	0.25	]-
Flanksia manana inggak ingga	Alban Hann In Mission 1		Ammund ala shrinitu a consumiti u			
Electric power input in power modes off mode	other than 'active mode' Poff 20 W	v I	Annual electricity consumption cooling	Qce	638	kWh/a
standby mode	Psb 20 W		heating / Average	Qhe	3,840	kWh/a
thermostat-off mode	Pto <b>46</b> W		heating / Warmer	Qhe		kWh/a
crankcase heater mode	Pck <b>25</b> W	V	heating / colder	Qhe	_	kWh/a
Capacity control(indicate one of thre	e options)		Other items	1	60	Jap/A)
			Sound power level(indoor) Sound power level(outdoor)	Lwa Lwa	70	dB(A) dB(A)
fixed	No		Global warming potential	GWP	1,975	kgCO <sub>2</sub> ec
			• • • • • • • • • • • • • • • • • • • •	GVVF		m³/h
staged	No		Rated air flow(indoor)	-	780	-1 .
variable	Yes		Rated air flow(outdoor)	-	6,000	m <sup>3</sup> /h
Contact details for obtaining	Name and address of	the man	ufacturer or of its authorised representa	tive.		
more information Mit	tsubishi Heavy Industries A	Air-Condi	tioning Europe, Ltd.			
	The Square, Stockley Park	, Uxbridg	e, Middlesex, UB11 1ET,			
Un	ited Kingdom					
<u> </u>					PFA00	4Z080 🛦

## FDE125VNXVG

Model(s): FDC125VNX /	FDE125VG	i					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cool	ling energy		
	Prated,c	12.5	kW	efficiency ηs,c		219.4	%
Declared cooling capacity for part load at gi	ven outdoor t	temperatur	es	Declared energy effic	ciency ratio or gas utilization efficier	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	peratures <sup>-</sup>	Гј
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or	357.0	%
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	GUEc,bin / AEFc,bin EERd or	481.0	%
Ti- + 25°C	<sub>Вис</sub> Г	E 0	14/4/		GUEc,bin / AEFc,bin		
Tj=+25°C	Pdc _	5.9	kW	Tj=+25°C	EERd or GUEc,bin / AEFc,bin	731.0	%
Tj=+20°C	Pdc	5.6	kW	Tj=+20°C	EERd or	1,035.0	%
Degradation	[				GUEc,bin / AEFc,bin	1	'
coefficient for	Cdc	0.25	_				
air conditioners**							
	_	'					
Power consumpiton in other than 'active mo	ode'						
Off mode	P <sub>OFF</sub>	0.045	kW	Crankcase heater me	ode P <sub>CK</sub>	0.045	kW
Thermostat-off mode	P <sub>TO</sub>	0.035	kW	Standby mode	P <sub>SB</sub>	0.045	kW
	L						'
Other items				For air-to-air air cond	litioner		]
Capacity control	[	variable		air flow-rate,outdoor		6,000	m <sup>3</sup> /h
Sound power level,	, [	70.0	dB				
outdoor	L <sub>WA</sub>	70.0	ub				
If engine driven:	Г		mg/kWh				
Emissions of nitrogen	NOx ***		fuel input				
oxides			GCV				
	-						
GWP of the	ſ	2,088	kg CO <sub>2eq</sub>				
refrigerant		2,000	(100years)				
	i heavy indus						
** If Cdc is not determined by measuremen	t then the def	ault degrac	dation coeffic	cient air conditioners sl	hall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o	onditioners,tl	he test resu	ult and perfo	rmance data be obtain	ed on the basis of the performance	:	
of the outdoor unit, with a combination of in	door unit(s) re	ecommend	ed by the ma	anufacturer or importe	r.		
						PFA004	Z080 🛦

Information to identify the model(s)	to which the informa	ation relates	:	FDC125VNX /	FDE125VG		
Outdoor side heat exchanger of hea	at pump :	air					
Indoor side heat exchanger of heat	pump :	air					
Indication if the heater is equipped	with a supplementar	ry heater :		No			
if applicable : electric moto	г						
Parameters shall be declared for th	e average heating s	eason , par	ameters for	the warmer and colder he	eating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heating	ng energy efficiency ηs,h		
	Prated,h	14.0	kW			145.6	%
Declared heating capacity for part le	oad at indoor tempe	rature 20°C		Declared coefficient of	f performance or gas utilizatior	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor	temperatures	; Tj
			7				1
T <sub>j</sub> =-7°C	Pdh	10.1	kW	T <sub>j</sub> =-7°C	COPd or	228.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	6.1	kW	T <sub>j</sub> =+2°C	COPd or	359.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	4.3	kW	T <sub>j</sub> =+7°C	COPd or	517.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	5.0	kW	T <sub>j</sub> =+12°C	COPd or	619.0	%
		44.4	1		GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	11.4	kW	T <sub>biv</sub> =bivalent temperature	COPd or	239.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>OL</sub> =operation limit	Pdh	9.0	kW	T <sub>OL</sub> =operation limit		213.0	%
			1		GUEh,bin / AEFh,bin		
For air-to-water heat pumps :	Pdh		kW	For air-to-water hea		-	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		J
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
Bivalent temperature	T <sub>biv</sub>	-10.0	°c	For water-to-air hea	at		1
bivalent temperature	l biv	-10.0	] c	pumps:Operation li		_	°C
Degradation			1	T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25		To tomporataro			J
heat pumps**	Odn						
			_				
Power consumpiton in modes other	than 'active mode'			Supplementary hea	ater		1
Tower concumption in medice canon	andir douve mode			back-up heating ca	elbu	_	kW
Off mode	P <sub>OFF</sub>	0.045	kW	baok up neating oa	paorty		
Thermostat-off mode	P <sub>TO</sub>	0.075	kW	Type of energy input	ut 5		l
Crankcase heater mode	P <sub>CK</sub>	0.045	kW	Standby mode	P <sub>SB</sub>	0.045	kW
			-				•
Other items							
			_	For air-to-air heat p	oumps:	6,000	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outdoo	or measured	0,000	1111 711
		_	_				-
Sound power level,	$L_{WA}$	70.0	dB	For water-/brine-to-	-air heat pumps :		
outdoor measured	-WA			Rated brine or water	er fiow-rate,	-	m³/h
			-	outdoor side heat e	exchanger		
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	-	fuel input				
			GCV				
			7				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant			(100years)				
				11			
	litsubishi heavy indu				II ha 0.25		
** If Cdh is not determined by meas	surement then the de	eraurt degra	uauon coeffi	cient air conditioners sha	III D€ U,∠O.		
*** from 26 September 2018							
Where information relates to multi-s					d on the basis of the performar	nce	
of the outdoor unit, with a combinati	ion of indoor unit(s)	recommend	led by the m	anufacturer or importer.			
						DEAGO	17080 A

### FDE125VSXVG

Model(s): FDC125VSX /	FDE125V	G					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space c	ooling energy		
	Prated,c	12.5	kW	efficiency ηs,c		226.4	%
							<u> </u>
Declared cooling capacity for part load at g	iven outdooi	r temperatu	res		efficiency ratio or gas utilization efficiency	-	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fa	actor for part load at given outdoor t	emperatures	IJ
Tj=+35°C	Pdc	12.5	kW	T:- + 25°C	EED4		1
,, 55 5	. 45	12.0	]	Tj=+35°C	EERd or	357.0	%
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	GUEc,bin / AEFc,bin EERd or		1
		<u> </u>	_	1,1-130 0	GUEc,bin / AEFc,bin	491.0	%
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or		Ī.,
			-		GUEc,bin / AEFc,bin	746.0	%
Tj=+20°C	Pdc	5.6	kW	Tj=+20°C	EERd or	1,056.0	%
			_		GUEc,bin / AEFc,bin	1,030.0	J 76
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**							
Power consumpiton in other than 'active me	ode'						
0# 4-	Б	0.040	المدر	0	de	0.040	1,,,,,
Off mode	P <sub>OFF</sub>	0.040	kW	Crankcase heater		0.040	kW
Thermostat-off mode	$P_{TO}$	0.030	kW	Standby mode	$P_{SB}$	0.040	kW
Other items							
				For air-to-air air co	onditioner:	0.000	3,,
Capacity control		variable		air flow-rate,outdo	or measured	6,000	m <sup>3</sup> /h
			-	,			_
Sound power level,	$L_{WA}$	70.0	dB				
outdoor	-WA	70.0					
		_	_				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
OWD -645-			]				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			_(,				
Contact details Mitsubish	i heavy indu	istries thorr	nal systems,L	TD			
** If Cdc is not determined by measuremen					s shall be 0,25.		
*** from 26 September 2018		3.1			•		
Where information relates to multi-spilt air	conditioners	the test res	sult and perfo	rmance data he oht	ained on the basis of the performan	nce	
of the outdoor unit, with a combination of in							
, 2 20112011011011	(3)		., 2.0				
						DEAGO	17080 A

Information to identify the model(s)	to which the informa	ation relates	:	FDC125VSX /	FDE125VG		
Outdoor side heat exchanger of hea	at pump :	air					
Indoor side heat exchanger of heat	pump :	air					
Indication if the heater is equipped	with a supplementar	ry heater :		No			
if applicable : electric moto	г						
Parameters shall be declared for th	e average heating s	eason , par	ameters for	the warmer and colder he	eating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heating	ng energy efficiency ηs,h		
	Prated,h	14.0	kW			143.4	%
Declared heating capacity for part le	oad at indoor tempe	rature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor	temperatures	s Tj
			-				,
T <sub>j</sub> =-7°C	Pdh	12.4	kW	T <sub>j</sub> =-7°C	COPd or	209.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	7.5	kW	T <sub>j</sub> =+2°C	COPd or	361.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	5.0	kW	T <sub>j</sub> =+7°C	COPd or	506.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	5.0	kW	T <sub>j</sub> =+12°C	COPd or	631.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	14.0	kW	T <sub>biv</sub> =bivalent	COPd or	222.0	%
			7	temperature	GUEh,bin / AEFh,bin		
T <sub>OL</sub> =operation limit	Pdh	10.9	kW	T <sub>OL</sub> =operation limit	COPd or	211.0	%
			7		GUEh,bin / AEFh,bin		
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water hea	at COPd or	_	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		J
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
			7				1
Bivalent temperature	$T_biv$	-10.0	°C	For water-to-air hea			
		_	7	pumps:Operation li	mit	_	°C
Degradation				T <sub>ol</sub> temperature			]
coefficient	$C_{dh}$	0.25	-				
heat pumps**			_				
							1
Power consumpiton in modes other	than 'active mode'			Supplementary hea	iter elbu	_	kW
	_		1	back-up heating ca	pacity		]
Off mode	P <sub>OFF</sub>	0.040	kW				1
Thermostat-off mode	P <sub>TO</sub>	0.070	kW	Type of energy inpu	ut P <sub>SB</sub>	0.040	kW
Crankcase heater mode	P <sub>CK</sub>	0.040	kW	Standby mode			]
				1			
Other items							1
			1	For air-to-air heat p	umps:	6,000	m³/h
Capacity control		variable	_	air flow-rate,outdoo	r measured		]
			1				1
Sound power level,	$L_{WA}$	70.0	dB	For water-/brine-to-	air heat pumps :		3.,
outdoor measured				Rated brine or water	er fiow-rate,	-	m <sup>3</sup> /h
			1	outdoor side heat e	xchanger		]
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	-	fuel input				
			GCV				
				-			
			1				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			(Tooyears)				
	litsubishi heavy indu				II ho 0 25		
** If Cdh is not determined by meas	rarement then the de	auit uegra	uauon coeffi	Gent an Conditioners sha	II DC U,ZJ.		
*** from 26 September 2018							
Where information relates to multi-s					d on the basis of the performar	ice	
of the outdoor unit, with a combinat	ion of indoor unit(s)	recommend	led by the m	anufacturer or importer.			
						DEAGO	47080 A

## FDE140VNXVG

Model(s): FDC140VNX /	FDE140VG						
Outdoor side heat exchanger of air condition	ner: a	air					
Indoor side heat exchanger of air condition	er: a	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cool	ling energy		
	Prated,c	14.0	kW	efficiency ηs,c		213.5	%
Declared cooling capacity for part load at given outdoor temperatures					ciency ratio or gas utilization efficier	•	r:
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	peratures	<sup>1</sup> ]
Tj=+35°C	Pdc	14.0	kW	Tj=+35°C	EERd or		1
,				113-+35 C	GUEc,bin / AEFc,bin	318.0	%
Tj=+30°C	Pdc	10.3	kW	Tj=+30°C	EERd or		
	<u> </u>			1]=.000	GUEc,bin / AEFc,bin	450.0	%
Tj=+25°C	Pdc	6.6	kW	Tj=+25°C	EERd or		
	<u> </u>			,	GUEc,bin / AEFc,bin	698.0	%
Tj=+20°C	Pdc	5.6	kW	Tj=+20°C	EERd or	4.040.0	0/
	_			1	GUEc,bin / AEFc,bin	1,042.0	%
Degradation							.
coefficient for	Cdc	0.25	-				
air conditioners**							
Power consumpiton in other than 'active mo	ode'						
	_				ŗ		,
Off mode	P <sub>OFF</sub>	0.045	kW	Crankcase heater me	5.1	0.045	kW
Thermostat-off mode	P <sub>TO</sub>	0.035	kW	Standby mode	P <sub>SB</sub>	0.045	kW
Other items				,	re [		1
Capacity control		variable		For air-to-air air cond		6,000	m <sup>3</sup> /h
Supersity contact	L			air flow-rate,outdoor	measured		J
Sound power level,							
outdoor	L <sub>WA</sub>	72.0	dB				
	L						
If engine driven:	Γ		mg/kWh				
Emissions of nitrogen	NOx ***		fuel input				
oxides			GCV				
	_						
	_						
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		_,,,,,	(100years)				
	i heavy indust						
** If Cdc is not determined by measuremen	tnen the defa	auit degrad	ation coeffic	cient air conditioners sl	naii be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o							
of the outdoor unit, with a combination of in	door unit(s) re	commend	ed by the ma	anufacturer or importe	r.		
<u> </u>						PFA004	Z080 Â

Information to identify the model(s) to which	ch the informa	ation relates	:	FDC140VNX /	FDE140VG		
Outdoor side heat exchanger of heat pum		air	•	1201101111	15211070		
Indoor side heat exchanger of heat pump		air					
Indication if the heater is equipped with a				No			
if applicable : electric motor		,					
Parameters shall be declared for the avera	age heating s	season , para	ameters for t	he warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	- Cynnbon	Value			g energy efficiency ηs,h	1	T
	Prated,h	16.0	kW		5 55 717	143.3	%
Declared heating capacity for part load at	indoor tempe	erature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor t	emperatures	s Tj
			_				_
T <sub>j</sub> =-7°C	Pdh	11.5	kW	T <sub>j</sub> =-7°C	COPd or	215.0	%
					GUEh,bin / AEFh,bin	2.0.0	
T <sub>j</sub> =+2°C	Pdh	7.0	kW	T <sub>j</sub> =+2°C	COPd or	357.0	%
			,		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	4.5	kW	T <sub>j</sub> =+7°C	COPd or	511.0	%
			,		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	5.0	kW	T <sub>j</sub> =+12°C	COPd or	619.0	%
		_	1		GUEh,bin / AEFh,bin		1
T <sub>biv</sub> =bivalent temperature	Pdh	13.0	kW	T <sub>biv</sub> =bivalent	COPd or	227.0	%
			1	temperature	GUEh,bin / AEFh,bin		4
T <sub>OL</sub> =operation limit	Pdh	10.3	kW	T <sub>OL</sub> =operation limit	COPd or	211.0	%
			1		GUEh,bin / AEFh,bin	<b></b>	4
For air-to-water heat pumps :	Pdh		kW	For air-to-water hea		-	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		J
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
	_	40.0	1				1
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air hea			°0
Dame defice			1	pumps:Operation lin	nit	-	°C
Degradation coefficient		0.25		T <sub>ol</sub> temperature			J
heat pumps**	$C_{dh}$	0.25	-				
near pumps			1				
Dawer consumption in modes other than !	nativa mada!			Cumplementers heat	tor		1
Power consumpiton in modes other than 'a	active mode			Supplementary heat	eibu	_	kW
Off mode	P <sub>OFF</sub>	0.045	kW	back-up heating cap	pacity		1
Thermostat-off mode	P <sub>TO</sub>	0.080	kW	Type of energy inpu	<del>t</del>		1
Crankcase heater mode	P <sub>CK</sub>	0.045	kW	Standby mode	P <sub>SB</sub>	0.045	kW
			1	Otanoby mode			1
Other items							
				For air-to-air heat pu	umps:	6 000	3
Capacity control		variable	1	air flow-rate,outdoor		6,000	m <sup>3</sup> /h
				ĺ			
Sound power level,		72.0	dB	For water-/brine-to-a	air heat pumps :		1
outdoor measured	$L_{WA}$	/2.0	aв	Rated brine or water		_	m³/h
			•	outdoor side heat ex			
Emissions of nitrogen			mg/kWh		-		-
oxides(if applicable)	NOx ***	-	fuel input				
,			GCV				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		_,000	(100years)				
Contact details Mitsubis	shi heavy indu	ustries therm	nal systems,l	LTD			
** If Cdh is not determined by measureme	nt then the de	efault degrad	dation coeffic	cient air conditioners shall	l be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners	,the test res	ult and perfo	rmance data be obtained	on the basis of the performan	ce	
of the outdoor unit, with a combination of i	ndoor unit(s)	recommend	ed by the ma	anufacturer or importer.			
						DEAGS	4 <b>7</b> 000 ^
						PFA004	4Z080 🛝

### FDE140VSXVG

Model(s): FDC140VSX /	FDE140V	3					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	ling energy		
	Prated,c	14.0	kW	efficiency ηs,c		219.4	%
Declared cooling capacity for part load at gi	ven outdoor	temperatu	res		ciency ratio or gas utilization efficie	-	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	peratures	IJ
Tj=+35°C	Pdc	14.0	kW	Tj=+35°C	EEDd or		1
,			]	113-+35 C	EERd or GUEc,bin / AEFc,bin	318.0	%
Tj=+30°C	Pdc	10.3	kW	Tj=+30°C	EERd or		i
				1,1 100 0	GUEc,bin / AEFc,bin	459.0	%
Tj=+25°C	Pdc	6.6	kW	Tj=+25°C	EERd or	740.0	0/
					GUEc,bin / AEFc,bin	712.0	%
Tj=+20°C	Pdc	5.6	kW	Tj=+20°C	EERd or	1,063.0	%
			_		GUEc,bin / AEFc,bin	1,003.0	70
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**							
Power consumpiton in other than 'active mo	ode'						
Off mode	P <sub>OFF</sub>	0.040	kW	Crankcase heater m	ode P <sub>CK</sub>	0.040	kW
Thermostat-off mode	P <sub>TO</sub>	0.040	kW	Standby mode	P <sub>SB</sub>	0.040	kW
memostat-on mode	• 10	0.000	7,,,,	Otanaby mode	, 2R	0.040	]
Other items							
				For air-to-air air cond	ditioner:	0.000	3,,
Capacity control		variable		air flow-rate,outdoor	measured	6,000	m <sup>3</sup> /h
							•
Sound power level,	$L_{WA}$	72.0	dB				
outdoor	-WA	72.0					
			,				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
GWP of the			ls= CO				
		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			]				
Contact details Mitsubish	i heavy indu	stries therr	nal systems,L	TD			
** If Cdc is not determined by measuremen					hall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o	conditioners,	the test res	sult and perfo	mance data be obtain	ned on the basis of the performance	:	
of the outdoor unit, with a combination of in	door unit(s)	recommen	ded by the ma	anufacturer or importe	r.		
						PFA004	17080 🛦

Information to identify the model(s) to which	h the informa	ation relates	:	FDC140VSX /	FDE140VG		
Outdoor side heat exchanger of heat pump		air	-				
Indoor side heat exchanger of heat pump :		air					
Indication if the heater is equipped with a s	upplementa			No			
if applicable : electric motor							
Parameters shall be declared for the avera	ge heating s	season , para	ameters for t	he warmer and colder hea	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity					g energy efficiency ηs,h		
	Prated,h	16.0	kW			141.8	%
Declared heating capacity for part load at it	ndoor tempe	erature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor t	for part load at given outdoor to	emperatures	s Tj
			1			r	1
T <sub>j</sub> =-7°C	Pdh	13.7	kW	T <sub>j</sub> =-7°C	COPd or	203.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	8.4	kW	T <sub>j</sub> =+2°C	COPd or	360.0	%
			1		GUEh,bin / AEFh,bin		ł
T <sub>j</sub> =+7°C	Pdh	5.4	kW	T <sub>j</sub> =+7°C	COPd or	494.0	%
T : 10%	Б.	5.0	1	T . 1000	GUEh,bin / AEFh,bin		-
T <sub>j</sub> =+12°C	Pdh	3.0	kW	T <sub>j</sub> =+12°C	COPd or	631.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	15.5	kW	T <sub>biv</sub> =bivalent	GUEh,bin / AEFh,bin COPd or		†
1 DIV DIVISION COMPERATOR	i dil		1	temperature		219.0	%
T <sub>OI</sub> =operation limit	Pdh	11.9	kW	T <sub>OL</sub> =operation limit	GUEh,bin / AEFh,bin COPd or		1
35 T	•		1	J. ,	GUEh,bin / AEFh,bin	211.0	%
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water hea			] <sub>0/</sub>
T <sub>j</sub> =-15°C			•	pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin	-	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			•
			_				_
Bivalent temperature	$T_{biv}$	-10.0	°C	For water-to-air hear	t		
			,	pumps:Operation lin	nit	_	°C
Degradation				T <sub>ol</sub> temperature			]
coefficient	$C_{dh}$	0.25	-				
heat pumps**			]				
							1
Power consumpiton in modes other than 'a	ctive mode'			Supplementary heat	eibu	_	kW
Off mode	P <sub>OFF</sub>	0.040	kW	back-up heating cap	pacity		1
Thermostat-off mode	P <sub>TO</sub>	0.070	kW	Type of aparett input	<b>.</b>		1
Crankcase heater mode	P <sub>CK</sub>	0.040	kW	Type of energy input Standby mode	P <sub>SB</sub>	0.040	kW
	OK		1	Standby mode			1
Other items							
				For air-to-air heat pu	umps:	0.000	3
Capacity control		variable	1	air flow-rate,outdoor		6,000	m <sup>3</sup> /h
			_				_
Sound power level,	$L_{WA}$	72.0	dB	For water-/brine-to-a	air heat pumps :		
outdoor measured	-WA			Rated brine or water	r fiow-rate,	_	m³/h
			1	outdoor side heat ex	cchanger		]
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	-	fuel input				
			GCV				
CMD of the			] <sub>k=</sub> 00				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			], , _,				
Contact details Mitsubish	ni heavy indi	Istries therm	nal systems,l	LTD			
** If Cdh is not determined by measuremen					l be 0,25.		
*** from 26 September 2018		-					
Where information relates to multi-spilt air	conditioners	the test res	ult and perfo	rmance data be obtained	on the basis of the performance	e	
of the outdoor unit, with a combination of in					F		
	. ,		-				
							17000
						PFA004	4Z080 🛦

### FDE125VNXPVG

Model(s): FDC125VNX /	FDE60VG	(2 units)					
Outdoor side heat exchanger of air conditio	ner:	air					
Indoor side heat exchanger of air conditioned	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	ling energy		
	Prated,c	12.5	kW	efficiency ηs,c		254.8	%
			<u> </u>				
Declared cooling capacity for part load at gi	ven outdoor	temperatu	res	1	ciency ratio or gas utilization efficier	-	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	peratures	IJ
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EEDd or		1
,			]	1]-+35 C	EERd or GUEc,bin / AEFc,bin	323.0	%
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	EERd or		
			_	1, 100 0	GUEc,bin / AEFc,bin	547.0	%
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or	070.0	0/
			_		GUEc,bin / AEFc,bin	873.0	%
Tj=+20°C	Pdc	5.6	kW	Tj=+20°C	EERd or	1,259.0	%
			_		GUEc,bin / AEFc,bin	1,200.0	70
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**							
Power consumpiton in other than 'active mo	ode'						
Off mode	P <sub>OFF</sub>	0.040	kW	Crankcase heater m	ode P <sub>CK</sub>	0.040	kW
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	P <sub>SB</sub>	0.040	kW
memostat-on mode	• 10	0.000	7,,,	Stariday mode	· SB	0.040	]
Other items							
				For air-to-air air cond	ditioner:		3,,
Capacity control		variable		air flow-rate,outdoor	measured	6,000	m <sup>3</sup> /h
			_				•
Sound power level,	$L_{WA}$	70.0	dB				
outdoor	-WA	7 0.0					
			,				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
GWP of the			ka CO				
		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			]				
Contact details Mitsubish	i heavy indu	stries thern	nal systems,L	TD			
** If Cdc is not determined by measuremen					hall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o	conditioners,	the test res	sult and perfo	rmance data be obtain	ed on the basis of the performance	:	
of the outdoor unit, with a combination of in							
						PFA004	17000 8

Information to identify the model(s) to which	the informa	ation relates	:	FDC125VNX /	FDE60VG (2 units)		
Outdoor side heat exchanger of heat pump		air		1201201111	1 525010 (2 41116)		
Indoor side heat exchanger of heat pump :	•	air					
Indication if the heater is equipped with a si	upplementa			No			
if applicable : electric motor		,					
Parameters shall be declared for the average	ge heating s	season , para	ameters for	the warmer and colder hea	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Суппьог	Value	OTIL		g energy efficiency ηs,h	Value	OTINE
l lates meaning capacity	Prated,h	14.0	kW		g onorgy omoroney ha,	162.0	%
Declared heating capacity for part load at ir	ndoor tempe	erature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor t	for part load at given outdoor to	emperatures	Tj
						•	•
T <sub>j</sub> =-7°C	Pdh	10.1	kW	T <sub>j</sub> =-7°C	COPd or	243.0	%
			_		GUEh,bin / AEFh,bin	243.0	70
T <sub>j</sub> =+2°C	Pdh	6.1	kW	T <sub>j</sub> =+2°C	COPd or	392.0	%
			_		GUEh,bin / AEFh,bin	002.0	,,,
T <sub>j</sub> =+7°C	Pdh	4.3	kW	T <sub>j</sub> =+7°C	COPd or	603.0	%
			_		GUEh,bin / AEFh,bin	003.0	70
T <sub>j</sub> =+12°C	Pdh	5.0	kW	T <sub>j</sub> =+12°C	COPd or	741.0	%
			-		GUEh,bin / AEFh,bin	741.0	/*
T <sub>biv</sub> =bivalent temperature	Pdh	11.4	kW	T <sub>biv</sub> =bivalent	COPd or	249.0	%
			_	temperature	GUEh,bin / AEFh,bin	240.0	/*
T <sub>OL</sub> =operation limit	Pdh	9.0	kW	T <sub>OL</sub> =operation limit	COPd or	221.0	%
					GUEh,bin / AEFh,bin		,,,
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water hear	t COPd or	_	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
			7				1
Bivalent temperature	$T_{biv}$	-10.0	°C	For water-to-air hear	t		
			7	pumps:Operation lin	nit	_	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				
heat pumps**			]				
							1
Power consumpiton in modes other than 'ac	ctive mode'			Supplementary heat	ter elbu	_	kW
0"	Б	0.040	1	back-up heating cap	pacity		l
Off mode	P <sub>OFF</sub>	0.040	kW				1
Thermostat-off mode  Crankcase heater mode	P <sub>TO</sub>	0.045	kW kW	Type of energy input	t P <sub>SB</sub>	0.040	kW
Crankcase neater mode	P <sub>CK</sub>	0.040	KVV	Standby mode			ļ
Other items							1
		variable	1	For air-to-air heat pu		6,000	m³/h
Capacity control		variable	ļ	air flow-rate,outdoor	measured		l
County and a super lawy			1		-:- h h		Ī
Sound power level, outdoor measured	$L_{WA}$	70.0	dB	For water-/brine-to-a		_	m³/h
outdoor measured			ı	Rated brine or water outdoor side heat ex			,
Emissions of nitrogen			mg/kWh	outdoor side fleat ex	Collarige		J
Emissions of nitrogen oxides(if applicable)	NOx	_	fuel input				
Oxides(ii applicable)	***		GCV				
			1001				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
Contact details Mitsubish	i heavy indu	ustries therm	nal systems,	LTD			
** If Cdh is not determined by measuremen					l be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air of	conditioners	the test res	ult and perfo	rmance data be obtained	on the basis of the performance	e	
of the outdoor unit, with a combination of in					p		
	(1)						
		-	-			PFA004	1Z080A

#### FDF125VSXPVG

FDE125V5XPVG							
Model(s): FDC125VSX /	FDE60VG						
Outdoor side heat exchanger of air condition		air					
Indoor side heat exchanger of air condition	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	5 (24)	40.5		Seasonal space cod	oling energy		ļ_,
	Prated,c	12.5	kW	efficiency ηs,c		262.7	%
			1				<u> </u>
Declared cooling capacity for part load at g	iven outdoor	r temperatu	res	Declared energy eff	ficiency ratio or gas utilization efficien	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fac	tor for part load at given outdoor tem	peratures	Tj
			ا ،				1
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or	323.0	%
			,		GUEc,bin / AEFc,bin		
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	EERd or	558.0	%
			,		GUEc,bin / AEFc,bin		
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or	891.0	%
			_		GUEc,bin / AEFc,bin		
Tj=+20°C	Pdc	5.6	kW	Tj=+20°C	EERd or	1,285.0	%
			_		GUEc,bin / AEFc,bin	1,200.0	]
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**							
			<b>-</b>				
Power consumpiton in other than 'active mo	ode'						
l ener concumption in case and acare in	, ,						
Off mode	P <sub>OFF</sub>	0.035	kW	Crankcase heater n	node P <sub>CK</sub>	0.035	kW
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	P <sub>SB</sub>	0.035	kW
			_		35		J
Other items							
Other Rems				For air-to-air air con	editioner:		1
Capacity control		variable	1			6,000	m³/h
		1000000	_	air flow-rate,outdoo	rmeasured		1
0			1 l				
Sound power level,	$L_{WA}$	70.0	dB				
outdoor			_				
			ا ر				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
			,				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant			(100years)				
Contact details Mitsubish	ii heavy indu	stries thern	nal systems,L	TD			
** If Cdc is not determined by measuremen	t then the de	efault degra	dation coeffic	cient air conditioners	shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners	the test res	sult and perfo	rmance data be obtai	ned on the basis of the performance	;	
of the outdoor unit, with a combination of in							
,	( )		•				
L						PFA004	1Z080 🛦

Information to identify the model(s) to which	h the inform	ation relates	s :	FDC125VSX	/ FDE60VG (2 units)	
Outdoor side heat exchanger of heat pump	):	air				
Indoor side heat exchanger of heat pump :		air				
Indication if the heater is equipped with a s				No		
if applicable : electric motor		,				
Parameters shall be declared for the avera	nge heating :	season nai	rameters for t	the warmer and cold	der heating seasons are optional	
Item	Symbol	Value	Unit	Item	Symbol	Value Unit
Rated heating capacity	Prated,h	14.0	kW	Seasonal space I	heating energy efficiency ηs,h	159.8 %
	i iateu,i	14.0	KVV			133.0 1/0
				<b> </b>		
Declared heating capacity for part load at i	ndoor temp	erature 20°C	;	1 1	ent of performance or gas utilization	
and outdoor temperature Tj				auxiliary energy f	actor for part load at given outdoo	r temperatures Tj
			7			
T <sub>j</sub> =-7°C	Pdh	12.4	kW	T <sub>j</sub> =-7°C	COPd or	224.0 %
			7		GUEh,bin / AEFh,bin	
T <sub>j</sub> =+2°C	Pdh	7.5	kW	T <sub>j</sub> =+2°C	COPd or	396.0 %
			7		GUEh,bin / AEFh,bin	
T <sub>j</sub> =+7°C	Pdh	5.0	kW	T <sub>j</sub> =+7°C	COPd or	584.0 %
			_		GUEh,bin / AEFh,bin	
T <sub>j</sub> =+12°C	Pdh	5.0	kW	T <sub>j</sub> =+12°C	COPd or	758.0 %
			_		GUEh,bin / AEFh,bin	
T <sub>biv</sub> =bivalent temperature	Pdh	14.0	kW	T <sub>biv</sub> =bivalent	COPd or	235.0 %
				temperature	GUEh,bin / AEFh,bin	235.0 //
T <sub>OL</sub> =operation limit	Pdh	10.9	kW	T <sub>OL</sub> =operation	limit COPd or	000 0
			_		GUEh,bin / AEFh,bin	223.0 %
For air-to-water heat pumps :	Pdh	_	kW	For air-to-wate	er heat COPd or	
T <sub>i</sub> =-15°C				pumps:T <sub>i</sub> =-15		- %
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)		
( 10] ( 25 5)				(	,	
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-a	ir heat	
Bivaioni temperature	* biv		٦٠	pumps:Operat		_
Degradation			1	T <sub>ol</sub> temperature		
coefficient	0	0.25		1 of temperature	·	
	$C_{dh}$	0.20	-			
heat pumps**						
				ł <b> </b>		
				II		
Power consumpiton in modes other than 'a	ctive mode'			Supplementar	eibu	- kW
			٦	back-up heatir	ng capacity	
Off mode	P <sub>OFF</sub>	0.035	kW			
Thermostat-off mode	P <sub>TO</sub>	0.040	kW	Type of energy	y input P <sub>SB</sub>	0.035 kW
Crankcase heater mode	P <sub>CK</sub>	0.035	kW	Standby mode		
Other items						
			7	For air-to-air h	eat pumps:	6,000 m <sup>3</sup> /h
Capacity control		variable		air flow-rate,o	utdoor measured	
			7			
Sound power level,	$L_{WA}$	70.0	dB	For water-/brir	ne-to-air heat pumps :	
outdoor measured				Rated brine or	water flow-rate,	— m³/h
			_	outdoor side h	eat exchanger	
Emissions of nitrogen	NO		mg/kWh			
oxides(if applicable)	NOx ***	-	fuel input			
			GCV			
			<del></del> "			
GWP of the		0.000	kg CO <sub>2eq</sub>			
refrigerant		2,088	(100years)			
			_			
Contact details Mitsubis	hi heavy ind	ustries therr	nal systems,	LTD		
** If Cdh is not determined by measurement					s shall be 0,25.	
*** from 26 September 2018		3				
•	conditions	the test	cult and nort-	ormance data be al-	ained on the basis of the porf	ance
Where information relates to multi-spilt air						21100
of the outdoor unit, with a combination of ir	idoor unit(S)	recommen	иви ру те т	анивосинен от ітіро	itoi.	
<u> </u>						DEA0047090 8

#### FDE140VNXPVG

Model(s): FDC140VNX /	FDE71VG	(2 units)					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	-			Seasonal space coo	•		
	Prated,c	14.0	kW	efficiency ηs,c	0	243.6	%
Declared cooling capacity for part load at gi	iven outdoor	temperatu	res	Declared energy effi	ciency ratio or gas utilization efficie	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	peratures	Гј
Tj=+35°C	Pdc	14.0	kW	Tj=+35°C	EERd or	307.0	%
			_		GUEc,bin / AEFc,bin	307.0	70
Tj=+30°C	Pdc	10.3	kW	Tj=+30°C	EERd or	514.0	%
					GUEc,bin / AEFc,bin	314.0	70
Tj=+25°C	Pdc	6.6	kW	Tj=+25°C	EERd or	782.0	%
					GUEc,bin / AEFc,bin	702.0	70
Tj=+20°C	Pdc	5.6	kW	Tj=+20°C	EERd or	1,259.0	%
			_		GUEc,bin / AEFc,bin	1,239.0	70
Degradation							-
coefficient for	Cdc	0.25	-				
air conditioners**							
Power consumpiton in other than 'active mo	ode'						
			_				_
Off mode	$P_{OFF}$	0.040	kW	Crankcase heater m	ode P <sub>CK</sub>	0.040	kW
Thermostat-off mode	$P_{TO}$	0.000	kW	Standby mode	$P_SB$	0.040	kW
Other items							1
			,	For air-to-air air cond	ditioner:	6,000	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outdoor	measured	ŕ	,
			,				
Sound power level,	$L_{WA}$	72.0	dB				
outdoor							
			,				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
			, l				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant			(100years)				
•	-		nal systems,L				
** If Cdc is not determined by measuremen	t then the de	erault degra	adation coeffic	cient air conditioners s	naii be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o						•	
of the outdoor unit, with a combination of in	door unit(s)	recommen	ded by the ma	anufacturer or importe	r.		
						PFA004	17090 A

Information to identify the model(s	) to which the informa	ation relates	:	FDC140VNX /	FDE71VG (2 units)		
Outdoor side heat exchanger of he	eat pump :	air					
Indoor side heat exchanger of hea	t pump :	air					
Indication if the heater is equipped	with a supplementar	ry heater :		No			
if applicable : electric mot	or						
Parameters shall be declared for t	he average heating s	eason , par	ameters for	the warmer and colder	heating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space he	ating energy efficiency ηs,h		
	Prated,h	16.0	kW			159.3	%
Declared heating capacity for part	load at indoor tempe	rature 20°C		Declared coefficien	t of performance or gas utilization	on efficiency /	
and outdoor temperature Ti				auxiliary energy fac	tor for part load at given outdoo	r temperatures	: Tj
, ,						•	•
T <sub>j</sub> =-7°C	Pdh	11.5	kW	T <sub>i</sub> =-7°C	COPd or		],,
,		<u> </u>	_		GUEh,bin / AEFh,bin	227.0	%
T <sub>j</sub> =+2°C	Pdh	7.0	kW	T <sub>i</sub> =+2°C	COPd or		<b>.</b>
,			_	'	GUEh,bin / AEFh,bin	391.0	%
T <sub>i</sub> =+7°C	Pdh	4.5	kW	T <sub>i</sub> =+7℃	COPd or		1
,			]	', '-	GUEh,bin / AEFh,bin	595.0	%
T <sub>i</sub> =+12°C	Pdh	5.0	kW	T <sub>i</sub> =+12°C	COPd or		-
1,-1120	i dii		7,,,,	1,-1120		741.0	%
T -bivolent temperature	Pdh	13.0	kw	T <sub>biv</sub> =bivalent	GUEh,bin / AEFh,bin COPd or		1
T <sub>biv</sub> =bivalent temperature	Full	10.0	]ĸvv	temperature		234.0	%
		10.3	1		GUEh,bin / AEFh,bin		-
T <sub>OL</sub> =operation limit	Pdh	10.3	kW	T <sub>OL</sub> =operation lin		217.0	%
			1		GUEh,bin / AEFh,bin		
For air-to-water heat pumps :	Pdh		kW	For air-to-water		_	%
T <sub>j</sub> =-15℃				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		j
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
			7				1
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air	heat		
			7	pumps:Operation	n limit	_	°C
Degradation				T <sub>ol</sub> temperature			]
coefficient	$C_{dh}$	0.25	-				
heat pumps**							
							-
Power consumpiton in modes other	er than 'active mode'			Supplementary h	neater elbu	.   _	kW
				back-up heating		'   _	KVV
Off mode	P <sub>OFF</sub>	0.040	kW				-
Thermostat-off mode	P <sub>TO</sub>	0.045	kW	Type of energy in	nput p	0.040	]
Crankcase heater mode	P <sub>CK</sub>	0.040	kW	Standby mode	P <sub>SB</sub>	0.040	kW
			-	'			•
Other items							
				For air-to-air hea	nt pumps:		1.
Capacity control		variable		air flow-rate,outo		6,000	m³/h
Capacity control				an now-rate,out	iooi measured		1
Sound power level,			1	For water /bring	to-air heat pumps :		1
outdoor measured	$L_{WA}$	72.0	dB			_	m³/h
outdoor measured			1	Rated brine or w			,
			1	outdoor side hea	it exchanger		J
Emissions of nitrogen	NOx	l _	mg/kWh				
oxides(if applicable)	***		fuel input				
			GCV				
				1			
			1				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			(100yeais)				
				Ш			
	Mitsubishi heavy indu						
** If Cdh is not determined by mea	surement then the de	efault degra	dation coeffi	cient air conditioners s	shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-	-spilt air conditioners	the test res,	ult and perfo	ormance data be obtain	ned on the basis of the performa	ance	
of the outdoor unit, with a combina	tion of indoor unit(s)	recommend	led by the m	anufacturer or importe	r.		
·	·			· · · · · · · · · · · · · · · · · · ·	·	DEAGO	47080 A

## FDE140VSXPVG

Model(s): FDC140VSX /	FDE71VG	(2 units)					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cool	ling energy		
	Prated,c	14.0	kW	efficiency ηs,c		250.7	%
Declared cooling capacity for part load at gi	ven outdoor	temperatu	res		ciency ratio or gas utilization efficier	•	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	peratures	IJ
Tj=+35°C	Pdc	14.0	kW	Ti-+25°C	EEDd or		1
,			]	Tj=+35°C	EERd or GUEc,bin / AEFc,bin	307.0	%
Tj=+30°C	Pdc	10.3	kW	Tj=+30°C	EERd or		
			_	1,1 100 0	GUEc,bin / AEFc,bin	524.0	%
Tj=+25°C	Pdc	6.6	kW	Tj=+25°C	EERd or	700.0	0/
					GUEc,bin / AEFc,bin	798.0	%
Tj=+20°C	Pdc	5.6	kW	Tj=+20°C	EERd or	1,285.0	%
			_		GUEc,bin / AEFc,bin	1,200.0	70
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**							
Power consumpiton in other than 'active mo	ode'						
Off mode	P <sub>OFF</sub>	0.035	kW	Crankcase heater me	ode P <sub>CK</sub>	0.035	kW
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	P <sub>SB</sub>	0.035	kW
memostat-on mode	• 10	0.000	7,,,,	Cianaby mode	· SB	0.000	]
Other items							
				For air-to-air air cond	ditioner:	0.000	3,,
Capacity control		variable		air flow-rate,outdoor	measured	6,000	m <sup>3</sup> /h
					·		•
Sound power level,	$L_{WA}$	72.0	dB				
outdoor	-WA	72.0					
			,				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
GWP of the			kaco				
		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			]				
Contact details Mitsubish	i heavy indu	stries thern	nal systems,L	TD			
** If Cdc is not determined by measuremen					hall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o	conditioners,	the test res	sult and perfo	rmance data be obtain	ed on the basis of the performance	:	
of the outdoor unit, with a combination of in							
						PFA004	17000 8

Information to identify the model(s)	to which the informa	ation relates	:	FDC140VSX /	FDE71VG (2 units)		
Outdoor side heat exchanger of hea	at pump :	air					
Indoor side heat exchanger of heat	pump :	air					
Indication if the heater is equipped	with a supplementar	ry heater :		No			
if applicable : electric moto	г						
Parameters shall be declared for th	e average heating s	eason , par	ameters for	the warmer and colder h	neating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heat	ing energy efficiency ηs,h		
	Prated,h	16.0	kW			156.8	%
Declared heating capacity for part le	oad at indoor tempe	rature 20°C		Declared coefficient of	of performance or gas utilizatio	n efficiency /	
and outdoor temperature Tj				auxiliary energy facto	or for part load at given outdoor	temperatures	; Tj
			7				1
T <sub>j</sub> =-7°C	Pdh	13.7	kW	T <sub>j</sub> =-7°C	COPd or	213.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	8.4	kW	T <sub>j</sub> =+2°C	COPd or	393.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	5.4	kW	T <sub>j</sub> =+7°C	COPd or	568.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	5.0	kW	T <sub>j</sub> =+12°C	COPd or	758.0	%
		45.5	1		GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	15.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or	230.0	%
		44.0	1		GUEh,bin / AEFh,bin		
T <sub>OL</sub> =operation limit	Pdh	11.9	kW	T <sub>OL</sub> =operation limi		220.0	%
			1		GUEh,bin / AEFh,bin		
For air-to-water heat pumps :	Pdh		kW	For air-to-water he		_	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		J
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
Bivalent temperature	T <sub>biv</sub>	-10.0	°c	For water-to-air he	eat		1
Divalent temperature	i biv		] ~	pumps:Operation I		_	°C
Degradation			1	T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25		10 tomporataro			J
heat pumps**	Odn						
			_				
Power consumpiton in modes other	than 'active mode'			Supplementary he	ater		1
Tower concumption in modes canon	andir douve mode			back-up heating ca	eibu	_	kW
Off mode	P <sub>OFF</sub>	0.035	kW	buok up neuting of	apaorty		
Thermostat-off mode	P <sub>TO</sub>	0.040	kW	Type of energy inp	out 5		]
Crankcase heater mode	P <sub>CK</sub>	0.035	kW	Standby mode	P <sub>SB</sub>	0.035	kW
			-				•
Other items							
			_	For air-to-air heat	pumps:	6,000	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outdo	or measured	0,000	1111 711
		_	_				-
Sound power level,	$L_{WA}$	72.0	dB	For water-/brine-to	o-air heat pumps :		
outdoor measured	-wa			Rated brine or wat	ter fiow-rate,	_	m³/h
			-	outdoor side heat	exchanger		
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	NOX ***	-	fuel input				
			GCV				
				1			
			7				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant			(100years)				
1				П			
	litsubishi heavy indu				-11 h - 0.05		
** If Cdh is not determined by meas	surement then the de	eraurt degra	uation coeffi	cient air conditioners sha	all pe 0,25.		
*** from 26 September 2018							
Where information relates to multi-s						nce	
of the outdoor unit, with a combinat	ion of indoor unit(s)	recommend	led by the m	anufacturer or importer.			
						PFA004	17090 🛦

#### FDE140VNXTVG

Model(s): FDC140VNX /	FDE50VG	(3 units)					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	-		
	Prated,c	14.0	kW	efficiency ηs,c	0	243.6	%
Declared cooling capacity for part load at gi	iven outdoor	temperatu	res	Declared energy effi	ciency ratio or gas utilization efficie	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fact	or for part load at given outdoor tem	peratures	Гј
Tj=+35°C	Pdc	14.0	kW	Tj=+35°C	EERd or	307.0	%
			_		GUEc,bin / AEFc,bin	307.0	70
Tj=+30°C	Pdc	10.3	kW	Tj=+30°C	EERd or	514.0	%
					GUEc,bin / AEFc,bin	314.0	70
Tj=+25°C	Pdc	6.6	kW	Tj=+25°C	EERd or	782.0	%
					GUEc,bin / AEFc,bin	702.0	70
Tj=+20°C	Pdc	5.6	kW	Tj=+20°C	EERd or	1,259.0	%
			_		GUEc,bin / AEFc,bin	1,239.0	70
Degradation			]				-
coefficient for	Cdc	0.25	-				
air conditioners**							
Power consumpiton in other than 'active mo	ode'						
			_				_,
Off mode	$P_{OFF}$	0.040	kW	Crankcase heater m	ode P <sub>CK</sub>	0.040	kW
Thermostat-off mode	$P_{TO}$	0.000	kW	Standby mode	$P_{SB}$	0.040	kW
Other items							1
			,	For air-to-air air con-	ditioner:	6,000	m <sup>3</sup> /h
Capacity control		variable	_	air flow-rate,outdoor	measured	ŕ	
			,				
Sound power level,	$L_{WA}$	72.0	dB				
outdoor			]				
			,				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
			, l				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant			(100years)				
•	-		nal systems,L				
** If Cdc is not determined by measuremen	t then the de	erault degra	adation coeffic	cient air conditioners s	naii be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o						•	
of the outdoor unit, with a combination of in	door unit(s)	recommen	ded by the ma	anufacturer or importe	r.		
						PFA004	17080 🖟

Information to identify the model(s) to which	h the inform:	ation relates		FDC140VNX /	FDE50VG (3 units)		
Outdoor side heat exchanger of heat pump			·	1 DO 140 VIVA	1 DEGOVO (O unito)		
Indoor side heat exchanger of heat pump :	•	air					
Indication if the heater is equipped with a s	unnlementa	air rv heater ·		No			
if applicable : electric motor	арріотіотіа	i y moutor .					
Parameters shall be declared for the avera	ge heating s	season . para	ameters for	the warmer and colder hea	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Gymbol	Value	Offic		g energy efficiency ηs,h	Value	Offic
Trated Heating capacity	Prated,h	16.0	kW	Ocasonal space neating	g energy emolericy rps,ii	159.3	%
Declared heating capacity for part load at in	ndoor tempe	erature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj					for part load at given outdoor t		Tj
			_				
T <sub>j</sub> =-7°C	Pdh	11.5	kW	T <sub>j</sub> =-7°C	COPd or	227.0	%
					GUEh,bin / AEFh,bin	227.0	,,,
T <sub>j</sub> =+2°C	Pdh	7.0	kW	T <sub>j</sub> =+2°C	COPd or	391.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	4.5	kW	T <sub>j</sub> =+7°C	COPd or	595.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	5.0	kW	T <sub>j</sub> =+12°C	COPd or	741.0	%
		42.0	1		GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	13.0	kW	T <sub>biv</sub> =bivalent temperature	COPd or	234.0	%
T concretion limit	Pdh	10.3	kW	11	GUEh,bin / AEFh,bin		
T <sub>OL</sub> =operation limit	Pull	10.5	KVV	T <sub>OL</sub> =operation limit		217.0	%
For sints weeter book sweeter	Pdh	_	kW		GUEh,bin / AEFh,bin		
For air-to-water heat pumps :  T <sub>i</sub> =-15°C	Pull		IKVV	For air-to-water heat pumps:T <sub>i</sub> =-15°C	GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			ı
( 102 4 25 27				(**************************************			
Bivalent temperature	$T_biv$	-10.0	°C	For water-to-air heat	t		
			•	pumps:Operation lin	nit	_	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				-
heat pumps**			]				
							1
Power consumpiton in modes other than 'a	ctive mode'			Supplementary heat	er elbu	_	kW
	_		1	back-up heating cap	acity		
Off mode	P <sub>OFF</sub>	0.040	kW				1
Thermostat-off mode Crankcase heater mode	P <sub>TO</sub>	0.045	kW	Type of energy input	t P <sub>SB</sub>	0.040	kW
Crankcase neater mode	P <sub>CK</sub>	0.040	kW	Standby mode			ļ
Out it							
Other items				For air to air boat pu	impe:		1
Capacity control		variable	1	For air-to-air heat pu air flow-rate,outdoor		6,000	m <sup>3</sup> /h
Capacity Control			1	all llow-rate,outdoor	measured		J
Sound power level,			]	For water-/brine-to-a	air heat numns :		1
outdoor measured	$L_{WA}$	72.0	dB	Rated brine or water		_	m³/h
				outdoor side heat ex			
Emissions of nitrogen			mg/kWh		-		
oxides(if applicable)	NOx ***	-	fuel input				
			GCV				
			7				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant			(100years)				
				<u> </u>			
-		ustries therm			he 0.25		
** If Cdh is not determined by measuremen	it trien the de	erauri degrad	ualion coeπi	Jent all conditioners shall	DE U,20.		
*** from 26 September 2018		41			and the best of the		
Where information relates to multi-spilt air					on the basis of the performan	ce	
of the outdoor unit, with a combination of in	woor unit(s)	recommend	eu by the m	аниваскитет от ітпроптет.			
						PFA004	1Z080 🛦

### FDE140VSXTVG

Model(s): FDC140VSX /	FDE50VG	(3 units)					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	oling energy		
	Prated,c	14.0	kW	efficiency ηs,c		250.7	%
		<u> </u>					ļ
Declared cooling capacity for part load at g	iven outdoor	temperatu	res		iciency ratio or gas utilization efficie	•	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fact	or for part load at given outdoor ten	nperatures	IJ
Tj=+35°C	Pdc	14.0	kW	Tj=+35°C	EEDd ox		1
,			]	1]-+35 C	EERd or GUEc,bin / AEFc,bin	307.0	%
Tj=+30°C	Pdc	10.3	kW	Tj=+30°C	EERd or		1
			]	1,7 100 0	GUEc,bin / AEFc,bin	524.0	%
Tj=+25°C	Pdc	6.6	kW	Tj=+25°C	EERd or	700.0	0/
			_		GUEc,bin / AEFc,bin	798.0	%
Tj=+20°C	Pdc	5.6	kW	Tj=+20°C	EERd or	1,285.0	%
			_		GUEc,bin / AEFc,bin	1,200.0	]^*
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**			]				
Power consumpiton in other than 'active mo	ode'						
Off mode	P <sub>OFF</sub>	0.035	kW	Crankcase heater m	node P <sub>CK</sub>	0.035	kW
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	P <sub>SB</sub>	0.035	kW
	10		]		30		1
Other items							
			_	For air-to-air air con	ditioner:	6,000	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outdoor	measured	0,000	JIII /II
			,				
Sound power level,	$L_WA$	72.0	dB				
outdoor			]				
			, l				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			_GCV				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
Tomgorant			]				
Contact details Mitsubish	i heavy indu	stries therr	nal systems,L	.TD			
** If Cdc is not determined by measuremen	t then the de	efault degra	dation coeffic	cient air conditioners s	shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o	conditioners,	the test res	sult and perfo	rmance data be obtair	ned on the basis of the performance	•	
of the outdoor unit, with a combination of in	door unit(s)	recommen	ded by the ma	anufacturer or importe	er.		
						PFA004	17080 🛦

Information to identify the model(s)	to which the informa	ation relates	:	FDC140VSX /	FDE50VG (3 units)		
Outdoor side heat exchanger of he	at pump :	air					
Indoor side heat exchanger of heat	pump :	air					
Indication if the heater is equipped	with a supplementar	ry heater :		No			
if applicable : electric moto	or						
Parameters shall be declared for the	ne average heating s	eason , par	ameters for	the warmer and colder l	heating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space hear	ting energy efficiency ηs,h		
	Prated,h	16.0	kW			156.8	%
Declared heating capacity for part	load at indoor tempe	rature 20°C		Declared coefficient	of performance or gas utilization	on efficiency /	
and outdoor temperature Tj				auxiliary energy facto	or for part load at given outdoo	r temperatures	; Tj
			7				1
T <sub>j</sub> =-7°C	Pdh	13.7	kW	T <sub>j</sub> =-7°C	COPd or	213.0	%
0:			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	8.4	kW	T <sub>j</sub> =+2°C	COPd or	393.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	5.4	kW	T <sub>j</sub> =+7°C	COPd or	568.0	%
- 400-		5.0	1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	5.0	kW	T <sub>j</sub> =+12°C	COPd or	758.0	%
T	Dalla	15.5	kW	T -bis-land	GUEh,bin / AEFh,bin		-
T <sub>biv</sub> =bivalent temperature	Pdh	15.5	KVV	T <sub>biv</sub> =bivalent temperature	COPd or	230.0	%
T	Pdh	11.9	kW		GUEh,bin / AEFh,bin		-
T <sub>OL</sub> =operation limit	Pan	11.9	IKVV	T <sub>OL</sub> =operation lim		220.0	%
	D.11	_	1		GUEh,bin / AEFh,bin		
For air-to-water heat pumps : T <sub>i</sub> =-15°C	Pdh		kW	For air-to-water he pumps:T <sub>i</sub> =-15°C	eat COPd or GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)	GOEII,DIII / AEFII,DIII		]
(II 1 <sub>0L</sub> <-20 C)				(II 1 <sub>OL</sub> <-20 C)			
Bivalent temperature	T <sub>biv</sub>	-10.0	l°c	For water-to-air he	eat		1
Bivaioni temperature	* biv		l .	pumps:Operation		_	°C
Degradation			1	T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	_				1
heat pumps**	-uii						
			-1				
Power consumpiton in modes othe	r than 'active mode'			Supplementary he	eater		]
,				back-up heating c	eibu	_	kW
Off mode	P <sub>OFF</sub>	0.035	kW				
Thermostat-off mode	P <sub>TO</sub>	0.040	kW	Type of energy in	put P <sub>SB</sub>	0.035	kW
Crankcase heater mode	P <sub>CK</sub>	0.035	kW	Standby mode	r <sub>SB</sub>	0.035	KVV
			_				_
Other items							_
		-	_	For air-to-air heat	pumps:	6,000	m³/h
Capacity control		variable		air flow-rate,outdo	oor measured	3,000	/
		-	_				
Sound power level,	L <sub>WA</sub>	72.0	dB	For water-/brine-to	o-air heat pumps :		
outdoor measured				Rated brine or wa	ter fiow-rate,	_	m³/h
			7	outdoor side heat	exchanger		]
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	-	fuel input				
			GCV				
				-			
			7				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			(Tooyears)	П			
				П			
0				II.			
** If Cdh is not determined by mean	Mitsubishi heavy indu				nall he 0.25		
	oarament then the de	Jiaun uegia	aauon welli	oronicali contuitioners si	iun 55 U,2U.		
*** from 26 September 2018		Alexa de la constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della constantina della			and a section of the section of		
Where information relates to multi-						ance	
of the outdoor unit, with a combination	uon oi inaoor unit(s)	recommend	ied by the m	ianuracturer or importer.			
L						DEAGO	17080 A

# Models FDE40VG, 50VG, 60VG, 71VG, 100VG, 125VG, 140VG

Model(s): FDE40VG												
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit					
Cooling capacity (sensible)	$P_{rated,c}$	3.4	kW	Total electric power input	$P_{elec}$	0.050	kW					
Cooling capacity (latent)	P <sub>rated,c</sub>	0.6	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	60.0	dB					
Heating capacity	P <sub>rated,h</sub>	4.5	kW									
Contact details	Mitsubishi h	fitsubishi heavy industries thermal systems,LTD										

Model(s): FDE50VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{\text{rated,c}}$	3.8	kW	Total electric power input	P <sub>elec</sub>	0.050	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	1.2	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	60.0	dB
Heating capacity	$P_{\text{rated,h}}$	5.4	kW				
Contact details	Mitsubishi I	heavy ind	ustries the	rmal systems,LTD			

Model(s): FDE60VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	5.0	kW	Total electric power input	P <sub>elec</sub>	0.080	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	0.6	kW	Sound power level (per speed setting,if applicable)	$L_WA$	60.0	dB
Heating capacity	P <sub>rated,h</sub>	6.7	kW				
Contact details	Mitsubishi I	neavy indu	ustries the	mal systems,LTD			

Model(s): FDE71VG							
ltem	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	5.6	kW	Total electric power input	$P_{elec}$	0.080	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	1.5	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	60.0	dB
Heating capacity	$P_{rated,h}$	8.0	kW				
Contact details	Mitsubishi h	neavy indu	ustries the	rmal systems,LTD			

Model(s): FDE100VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Uni
Cooling capacity (sensible)	$P_{rated,c}$	8.4	kW	Total electric power input	$P_{elec}$	0.130	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	1.6	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	64.0	dB
Heating capacity	$P_{\text{rated,h}}$	11.2	kW				
Contact details	Mitsubishi	neavy indu	ustries the	mal systems,LTD			

odel(s): FDE125VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	ι
Cooling capacity (sensible)	$P_{rated,c}$	9.3	kW	Total electric power input	P <sub>elec</sub>	0.130	k'
Cooling capacity (latent)	$P_{\text{rated,c}}$	3.2	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	64.0	dl
Heating capacity	$P_{\text{rated,h}}$	14.0	kW				
Contact details	Mitsubishi I	neavy indu	ustries the	rmal systems,LTD			

Model(s): FDE140VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	10.2	kW	Total electric power input	P <sub>elec</sub>	0.140	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	3.8	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	65.0	dB
Heating capacity	$P_{\text{rated},h}$	16.0	kW				
Contact details	Mitsubishi h	Aitsubishi heavy industries thermal systems,LTD					

PFA004Z080 A

# (2) Duct connected-Low/Middle static pressure type (FDUM)

### FDUM40ZSXVF

Information to identify the model(s) to Indoor unit model name Outdoor unit model name Function(indicate if present) cooling heating  Item Design load cooling heating / Average heating / Colder  Declared capacity at outdoor tempers heating / Average (-10°C) heating / Average (-10°C) heating / Colder  Declared capacity for cooling, at indo outdoor temperature Tj Tj=35°C Tj=25°C Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit	FDUM40VF   SRC40ZSX-S     Yes	information relates to. Indicated values heating season at a time. Include at lease heating season at a time. Include at lease heating season at a time. Include at lease heating (manual season seaso	s should relate to ast the heating  Yes No No Symbol ncy class SEER SCOP/A SCOP/C SEED SEOP/C SEOP/C SEED SEOP/C SE	value class  6.01 A+ 4.15 A+ unit  signh 0.713 kW - kW  e 27(19)°C and  4.17 - 5.57 - 7.45 - 10.27 -
Outdoor unit model name  Function(indicate if present) cooling heating  Item  Design load cooling heating / Average heating / Warmer heating / Colder  Declared capacity at outdoor tempers heating / Average (-10°C) heating / Warmer (2°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared capacity for cooling, at indo outdoor temperature Tj Tj=35°C Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Yes   Yes   Yes   Symbol   Value   Unit	heating season at a time. Include at lease Average(mandatory) Warmer(if designated) Colder(if designated)  Item Seasonal efficiency and energy efficient cooling heating / Average heating / Warmer heating / Colder  Back up heating capacity at outdoor tert heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared energy efficiency ratio, at indocutdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor temperature 20°C Tj=7°C Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature	yes No No Symbol noy class SEER SCOP/A SCOP/W SCOP/C Imperature Tde elbu elbu elbu elbu SEERd EERd EERd EERd EERd EERd EERd COPd COPd COPd COPd	value class  6.01 A+ 4.15 A+ unit signh 0.713 kW - kW - kW  e 27(19)°C and  4.17 - 5.57 - 7.45 - 10.27 -  n, at indoor  2.88 - 4.34 - 4.90 -
Function(indicate if present) cooling heating  Item  Design load cooling heating / Average heating / Warmer heating / Colder  Declared capacity at outdoor temper heating / Average (-10°C) heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared capacity for cooling, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Yes         Yes           Yes         yes           symbol         value         unit           Pdesignc         4.0         kW           Pdesignh         -         kW           Pdesignh         -         kW           Pdesignh         -         kW           Pdh         -         kW           Pdh         -         kW           Pdh         -         kW           Pdc         4.00         kW           Pdc         2.95         kW           Pdc         1.51         kW           age season, at indoor erature Tj         Pdh         3.05         kW           Pdh         1.79         kW           Pdh         1.21         kW           Pdh         3.05         kW           Pdh         3.05         kW           Pdh         2.35         kW	Average(mandatory) Warmer(if designated) Colder(if designated)  Item Seasonal efficiency and energy efficient cooling heating / Average heating / Warmer heating / Colder  Back up heating capacity at outdoor tendering / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared energy efficiency ratio, at indecoutdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor temperature Tj=7°C Tj=7°C Tj=2°C Tj=2°C Tj=12°C Tj=12°C Tj=500 Tj=12°C Tj=12°C Tj=1000 Tj=1	Yes No No Symbol moy class SEER SCOP/A SCOP/W SCOP/C Emperature Tde elbu elbu elbu elbu elbu Average seasor ature Tj COPd COPd COPd COPd COPd	value class  6.01 A+ 4.15 A+   unit signh 0.713 kW  - kW  - kW  e 27(19)°C and  4.17 - 5.57 - 7.45 - 10.27 -  n, at indoor  2.88 - 4.34 - 4.90 -
cooling heating  Item  Design load cooling heating / Average heating / Warmer heating / Colder  Declared capacity at outdoor temperature / Colder /	Yes           symbol         value         unit           Pdesignc         4.0         kW           Pdesignh         3.5         kW           Pdesignh         -         kW           Pdesignh         -         kW           ature Tdesignh         -         kW           Pdh         -         kW           Pdh         -         kW           Por temperature 27(19)°C and         WW           Pdc         1.90         kW           Pdc         1.90         kW           Pdc         1.51         kW           age season, at indoor         erature Tj         Pdh         3.05         kW           Pdh         1.79         kW         Pdh         1.79         kW           Pdh         1.21         kW         Pdh         3.05         kW           Pdh         3.05         kW         Pdh         2.35         kW	Warmer(if designated) Colder(if designated)  Item Seasonal efficiency and energy efficiencooling heating / Average heating / Warmer heating / Colder  Back up heating capacity at outdoor ter heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared energy efficiency ratio, at indoutdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature	symbol ncy class SEER SCOP/A SCOP/W SCOP/C Imperature Tde elbu elbu elbu oor temperature EERd EERd EERd EERd EERd EERd COPd COPd COPd COPd COPd	6.01 A+ 4.15 A+ unit signh 0.713 kW kW kW e 27(19)°C and  4.17 - 5.57 - 7.45 - 10.27 - n, at indoor  2.88 - 4.34 - 4.90 -
cooling heating  Item  Design load cooling heating / Average heating / Warmer heating / Colder  Declared capacity at outdoor temperature / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder / Colder /	Yes           symbol         value         unit           Pdesignc         4.0         kW           Pdesignh         3.5         kW           Pdesignh         -         kW           Pdesignh         -         kW           ature Tdesignh         -         kW           Pdh         -         kW           Pdh         -         kW           Por temperature 27(19)°C and         WW           Pdc         1.90         kW           Pdc         1.90         kW           Pdc         1.51         kW           age season, at indoor         erature Tj         Pdh         3.05         kW           Pdh         1.79         kW         Pdh         1.79         kW           Pdh         1.21         kW         Pdh         3.05         kW           Pdh         3.05         kW         Pdh         2.35         kW	Warmer(if designated) Colder(if designated)  Item Seasonal efficiency and energy efficiencooling heating / Average heating / Warmer heating / Colder  Back up heating capacity at outdoor ter heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared energy efficiency ratio, at indoutdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature	symbol ncy class SEER SCOP/A SCOP/W SCOP/C Imperature Tde elbu elbu elbu oor temperature EERd EERd EERd EERd EERd EERd COPd COPd COPd COPd COPd	6.01 A+ 4.15 A+ unit signh 0.713 kW kW kW e 27(19)°C and  4.17 - 5.57 - 7.45 - 10.27 - n, at indoor  2.88 - 4.34 - 4.90 -
heating  Item  Design load cooling heating / Average heating / Warmer heating / Colder  Declared capacity at outdoor temper heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared capacity for cooling, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Yes           symbol         value         unit           Pdesignc         4.0         kW           Pdesignh         3.5         kW           Pdesignh         -         kW           Pdesignh         -         kW           ature Tdesignh         -         kW           Pdh         -         kW           Pdh         -         kW           Por temperature 27(19)°C and         WW           Pdc         1.90         kW           Pdc         1.90         kW           Pdc         1.51         kW           age season, at indoor         erature Tj         Pdh         3.05         kW           Pdh         1.79         kW         Pdh         1.79         kW           Pdh         1.21         kW         Pdh         3.05         kW           Pdh         3.05         kW         Pdh         2.35         kW	Colder(if designated)   Item   Seasonal efficiency and energy efficiencooling   heating / Average   heating / Warmer   heating / Colder     Back up heating capacity at outdoor tendering / Average (-10°C)   heating / Warmer (2°C)   heating / Colder (-22°C)     Declared energy efficiency ratio, at independent outdoor temperature Tj   Tj=35°C   Tj=30°C   Tj=25°C   Tj=20°C     Declared coefficient of performance / A   temperature 20°C and outdoor temperature 21°C   Tj=7°C   Tj=7°C   Tj=12°C   Tj=12°C   Tj=bivalent temperature	symbol ncy class SEER SCOP/A SCOP/W SCOP/C Imperature Tde elbu elbu elbu elbu selbu Oor temperature EERd EERd EERd EERd EERd EERd COPd COPd COPd COPd	6.01 A+ 4.15 A+ unit signh 0.713 kW kW kW e 27(19)°C and  4.17 - 5.57 - 7.45 - 10.27 - n, at indoor  2.88 - 4.34 - 4.90 -
Item  Design load cooling heating / Average heating / Warmer heating / Colder  Declared capacity at outdoor tempers heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared capacity for cooling, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Symbol value	Item  Seasonal efficiency and energy efficien cooling heating / Average heating / Warmer heating / Colder  Back up heating capacity at outdoor ter heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared energy efficiency ratio, at indocutdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=7°C Tj=2°C Tj=7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature	symbol mcy class SEER SCOP/A SCOP/W SCOP/C Emperature Tde elbu elbu elbu elbu oor temperature EERd EERd EERd EERd EERd CERd COPd COPd COPd	6.01 A+ 4.15 A+ unit signh 0.713 kW kW kW e 27(19)°C and  4.17 - 5.57 - 7.45 - 10.27 - n, at indoor  2.88 - 4.34 - 4.90 -
Design load cooling heating / Average heating / Colder  Declared capacity at outdoor temper heating / Average (-10°C) heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared capacity for cooling, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdesignc	Seasonal efficiency and energy efficiencooling heating / Average heating / Warmer heating / Colder  Back up heating capacity at outdoor ter heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared energy efficiency ratio, at indoo outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Tj=7°C Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature	ncy class SEER SCOP/A SCOP/C SEMPLE TO SECOPIC S	6.01 A+ 4.15 A+ unit signh 0.713 kW kW kW e 27(19)°C and  4.17 - 5.57 - 7.45 - 10.27 - n, at indoor  2.88 - 4.34 - 4.90 -
Design load cooling heating / Average heating / Colder  Declared capacity at outdoor temper heating / Average (-10°C) heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared capacity for cooling, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdesignc	cooling heating / Average heating / Warmer heating / Colder  Back up heating capacity at outdoor ter heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared energy efficiency ratio, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	ncy class SEER SCOP/A SCOP/C SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC SEMPLE TO SECOPIC S	6.01 A+ 4.15 A+ unit signh 0.713 kW kW kW e 27(19)°C and  4.17 - 5.57 - 7.45 - 10.27 - n, at indoor  2.88 - 4.34 - 4.90 -
cooling heating / Average heating / Warmer heating / Colder  Declared capacity at outdoor temper heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared capacity for cooling, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdesignh	cooling heating / Average heating / Warmer heating / Colder  Back up heating capacity at outdoor ter heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared energy efficiency ratio, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	SEER SCOP/A SCOP/W SCOP/C Imperature Tde elbu elbu elbu oor temperature EERd EERd EERd EERd EERd COPd COPd COPd COPd	4.15 A+
heating / Warmer heating / Colder  Declared capacity at outdoor temperature / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared capacity for cooling, at indooutdoor temperature Tj Tj=35°C Tj=25°C Tj=20°C  Declared capacity for heating / Averatemperature 20°C and outdoor temperature Tj=7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdesignh	heating / Warmer heating / Colder  Back up heating capacity at outdoor ter heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared energy efficiency ratio, at indooutdoor temperature Tj Tj=35°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor temperature 21°C Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature	SCOP/W SCOP/C emperature Tde elbu elbu elbu  oor temperature EERd EERd EERd EERd Average seasor ature Tj COPd COPd COPd	unit signh 0.713 kW - kW - kW  e 27(19)°C and  4.17 - 5.57 - 7.45 - 10.27
heating / Colder  Declared capacity at outdoor temper: heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared capacity for cooling, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdesignh	heating / Colder  Back up heating capacity at outdoor ter heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared energy efficiency ratio, at indooutdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature	scop/c emperature Tde elbu elbu oor temperature EERd EERd EERd EERd COPd COPd COPd	unit signh 0.713 kW - kW - kW e 27(19)°C and 4.17 - 5.57 - 7.45 - 10.27 - n, at indoor  2.88 - 4.34 - 4.90 -
Declared capacity at outdoor tempers heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared capacity for cooling, at indooutdoor temperature Tj Tj=35°C Tj=30°C Tj=20°C  Declared capacity for heating / Averatemperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	ature Tdesignh Pdh	Back up heating capacity at outdoor ten heating / Average (-10°C) heating / Warmer (2°C) heating / Wormer (2°C) heating / Colder (-22°C)  Declared energy efficiency ratio, at indooutdoor temperature Tj Tj=35°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=t2°C Tj=bivalent temperature	emperature Tde elbu elbu elbu  oor temperature  EERd EERd EERd EERd  OVERAGE  EERD  Average seasor ature Tj  COPd COPd COPd COPd	unit signh 0.713 kW - kW - kW e 27(19)°C and 4.17 - 5.57 - 7.45 - 10.27 - n, at indoor  2.88 - 4.34 - 4.90 -
heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared capacity for cooling, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh	heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared energy efficiency ratio, at indooutdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature	elbu elbu elbu  oor temperature  EERd EERd EERd EERd  COPd COPd COPd COPd	e 27(19)°C and  4.17 5.57 7.45 10.27  at indoor  2.88 4.34 4.90
heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared capacity for cooling, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh	heating / Average (-10°C) heating / Warmer (2°C) heating / Colder (-22°C)  Declared energy efficiency ratio, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=7°C Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature	elbu elbu elbu  oor temperature  EERd EERd EERd EERd  COPd COPd COPd COPd	0.713 kW kW e 27(19)°C and  4.17 - 5.57 - 7.45 - 10.27
heating / Warmer (2°C) heating / Colder (-22°C)  Declared capacity for cooling, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh — kW Pdh — kW  oor temperature 27(19)°C and Pdc — 4.00 kW Pdc — 2.95 kW Pdc — 1.51 kW  age season, at indoor erature Tj Pdh — 3.05 kW Pdh — 1.21 kW Pdh — 0.98 kW Pdh — 3.05 kW Pdh — 3.05 kW Pdh — 3.05 kW Pdh — 3.05 kW	heating / Warmer (2°C) heating / Colder (-22°C)  Declared energy efficiency ratio, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	elbu elbu  oor temperature  EERd EERd EERd EERd  OVERAGE SEASOR  ECOPD COPD COPD	
heating / Colder (-22°C)  Declared capacity for cooling, at indood outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared capacity for heating / Averatemperature 20°C and outdoor temperature Tj=7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh — kW  por temperature 27(19)°C and  Pdc	heating / Colder (-22°C)  Declared energy efficiency ratio, at indooutdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature	elbu  oor temperature  EERd EERd EERd EERd  OOPd COPd COPd	- kW e 27(19)°C and  4.17 - 5.57 - 7.45 - 10.27
Declared capacity for cooling, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temperature 20°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdc	Declared energy efficiency ratio, at indo outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	oor temperature  EERd  EERd  EERd  EERd  Average seasor ature Tj  COPd  COPd  COPd  COPd	e 27(19)°C and  4.17 - 5.57 - 7.45 - 10.27 -  n, at indoor  2.88 - 4.34 - 4.90 -
outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdc	outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature	EERd EERd EERd EERd OVERAGE SEASOR EERD  AVERAGE SEASOR COPD COPD COPD COPD	4.17 - 5.57 - 7.45 - 10.27 -  n, at indoor  2.88 - 4.34 - 4.90 -
outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdc	outdoor temperature Tj Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature	EERd EERd EERd EERd OVERAGE SEASOR EERD  AVERAGE SEASOR COPD COPD COPD COPD	4.17 - 5.57 - 7.45 - 10.27 -  n, at indoor  2.88 - 4.34 - 4.90 -
Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdc Pdc 1.90 kW Pdc 1.51 kW Pdc 1.51 kW Pdh 3.05 Pdh 1.79 Pdh 1.21 Pdh 9.98 Pdh 3.05 kW Pdh 2.35 kW Pdh 2.35 kW	Tj=35°C Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=t2°C Tj=bivalent temperature	EERd EERd EERd  Average seasor ature Tj COPd COPd COPd COPd	7.45 - 10.27 - n, at indoor 2.88 - 4.34 - 4.90 -
Tj=30°C Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdc Pdc 1.90 kW Pdc 1.51 kW Pdc 1.51 kW Pdh 3.05 Pdh 1.79 Pdh 1.21 Pdh 9.98 Pdh 3.05 kW Pdh 2.35 kW Pdh 2.35 kW	Tj=30°C Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature	EERd EERd EERd  Average seasor ature Tj COPd COPd COPd COPd	7.45 - 10.27 - n, at indoor 2.88 - 4.34 - 4.90 -
Tj=25°C Tj=20°C  Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdc 1.90 kW Pdc 1.51 kW  age season, at indoor erature Tj Pdh 3.05 kW Pdh 1.79 kW Pdh 1.21 kW Pdh 0.98 kW Pdh 3.05 kW Pdh 2.35 kW	Tj=25°C Tj=20°C  Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature	EERd EERd Average seasor ature Tj COPd COPd COPd COPd	7.45 - 10.27 - n, at indoor 2.88 - 4.34 - 4.90 -
Tj=20°C  Declared capacity for heating / Averatemperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdc         1.51         kW           age season, at indoor erature Tj         3.05         kW           Pdh         1.79         kW           Pdh         1.21         kW           Pdh         0.98         kW           Pdh         3.05         kW           Pdh         2.35         kW	Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	Average seasor ature Tj COPd COPd COPd COPd COPd	10.27 - n, at indoor  2.88 - 4.34 - 4.90 -
Declared capacity for heating / Avera temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	ge season, at indoor erature Tj Pdh 3.05 kW Pdh 1.79 kW Pdh 1.21 kW Pdh 0.98 kW Pdh 3.05 kW Pdh 2.35 kW	Declared coefficient of performance / A temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	Average seasor ature Tj COPd COPd COPd COPd	2.88 - 4.34 - 4.90 -
temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh 3.05 kW Pdh 1.79 kW Pdh 1.21 kW Pdh 0.98 kW Pdh 3.05 kW Pdh 2.35 kW	temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	ature Tj COPd COPd COPd COPd	2.88 - 4.34 - 4.90 -
temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh 3.05 kW Pdh 1.79 kW Pdh 1.21 kW Pdh 0.98 kW Pdh 3.05 kW Pdh 2.35 kW	temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	ature Tj COPd COPd COPd COPd	2.88 - 4.34 - 4.90 -
Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh         3.05         kW           Pdh         1.79         kW           Pdh         1.21         kW           Pdh         0.98         kW           Pdh         3.05         kW           Pdh         2.35         kW	temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	ature Tj COPd COPd COPd COPd	2.88 - 4.34 - 4.90 -
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh         1.79         kW           Pdh         1.21         kW           Pdh         0.98         kW           Pdh         3.05         kW           Pdh         2.35         kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	COPd COPd COPd	4.34 4.90
Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh         1.21         kW           Pdh         0.98         kW           Pdh         3.05         kW           Pdh         2.35         kW	Tj=7°C Tj=12°C Tj=bivalent temperature	COPd COPd	4.90 -
Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh         0.98         kW           Pdh         3.05         kW           Pdh         2.35         kW	Tj=12°C Tj=bivalent temperature	COPd	
Tj=bivalent temperature Tj=operating limit	Pdh 3.05 kW Pdh 2.35 kW	Tj=bivalent temperature	L.	5.17 -
Tj=operating limit	Pdh <b>2.35</b> kW		COPd	
, ,		Tj=operating limit		2.88 -
	ner season, at indoor		COPd	2.37 -
	ner season, at indoor			•
Declared capacity for heating / Warm	ioi oodooii, at illuuul	Declared coefficient of performance / V	Varmer season	ı, at indoor
temperature 20°C and outdoor temper	erature Tj	temperature 20°C and outdoor tempera	ature Tj	
Tj=2℃	Pdh – kW	Tj=2°C	COPd	
Tj=7℃	Pdh – kW	Tj=7°C	COPd	
Tj=12°C	Pdh - kW	Tj=12°C	COPd	
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd	
temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh         —         kW           Pdh         —         kW           Pdh         —         kW           Pdh         —         kW           Pdh         —         kW           Pdh         —         kW	temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit	CÓPd COPd COPd COPd COPd COPd	   
Tj=-15℃	Pdh – kW	Tj=-15℃	COPd	
Discolar Management		On and the self-residence of the self-residence		
Bivalent temperature heating / Average	Tbiv -7 °C	Operating limit temperature heating / Average	Tol	<b>-20</b> °C
heating / Average heating / Warmer	Tbiv -/ °C	heating / Warmer	Tol	-20 °C
heating / Warmer heating / Colder	Tbiv – °C	heating / Colder	Tol	
ricaling / Coluct	TDIV — IC	Treating / Colder	101	<u> </u>
Cycling interval capacity		Cycling interval efficiency		
for cooling	Pcycc - kW	for cooling	EERcyc	
for heating	Pcych – kW	for heating	COPcyc	
	<u> </u>		,-	
Degradation coefficient		Degradation coefficient		
cooling	Cdc <b>0.25</b> -	heating	Cdh	0.25 -
Electric power input in power modes		Annual electricity consumption	0	222 14/4/5/5
off mode	Poff 12 W	cooling	Qce	233 kWh/a
standby mode	Psb 12 W	heating / Average	Qhe	1,182 kWh/a
thermostat-off mode	Pto 15 W	heating / Warmer	Qhe	- kWh/a
crankcase heater mode	Pck 0 W	heating / colder	Qhe	– kWh/a
Canacity control/indicate and of the	a antions)	Other items		
Capacity control(indicate one of three	= opuons)	Other items	Luc	<b>60</b> 40(V)
I		Sound power level(indoor)	Lwa	60 dB(A)
e	L N-	Sound power level(outdoor)	Lwa	63 dB(A)
fixed	No	Global warming potential	GWP	<b>1,975</b> kgCO <sub>2</sub> e
staged	No	Rated air flow(indoor)	- [	<b>780</b> m <sup>3</sup> /h
variable	Yes	Rated air flow(outdoor)	- 1	<b>2,160</b> m <sup>3</sup> /h
	1 22			, 1
Contact details for obtaining	Name and address of the	manufacturer or of its authorised representati	tive.	
	subishi Heavy Industries Air-			
		kbridge, Middlesex, UB11 1ET,		
	ited Kingdom	-		
			$\neg$	PJG000Z466 🛦

FDUM50ZSXVF	\	There e is a second entire		
Information to identify the model(s	s) to which the information relates t FDUM50VF	o: If function includes heating: Indicate the information relates to. Indicated value:		
Outdoor unit model name	SRC50ZSX-S	heating season at a time. Include at le		
Odtdoor driit filoder flame	3KC30Z3X-3	Ineating season at a time. Include at le	ast the neating	season Average.
Function(indicate if present)		Average(mandatory)	Yes	
cooling	Yes	Warmer(if designated)	No	
heating	Yes	Colder(if designated)	No	
	1 199	(·· ====g=/		
Item	symbol value unit	Item	symbol	value class
Design load	•	Seasonal efficiency and energy efficie	ncy class	
cooling	Pdesignc 5.0 kW	cooling	SEER	5.68 A+
heating / Average	Pdesignh 4.3 kW	heating / Average	SCOP/A	4.36 A+
heating / Warmer	Pdesignh – kW	heating / Warmer	SCOP/W	
heating / Colder	Pdesignh – kW	heating / Colder	SCOP/C	
				unit
Declared capacity at outdoor temp		Back up heating capacity at outdoor to		
heating / Average (-10°C)	Pdh <b>3.42</b> kW	heating / Average (-10°C)	elbu 	0.88 kW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu	kW
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu	- kW
Dealared conscitutes cooling at it	-dt	Declared engage efficiency ratio at inc		07/10\°0d
Declared capacity for cooling, at it	ndoor temperature 27 (19) C and	Declared energy efficiency ratio, at inc	loor temperatur	e 27 (19) C and
outdoor temperature Tj Tj=35℃	Pdc <b>5.00</b> kW	outdoor temperature Tj	EERd	3.62 -
Tj=30°C	Pdc 3.69 kW	Tj=30℃	EERd	4.86
Tj=30°C	Pdc <b>2.37</b> kW	Tj=35℃	EERd	6.93
Tj=20°C	Pdc 1.51 kW	Tj=20°C	EERd	9.50 -
1]-20 0	1.01   1.01	1]-20 0	LLING	3.00
Declared capacity for heating / Av	verage season, at indoor	Declared coefficient of performance /	Average seaso	n at indoor
temperature 20°C and outdoor ter		temperature 20°C and outdoor temper		,
Tj=-7°C	Pdh 3.78 kW	Tj=-7°C	COPd	2.86 -
Tj=2°C	Pdh <b>2.31</b> kW	∏i=2°C	COPd	4.33 -
Tj=7℃	Pdh <b>1.50</b> kW	∏j=7°C	COPd	5.51 -
Tj=12°C	Pdh <b>0.98</b> kW	Tj=12°C	COPd	6.76 -
Tj=bivalent temperature	Pdh <b>3.78</b> kW	Tj=bivalent temperature	COPd	2.86 -
Tj=operating limit	Pdh <b>2.82</b> kW	Tj=operating limit	COPd	2.47 -
	· · ·			•
Declared capacity for heating / Wa		Declared coefficient of performance /		n, at indoor
temperature 20°C and outdoor ter		temperature 20°C and outdoor temper		
Tj=2°C	Pdh <u> </u>	Tj=2°C	COPd	
Tj=7°C	Pdh <u>–</u> kW	Tj=7°C	COPd	
Tj=12°C	Pdh <u> </u>	Tj=12°C	COPd	
Tj=bivalent temperature	Pdh <u> </u>	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd	
Dealers described to the discription of the	Idea tinda	Design to the state of the stat	0-14	-4 to -1
Declared capacity for heating / Co		Declared coefficient of performance /		at indoor
temperature 20°C and outdoor ter	Pdh - kW	temperature 20°C and outdoor temper	COPd	
Tj=-7°C Tj=2°C	Pdh – kW	Tj=-7°C Ti=2°C	COPd	<del>  </del> -
Tj=2°C	Pdh – kW	Ti=7°C	COPd	<del></del>
Tj=12°C	Pdh – kW	Tj=12°C	COPd	<del></del> -
Tj=bivalent temperature	Pdh - kW	Tj=12 0	COPd	
Tj=blvalent temperature Tj=operating limit	Pdh – kW	Tj=operating limit	COPd	
Ti=-15°C	Pdh – kW	Tj=-15°C	COPd	
1]=-13 0	I dii Kvv		- COI u	<u> </u>
Bivalent temperature		Operating limit temperature		
heating / Average	Tbiv -7 °C	heating / Average	Tol	<b>-20</b> ℃
heating / Warmer	Tbiv − °C	heating / Warmer	Tol	_ ℃
heating / Colder	Tbiv – °C	heating / Colder	Tol	_ ℃
, and the second	, ,	— · · · · · · · · · · · · · · · · · · ·		
Cycling interval capacity		Cycling interval efficiency		
for cooling	Pcycc – kW	for cooling	EERcyc	
for heating	Pcych - kW	for heating	COPcyc	
Degradation coefficient	0.1	Degradation coefficient	0.11	
cooling	Cdc <b>0.25</b> -	heating	Cdh	0.25 -
Floatric manual insult in manual mana	dan atlan than lanting madel	Annual algebricity consumention		
Electric power input in power mod off mode	Poff 12 W	Annual electricity consumption cooling	Qce	<b>309</b> kWh/a
standby mode	Psb 12 W	heating / Average	Qhe	1,382 kWh/a
thermostat-off mode	Pto 15 W	heating / Average	Qhe	- kWh/a
crankcase heater mode	Pck 0 W	heating / volder	Qhe	- kWh/a
Granikoado filoator fiload	1 SK   0   11	Hodaling / Goldon	QIIO	KVVII/G
Capacity control(indicate one of the	ree options)	Other items		
, ,	,	Sound power level(indoor)	Lwa	<b>60</b> dB(A)
		Sound power level(outdoor)	Lwa	<b>63</b> dB(A)
fixed	No	Global warming potential	GWP	1,975 kgCO <sub>2</sub> eq.
staged	No	Rated air flow(indoor)	±,	780 m <sup>3</sup> /h
		<b>⊣</b> ∣ ` '	-	
variable	Yes	Rated air flow(outdoor)		<b>2,400</b> m <sup>3</sup> /h
Contact details for obtaining	Name and address of the m	nanufacturer or of its authorised representa	ative	
	Mitsubishi Heavy Industries Air-Co		iuve.	
	5 The Square, Stockley Park, Uxbi			
	United Kingdom	J . , · · - · · ·		
]	<u>.</u>			
				P IG0007466 A

### FDUM60ZSXVF

Information to identify the model(s) to w	hich the in	formation	relates to:	If function includes heating: Indicate the h	eating seas	son the	
Indoor unit model name	FDUM		rolatoo to.	information relates to. Indicated values sh			
Outdoor unit model name	SRC6	0ZSX-S		heating season at a time. Include at least			verage'.
Function(indicate if present)				Average(mandatory)	Yes		
cooling	Yes			Warmer(if designated)	No		
heating	Yes			Colder(if designated)	No		
lto me	as made al	value		la ma	ا م ما مدر د	lu.a	-1
Item Design load	symbol	value	unit	Item Seasonal efficiency and energy efficiency	symbol	value	class
cooling	Pdesigno	5.6	lkW	cooling	SEER	6.42	A++
heating / Average	Pdesignh		kW	heating / Average	SCOP/A	4.37	A+
heating / Warmer	Pdesignh		kW	heating / Warmer	SCOP/W	-	_
heating / Colder	Pdesignh		kW	heating / Colder	SCOP/C		_
ricating / Colder	1 designin	1	ICVV	ricating / Golder	000170	<u> </u>	unit
Declared capacity at outdoor temperatu	re Tdesign	ıh		Back up heating capacity at outdoor temp	erature Tde	esianh	unit
heating / Average (-10°C)	Pdh	4.50	kW	heating / Average (-10°C)	elbu	0.90	kW
heating / Warmer (2°C)	Pdh	_	kW	heating / Warmer (2°C)	elbu	_	kW
heating / Colder (-22°C)	Pdh		kW	heating / Colder (-22°C)	elbu		kW
		1					
Declared capacity for cooling, at indoor	temperatu	re 27(19)°	C and	Declared energy efficiency ratio, at indoor	temperatu	re 27(19)°C	and
outdoor temperature Tj		,		outdoor temperature Tj		` '	
Tj=35°C	Pdc	5.60	kW	Tj=35°C ,	EERd	3.64	]-
Tj=30°C	Pdc	4.13	kW	Tj=30°C	EERd	5.23	-
Tj=25°C	Pdc	2.65	kW	Tj=25°C	EERd	7.68	-
Tj=20°C	Pdc	1.48	kW	Tj=20°C	EERd	13.10	1-
Declared capacity for heating / Average	season, a	t indoor		Declared coefficient of performance / Ave		n, at indoor	•
temperature 20°C and outdoor tempera	ture Tj		_	temperature 20°C and outdoor temperatu	re Tj		
Tj=-7°C	Pdh	4.80	kW	Tj=-7°C	CÓPd	2.91	]-
Tj=2°C	Pdh	2.85	kW	Tj=2°C	COPd	4.35	]-
Tj=7°C	Pdh	1.77	kW	Tj=7°C	COPd	5.62	1-
Tj=12°C	Pdh	0.97	kW	Tj=12°C	COPd	5.77	-
Tj=bivalent temperature	Pdh	4.80	kW	Tj=bivalent temperature	COPd	2.91	-
Tj=operating limit	Pdh	4.00	kW	Tj=operating limit	COPd	2.50	-
, ,				, ,			
Declared capacity for heating / Warmer	season, at	t indoor		Declared coefficient of performance / Wa	rmer seasoi	n, at indoor	
temperature 20°C and outdoor tempera	ture Tj			temperature 20°C and outdoor temperatu	re Tj		
Tj=2°C	Pdh	_	kW	Tj=2°C	COPd	_	]-
Tj=7°C	Pdh	_	kW	Tj=7°C	COPd	_	]-
Tj=12°C	Pdh	_	kW	Tj=12°C	COPd	_	1-
Tj=bivalent temperature	Pdh	_	kW	Tj=bivalent temperature	COPd	_	1-
Tj=operating limit	Pdh	_	kW	Tj=operating limit	COPd	_	-
		•					•
Declared capacity for heating / Colder s	eason, at i	ndoor		Declared coefficient of performance / Cole	der season,	at indoor	
temperature 20°C and outdoor tempera	ture Tj			temperature 20°C and outdoor temperatu	re Tj		
Tj=-7℃	Pdh	_	kW	Tj=-7°C	CÓPd	_	]-
Tj=2°C	Pdh	_	kW	Tj=2°C	COPd	_	1-
Tj=7°C	Pdh	_	kW	Tj=7°C	COPd	_	1-
Tj=12°C	Pdh	_	kW	Tj=12°C	COPd	_	-
Tj=bivalent temperature	Pdh	_	kW	Tj=bivalent temperature	COPd	_	1-
Tj=operating limit	Pdh	_	kW	Tj=operating limit	COPd	_	1_
Tj=-15℃	Pdh	_	kW	Tj=-15°C	COPd	_	-
			,				
Bivalent temperature				Operating limit temperature			
heating / Average	Tbiv	-7	°C	heating / Average	Tol	-20	°C
heating / Warmer	Tbiv	_	°C	heating / Warmer	Tol	_	°C
heating / Colder	Tbiv	_	°C	heating / Colder			°C
				rieating / Colder	Tol		
					Tol		
Cycling interval capacity				Cycling interval efficiency			
Cycling interval capacity for cooling	Pcycc	_	kW		Tol		]-
	Pcycc Pcych		kW kW	Cycling interval efficiency			-  -  -
for cooling for heating	•			Cycling interval efficiency for cooling for heating	EERcyc	_ 	-  -
for cooling for heating  Degradation coefficient	Pcych	_		Cycling interval efficiency for cooling for heating  Degradation coefficient	EERcyc COPcyc		]-
for cooling for heating	•			Cycling interval efficiency for cooling for heating	EERcyc		]-  -  -
for cooling for heating  Degradation coefficient cooling	Pcych	0.25	kW ]-	Cycling interval efficiency for cooling for heating  Degradation coefficient heating	EERcyc COPcyc		]-
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes otl	Pcych  Cdc  ner than 'ac	0.25	kw -	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption	EERcyc COPcyc	0.25	]-  -
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes oth off mode	Pcych  Cdc  ner than 'acc Poff	0.25	]kW ]- ]'W	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling	EERcyc COPcyc Cdh	0.25	]-  -  -
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes oth off mode standby mode	Cdc ner than 'ac Poff Psb	0.25	kW ]- ]' ]W	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average	EERcyc COPcyc Cdh	0.25	- - kWh/a kWh/a
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes otl off mode standby mode thermostat-off mode	Cdc  er than 'ac Poff Psb Pto	0.25	- - - - - - - - - - - - - - - - - - -	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer	EERcyc COPcyc Cdh Qce Qhe Qhe	306 1,731	kWh/a kWh/a kWh/a
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes oth off mode standby mode	Cdc ner than 'ac Poff Psb	0.25	kW ]- ]' ]W	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average	EERcyc COPcyc Cdh	0.25	- - kWh/a kWh/a
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes otl off mode standby mode thermostat-off mode crankcase heater mode	Cdc  Per than 'ac Poff Psb Pto Pck	0.25	- - - - - - - - - - - - - - - - - - -	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder	EERcyc COPcyc Cdh Qce Qhe Qhe	306 1,731	kWh/a kWh/a kWh/a
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes otl off mode standby mode thermostat-off mode	Cdc  Per than 'ac Poff Psb Pto Pck	0.25	- - - - - - - - - - - - - - - - - - -	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items	EERcyc COPcyc Cdh Qce Qhe Qhe Qhe	306 1,731	kWh/a kWh/a kWh/a kWh/a
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes otl off mode standby mode thermostat-off mode crankcase heater mode	Cdc  Per than 'ac Poff Psb Pto Pck	0.25	- - - - - - - - - - - - - - - - - - -	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor)	EERcyc COPcyc Cdh Qce Qhe Qhe Qhe	306 1,731 —	kWh/a kWh/a kWh/a kWh/a
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes oth off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three o	Cdc  Per than 'ac Poff Psb Pto Pck  ptions)	0.25	- - - - - - - - - - - - - - - - - - -	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor)	EERcyc COPcyc Cdh Qce Qhe Qhe Qhe Lwa Lwa	306 1,731 — — — 60 65	kWh/a kWh/a kWh/a kWh/a dB(A)
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes otl off mode standby mode thermostat-off mode crankcase heater mode	Cdc  Per than 'ac Poff Psb Pto Pck	0.25	- - - - - - - - - - - - - - - - - - -	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor)	EERcyc COPcyc Cdh Qce Qhe Qhe Qhe	306 1,731 —	kWh/a kWh/a kWh/a kWh/a kWh/a dB(A) dB(A) kgCO <sub>2</sub> eq.
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes oth off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three o	Cdc  Per than 'ac Poff Psb Pto Pck  ptions)	0.25	- - - - - - - - - - - - - - - - - - -	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor)	EERcyc COPcyc Cdh Qce Qhe Qhe Qhe Lwa Lwa	306 1,731 — — — 60 65	kWh/a kWh/a kWh/a kWh/a dB(A)
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes otl off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three of	Cdc  Cdc  Poff Psb Pto Pck  ptions)	0.25	- - - - - - - - - - - - - - - - - - -	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor)	EERcyc COPcyc Cdh Qce Qhe Qhe Qhe Lwa Lwa	0.25  306 1,731 60 65 1,975	kWh/a kWh/a kWh/a kWh/a kWh/a dB(A) dB(A) kgCO <sub>2</sub> eq.
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes off off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three offixed staged	Cdc  Cdc  Poff Psb Pto Pck  Ptions)	0.25	- - - - - - - - - - - - - - - - - - -	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential	EERcyc COPcyc Cdh Qce Qhe Qhe Qhe Lwa Lwa	0.25 306 1,731   60 65 1,975 1,200	kWh/a kWh/a kWh/a kWh/a kWh/a dB(A) dB(A) kgCO <sub>2</sub> eq. m³/h
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes off off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three offixed staged	Cdc  Cdc  Per than 'ac Poff Psb Pto Pck  Ptions)  No No Yes		kw ]- ]w ]w ]w	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor)	EERcyc COPcyc Cdh Qce Qhe Qhe Qhe Uwa Lwa GWP	0.25 306 1,731   60 65 1,975 1,200	kWh/a kWh/a kWh/a kWh/a kWh/a dB(A) dB(A) kgCO <sub>2</sub> eq. m³/h
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes off off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three offixed staged variable  Contact details for obtaining more information  Mitsul	Cdc  Cdc  Poff Psb Pto Pck  ptions)  No No Yes  Name and sishi Heavy	0.25 ctive mode 12 12 25 0	kW	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  suffacturer or of its authorised representative tioning Europe, Ltd.	EERcyc COPcyc Cdh Qce Qhe Qhe Qhe Uwa Lwa GWP	0.25 306 1,731   60 65 1,975 1,200	kWh/a kWh/a kWh/a kWh/a kWh/a dB(A) dB(A) kgCO <sub>2</sub> eq. m³/h
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes off off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three offixed staged variable  Contact details for obtaining more information  Mitsul 5 The	Pcych  Cdc  ner than 'ac Poff Psb Pto Pck  No No Yes  Name and Dishi Heavy Square, S	0.25  tive mode 12 12 25 0  d address / Industrie	kW	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	EERcyc COPcyc Cdh Qce Qhe Qhe Qhe Uwa Lwa GWP	0.25 306 1,731   60 65 1,975 1,200	kWh/a kWh/a kWh/a kWh/a kWh/a dB(A) dB(A) kgCO <sub>2</sub> eq. m³/h
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes off off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three offixed staged variable  Contact details for obtaining more information  Mitsul 5 The	Cdc  Cdc  Poff Psb Pto Pck  ptions)  No No Yes  Name and sishi Heavy	0.25  tive mode 12 12 25 0  d address / Industrie	kW	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  suffacturer or of its authorised representative tioning Europe, Ltd.	EERcyc COPcyc Cdh Qce Qhe Qhe Qhe Uwa Lwa GWP	0.25 306 1,731   60 65 1,975 1,200	kWh/a kWh/a kWh/a kWh/a kWh/a dB(A) dB(A) kgCO <sub>2</sub> eq. m³/h
for cooling for heating  Degradation coefficient cooling  Electric power input in power modes off off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three offixed staged variable  Contact details for obtaining more information  Mitsul 5 The	Pcych  Cdc  ner than 'ac Poff Psb Pto Pck  No No Yes  Name and Dishi Heavy Square, S	0.25  tive mode 12 12 25 0  d address / Industrie	kW	Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  suffacturer or of its authorised representative tioning Europe, Ltd.	EERcyc COPcyc Cdh Qce Qhe Qhe Qhe Uwa Lwa GWP	0.25 306 1,731 — — 60 65 1,975 1,200 2,490	kWh/a kWh/a kWh/a kWh/a kWh/a dB(A) dB(A) kgCO <sub>2</sub> eq. m³/h

### FDUM71VNXVF1

Information to identify the mode			relates to:	If function includes heating: Indicate	the heating seas	on the	
Indoor unit model name		71VF1		information relates to. Indicated valu			
Outdoor unit model name	FDC7	1VNX		heating season at a time. Include at	least the heating	season 'A	verage'.
Franchis (in disease if non-sease)				A	V		
Function(indicate if present) cooling	Yes			Average(mandatory) Warmer(if designated)	Yes No		
heating	Yes			Colder(if designated)	No		
ricating	103			Colder (ii designated)	140		
Item	symbol	value	unit	Item	symbol	value	class
Design load			_	Seasonal efficiency and energy effic			
cooling	Pdesigno		kW	cooling	SEER	5.24	Α
heating / Average	Pdesignh		kW	heating / Average	SCOP/A	3.90	Α
heating / Warmer heating / Colder	Pdesignh		kW kW	heating / Warmer heating / Colder	SCOP/W SCOP/C		
rieating / Colder	Pdesignh		KVV	rieating / Colder	3007/0		unit
Declared capacity at outdoor to	mperature Tdesign	h		Back up heating capacity at outdoor	temperature Tde	esianh	unit
heating / Average (-10°C)	Pdh	5.92	kW	heating / Average (-10°C)	elbu	1.08	kW
heating / Warmer (2°C)	Pdh	_	kW	heating / Warmer (2°C)	elbu	_	kW
heating / Colder (-22°C)	Pdh	_	kW	heating / Colder (-22°C)	elbu	_	kW
Declared capacity for cooling, a	at indoor temperatu	re 27(19) <sup>c</sup>	C and	Declared energy efficiency ratio, at i	ndoor temperatur	re 27(19)°C	and
outdoor temperature Tj	Pdc	7.10	kW	outdoor temperature Tj	EERd	2.50	1
Tj=35°C Tj=30°C	Pdc	5.23	kW	Tj=35°C Tj=30°C	EERd	3.50 4.85	ł.
Tj=25°C	Pdc	3.37	kW	Tj=25°C	EERd	8.10	-
Tj=20°C	Pdc	3.20	kW	Tj=20°C	EERd	10.60	_
.,			1	.,			
Declared capacity for heating /		t indoor		Declared coefficient of performance	/ Average seaso	n, at indoo	r
temperature 20°C and outdoor			ا	temperature 20°C and outdoor temp			,
Tj=-7°C	Pdh	6.20	kW	Tj=-7°C	COPd	2.53	-
Tj=2°C	Pdh	3.85	kW	Tj=2°C	COPd	3.82	-
Tj=7°C	Pdh	2.45	kW	Tj=7°C	COPd	5.15 6.28	ļ-
Tj=12°C Tj=bivalent temperature	Pdh Pdh	2.56 6.20	kW kW	Tj=12°C Tj=bivalent temperature	COPd COPd	2.53	ľ
Tj=operating limit	Pdh	5.00	kW	Tj=blvalent temperature Tj=operating limit	COPd	2.06	1
rj-operating innit	T GII	0.00	IXVV	rj-operating innit	001 u	2.00	
Declared capacity for heating /	Warmer season, a	indoor		Declared coefficient of performance	/ Warmer seasor	n, at indoor	
temperature 20°C and outdoor	temperature Tj		_	temperature 20°C and outdoor temp	erature Tj		_
Tj=2°C	Pdh	_	kW	Tj=2°C	COPd	_	-
Tj=7°C	Pdh		kW	Tj=7°C	COPd		-
Tj=12°C	Pdh		kW	Tj=12°C	COPd		-
Tj=bivalent temperature Tj=operating limit	Pdh Pdh		kW kW	Tj=bivalent temperature Tj=operating limit	COPd COPd		-
ij oporating iiint	1 411		1.77	Tj operating innit	001 u		1
Declared capacity for heating /	Colder season, at i	ndoor		Declared coefficient of performance	/ Colder season,	at indoor	
temperature 20°C and outdoor				temperature 20°C and outdoor temp			
Tj=-7°C	Pdh	_	kW	Tj=-7°C	COPd	_	-
Tj=2°C	Pdh	_	kW	Tj=2°C	COPd	_	-
Tj=7°C	Pdh		kW	Tj=7°C	COPd		-
Tj=12°C	Pdh		kW	Tj=12°C	COPd	<del>-</del>	-
Tj=bivalent temperature Tj=operating limit	Pdh Pdh		kW	Tj=bivalent temperature	COPd COPd		ļ-
Tj=-15°C	Pdh	<del>-</del>	kW kW	Tj=operating limit Tj=-15°C	COPd		ł.
1]=-13 0	1 dii		KVV	1]=-13 0	COLU		<u> </u>
Bivalent temperature				Operating limit temperature			
heating / Average	Tbiv	-7	°C	heating / Average	Tol	-20	°C
heating / Warmer	Tbiv	_	°C	heating / Warmer	Tol	_	°C
heating / Colder	Tbiv	_	°C	heating / Colder	Tol		°C
Ovalina interval			1	Cyaling internal offician			
Cycling interval capacity for cooling	Pcycc		kW	Cycling interval efficiency for cooling	EERcyc		1_
for heating	Pcych	<del>-</del>	kW	for heating	COPcyc	<del>-</del>	1_
101 Hodding	1 0,011		1.77	101 Housing	00.0,0		1
Degradation coefficient				Degradation coefficient			_
cooling	Cdc	0.25	-	heating	Cdh	0.25	-
Electric power input in power m				Annual electricity consumption	0	475	1124/6/6
off mode standby mode	Poff Psb	15 15	W	cooling heating / Average	Qce Qhe	475 2,513	kWh/a kWh/a
thermostat-off mode	Pto	18	W	heating / Average	Qhe	- 2,313	kWh/a
crankcase heater mode	Pck	25	w	heating / colder	Qhe	_	kWh/a
			1	<u> </u>	-1	1	
Capacity control(indicate one of	f three ontions)			Other items			_
Capacity control(indicate one o	i tilico optiona)			Sound power level(indoor)	Lwa	65	dB(A)
Capacity control(indicate one o	i tiree options)		Į.		Live	66	dB(A)
				Sound power level(outdoor)	Lwa		
fixed	No No			Global warming potential	GWP	1,975	4 T. T.
				, , , , , ,			kgCO <sub>2</sub> eq m <sup>3</sup> /h
fixed	No			Global warming potential	GWP	1,975	4 T. T.
fixed staged variable	No No Yes			Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	GWP - -	1,975 1,440	m <sup>3</sup> /h
fixed staged variable  Contact details for obtaining	No No Yes			Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  ufacturer or of its authorised represen	GWP - -	1,975 1,440	m <sup>3</sup> /h
fixed staged variable	No No Yes  Name an Mitsubishi Heavy	/ Industrie	s Air-Condi	Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  ufacturer or of its authorised representioning Europe, Ltd.	GWP - -	1,975 1,440	m <sup>3</sup> /h
fixed staged variable  Contact details for obtaining	No No Yes  Name an Mitsubishi Heavy 5 The Square, S	/ Industrie	s Air-Condi	Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  ufacturer or of its authorised represen	GWP - -	1,975 1,440	m <sup>3</sup> /h
fixed staged variable  Contact details for obtaining	No No Yes  Name an Mitsubishi Heavy	/ Industrie	s Air-Condi	Global warming potential Rated air flow(indoor) Rated air flow(outdoor)  ufacturer or of its authorised representioning Europe, Ltd.	GWP - -	1,975 1,440	4

### FDUM100VNXVF2

Information to identify the mod			elates to:	If function includes heating: Indicate				
Indoor unit model name Outdoor unit model name FDUM100VF2 FDC100VNX			information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.					
Outdoor unit model name	FDC100	JVNX		heating season at a time. Include at I	east the heating	season 'A	verage'.	
Function(indicate if present)				Average(mandatory)	Yes			
cooling	Yes	Yes		Warmer(if designated)	No			
heating	Yes			Colder(if designated)	No			
Item	symbol v	/alue	unit	Item	symbol	value	class	
Design load cooling	Pdesigno	10.0	kW	Seasonal efficiency and energy efficiency cooling	SEER	5.22	Α	
heating / Average	Pdesignh		kW	heating / Average	SCOP/A	4.10	A+	
heating / Warmer	Pdesignh		kW	heating / Warmer	SCOP/W	_	_	
heating / Colder	Pdesignh	_	kW	heating / Colder	SCOP/C	-	<u> </u>	
							unit	
Declared capacity at outdoor t			LAAZ	Back up heating capacity at outdoor			71.347	
heating / Average (-10°C)	Pdh		kW	heating / Average (-10°C)	elbu	2.09	kW	
heating / Warmer (2°C) heating / Colder (-22°C)	Pdh Pdh		kW kW	heating / Warmer (2°C) heating / Colder (-22°C)	elbu elbu		kW kW	
rieating / Colder (-22 C)	I dii		KVV	rieating / Colder (-22 C)	eibu	<u> </u>	KVV	
Declared capacity for cooling,	at indoor temperature	27(19)°C	and	Declared energy efficiency ratio, at in	door temperatur	e 27(19)°C	and	
outdoor temperature Tj		( ) -		outdoor temperature Tj		( / -		
Tj=35°C	Pdc	10.00	kW	Tj=35°C	EERd	3.73	]-	
Tj=30°C	Pdc		kW	Tj=30°C	EERd	4.84	<u></u>  -	
Tj=25°C	Pdc		kW	Tj=25°C	EERd	7.43	<u> </u> -	
Tj=20°C	Pdc	5.87	kW	Tj=20°C	EERd	10.46	-	
Declared capacity for heating	/ Average season, at i	indoor		Declared coefficient of performance /	Average season	n at indoo	r	
temperature 20°C and outdoo		iliuooi		temperature 20°C and outdoor temperature		i, at illuooi	I	
Tj=-7°C	Pdh	11.50	kW	Tj=-7°C	COPd	2.54	1-	
Tj=2℃	Pdh		kW	Tj=2℃	COPd	4.07	1-	
Tj=7°C	Pdh	4.50	kW	Tj=7℃	COPd	5.52	1-	
Tj=12°C	Pdh		kW	Tj=12°C	COPd	6.50	]-	
Tj=bivalent temperature	Pdh		kW	Tj=bivalent temperature	COPd	2.54	]-	
Tj=operating limit	Pdh	8.96	kW	Tj=operating limit	COPd	2.16	-	
Declared capacity for heating	/ Marmor soason, at i	ndoor		Declared coefficient of performance /	/ Marmar saasar	at indoo	-	
temperature 20°C and outdoo		iluooi		temperature 20°C and outdoor temperature		i, at illuooi		
Tj=2°C	Pdh F	_	kW	Tj=2°C	COPd	_	7-	
Tj=7°C	Pdh		kW	Tj=7°C	COPd	_	1-	
Tj=12°C	Pdh		kW	Tj=12°C	COPd	_	1-	
Tj=bivalent temperature	Pdh	_	kW	Tj=bivalent temperature	COPd	_	1-	
Tj=operating limit	Pdh	_	kW	Tj=operating limit	COPd	_	]-	
Declared capacity for heating		door		Declared coefficient of performance		at indoor		
temperature 20°C and outdoo Tj=-7°C	Pdh	_	kW	temperature 20°C and outdoor temperature Tj=-7°C	COPd	_	1_	
Tj=2°C	Pdh		kW	Tj=2°C	COPd		1	
Tj=7°C	Pdh	_	kW	Tj=7°C	COPd	_	-	
Tj=12°C	Pdh		kW	Ti=12°C	COPd	_	1_	
Tj=bivalent temperature	Pdh	_	kW	Tj=bivalent temperature	COPd	_	1-	
Tj=operating limit	Pdh	_	kW	Tj=operating limit	COPd	_	1-	
Tj=-15℃	Pdh	_	kW	Tj=-15℃	COPd	_	]-	
							•	
Bivalent temperature	ть: Г	-	l°c	Operating limit temperature	Tal	20	<b>1</b> ∘∽	
heating / Average heating / Warmer	Tbiv Tbiv	-/	°C	heating / Average heating / Warmer	Tol Tol	-20	င်	
heating / Colder	Tbiv		°C	heating / Colder	Tol		- ℃	
ricating / colder	TDIV			ricating / Golder	101	<u> </u>	10	
Cycling interval capacity				Cycling interval efficiency				
for cooling	Pcycc	_	kW	for cooling	EERcyc		]-	
for heating	Pcych	_	kW	for heating	COPcyc	_	-	
				<u></u>				
Degradation coefficient	Cdc F	0.25		Degradation coefficient heating	Cdh	0.25	7	
cooling	Cuc	0.25	-	neating	Curi	0.25	<u> </u>	
Electric power input in power	modes other than 'acti	ive mode	'	Annual electricity consumption				
off mode	Poff	20	W	cooling	Qce	670	kWh/a	
standby mode	Psb	20	W	heating / Average	Qhe	4,437	kWh/a	
thermostat-off mode	Pto	45	W	heating / Warmer	Qhe	_	kWh/a	
crankcase heater mode	Pck	25	W	heating / colder	Qhe	_	kWh/a	
O it t  /i  i t	-f.th			O#				
Capacity control(indicate one	or three options)			Other items	Lwo	G.F	Jab(v)	
				Sound power level(indoor) Sound power level(outdoor)	Lwa Lwa	65 70	dB(A) dB(A)	
fixed	No			Global warming potential	GWP	1,975	kgCO <sub>2</sub> eq	
				•			m <sup>3</sup> /h	
staged	No			Rated air flow(indoor)	-	2,160	-1	
variable	Yes			Rated air flow(outdoor)	-	6,000	m <sup>3</sup> /h	
Contact details for obtaining	Name and	address	of the man	ufacturer or of its authorised represent	ative			
more information				tioning Europe, Ltd.				
				e, Middlesex, UB11 1ET,				
	United Kingdom							
	<u> </u>					Dioco	07460 \$	
						PJG00	0Z466 <u>A</u>	

FDUM100VSXVF2					
Information to identify the model(s) to v					
Indoor unit model name	FDUM100VF2	information relates to. Indicated values should relate to one			
Outdoor unit model name	FDC100VSX	heating season at a time. Include at least	the heating season 'Average'.		
Function(indicate if present)		Average(mandatory)	Yes		
cooling	Yes	Warmer(if designated)	No		
heating	Yes	Colder(if designated)	No		
Item Design load	symbol value unit	Item Seasonal efficiency and energy efficiency	symbol value class		
cooling	Pdesignc 10.0 kW	cooling	SEER <b>5.19</b> A		
heating / Average	Pdesignh 13.0 kW	heating / Average	SCOP/A <b>4.10</b> A+		
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W		
heating / Colder	Pdesignh – kW	heating / Colder	SCOP/C		
Declared conscibilet at suitdeen tenensustin	una Talanianah	Deale un ha etimo apparituat autologo tomo	unit		
Declared capacity at outdoor temperate heating / Average (-10°C)	Pdh <b>10.91</b> kW	Back up heating capacity at outdoor temperating / Average (-10°C)	elbu <b>2.09</b> kW		
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu – kW		
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu – kW		
Declared capacity for cooling, at indoor	temperature 27(19)°C and	Declared energy efficiency ratio, at indoo	r temperature 27(19)°C and		
outdoor temperature Tj Tj=35°C	Pdc <b>10.00</b> kW	outdoor temperature Tj Tj=35°C	EERd <b>3.73</b> -		
Tj=30°C	Pdc <b>7.42</b> kW	Tj=30°C	EERd <b>4.84</b> -		
Tj=25°C	Pdc <b>5.58</b> kW	Tj=25°C	EERd <b>7.43</b> -		
Tj=20°C	Pdc <b>5.87</b> kW	Tj=20℃	EERd <b>10.46</b> -		
Declared consists for the C. / A		Declared as officient of many			
Declared capacity for heating / Average temperature 20°C and outdoor temperature		Declared coefficient of performance / Ave temperature 20°C and outdoor temperature			
Tj=-7°C	Pdh <b>11.50</b> kW	Tj=-7°C	COPd <b>2.54</b> -		
Tj=2°C	Pdh <b>6.89</b> kW	Tj=2℃	COPd 4.07 -		
Tj=7°C	Pdh <b>4.50</b> kW	Tj=7°C	COPd <b>5.52</b> -		
Tj=12°C	Pdh <b>5.20</b> kW	Tj=12°C	COPd <b>6.50</b> -		
Tj=bivalent temperature	Pdh 11.50 kW	Tj=bivalent temperature	COPd <b>2.54</b> -		
Tj=operating limit	Pdh <b>8.96</b> kW	Tj=operating limit	COPd <b>2.16</b> -		
Declared capacity for heating / Warme	season, at indoor	Declared coefficient of performance / Wa	rmer season, at indoor		
temperature 20°C and outdoor tempera	ture Tj	temperature 20°C and outdoor temperatu	ıre Tj		
Tj=2°C	Pdh – kW	Tj=2°C	COPd – -		
Tj=7°C	Pdh – kW Pdh – kW	Tj=7°C	COPd		
Tj=12°C Tj=bivalent temperature	Pdh – kW Pdh – kW	Tj=12°C Tj=bivalent temperature	COPd — - COPd — -		
Tj=operating limit	Pdh – kW	Tj=blvalent temperature Tj=operating limit	COPd –		
		i, ip in in in in in in in in in in in in in			
Declared capacity for heating / Colder		Declared coefficient of performance / Col			
temperature 20°C and outdoor tempera		temperature 20°C and outdoor temperatu			
Tj=-7°C Tj=2°C	Pdh – kW Pdh – kW	Tj=-7°C Tj=2°C	COPd — - COPd — -		
Tj=7°C	Pdh – kW	Tj=7°C	COPd –		
Tj=12℃	Pdh – kW	Tj=12℃	COPd		
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd – -		
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd –		
Tj=-15°C	Pdh – kW	Tj=-15°C	COPd – -		
Bivalent temperature		Operating limit temperature			
heating / Average	Tbiv -7 °C	heating / Average	Tol <b>-20</b> ℃		
heating / Warmer	Tbiv – °c	heating / Warmer	Tol − °C		
heating / Colder	Tbiv – °C	heating / Colder	Tol − °C		
Cycling interval conscitu		Cycling interval officionay			
Cycling interval capacity for cooling	Pcycc - kW	Cycling interval efficiency for cooling	EERcyc		
for heating	Pcych – kW	for heating	COPcyc – -		
-			- 1		
Degradation coefficient	0.1:	Degradation coefficient	0.45		
cooling	Cdc <b>0.25</b> -	heating	Cdh <b>0.25</b> -		
Electric power input in power modes of	her than 'active mode'	Annual electricity consumption			
off mode	Poff 20 W	cooling	Qce 675 kWh/a		
standby mode	Psb <b>20</b> W	heating / Average	Qhe <b>4,441</b> kWh/a		
thermostat-off mode	Pto <b>65</b> W	heating / Warmer	Qhe – kWh/a		
crankcase heater mode	Pck <b>25</b> W	heating / colder	Qhe – kWh/a		
Capacity control(indicate one of three of	options)	Other items			
Tarasing samusing indicates one of tillee t	,	Sound power level(indoor)	Lwa <b>65</b> dB(A)		
		Sound power level(outdoor)	Lwa <b>70</b> dB(A)		
fixed	No	Global warming potential	GWP <b>1,975</b> kgCO <sub>2</sub> eq		
staged	No	Rated air flow(indoor)	- <b>2,160</b> m <sup>3</sup> /h		
variable	Yes	Rated air flow(outdoor)	- <b>6,000</b> m <sup>3</sup> /h		
		·	•		
Contact details for obtaining		nufacturer or of its authorised representative	e		
	bishi Heavy Industries Air-Cond Square, Stockley Park, Uxbridg				
	d Kingdom	,aaiooon, ODII IEI,			
	-				
	-		PJG000Z466 A		

FDUM100VNXPVF					
	el(s) to which the information relates to:	If function includes heating: Indicate t			
Indoor unit model name	FDUM50VF (2 units)	information relates to. Indicated value			
Outdoor unit model name	FDC100VNX	heating season at a time. Include at le	east the heating	season 'A	werage'.
- · · · · · · · · · · · · · · · · · · ·		, , , , , , , , , , , , , , , , , , ,			
Function(indicate if present)	Van	Average(mandatory)	Yes		
cooling	Yes Yes	Warmer(if designated)	No No		
heating	res	Colder(if designated)	NO		
Item	symbol value unit	Item	symbol	value	class
Design load	syllibol value ullit	Seasonal efficiency and energy efficiency		value	Uass
cooling	Pdesignc 10.0 kW	cooling	SEER	5.14	Α
heating / Average	Pdesignh 10.0 kW	heating / Average	SCOP/A	3.88	Α
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W	_	_
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C		
3	3   1	3			unit
Declared capacity at outdoor to	emperature Tdesignh	Back up heating capacity at outdoor t	emperature Tde	esignh	
heating / Average (-10°C)	Pdh <b>8.22</b> kW	heating / Average (-10°C)	elbu	1.78	kW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu	_	kW
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu	_	kW
	at indoor temperature 27(19)°C and	Declared energy efficiency ratio, at in-	door temperatu	re 27(19)°C	and
outdoor temperature Tj		outdoor temperature Tj			7
Tj=35°C	Pdc 10.00 kW	Tj=35°C	EERd	3.76	<u> </u> -
Tj=30°C	Pdc <b>7.40</b> kW	Tj=30°C	EERd	4.54	<u> </u> -
Tj=25°C	Pdc <b>4.80</b> kW	Tj=25°C	EERd	7.38	-
Tj=20°C	Pdc <b>5.10</b> kW	Tj=20°C	EERd	9.62	-
Declared conscitutes hearing /	Average econom et indees	Declared coefficient of nonformer /	Average	n otimals.	-
Declared capacity for heating / temperature 20°C and outdoor		Declared coefficient of performance /		ii, at indoo	ı
Tj=-7°C	Pdh 8.85 kW	temperature 20°C and outdoor tempe Tj=-7°C	COPd	2.57	٦_
Tj=2°C	Pdh <b>5.38</b> kW	Tj=2°C	COPd	3.90	
Tj=2°C	Pdh 3.75 kW	Tj=2°C	COPd	5.00	+[
Tj=12°C	Pdh 4.35 kW	Tj=12°C	COPd	5.58	1
Tj=12 0	Pdh <b>8.85</b> kW	Tj=12 0	COPd	2.57	1.
Tj=operating limit	Pdh <b>6.10</b> kW	Tj=operating limit	COPd	2.22	1
rj-operating innit	1 (11   0.10   1.00	1j-operating innit	001 0	2.22	-
Declared capacity for heating /	Warmer season, at indoor	Declared coefficient of performance /	Warmer seaso	n. at indoo	r
temperature 20°C and outdoor		temperature 20°C and outdoor tempe		.,	
Tj=2℃	Pdh <b>–</b> kW	Tj=2°C	CÓPd	_	7-
Tj=7°C	Pdh – kW	Tj=7°C	COPd	_	7-
Tj=12℃	Pdh – kW	Tj=12°C	COPd	_	7-
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd	_	7-
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd	_	Ī-
Declared capacity for heating /		Declared coefficient of performance /		at indoor	
temperature 20°C and outdoor		temperature 20°C and outdoor tempe			-
Tj=-7°C	PdhkW	Tj=-7°C	COPd		-
Tj=2°C	Pdh – kW	Tj=2°C	COPd		-
Tj=7°C	Pdh – kW	Tj=7°C	COPd		-
Tj=12°C	Pdh – kW	Tj=12°C	COPd	_	<u> </u> -
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd	_	<u> </u> -
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd		<u> </u> -
Tj=-15°C	Pdh – kW	Tj=-15°C	COPd	_	-
Divolent temperature		Operating limit temperature			
Bivalent temperature heating / Average	Tbiv <b>-7</b> ℃	heating / Average	Tol	-20	]℃
heating / Warmer	Tbiv – °C	heating / Warmer	Tol	-20	°C
heating / Valiner	Tbiv — °C	heating / Warrier	Tol		-©
neating / Colder	1 DIV	L Heating / Golder	101	<del></del>	10
Cycling interval capacity		Cycling interval efficiency			
for cooling	Pcycc - kW	for cooling	EERcyc	_	7-
for heating	Pcych – kW	for heating	COPcyc	_	1-
	- 1			-	•
Degradation coefficient		Degradation coefficient			_
cooling	Cdc <b>0.25</b> -	heating	Cdh	0.25	]-
Electric power input in power m		Annual electricity consumption			_
off mode	Poff 18 W	cooling	Qce	681	kWh/a
standby mode	Psb 18 W	heating / Average	Qhe	3,611	kWh/a
thermostat-off mode	Pto <b>64</b> W	heating / Warmer	Qhe		kWh/a
crankcase heater mode	Pck <b>25</b> W	heating / colder	Qhe	_	kWh/a
0	f there are the many	[Ottown			
Capacity control(indicate one o	unee opuons)	Other items Sound power level(indoor)	Lwa	60	dB(A)
		Sound power level(indoor)  Sound power level(outdoor)	Lwa Lwa	70	dB(A)
fixed	No.	1 1 ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '			- ` ′
fixed	No	Global warming potential	GWP	1,975	kgCO <sub>2</sub> eq
staged	No	Rated air flow(indoor)	-	780	m³/h
variable	Yes	Rated air flow(outdoor)	-	6,000	m <sup>3</sup> /h
Contact details for obtaining		nufacturer or of its authorised representa	ative.		
more information	Mitsubishi Heavy Industries Air-Cond				
1	5 The Square, Stockley Park, Uxbrid	ge, Middlesex, UBTT TE1,			
	United Kingdom				
<u> </u>					07466 A

### FDUM100VSXPVF

Information to identify the model(s) to which the information relates to:				If function includes heating: Indicate the heating season the			
Indoor unit model name Outdoor unit model name	FDUM50 FDC100\		its)	information relates to. Indicated value heating season at a time. Include at			verage'.
Eunstian/indicate if present)				Average(mandatory)	Vaa		
Function(indicate if present) cooling	dicate if present)		Warmer(if designated)		Yes No		
heating	Yes			Colder(if designated)	No		
Item	symbol va	alue ı	unit	Item	symbol	value	class
Design load				Seasonal efficiency and energy efficiency			0.000
cooling	Pdesignc		¢W	cooling	SEER	5.11	A
heating / Average	Pdesignh		¢W	heating / Average	SCOP/A	3.87	Α
heating / Warmer heating / Colder	Pdesignh Pdesignh		¢W ¢W	heating / Warmer heating / Colder	SCOP/W SCOP/C		
rieating / Colder	Puesignin		(VV	rieating / Colder	3COP/C	_	unit
Declared capacity at outdoor t	emperature Tdesignh			Back up heating capacity at outdoor	temperature Tde	esignh	
heating / Average (-10°C)	Pdh	8.22	κW	heating / Average (-10°C)	elbu	1.78	kW
heating / Warmer (2°C)	Pdh		κW	heating / Warmer (2°C)	elbu	_	kW
heating / Colder (-22°C)	Pdh	- J	ΚW	heating / Colder (-22°C)	elbu	_	kW
Declared consoity for cooling	at indeer temperature	27/10\°C	and	Declared energy efficiency ratio at in	adoor tomporati	27/10\°C	and
Declared capacity for cooling, outdoor temperature Tj	at indoor temperature.	27(19) C	and	Declared energy efficiency ratio, at in outdoor temperature Tj	idoor temperatur	e 27(19) C	and
Tj=35°C	Pdc	10.00	κW	Tj=35°C	EERd	3.76	1-
Tj=30°C	Pdc		κW	Tj=30°C	EERd	4.54	-
Tj=25°C	Pdc	4.80	κW	Tj=25°C	EERd	7.38	1-
Tj=20°C	Pdc	5.10	κW	Tj=20℃	EERd	9.62	-
Declared capacity for heating temperature 20°C and outdoor		idoor		Declared coefficient of performance temperature 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C a		n, at indoo	r
Tj=-7°C	Pdh	8.85	κW	Tj=-7°C	COPd	2.57	1-
Tj=2°C	Pdh		κW	Tj=2°C	COPd	3.90	_
Tj=7°C	Pdh		κW	Tj=7°C	COPd	5.00	-
Tj=12℃	Pdh	4.35	κW	Tj=12°C	COPd	5.58	1-
Tj=bivalent temperature	Pdh	8.85	κW	Tj=bivalent temperature	COPd	2.57	]-
Tj=operating limit	Pdh	6.10	κW	Tj=operating limit	COPd	2.22	-
Dealers described for leasting	////	4		Delegation of the state of the	/ \ \ /	4 !	
Declared capacity for heating temperature 20°C and outdoor		door		Declared coefficient of performance temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and 00°C an		n, at indoor	
Tj=2°C	Pdh		κW	Tj=2°C	COPd		1_
Ti=7°C	Pdh		κW	Tj=7°C	COPd	_	1_
Tj=12℃	Pdh		κW	Tj=12℃	COPd	_	-
Tj=bivalent temperature	Pdh		κW	Tj=bivalent temperature	COPd	_	1-
Tj=operating limit	Pdh	- 1	κW	Tj=operating limit	COPd	_	1-
Declared capacity for heating	/ Colder season at inde	oor		Declared coefficient of performance	/ Colder season	at indoor	
temperature 20°C and outdoor		001		temperature 20°C and outdoor temperature		at indoor	
Tj=-7°C	Pdh		κW	Tj=-7°C	COPd	_	]-
Tj=2°C	Pdh	- 1	κW	Tj=2°C	COPd	_	1-
Tj=7°C	Pdh		κW	Tj=7°C	COPd	_	]-
Tj=12°C	Pdh		κW	Tj=12°C	COPd	_	-
Tj=bivalent temperature	Pdh		¢W	Tj=bivalent temperature	COPd		-
Tj=operating limit	Pdh		(W	Tj=operating limit	COPd		-
Tj=-15°C	Pdh	<u> </u>	ΚW	Tj=-15°C	COPd	_	<u>-</u>
Bivalent temperature				Operating limit temperature			
heating / Average	Tbiv	-7	C	heating / Average	Tol	-20	°C
heating / Warmer	Tbiv	_	C	heating / Warmer	Tol	_	°C
heating / Colder	Tbiv	<b>–</b>	C	heating / Colder	Tol	_	°C
Cycling interval capacity for cooling	Pcycc		κW	Cycling interval efficiency for cooling	EERcyc		1
for heating	Pcych		ζW	for heating	COPcyc		-
101 Heating	1 Gyoti			ioi ricating	OOI Cyc		<u> </u>
Degradation coefficient				Degradation coefficient			
cooling	Cdc	0.25		heating	Cdh	0.25	]-
Electric power input in power in off mode	modes other than 'activ		N	Annual electricity consumption cooling	000	685	kWh/a
standby mode	Psb		/v	heating / Average	Qce Qhe	3,614	kWh/a
thermostat-off mode	Pto		N	heating / Warmer	Qhe	- 0,014	kWh/a
crankcase heater mode	Pck		Ν	heating / colder	Qhe	_	kWh/a
Capacity control(indicate one	of three options)			Other items		-	-
				Sound power level(indoor)	Lwa	60	dB(A)
				Sound power level(outdoor)	Lwa	70	dB(A)
fixed	No			Global warming potential	GWP	1,975	kgCO <sub>2</sub> eq
staged	No			Rated air flow(indoor)	-	780	m³/h
variable	Yes			Rated air flow(outdoor)	-	6,000	m <sup>3</sup> /h
Contact details for 11111	NI	. al al c - ·	£ 415	ufactures on of the contract	tations.		
Contact details for obtaining more information				ufacturer or of its authorised represen tioning Europe, Ltd.	tative.		
more iniorniation				e, Middlesex, UB11 1ET,			
	United Kingdom	, i uii	., Cabridg				
						DIOOO	0Z466. <u></u> ♠

### FDUM125VNXVF

Model(s): FDC125VNX /	FDUM125	VF						
Outdoor side heat exchanger of air condition	ner:	air						
Indoor side heat exchanger of air conditioner : air								
Type: vapour compression								
if applicable : electric motor								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated cooling capacity				Seasonal space cool	ing energy			
	Prated,c	12.5	kW	efficiency ηs,c		210.5	%	
Declared cooling capacity for part load at given	ven outdoor	temperatur	res	Declared energy effic	iency ratio or gas utilization efficien	icy /		
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	r for part load at given outdoor tem	peratures T	ij	
T:- 125°C	Dda	40.5	1,,,,,				1	
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or	358.0	%	
Tj=+30°C	Pdc	9.2	kW	T: .00°0	GUEc,bin / AEFc,bin			
1,1=1,50 0	1 40	3.2	],,,,	Tj=+30°C	EERd or	456.0	%	
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	GUEc,bin / AEFc,bin EERd or			
			_	1]-125 0	GUEc,bin / AEFc,bin	700.0	%	
Tj=+20°C	Pdc	5.8	kW	Tj=+20°C	EERd or			
			_	1, 1200	GUEc,bin / AEFc,bin	1,017.0	%	
Degradation					0020,2, 7.12. 0,2		ı	
coefficient for	Cdc	0.25	_					
air conditioners**								
			_					
Power consumpiton in other than 'active mo	de'							
					·		,	
Off mode	$P_{OFF}$	0.045	kW	Crankcase heater mo	ode P <sub>CK</sub>	0.045	kW	
Thermostat-off mode	$P_{TO}$	0.055	kW	Standby mode	P <sub>SB</sub>	0.045	kW	
Other items							1	
Conscitu control		variable	1	For air-to-air air cond		6,000	m³/h	
Capacity control		variable		air flow-rate,outdoor	measured			
			1					
Sound power level,	$L_WA$	70.0	dB					
outdoor			_					
If engine driven:			mg/kWh					
Emissions of nitrogen	NOx ***	_	fuel input					
oxides			GCV					
- CARGO			]001					
GWP of the		2.000	kg CO <sub>2eq</sub>					
refrigerant		2,088	(100years)					
Contact details Mitsubish	i heavy indu	stries therm	nal systems,L	TD				
** If Cdc is not determined by measurement	then the de	fault degrad	dation coeffici	ent air conditioners sha	all be 0,25.			
*** from 26 September 2018								
Where information relates to multi-spilt air c	onditioners,	the test resi	ult and perfor	mance data be obtaine	d on the basis of the performance			
of the outdoor unit, with a combination of inc	loor unit(s)	recommend	led by the ma	nufacturer or importer.				
						P.IG000	77466 🛝	

Information to identify the model(	s) to which the informat	ion relates	:	FDC125VNX /	FDUM125VF			
Outdoor side heat exchanger of h		air						
Indoor side heat exchanger of he		air						
Indication if the heater is equipped with a supplementary heater : No								
if applicable : electric mo	otor							
Parameters shall be declared for	the average heating se	ason , para	ameters for the	he warmer and colder hea	ating seasons are optional.			
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heating capacity					g energy efficiency ηs,h			
	Prated,h	14.0	kW			152.0	%	
D1	4 l d - 4 i - d 4	-t 20°0		Declared as efficient of		ee: -: /		
Declared heating capacity for par and outdoor temperature Tj	t load at indoor temper	ature 20 C			performance or gas utilizatior for part load at given outdoor	-	Ti	
			-		,	<u> </u>	_	
T <sub>j</sub> =-7°C	Pdh	10.1	kW	T <sub>j</sub> =-7°C	COPd or	302.0	%	
T <sub>i</sub> =+2°C	Pdh	6.1	kW	T <sub>i</sub> =+2°C	GUEh,bin / AEFh,bin COPd or		1	
1j-120	i dii	0.1	Ivaa	1 <sub>j</sub> =120	GUEh,bin / AEFh,bin	353.0	%	
T <sub>j</sub> =+7°C	Pdh	4.3	kW	T <sub>j</sub> =+7°C	COPd or	512.0	%	
			- T		GUEh,bin / AEFh,bin	512.0	70	
T <sub>j</sub> =+12°C	Pdh	4.5	kW	T <sub>j</sub> =+12°C	COPd or	625.0	%	
T <sub>biv</sub> =bivalent temperature	Pdh	11.4	kW	T <sub>biv</sub> =bivalent	GUEh,bin / AEFh,bin COPd or		1	
bly			1	temperature	GUEh,bin / AEFh,bin	279.0	%	
T <sub>OL</sub> =operation limit	Pdh	9.0	kW	T <sub>OL</sub> =operation limit	COPd or	238.0	%	
			T		GUEh,bin / AEFh,bin		4	
For air-to-water heat pumps : T <sub>i</sub> =-15°C	Pdh		kW	For air-to-water heat pumps:T <sub>i</sub> =-15°C	COPd or GUEh,bin / AEFh,bin	_	%	
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			1	
			7				,	
Bivalent temperature	$T_{biv}$	-10.0	°C	For water-to-air heat			°C	
Degradation			ī	pumps:Operation lim  T <sub>ol</sub> temperature	זונ	-		
coefficient	$C_dh$	0.25	-	01			1	
heat pumps**			<u> </u>					
Power consumpiton in modes oth	er than 'active mode'			Supplementary heate	er		1	
Tower consumption in modes out	ici tilaii active mode			back-up heating cap	elbu	_	kW	
Off mode	$P_{OFF}$	0.045	kW		,		-	
Thermostat-off mode	P <sub>TO</sub>	0.100	kW	Type of energy input	t P <sub>SB</sub>	0.045	kW	
Crankcase heater mode	P <sub>CK</sub>	0.045	kW	Standby mode			J	
Other items								
			<del>.</del>	For air-to-air heat pu	imps:	6,000	m³/h	
Capacity control		variable	<u> </u>	air flow-rate,outdoor	measured		]	
Sound power level,			ī	For water-/brine-to-a	ir hoot numno :		1	
outdoor measured	$L_{WA}$	70.0	dB	Rated brine or water		_	m <sup>3</sup> /h	
			<u>.</u>	outdoor side heat ex			]	
Emissions of nitrogen	NOx		mg/kWh					
oxides(if applicable)	***	_	fuel input GCV					
			Igcv					
			-					
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)					
refrigerant			(Tooyears)					
Contact details	Mitsubishi heavy indu	stries therm	nal systems,L	.TD				
** If Cdh is not determined by me	asurement then the de	fault degrad	dation coeffic	cient air conditioners shall	l be 0,25.			
*** from 26 September 2018								
Where information relates to mult	ti-spilt air conditioners,t	he test resu	ult and perfo	rmance data be obtained	on the basis of the performan	nce		
of the outdoor unit, with a combin	ation of indoor unit(s) r	ecommend	ed by the ma	anufacturer or importer.				
						1		
						PJG00	00Z466 🛦	

#### FDUM125VSXVF

Model(s): FDC125VSX /	FDUM125	VF					
Outdoor side heat exchanger of air condition							
Indoor side heat exchanger of air conditions		air					
Type: vapour compression	<i>i</i> .	air					
if applicable : electric motor							
	0	\	1.1 24	14	O. m. b. a l	Malara	1.134
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated,c	12.5	kW	Seasonal space co	ooling energy	216.5	%
	i ratoa,o	12.0	I.VV	efficiency ηs,c		2.0.0	,,,
Declared cooling capacity for part load at gi	ven outdoor	temperatur	es		fficiency ratio or gas utilization effici	•	-:
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy la	ctor for part load at given outdoor te	mperatures	J
Tj=+35°C	Pdc	12.5	kW	Ti- 125°C	EED4		]
,	. 40		]	Tj=+35℃	EERd or	358.0	%
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	GUEc,bin / AEFc,bin EERd or		-
,			]	1]=+30 C	GUEc,bin / AEFc,bin	465.0	%
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or		-
			_	17-1200	GUEc,bin / AEFc,bin	714.0	%
Tj=+20°C	Pdc	5.8	kW	Tj=+20°C	EERd or		1
			_	1, 1200	GUEc,bin / AEFc,bin	1,038.0	%
Degradation			1		GOLO, DITT ALT G, DITT		1
coefficient for	Cdc	0.25	_				
air conditioners**	Guo						
an conditioners			_				
Power consumpiton in other than 'active mo	nde'						
l one concumption in outer than desire in							
Off mode	$P_{OFF}$	0.040	kW	Crankcase heater	mode P <sub>CK</sub>	0.040	kW
Thermostat-off mode	P <sub>TO</sub>	0.055	kW	Standby mode	$P_SB$	0.040	kW
						L	1
Other items							
				For air-to-air air co	onditioner:	6,000	m³/h
Capacity control		variable		air flow-rate,outdo	or measured	8,000	m·/n
			-				_
Sound power level,	1	70.0	dB				
outdoor	$L_{WA}$	70.0	uВ				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
			_				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		_,,000	(100years)				
			nal systems,L				
** If Cdc is not determined by measurement	then the de	fault degrad	dation coeffic	ient air conditioners	shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o	onditioners,	the test res	ult and perfor	mance data be obta	ined on the basis of the performance	е	
of the outdoor unit, with a combination of in	door unit(s) ı	recommend	led by the ma	nufacturer or import	er.		
						D ICOO	0Z466 🛦

Information to identify the model(s	s) to which the informa	tion relates	:	FDC125VSX /	FDUM125VF		
Outdoor side heat exchanger of he		air					
Indoor side heat exchanger of hea		air					
Indication if the heater is equipped	d with a supplementary			No			
if applicable : electric mo	tor						
Parameters shall be declared for t	the average heating se	eason , para	meters for th	he warmer and colder hea	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity					ng energy efficiency ηs,h		
	Prated,h	14.0	kW			153.2	%
D 1 11 6 7 7 6		1 0000		D 1 1 6 1 1	6	cc : /	
Declared heating capacity for part and outdoor temperature Tj	load at indoor temper	ature 20 C			performance or gas utilization for part load at given outdoor t		Tj
T <sub>j</sub> =-7°C	Pdh	12.4	kW	T <sub>j</sub> =-7°C	COPd or	284.0	%
T <sub>j</sub> =+2°C	Pdh	7.5	kW	T <sub>j</sub> =+2°C	GUEh,bin / AEFh,bin COPd or	364.0	%
T <sub>j</sub> =+7°C	Pdh	4.9	kW	T <sub>j</sub> =+7°C	GUEh,bin / AEFh,bin COPd or	512.0	%
T <sub>j</sub> =+12°C	Pdh	4.5	kW	T <sub>j</sub> =+12°C	GUEh,bin / AEFh,bin COPd or	638.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	14.0	kW	T <sub>biv</sub> =bivalent	GUEh,bin / AEFh,bin COPd or	263.0	%
T <sub>OL</sub> =operation limit	Pdh	10.9	kW	temperature T <sub>OL</sub> =operation limit	GUEh,bin / AEFh,bin COPd or	238.0	%
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water heat	GUEh,bin / AEFh,bin t COPd or	_	%
$T_j$ =-15°C (if $T_{OL}$ <-20°C)				pumps:T <sub>j</sub> =-15°C (if T <sub>OL</sub> <-20°C)	GUEh,bin / AEFh,bin		]
Bivalent temperature	$T_biv$	-10.0	င	For water-to-air heat pumps:Operation lin		_	°C
Degradation			Ī	T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				-
heat pumps**			l				
Power consumpiton in modes other	er than 'active mode'			Supplementary heat	elbu	_	kW
Off mode	P <sub>OFF</sub>	0.040	kW	back-up neating cap	pacity		1
Thermostat-off mode	$P_{TO}$	0.095	kW	Type of energy input	t P <sub>SB</sub>	0.040	kW
Crankcase heater mode	P <sub>CK</sub>	0.040	kW	Standby mode	. 38	0.0.10	]
Other items				For air to air hoot pu	Impe		1
Capacity control		variable		For air-to-air heat pu air flow-rate,outdoor		6,000	m <sup>3</sup> /h
Sound power level,	1	70.0	dB	For water-/brine-to-a	air heat pumps :		1
outdoor measured	$L_{WA}$	70.0	uв	Rated brine or water	r fiow-rate,	_	m³/h
			T	outdoor side heat ex	changer		]
Emissions of nitrogen oxides(if applicable)	NOx ***	_	mg/kWh fuel input				
oxides(ii applicable)	***		GCV				
			•				
OM/D CII			T. 00				
GWP of the refrigerant		2,088	kg CO <sub>2eq</sub> (100years)				
reingerant		<u> </u>	I,,				
				<u>                                     </u>			
Contact details  ** If Cdh is not determined by mea	Mitsubishi heavy indu				I be 0.25		
	acaromont thorrule de	.aun uogiat		Gorigitioners sildi	. 20 0,20.		
*** from 26 September 2018	anilt air	ibo t	ult on -l - C	rmanaa dete be 11.1.1.1	on the book of the f		
Where information relates to multi of the outdoor unit, with a combina					on the basis of the performan	L <del>e</del>	
or are outdoor unit, with a combine	adon or muoor unit(s) f	Commend	ou by tile ille	analaotalei oi iilipoitel.			
						PJG00	00Z466 🛦

#### FDUM140VNXVF

Model(s): FDC140VNX /	FDUM140	VF					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air conditione	r:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cool	ing energy		
	Prated,c	14.0	kW	efficiency ηs,c		205.9	%
Declared cooling capacity for part load at given	en outdoor	temperatur	es	Declared energy effic	iency ratio or gas utilization efficien	icy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	r for part load at given outdoor temp	peratures T	ij
T: .05%	D.1	440	1		1		1
Tj=+35°C	Pdc	14.0	kW	Tj=+35°C	EERd or	327.0	%
Tj=+30°C	Pdc	10.3	kW		GUEc,bin / AEFc,bin		
11]-+30 C	Puc	10.3	JKVV	Tj=+30°C	EERd or	445.0	%
Tj=+25°C	Pdc	6.6	kW	T:05°0	GUEc,bin / AEFc,bin		
1]-1200	1 40	0.0	],,,,	Tj=+25°C	EERd or	656.0	%
Tj=+20°C	Pdc	6.0	kW	Ti- 120°C	GUEc,bin / AEFc,bin		
,, 200			]	Tj=+20°C	EERd or GUEc,bin / AEFc,bin	1,026.0	%
Degradation					GOLC, DITT ALT C, DITT		ı
coefficient for	Cdc	0.25	_				
air conditioners**							
			_				
Power consumpiton in other than 'active mo	de'						
Off mode	$P_{OFF}$	0.045	kW	Crankcase heater mo	ode P <sub>CK</sub>	0.045	kW
Thermostat-off mode	$P_{TO}$	0.060	kW	Standby mode	P <sub>SB</sub>	0.045	kW
Other items					,		1
			1	For air-to-air air cond	itioner:	6,000	m³/h
Capacity control		variable		air flow-rate,outdoor r	measured		
			7				
Sound power level,	$L_WA$	72.0	dB				
outdoor							
			1 .				
If engine driven:	NOx	_	mg/kWh				
Emissions of nitrogen	***		fuel input				
oxides			JGCV				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
g			_				
Contact details Mitsubishi	heavy indu	stries therm	nal systems,L	TD			
** If Cdc is not determined by measurement					all be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air co	onditioners,	the test resu	ult and perfor	mance data be obtaine	d on the basis of the performance		
of the outdoor unit, with a combination of inc	loor unit(s) ı	recommend	led by the ma	nufacturer or importer.			
						P.IG000	7466 🛦

Information to identify the model(	s) to which the informat	ion relates	:	FDC140VNX /	FDUM140VF		
Outdoor side heat exchanger of h	•	air					
Indoor side heat exchanger of he		air					
Indication if the heater is equippe	d with a supplementary			No			
if applicable : electric mo	otor						
Parameters shall be declared for	the average heating se	ason , para	ameters for th	ne warmer and colder hea	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Prated,h	16.0	kW		g energy efficiency ηs,h	151.1	%
Declared heating capacity for par	t load at indoor temper	ature 20°C			performance or gas utilization	-	
and outdoor temperature Tj				auxiliary energy factor f	for part load at given outdoor	temperatures	Tj
T <sub>j</sub> =-7°C	Pdh	11.5	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	295.0	%
T <sub>j</sub> =+2°C	Pdh	7.0	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	351.0	%
T <sub>j</sub> =+7°C	Pdh	4.5	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	511.0	%
T <sub>j</sub> =+12°C	Pdh	4.5	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	631.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	13.0	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	267.0	%
T <sub>OL</sub> =operation limit	Pdh	10.3	kW	T <sub>OL</sub> =operation limit	COPd or GUEh,bin / AEFh,bin	235.0	%
For air-to-water heat pumps : $T_j$ =-15°C	Pdh	_	kW	For air-to-water heat pumps:T <sub>j</sub> =-15°C		_	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			•
Bivalent temperature	$T_biv$	-10.0	င	For water-to-air heat pumps:Operation lim		_	°C
Degradation				T <sub>ol</sub> temperature			]
coefficient heat pumps**	$C_{dh}$	0.25	-				
Power consumpiton in modes oth			7	Supplementary heated back-up heating capa	eibu	_	kW
Off mode	P <sub>OFF</sub>	0.045	kW				1
Thermostat-off mode Crankcase heater mode	Р <sub>то</sub> Р <sub>ск</sub>	0.105 0.045	kW kW	Type of energy input Standby mode	P <sub>SB</sub>	0.045	kW
Other items							1
Capacity control		variable	I	For air-to-air heat pu air flow-rate,outdoor		6,000	m <sup>3</sup> /h
Sound power level,	$L_WA$	72.0	dB	For water-/brine-to-a			m³/h
outdoor measured			1	Rated brine or water outdoor side heat ex			]"" /"'
Emissions of nitrogen oxides(if applicable)	NOx ***	-	mg/kWh fuel input GCV				
GWP of the refrigerant		2,088	kg CO <sub>2eq</sub> (100years)				
Contact details	Mitsubishi heavy indu	stries therm	nal systems I	.TD			
** If Cdh is not determined by me					l be 0,25.		
*** from 26 September 2018							
Where information relates to mult	ti-spilt air conditioners.t	he test resi	ult and perfor	mance data be obtained	on the basis of the performar	ice	
of the outdoor unit, with a combin							
	( )		•	•			
-						PJG00	00Z466 🛦

#### FDUM140VSXVF

Model(s): FDC140VSX /	FDUM140	VF					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air conditione	r:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cool	ing energy		
	Prated,c	14.0	kW	efficiency ηs,c		211.4	%
Declared cooling capacity for part load at given	ven outdoor	temperatur	es	Declared energy effic	iency ratio or gas utilization efficien	icy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	r for part load at given outdoor temp	peratures T	ij
T: .05%	D.1	44.0	1		1		ı
Tj=+35°C	Pdc	14.0	kW	Tj=+35°C	EERd or	327.0	%
Tj=+30°C	Pdc	10.3	kW		GUEc,bin / AEFc,bin		
11]-+30 C	Puc	10.3	JKVV	Tj=+30°C	EERd or	454.0	%
Tj=+25°C	Pdc	6.6	kW	T:05°0	GUEc,bin / AEFc,bin		
11]-1200	1 40	0.0	],,,,	Tj=+25°C	EERd or	669.0	%
Tj=+20°C	Pdc	6.0	kW	Ti- 120°C	GUEc,bin / AEFc,bin		
,			]	Tj=+20°C	EERd or GUEc,bin / AEFc,bin	1,047.0	%
Degradation					GOLC, DITT ALT C, DITT		ı
coefficient for	Cdc	0.25	_				
air conditioners**							
			_				
Power consumpiton in other than 'active mo	de'						
Off mode	$P_{OFF}$	0.040	kW	Crankcase heater mo	ode P <sub>CK</sub>	0.040	kW
Thermostat-off mode	$P_{TO}$	0.060	kW	Standby mode	P <sub>SB</sub>	0.040	kW
Other items					,		1
			1	For air-to-air air cond	itioner:	6,000	m³/h
Capacity control		variable		air flow-rate,outdoor	measured		
			7				
Sound power level,	$L_WA$	72.0	dB				
outdoor							
			1 .				
If engine driven:	NOx	_	mg/kWh				
Emissions of nitrogen	***		fuel input				
oxides			JGCV				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
g			_				
Contact details Mitsubishi	i heavy indu	stries therm	nal systems,L	TD			
** If Cdc is not determined by measurement					all be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air c	onditioners,	the test res	ult and perfor	mance data be obtaine	d on the basis of the performance		
of the outdoor unit, with a combination of inc	door unit(s)	recommend	led by the ma	nufacturer or importer.			
					1	P.IG000	7466 🛦

Information to identify the model(	s) to which the informat	ion relates	:	FDC140VSX /	FDUM140VF		
Outdoor side heat exchanger of h	-	air					
Indoor side heat exchanger of he		air					
Indication if the heater is equippe				No			
if applicable : electric mo							
Parameters shall be declared for	the average heating se	ason , para	ameters for th	ne warmer and colder hea	ating seasons are optional.		
	Symbol	Value	Unit			Value	Unit
Rated heating capacity	Symbol	value	Offic	Item Seasonal space heating	Symbol g energy efficiency ηs,h	Value	Unit
The state of the s	Prated,h	16.0	kW	,	gg,, - <sub>1</sub> -,	152.3	%
Declared heating capacity for par and outdoor temperature Tj	t load at indoor temper	ature 20°C			performance or gas utilization for part load at given outdoor	-	Тј
T <sub>j</sub> =-7°C	Pdh	13.7	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	279.0	%
T <sub>j</sub> =+2°C	Pdh	8.4	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	363.0	%
T <sub>j</sub> =+7°C	Pdh	5.4	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	508.0	%
T <sub>j</sub> =+12°C	Pdh	4.5	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	644.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	15.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	237.0	%
T <sub>OL</sub> =operation limit	Pdh	11.9	kW	T <sub>OL</sub> =operation limit	COPd or GUEh,bin / AEFh,bin	212.0	%
For air-to-water heat pumps : T <sub>j</sub> =-15°C	Pdh	-	kW	For air-to-water heat pumps:T <sub>j</sub> =-15°C	COPd or GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)			-	(if T <sub>OL</sub> <-20°C)			_
Bivalent temperature	$T_biv$	-10.0	<u>.</u>	For water-to-air heat pumps:Operation lim		_	°C
Degradation	0	0.25		T <sub>ol</sub> temperature			]
coefficient heat pumps**	$C_{dh}$	0.23					
Power consumpiton in modes oth	ner than 'active mode'			Supplementary heate	er elbu	_	kW
Off mode	P <sub>OFF</sub>	0.040	kW	back-up heating cap	acity		]
Thermostat-off mode	P <sub>TO</sub>	0.100	kW	Type of energy input			1
Crankcase heater mode	Рск	0.040	kW	Standby mode	$P_{SB}$	0.040	kW
Other items				For air to air boot nu			1
Capacity control		variable	I	For air-to-air heat pu air flow-rate,outdoor		6,000	m <sup>3</sup> /h
Sound power level,	$L_{WA}$	72.0	dB	For water-/brine-to-a	ir heat pumps :		1
outdoor measured	-WA			Rated brine or water		_	m <sup>3</sup> /h
			T "	outdoor side heat ex	changer		_
Emissions of nitrogen oxides(if applicable)	NOx ***	-	mg/kWh fuel input GCV				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		,	(100years)				
Contact details	Mitsubishi heavy indu						
** If Cdh is not determined by me	asurement then the de	fault degrad	dation coeffic	ient air conditioners shall	l be 0,25.		
*** from 26 September 2018							
Where information relates to mul	ti-spilt air conditioners,t	he test resu	ult and perfor	mance data be obtained	on the basis of the performan	ice	
of the outdoor unit, with a combir	nation of indoor unit(s) r	ecommend	ed by the ma	anufacturer or importer.			
						1 -	
						PJG00	00Z466 🛝

## FDUM125VNXPVF

Model(s): FDC125VNX /	FDUM60V	F (2 units)					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air conditioned	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	ling energy		
	Prated,c	12.5	kW	efficiency ηs,c		245.3	%
Declared cooling capacity for part load at gi	ven outdoor	temperature	es	Declared energy effi	ciency ratio or gas utilization efficien	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	peratures T	ij
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or	334.0	%
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	GUEc,bin / AEFc,bin EERd or	549.0	%
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	GUEc,bin / AEFc,bin EERd or	796.0	%
Tj=+20°C	Pdc	5.7	kW	Tj=+20°C	GUEc,bin / AEFc,bin  EERd or	1,183.0	%
Degradation			]		GUEc,bin / AEFc,bin		]
coefficient for	Cdc	0.25	_				
air conditioners**	040						
Power consumpiton in other than 'active mo	ode'						
Off mode	P <sub>OFF</sub>	0.040	kW	Crankcase heater m	ode P <sub>CK</sub>	0.040	kW
Thermostat-off mode	$P_{TO}$	0.000	kW	Standby mode	$P_SB$	0.040	kW
			•				.
Other items				For air-to-air air cond	ditioner:	0.000	3.,
Capacity control		variable		air flow-rate,outdoor	measured	6,000	m <sup>3</sup> /h
Sound power level,	1	70.0	dB				
outdoor	$L_{WA}$	70.0	ub				
If engine driven:	NOv		mg/kWh				
Emissions of nitrogen	NOx ***	_	fuel input				
oxides			GCV				
			,				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant			(100years)				
Contact details Mitsubish	i heavy indu	stries therm	al systems,L	TD			
** If Cdc is not determined by measurement	then the de	fault degrad	lation coeffici	ent air conditioners sh	nall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o	onditioners,	the test resu	ult and perfor	mance data be obtain	ed on the basis of the performance		
of the outdoor unit, with a combination of in	door unit(s) r	ecommend	ed by the ma	nufacturer or importer			
						PJG00	0Z466. <u></u> ▲

Information to identify the model(s	) to which the informa	tion relates	:	FDC125VNX /	FDUM60VF (2 units)		
Outdoor side heat exchanger of he		air					
Indoor side heat exchanger of hea		air					
Indication if the heater is equipped	with a supplementary			No			
if applicable : electric mot	or						
Parameters shall be declared for t	ne average heating se	eason , para	ameters for th	ne warmer and colder hea	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity					ig energy efficiency ηs,h		
	Prated,h	14.0	kW			167.3	%
D 1 11 0 11 1		1 0000		D 1 1 1 1 1 1 1	6	66 : /	
Declared heating capacity for part and outdoor temperature Tj	load at indoor temper	ature 20 C			performance or gas utilization for part load at given outdoor to	•	Tj
T <sub>j</sub> =-7°C	Pdh	10.1	kW	T <sub>j</sub> =-7°C	COPd or	311.0	%
T <sub>j</sub> =+2°C	Pdh	6.1	kW	T <sub>j</sub> =+2°C	GUEh,bin / AEFh,bin COPd or	394.0	%
T <sub>i</sub> =+7°C	Pdh	4.2	kW	T <sub>i</sub> =+7°C	GUEh,bin / AEFh,bin COPd or		4
,			1	,	GUEh,bin / AEFh,bin	569.0	%
T <sub>j</sub> =+12°C	Pdh	4.5	[kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	693.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	11.4	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	278.0	%
T <sub>OL</sub> =operation limit	Pdh	9.0	kW	T <sub>OL</sub> =operation limit	COPd or GUEh,bin / AEFh,bin	238.0	%
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water heat		_	%
$T_j=-15^{\circ}C$ (if $T_{OL}<-20^{\circ}C$ )				pumps:T <sub>j</sub> =-15°C (if T <sub>OL</sub> <-20°C)	GUEh,bin / AEFh,bin		J
Bivalent temperature	T <sub>biv</sub>	-10.0	l℃	For water-to-air heat	t		1
2. Taioni tomporataro	· DIV		1	pumps:Operation lim		_	°C
Degradation			Ī	T <sub>ol</sub> temperature			]
coefficient	$C_{dh}$	0.25	-				
heat pumps**			l				
Dawer consumpiton in modes other	er than lastive model			Cupplementary beat			1
Power consumpiton in modes other	er triari active mode			Supplementary heat back-up heating cap	elbu	_	kW
Off mode	$P_{OFF}$	0.040	kW		,		_
Thermostat-off mode	P <sub>TO</sub>	0.045	kW	Type of energy input	t P <sub>SB</sub>	0.040	kW
Crankcase heater mode	P <sub>CK</sub>	0.040	kW	Standby mode	33		]
Other items							1
Capacity control		variable	ī	For air-to-air heat pu air flow-rate,outdoor		6,000	m³/h
Capacity control			1	all now-rate,outdoor	measured		J
Sound power level,	$L_WA$	70.0	dB	For water-/brine-to-a	air heat pumps :		] _
outdoor measured	***		<u> </u>	Rated brine or water	*	_	m <sup>3</sup> /h
Emissions of nitrogen			mg/kWh	outdoor side heat ex	changer		]
Emissions of nitrogen oxides(if applicable)	NOx ***	_	fuel input				
omass(mappinsasis)			GCV				
			-				
CWP of the			lka CO				
GWP of the refrigerant		2,088	kg CO <sub>2eq</sub> (100years)				
reingerant		[	[(,				
	Mitsubishi heavy indu				Lho 0.25		
** If Cdh is not determined by mea	surement men me de	iauii degrac	uation coeffic	dent all conditioners shall	I DE U,∠J.		
*** from 26 September 2018							
Where information relates to multi-					on the basis of the performance	ce	
of the outdoor unit, with a combina	tion of indoor unit(s) r	ecommend	ed by the ma	anufacturer or importer.			
						PJG00	00Z466 A

### FDUM125VSXPVF

Model(s): FDC125VSX /	FDUM60V	F (2 units)					
Outdoor side heat exchanger of air condit	tioner :	air					
Indoor side heat exchanger of air condition	oner:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	,			Seasonal space	cooling energy		
The second carpains,	Prated,c	12.5	kW	efficiency ηs,c		253.4	%
Declared cooling capacity for part load at	aiven outdoor	temperature	es	Declared energy	efficiency ratio or gas utilization efficien	ncv /	
Tj and indoor 27°C/19°C(dry/wet bulb)	3				factor for part load at given outdoor tem	-	ï
,				, 3,	, ,		,
Tj=+35℃	Pdc	12.5	kW	Tj=+35°C	EERd or	244.0	],
			'	,	GUEc,bin / AEFc,bin	341.0	%
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	EERd or		i.,
			_	, , , , ,	GUEc,bin / AEFc,bin	560.0	%
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or		i
			ı	1,7 120 0	GUEc,bin / AEFc,bin	812.0	%
Tj=+20°C	Pdc	5.7	kW	Tj=+20°C	EERd or		
			ı	17-120 0	GUEc,bin / AEFc,bin	1,207.0	%
Degradation					GOLC, DITT ALT C, DITT		J
coefficient for	Cdc	0.25					
air conditioners**	Odo						
all conditioners							
Power consumpiton in other than 'active r	modo'						
Power consumpiton in other than 'active r	mode						
Off mode	P <sub>OFF</sub>	0.035	kW	Crankcase heate	r mode P <sub>CK</sub>	0.035	kW
Thermostat-off mode	P <sub>TO</sub>	-	kW	Standby mode	P <sub>SB</sub>	0.035	kW
	. 10	0.000		January mous	· 3b	0.000	]
Other items							
Other items				For air-to-air air o			1
Capacity control		variable				6,000	m <sup>3</sup> /h
oupusity common		74.14.5.0	l	air flow-rate,outd	oor measured		J
Saved navian lavel							
Sound power level,	$L_WA$	70.0	dB				
outdoor			l				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***		fuel input				
oxides			GCV				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			(100youro)				
	ishi heavy indu		-		h-II h- 0.25		
** If Cdc is not determined by measureme	ent then the def	auit degrad	ation coeffic	ent air conditioners	s snall de u,25.		
*** from 26 September 2018							
Where information relates to multi-spilt ai	ir conditioners,t	he test resu	ılt and perfor	mance data be obt	tained on the basis of the performance		
of the outdoor unit, with a combination of	indoor unit(s) r	ecommende	ed by the ma	nufacturer or impo	rter.		
						D IOCO	07466 \$
						F J G U U	0Z466 🛝

Information to identify the model(s	) to which the informa	tion relates	:	FDC125VSX /	FDUM60VF (2 units)		
Outdoor side heat exchanger of he	-	air			· · · · · · · · · · · · · · · · · · ·		
Indoor side heat exchanger of hea		air					
Indication if the heater is equipped	l with a supplementary			No			
if applicable : electric mot	or						
Parameters shall be declared for t	he average heating se	eason , para	ameters for th	ne warmer and colder hea	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Зупівої	value	Offic		ng energy efficiency ηs,h	Value	Offic
	Prated,h	14.0	kW	·	3 37 717	164.0	%
Declared heating capacity for part and outdoor temperature Tj	load at indoor temper	ature 20°C			performance or gas utilizatior for part load at given outdoor	•	Tj
T <sub>j</sub> =-7°C	Pdh	12.4	kW	T <sub>j</sub> =-7°C	COPd or	288.0	%
T <sub>j</sub> =+2°C	Pdh	7.5	kW	T <sub>j</sub> =+2°C	GUEh,bin / AEFh,bin COPd or	395.0	%
T <sub>j</sub> =+7°C	Pdh	4.9	kW	T <sub>j</sub> =+7°C	GUEh,bin / AEFh,bin COPd or	548.0	%
T <sub>j</sub> =+12°C	Pdh	4.5	kW	T <sub>j</sub> =+12°C	GUEh,bin / AEFh,bin COPd or	709.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	14.0	kW	T <sub>biv</sub> =bivalent temperature	GUEh,bin / AEFh,bin COPd or	235.0	%
T <sub>OL</sub> =operation limit	Pdh	10.9	kW	T <sub>OL</sub> =operation limit	GUEh,bin / AEFh,bin COPd or	211.0	%
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water heat		_	%
$T_j$ =-15°C (if $T_{OL}$ <-20°C)				pumps: $T_j$ =-15°C (if $T_{OL}$ <-20°C)	GUEh,bin / AEFh,bin		]
Bivalent temperature	$T_biv$	-10.0	°C	For water-to-air heat			°C
Degradation			ī	pumps:Operation lim  T <sub>ol</sub> temperature	nit		
coefficient	$C_dh$	0.25	-	01			1
heat pumps**			]				
Power consumpiton in modes other	er than 'active mode'			Supplementary heat	elbu	_	kW
Off mode	$P_{OFF}$	0.035	kW	buok up nouting oup	acity		_
Thermostat-off mode	$P_{TO}$	0.040	kW	Type of energy input	t P <sub>SB</sub>	0.035	kW
Crankcase heater mode	P <sub>CK</sub>	0.035	kW	Standby mode	· 3b	0.000	]
Other items				For air to air heat nu			 1
Capacity control		variable	I	For air-to-air heat pu air flow-rate,outdoor		6,000	m <sup>3</sup> /h
Sound power level,	1	70.0	dB	For water-/brine-to-a	air heat pumps :		1
outdoor measured	$L_{WA}$	70.0	uБ	Rated brine or water		_	m³/h
			T	outdoor side heat ex	changer		
Emissions of nitrogen	NOx	_	mg/kWh				
oxides(if applicable)	***		fuel input GCV				
			IGCV				
			T				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant			(100years)				
Contact details	Mitsubishi heavy indu	strips therm	ial systems !	TD			
** If Cdh is not determined by mea					I be 0,25.		
		209.00			·, <del></del> -		
*** from 26 September 2018	onilt air an - diti · · ·	be test :	ult and	mana data be ebte:	on the besis of the		
Where information relates to multi					on the basis of the performar	ice	
of the outdoor unit, with a combina	auon oi indoor unit(s) r	ecommend	ea by the ma	янивскитет от ітропет.			
						PJG00	00Z466 A

#### FDUM140VNXPVF1

Model(s): FDC140VNX /	FDUM71V	F1 (2 units)	)				
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air conditione	r:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cool	ing energy		
	Prated,c	14.0	kW	efficiency ηs,c		261.8	%
			<u> </u>				
Declared cooling capacity for part load at give	ven outdoor	temperatur	es		ciency ratio or gas utilization efficien	-	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	peratures I	J
Tj=+35°C	Pdc	14.0	kW	Ti- 125°C	EED4		1
,,	. 40		]	Tj=+35°C	EERd or GUEc,bin / AEFc,bin	341.0	%
Tj=+30°C	Pdc	10.3	kW	Tj=+30°C	EERd or		
			1	1,7 100 0	GUEc,bin / AEFc,bin	546.0	%
Tj=+25°C	Pdc	6.6	kW	Tj=+25°C	EERd or	050.0	0/
			-		GUEc,bin / AEFc,bin	858.0	%
Tj=+20°C	Pdc	6.0	kW	Tj=+20°C	EERd or	1,356.0	%
			,		GUEc,bin / AEFc,bin	1,000.0	70
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**			]				
Power consumpiton in other than 'active mo	de'						
Off mode	P <sub>OFF</sub>	0.040	kW	Crankcase heater mo	ode P <sub>CK</sub>	0.040	kW
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	P <sub>SB</sub>	0.040	kW
	. 10	0.000	]	January mode	. 35	0.0.0	]
Other items							
				For air-to-air air cond	itioner:	6,000	3#-
Capacity control		variable		air flow-rate,outdoor i	measured	0,000	m <sup>3</sup> /h
			_				
Sound power level,	$L_WA$	72.0	dB				
outdoor	WA		]				
			,				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	_	fuel input				
oxides			GCV				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
Terrigerant			J				
Contact details Mitsubishi	heavy indu	stries therm	nal systems,L	TD			
** If Cdc is not determined by measurement					all be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o	onditioners,	the test res	ult and perfor	mance data be obtaine	ed on the basis of the performance		
of the outdoor unit, with a combination of inc	door unit(s)	recommend	ed by the ma	nufacturer or importer.			
						P.IG000	77466 🛝

Information to identify the model(s	s) to which the informat	tion relates	:	FDC140VNX /	FDUM71VF1 (2 units)		
Outdoor side heat exchanger of h	-	air			, ,		
Indoor side heat exchanger of heat		air					
Indication if the heater is equippe	d with a supplementary			No			
if applicable : electric mo	tor						
Parameters shall be declared for	the average heating se	eason , para	ameters for the	ne warmer and colder hea	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity					g energy efficiency ηs,h		
	Prated,h	16.0	kW			172.3	%
Declared heating capacity for part	t lood at indeer towner	atura 20°C		Declared coefficient of	norformanae er gee utilizatio	n officionau /	
and outdoor temperature Tj	t load at illdoor terriper	ature 20 C			performance or gas utilization for part load at given outdoo	-	Tj
			7				,
T <sub>j</sub> =-7°C	Pdh	11.5	kW	T <sub>j</sub> =-7°C	COPd or	307.0	%
T <sub>i</sub> =+2°C	Pdh	7.0	kW	T <sub>i</sub> =+2°C	GUEh,bin / AEFh,bin COPd or		
j			1	,	GUEh,bin / AEFh,bin	403.0	%
T <sub>j</sub> =+7°C	Pdh	4.5	kW	T <sub>j</sub> =+7°C	COPd or	599.0	%
T <sub>i</sub> =+12°C	Pdh	4.5	kW	T <sub>i</sub> =+12°C	GUEh,bin / AEFh,bin COPd or		
1 <sub>j</sub> -+12 C	Full	4.5	Ivan	1 <sub>j</sub> =+12 C	GUEh,bin / AEFh,bin	765.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	13.0	kW	T <sub>biv</sub> =bivalent	COPd or	271.0	%
			- T	temperature	GUEh,bin / AEFh,bin	271.0	70
T <sub>OL</sub> =operation limit	Pdh	10.3	kW	T <sub>OL</sub> =operation limit	COPd or	240.0	%
For air-to-water heat pumps :	Pdh	_	lkW	For air-to-water heat	GUEh,bin / AEFh,bin		
T <sub>j</sub> =-15°C			1	pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
Bivalent temperature	T <sub>biv</sub>	-10.0	ľc	For water-to-air heat			1
Divaion tomporataro	• DIV		1	pumps:Operation lim		_	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				
heat pumps**			1				
Power consumpiton in modes oth	er than 'active mode'			Supplementary heate	er elbu	_	kW
0#	D	0.040	Tuan	back-up heating cap	acity		J
Off mode Thermostat-off mode	P <sub>OFF</sub> P <sub>TO</sub>	0.040 0.045	kW kW	Type of energy input	_		1
Crankcase heater mode	P <sub>CK</sub>	0.040	kW	Standby mode	P <sub>SB</sub>	0.040	kW
Other items				For air to air hoat au	impo:		1
Capacity control		variable	Ī	For air-to-air heat pu air flow-rate,outdoor		6,000	m <sup>3</sup> /h
			-				-
Sound power level,	$L_WA$	72.0	dB	For water-/brine-to-a			3,,
outdoor measured			l	Rated brine or water outdoor side heat ex		-	m <sup>3</sup> /h
Emissions of nitrogen			mg/kWh	outdoor side field ex	changer		J
oxides(if applicable)	NOx ***	_	fuel input				
			GCV				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		2,000	(100years)				
Contact details	Mitaubiahi baayy indu	atrias thorm	al avetama l	TD.			
Contact details  ** If Cdh is not determined by mea	Mitsubishi heavy indus asurement then the de				l be 0,25.		
*** from 26 September 2018		. 3. 3.			•		
Where information relates to mult	i-spilt air conditioners t	he test resi	ult and perfor	mance data he obtained	on the basis of the performa	nce	
of the outdoor unit, with a combin					s are basis of the periorilla		
			,				
						PJG00	00Z466 A

## FDUM140VSXPVF1

Model(s): FDC140VSX /	FDUM71V	F1 (2 units)					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air conditione	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cool	ling energy		
	Prated,c	14.0	kW	efficiency ηs,c		269.7	%
Declared cooling capacity for part load at gi	ven outdoor	temperature	es	Declared energy effic	ciency ratio or gas utilization efficien	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	peratures T	ij
Tj=+35°C	Pdc	14.0	kW	Tj=+35°C	EERd or	341.0	%
Tj=+30°C	Pdc	10.3	kW	Tj=+30°C	GUEc,bin / AEFc,bin EERd or	557.0	%
Tj=+25°C	Pdc	6.6	kW	Tj=+25°C	GUEc,bin / AEFc,bin EERd or	876.0	%
Tj=+20°C	Pdc	6.0	kW	Tj=+20°C	GUEc,bin / AEFc,bin EERd or	1,384.0	%
Degradation					GUEc,bin / AEFc,bin		
coefficient for	Cdc	0.25	-				
air conditioners**							
Power consumpiton in other than 'active mo	de'						
Off mode	P <sub>OFF</sub>	0.035	kW	Crankcase heater mo	ode P <sub>CK</sub>	0.035	kW
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	$P_{SB}$	0.035	kW
Other items				For air-to-air air cond	litioner		]
Capacity control		variable		air flow-rate,outdoor		6,000	m <sup>3</sup> /h
Sound power level,	$L_WA$	72.0	dB				
outdoor							
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
			l				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			(***)				
Contact details Mitsubish	i heavy indu	stries therm	al systems,L	TD			
** If Cdc is not determined by measurement					all be 0,25.		
*** from 26 September 2018		-					
Where information relates to multi-spilt air c	onditioners.	he test resu	ılt and perfor	mance data be obtaine	ed on the basis of the performance		
of the outdoor unit, with a combination of inc							
	. /		-				
				·		PJG00	0Z466.▲

Information to identify the model(s	s) to which the informat	tion relates	:	FDC140VSX /	FDUM71VF1 (2 units)		
Outdoor side heat exchanger of h		air			, ,		
Indoor side heat exchanger of hea		air					
Indication if the heater is equippe	d with a supplementary			No			
if applicable : electric mo	tor						
Parameters shall be declared for	the average heating se	eason , para	ameters for th	ne warmer and colder hea	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Prated,h	16.0	kW		ng energy efficiency ηs,h	170.3	%
Declared heating capacity for part and outdoor temperature Tj	t load at indoor temper	ature 20°C			performance or gas utilization for part load at given outdoor t		Тј
T <sub>j</sub> =-7°C	Pdh	13.7	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	287.0	%
T <sub>j</sub> =+2°C	Pdh	8.4	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	408.0	%
T <sub>j</sub> =+7°C	Pdh	5.4	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	579.0	%
T <sub>j</sub> =+12°C	Pdh	4.5	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	784.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	15.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	243.0	%
T <sub>OL</sub> =operation limit	Pdh	11.9	kW	T <sub>OL</sub> =operation limit	COPd or GUEh,bin / AEFh,bin	218.0	%
For air-to-water heat pumps :  T <sub>j</sub> =-15°C  (if T <sub>OL</sub> <-20°C)	Pdh	_	<u>k</u> W	For air-to-water heat pumps:T <sub>j</sub> =-15°C (if T <sub>OL</sub> <-20°C)	t COPd or GUEh,bin / AEFh,bin	_	%
Bivalent temperature	$T_biv$	-10.0	°c	For water-to-air heat pumps:Operation lin		_	္င
Degradation coefficient heat pumps**	$C_dh$	0.25	-	T <sub>ol</sub> temperature			
Power consumpiton in modes oth			1	Supplementary heat	elbu	_	kW
Off mode Thermostat-off mode	P <sub>OFF</sub> P <sub>TO</sub>	0.035 0.040	kW kW				1
Crankcase heater mode	P <sub>CK</sub>	-	kW	Type of energy input Standby mode	r P <sub>SB</sub>	0.035	kW
Other items							
Capacity control		variable	I	For air-to-air heat pu air flow-rate,outdoor		6,000	m <sup>3</sup> /h
Sound power level, outdoor measured	$L_WA$	72.0	dB	For water-/brine-to-a Rated brine or water outdoor side heat ex	r fiow-rate,	_	m³/h
Emissions of nitrogen oxides(if applicable)	NOx ***	_	mg/kWh fuel input GCV		,		-
GWP of the refrigerant		2,088	kg CO <sub>2eq</sub> (100years)				
Contact details	Mitsubishi heavy indu						
** If Cdh is not determined by mea	asurement then the de	fault degrad	dation coeffic	ient air conditioners shal	l be 0,25.		
*** from 26 September 2018							
Where information relates to mult	i-spilt air conditioners,t	he test resu	ult and perfor	mance data be obtained	on the basis of the performan	ce	
of the outdoor unit, with a combin	ation of indoor unit(s) r	ecommend	ed by the ma	anufacturer or importer.			
						PJG00	00Z466 🛦

### FDUM140VNXTVF

Model(s): FDC140VNX /	FDUM50V	F (3 units)					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air conditioned	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo			
	Prated,c	14.0	kW	efficiency ηs,c	99)	261.8	%
Declared cooling capacity for part load at gi	ven outdoor	temperature	es	Declared energy effi	ciency ratio or gas utilization efficien	icv /	
Tj and indoor 27°C/19°C(dry/wet bulb)					or for part load at given outdoor tem	-	i
,				, 3,	, ,		,
Tj=+35°C	Pdc	14.0	kW	Tj=+35°C	EERd or		
			!	,	GUEc,bin / AEFc,bin	341.0	%
Tj=+30°C	Pdc	10.3	kW	Tj=+30°C	EERd or		
			'	1,7 100 0	GUEc,bin / AEFc,bin	546.0	%
Tj=+25°C	Pdc	6.6	kW	Tj=+25℃	EERd or		
			·	1]20 0		858.0	%
Tj=+20°C	Pdc	6.0	kW	Ti- 120°C	GUEc,bin / AEFc,bin		
1,7 - 20 0	1 40	0.0		Tj=+20°C	EERd or	1,356.0	%
Degradation					GUEc,bin / AEFc,bin		l
Degradation	0.1	0.25					
coefficient for	Cdc	0.20	-				
air conditioners**							
Power consumpiton in other than 'active mo	ode'						
			ı İ		. 5		1
Off mode	P <sub>OFF</sub>		kW	Crankcase heater m	51.	0.040	kW
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	$P_{SB}$	0.040	kW
Other items					ĺ		1
			ı	For air-to-air air cond	ditioner:	6,000	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outdoor	measured		
			.				
Sound power level,	$L_WA$	72.0	dB				
outdoor							
			.				
If engine driven:	NOv		mg/kWh				
Emissions of nitrogen	NOx ***	_	fuel input				
oxides			GCV				
GWP of the		2.000	kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
			·				
Contact details Mitsubish	i heavy indu	stries therm	al systems,L	TD			
** If Cdc is not determined by measurement	-		-		nall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air of	onditioners	the test resu	ilt and perfor	mance data be obtain	ed on the basis of the performance		
of the outdoor unit, with a combination of inc							
	_ 20. 4111(0) 1	_ =====================================	, and into		•		
						PJG000	0Z466 🛝

Information to identify the model(s) to v	which the information	tion relates	:	FDC140VNX	FDUM50VF (3 units)		
Outdoor side heat exchanger of heat p	ump :	air					
Indoor side heat exchanger of heat pur	np :	air					
Indication if the heater is equipped with	ı a supplementar			No			
if applicable : electric motor							
Parameters shall be declared for the av	verage heating s	eason , para	meters for t	he warmer and colder	heating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Gyilliboi	Value	Offic		ating energy efficiency ηs,h	Value	Offic
	Prated,h	16.0	kW		3 37 717	172.3	%
Declared heating capacity for part load	at indoor tempe	rature 20°C			t of performance or gas utilizati	•	
and outdoor temperature Tj				auxiliary energy fac	tor for part load at given outdoo	or temperatures	Tj
T <sub>i</sub> =-7°C	Pdh	11.5	kW	T <sub>i</sub> =-7°C	COPd or		1
.,		11.0	I		GUEh,bin / AEFh,bin	307.0	%
T <sub>j</sub> =+2°C	Pdh	7.0	kW	T <sub>j</sub> =+2°C	COPd or	403.0	%
					GUEh,bin / AEFh,bin	403.0	70
T <sub>j</sub> =+7°C	Pdh	4.5	kW	T <sub>j</sub> =+7°C	COPd or	599.0	%
T : 40°0	Б. II		I	T : 10°0	GUEh,bin / AEFh,bin		4
T <sub>j</sub> =+12°C	Pdh	4.5	kW	T <sub>j</sub> =+12°C	COPd or	765.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	13.0	kW	T <sub>biv</sub> =bivalent	GUEh,bin / AEFh,bin COPd or		-
Tow sivaion temperature	1 411	10.0	I	temperature	GUEh,bin / AEFh,bin	271.0	%
T <sub>OL</sub> =operation limit	Pdh	10.3	kW	T <sub>OL</sub> =operation lir		040.0	0/
			_		GUEh,bin / AEFh,bin	240.0	%
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water I	neat COPd or	_	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		]
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
Bivalent temperature	$T_biv$	-10.0	°c	For water-to-air l	neat		1
Bivalent temperature	I DIV	-10.0	ľ	pumps:Operation		_	°C
Degradation			Ī	T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				-
heat pumps**							
Douger consumption in modes other the	un lantiva madal			Cumplementen	and a sector		1
Power consumpiton in modes other that	an active mode			Supplementary h	elbi	J –	kW
Off mode	$P_{OFF}$	0.040	kW	back-up heating	Сарасну	<u> </u>	J
Thermostat-off mode	P <sub>TO</sub>	0.045	kW	Type of energy in	nput p	0.040	kW
Crankcase heater mode	$P_{CK}$	0.040	kW	Standby mode	P <sub>SE</sub>	0.040	KVV
Other items					1		1
Capacity control		variable	Ī	For air-to-air hea air flow-rate,outd		6,000	m <sup>3</sup> /h
Capacity Control		variable	l	all flow-rate,out	looi measureu		J
Sound power level,	1	72.0	dB	For water-/brine-	to-air heat pumps :		1
outdoor measured	$L_{WA}$	72.0	uв	Rated brine or w	ater fiow-rate,	_	m³/h
		_	T	outdoor side hea	it exchanger		
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	_	fuel input GCV				
			IGCV				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		2,000	(100years)				
** If Cdh is not determined by measure	ubishi heavy indu				shall be 0.25		
	ment then the de	riauit degrac	auon coeific	Jent an Conditioners S	onan De U,23.		
*** from 26 September 2018							
Where information relates to multi-spilt	air conditioners,	the test resu	ılt and perfo	rmance data be obtai	ned on the basis of the perform	ance	
of the outdoor unit, with a combination	of indoor unit(s)	recommend	ed by the ma	anufacturer or importe	er.		
						I PIGO	007466 A

## FDUM140VSXTVF

Model(s): FDC140VSX /	FDUM50V	F (3 units)					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air conditione	r:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cool	ing energy		
	Prated,c	14.0	kW	efficiency ηs,c		269.7	%
Declared cooling capacity for part load at given	en outdoor	temperature	es	Declared energy effic	ciency ratio or gas utilization efficien	icy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	r for part load at given outdoor tem	peratures T	ij
Tj=+35°C	Pdc	14.0	kW	Tj=+35°C	EERd or	341.0	%
Tj=+30°C	Pdc	10.3	kW	Tj=+30°C	GUEc,bin / AEFc,bin EERd or	557.0	%
Tj=+25°C	Pdc	6.6	kW	Tj=+25°C	GUEc,bin / AEFc,bin EERd or	876.0	%
Tj=+20°C	Pdc	6.0	kW	Tj=+20°C	GUEc,bin / AEFc,bin EERd or	1,384.0	%
Degradation					GUEc,bin / AEFc,bin		l
coefficient for	Cdc	0.25	-				
air conditioners**							
Power consumpiton in other than 'active mo	de'						
Off mode	P <sub>OFF</sub>	0.035	kW	Crankcase heater mo	ode P <sub>CK</sub>	0.035	kW
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	$P_SB$	0.035	kW
Other items				For air-to-air air cond	itioner		]
Capacity control		variable		air flow-rate,outdoor		6,000	m <sup>3</sup> /h
Sound power level, outdoor	$L_WA$	72.0	dB				
If engine driven:	NOx	_	mg/kWh				
Emissions of nitrogen oxides	***		fuel input GCV				
OWD (II			l. 00				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			]`				
•			al systems,L				
** If Cdc is not determined by measurement	then the de	fault degrad	lation coeffici	ent air conditioners sha	all be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air co							
of the outdoor unit, with a combination of inc	loor unit(s) r	ecommend	ed by the ma	nufacturer or importer.			
						PJG000	0Z466 🛝

Information to identify the model	s) to which the informat	tion relates	:	FDC140VSX /	FDUM50VF (3 units)		
Outdoor side heat exchanger of		air					
Indoor side heat exchanger of he		air					
Indication if the heater is equippe	ed with a supplementary			No			
if applicable : electric m	otor						
Parameters shall be declared for	the average heating se	eason , para	ameters for th	ne warmer and colder hea	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	•				ng energy efficiency ηs,h		
	Prated,h	16.0	kW			170.3	%
Declared heating capacity for pa and outdoor temperature Tj	rt load at indoor temper	<u>I</u> ature 20℃			performance or gas utilization for part load at given outdoor t		Tj
T <sub>j</sub> =-7°C	Pdh	13.7	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	287.0	%
T <sub>j</sub> =+2°C	Pdh	8.4	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	408.0	%
T <sub>j</sub> =+7°C	Pdh	5.4	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	579.0	%
T <sub>j</sub> =+12°C	Pdh	4.5	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	784.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	15.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	243.0	%
T <sub>OL</sub> =operation limit	Pdh	11.9	kW	T <sub>OL</sub> =operation limit	COPd or GUEh,bin / AEFh,bin	218.0	%
For air-to-water heat pumps : T <sub>i</sub> =-15°C	Pdh	_	kW	For air-to-water heat pumps:T;=-15°C	t COPd or GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			-
Bivalent temperature	$T_biv$	-10.0	°C	For water-to-air heat pumps:Operation lim		_	°C
Degradation			]	T <sub>ol</sub> temperature			]
coefficient heat pumps**	$C_{dh}$	0.25	-				
Power consumpiton in modes of Off mode Thermostat-off mode Crankcase heater mode Other items	P <sub>OFF</sub> P <sub>TO</sub> P <sub>CK</sub>	0.040 0.035	kW kW kW	Supplementary heat back-up heating cap Type of energy input Standby mode  For air-to-air heat pu	t P <sub>SB</sub>	0.035	kW kW m³/h
Capacity control		variable	1	air flow-rate,outdoor	measured	L	]
Sound power level, outdoor measured  Emissions of nitrogen	$L_WA$	72.0	dB mg/kWh	For water-/brine-to-a Rated brine or water outdoor side heat ex	r fiow-rate,	_	m³/h
oxides(if applicable)	NOx ***	_	fuel input GCV				
GWP of the refrigerant		2,088	kg CO <sub>2eq</sub> (100years)				
Contact details	Mitsubishi heavy indu						
** If Cdh is not determined by me	easurement then the de	fault degrac	dation coeffic	ient air conditioners shall	l be 0,25.		
*** from 26 September 2018							
Where information relates to mul	ti-spilt air conditioners,t	he test resu	ult and perfor	mance data be obtained	on the basis of the performan	ce	
of the outdoor unit, with a combin	nation of indoor unit(s) r	ecommend	ed by the ma	anufacturer or importer.			
						PJG00	00Z466 A

## Models FDUM40VF, 50VF, 60VF, 71VF1, 100VF2, 125VF, 140VF

Model(s): FDUM40VF										
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit			
Cooling capacity (sensible)	Prated,c	3.2	kW	Total electric power input	Pelec	0.100	kW			
Cooling capacity (latent)	Prated,c	0.8	kW	Sound power level (per speed setting,if applicable)	LWA	60.0	dB			
Heating capacity	Prated,h	4.5	kW							
Contact details	Mitsubishi h	neavy indu	ustries ther	mal systems,LTD						

Model(s): FDUM50VF							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	Prated,c	3.7	kW	Total electric power input	Pelec	0.100	kW
Cooling capacity (latent)	Prated,c	1.3	kW	Sound power level (per speed setting,if applicable)	LWA	60.0	dB
Heating capacity	Prated,h	5.4	kW				
Contact details	Mitsubishi h	neavy indu	ustries ther	mal systems,LTD			

Model(s): FDUM60VF							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	Prated,c	3.9	kW	Total electric power input	Pelec	0.160	kW
Cooling capacity (latent)	Prated,c	1.7	kW	Sound power level (per speed setting,if applicable)	LWA	60.0	dB
Heating capacity	Prated,h	6.7	kW				
Contact details	Mitsubishi h	eavy indu	ustries the	mal systems,LTD			

Model(s): FDUM71VF1							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	Prated,c	5.8	kW	Total electric power input	Pelec	0.200	kW
Cooling capacity (latent)	Prated,c	1.3	kW	Sound power level (per speed setting,if applicable)	LWA	65.0	dB
Heating capacity	Prated,h	8.0	kW				
Contact details	Mitsubishi h	neavy indi	ustries the	rmal systems,LTD			

Model(s): FDUM100VF2							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	Prated,c	7.7	kW	Total electric power input	Pelec	0.290	kW
Cooling capacity (latent)	Prated,c	2.3	kW	Sound power level (per speed setting,if applicable)	LWA	65.0	dB
Heating capacity	Prated,h	11.2	kW				
Contact details	Mitsubishi h	neavy indu	ustries the	mal systems,LTD			

Model(s): FDUM125VF							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	Prated,c	10.5	kW	Total electric power input	Pelec	0.330	kW
Cooling capacity (latent)	Prated,c	2.0	kW	Sound power level (per speed setting,if applicable)	LWA	67.0	dB
Heating capacity	Prated,h	14.0	kW				
Contact details	Mitsubishi h	neavy ind	ustries ther	mal systems,LTD			

Model(s): FDUM140VF									
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit		
Cooling capacity (sensible)	Prated,c	11.2	kW	Total electric power input	Pelec	0.450	kW		
Cooling capacity (latent)	Prated,c	2.8	kW	Sound power level (per speed setting,if applicable)	LWA	70.0	dB		
Heating capacity	Prated,h	16.0	kW						
Contact details	Mitsubishi h	subishi heavy industries thermal systems,LTD							

## (3) Duct connected-High static pressure type (FDU)

### FDU71VNXVF1

Indoor unit model name		ition relates to:	If function includes heating: Indicate the	ne heating seas	son the
illidool ullit model hame	FDU71VF1	tion rolated to.	information relates to. Indicated values		
Outdoor unit model name	FDC71VNX		heating season at a time. Include at le		
		•	_  ag ==ae= at aee.ae at .e		g coucon / monago .
Function(indicate if present)			Average(mandatory)	Yes	
cooling	Yes		Warmer(if designated)	No	
heating	Yes		Colder(if designated)	No	
9			, , , ,		
Item	symbol value	e unit	Item	symbol	value class
Design load			Seasonal efficiency and energy efficie	ncy class	
cooling	Pdesignc 7	.1 kW	cooling	SEER	<b>5.24</b> A
heating / Average	Pdesignh 7	. <b>0</b> kW	heating / Average	SCOP/A	3.90 A
heating / Warmer	Pdesignh -	– kW	heating / Warmer	SCOP/W	
heating / Colder	Pdesignh -	- kW	heating / Colder	SCOP/C	-   -
					unit
Declared capacity at outdoor to	emperature Tdesignh		Back up heating capacity at outdoor to	emperature Td	e <u>signh</u>
heating / Average (-10°C)	Pdh 5.	<b>92</b> kW	heating / Average (-10°C)	elbu	1.08 kW
heating / Warmer (2°C)	Pdh -	– kW	heating / Warmer (2°C)	elbu	– kW
heating / Colder (-22°C)	Pdh -	– kW	heating / Colder (-22°C)	elbu	- kW
Declared capacity for cooling, a	at indoor temperature 27	(19)℃ and	Declared energy efficiency ratio, at ind	loor temperatu	re 27(19)°C and
outdoor temperature Tj			outdoor temperature Tj		
Tj=35°C	Pdc 7.	<b>10</b> kW	Tj=35°C	EERd	3.46 -
Tj=30°C	Pdc 5.	<b>23</b> kW	Tj=30°C	EERd	4.72 -
Tj=25°C	Pdc 3.	<b>37</b> kW	Tj=25°C	EERd	7.94 -
Tj=20°C	Pdc 3.	<b>20</b> kW	Tj=20°C	EERd	10.38 -
-	L -				
Declared capacity for heating /	Average season, at indo	or	Declared coefficient of performance / /	Average seaso	n, at indoor
temperature 20°C and outdoor			temperature 20°C and outdoor temper		
Tj=-7℃	Pdh 6.	<b>20</b> kW	Tj=-7°C	CÓPd	2.53 -
Tj=2°C	Pdh 3.	<b>85</b> kW	Tj=2°C	COPd	3.82 -
Tj=7°C	Pdh 2.	<b>45</b> kW	Tj=7°C	COPd	5.15 -
Tj=12℃		<b>56</b> kW	Tj=12℃	COPd	6.28 -
Tj=bivalent temperature	Pdh 6.	<b>20</b> kW	Tj=bivalent temperature	COPd	2.53 -
Tj=operating limit		00 kW	Tj=operating limit	COPd	2.06 -
., -p		1	., -p		
Declared capacity for heating /	Warmer season, at indo	or	Declared coefficient of performance /	Warmer seaso	n, at indoor
temperature 20°C and outdoor			temperature 20°C and outdoor temper		,
Tj=2°C		– kW	Tj=2°C	CÓPd	
Tj=7℃	Pdh -	- kW	∏ Tj=7°C	COPd	
Tj=12℃	Pdh -	- kW	Ti=12°C	COPd	
Tj=bivalent temperature		- kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh -	- kW	Tj=operating limit	COPd	<del></del> -
rj oporating innit	i uii	1000	Ty operating infine	001 u	
D	Caldan assault at indeed		Declared coefficient of newforms and //	0-1-1	at indoor
Declared capacity for heating /				Loider season	
Declared capacity for heating / temperature 20°C and outdoor			Declared coefficient of performance / ( temperature 20°C and outdoor temper		, at illuooi
temperature 20°C and outdoor	temperature Tj		temperature 20°C and outdoor temper	ature Tj	, at illuool
temperature 20°C and outdoor Tj=-7°C	temperature Tj Pdh	- kW	temperature 20°C and outdoor temper	rature Tj COPd	
temperature 20°C and outdoor Tj=-7°C Tj=2°C	temperature Tj Pdh Pdh -	kW kW	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C	rature Tj COPd COPd	<u>-</u>
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=7°C	temperature Tj Pdh Pdh Pdh Pdh -	kW kW kW	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C	rature Tj COPd COPd COPd	  
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=7°C Tj=12°C	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=12°C	cature Tj COPd COPd COPd COPd	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	COPd COPd COPd COPd COPd COPd COPd	  
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	temperature Tj	- kW - kW - kW - kW - kW	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit	cature Tj COPd COPd COPd COPd COPd COPd	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	temperature Tj	- kW - kW - kW - kW	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	COPd COPd COPd COPd COPd COPd COPd	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C	temperature Tj	- kW - kW - kW - kW - kW	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C	cature Tj COPd COPd COPd COPd COPd COPd	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature	cature Tj COPd COPd COPd COPd COPd COPd COPd	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average	cature Tj COPd COPd COPd COPd COPd COPd COPd COPd	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer	COPd COPd COPd COPd COPd COPd COPd COPd	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average	cature Tj COPd COPd COPd COPd COPd COPd COPd COPd	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder	COPd COPd COPd COPd COPd COPd COPd COPd	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - cw - cw - cw	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency	Tol	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - c	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling	Tol Tol Tol Tol Tol Tol Tol Tol Tol Tol	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - cw - cw - cw	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency	Tol	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - c	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating	Tol Tol Tol Tol Tol Tol Tol Tol Tol Tol	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - c	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling	Tol Tol Tol Tol Tol Tol Tol Tol Tol Tol	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - C - C - °C - °C	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating	Tol Tol EERRcyc COPcyc	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - c c c c c c c c c c c c c c c c c c c	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating	Tol Tol EERRcyc COPcyc	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - c c c c c c c c c c c c c c c c c c c	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating	Tol Tol EERRcyc COPcyc	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power in	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - c c c c c c c c c c c c c c c c c c c	temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption	Tol Tol Tol COPcyc	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - KW - KW - CC - °C - °C - CC - KW - KW	temperature 20°C and outdoor temper Tj=-7°C Tj=-2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling	Tol Tol EERcyc COPcyc Cdh	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode standby mode	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - W - kW - W - W - W - W - W - W - W - W - W -	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average	Tol Tol Tol Tol COPcyc Cdh	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode standby mode thermostat-off mode	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - c c c c c c c c c c c c c c c c c c c	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Warmer	Tol Tol Tol Tol Tol Tol Tol Tol Tol Tol	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode standby mode thermostat-off mode	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - c c c c c c c c c c c c c c c c c c c	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Warmer	Tol Tol Tol Tol Tol Tol Tol Tol Tol Tol	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode standby mode thermostat-off mode crankcase heater mode	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - c c c c c c c c c c c c c c c c c c c	temperature 20°C and outdoor temper Tj=-7°C Tj=-2°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Average heating / Warmer heating / colder	Tol Tol Tol Tol Tol Tol Tol Tol Tol Tol	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode standby mode thermostat-off mode crankcase heater mode	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - c c c c c c c c c c c c c c c c c c c	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Warmer heating / Colder	Tol Tol EERcyc COPcyc Cdh  Qce Qhe Qhe Qhe	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode standby mode thermostat-off mode crankcase heater mode	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - c c c c c c c c c c c c c c c c c c c	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor)	Tol Tol Tol Tol Tol Tol Tol Tol Tol Tol	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - c c c c c c c c c c c c c c c c c c c	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential	Tol Tol Tol Tol Tol Tol Tol Tol Tol Tol	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of fixed staged	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - c c c c c c c c c c c c c c c c c c c	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor)	Tol Tol Tol Tol Tol Tol Tol Tol Tol Tol	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - c c c c c c c c c c c c c c c c c c c	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential	Tol Tol Tol Tol Tol Tol Tol Tol Tol Tol	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power in off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one co	temperature Tj	- kW - kW - kW - kW - kW - kW - KW - C C C C C C C C C C C C C C C C C C C	temperature 20°C and outdoor temper Tj=-7°C Tj=-2°C Tj=-2°C Tj=-12°C Tj=-12°C Tj=bivalent temperature Tj=-operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(outdoor)	Tol Tol EERcyc COPcyc Cdh  Lwa Lwa GWP  COPd COPd COPd COPd COPd COPd COPd CO	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of fixed staged variable  Contact details for obtaining	temperature Tj	- kW - kW - kW - kW - kW - kW - kW - kW	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	Tol Tol EERcyc COPcyc Cdh  Lwa Lwa GWP  COPd COPd COPd COPd COPd COPd COPd CO	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power in off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one co	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - kW	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Warmer heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	Tol Tol EERcyc COPcyc Cdh  Lwa Lwa GWP  COPd COPd COPd COPd COPd COPd COPd CO	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of fixed staged variable  Contact details for obtaining	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - kW	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	Tol Tol EERcyc COPcyc Cdh  Lwa Lwa GWP  COPd COPd COPd COPd COPd COPd COPd CO	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of fixed staged variable  Contact details for obtaining	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - kW	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Warmer heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	Tol Tol EERcyc COPcyc Cdh  Lwa Lwa GWP  COPd COPd COPd COPd COPd COPd COPd CO	
temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=2°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of fixed staged variable  Contact details for obtaining	temperature Tj Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	- kW - kW - kW - kW - kW - kW - kW - kW	temperature 20°C and outdoor temper Tj=-7°C Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Warmer heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	Tol Tol EERcyc COPcyc Cdh  Lwa Lwa GWP  COPd COPd COPd COPd COPd COPd COPd CO	

FDU100VNXVF2			
Information to identify the mode Indoor unit model name	I(s) to which the information relate FDU100VF2	es to: If function includes heating: Indicate information relates to. Indicated valu	
Outdoor unit model name	FDC100VNX	heating season at a time. Include at	
Constitution (in disease if a second)		Average (magnidates)	Vac
Function(indicate if present) cooling	Yes	Average(mandatory) Warmer(if designated)	Yes No
heating	Yes	Colder(if designated)	No
Item Design load	symbol value unit	Item Seasonal efficiency and energy efficiency	symbol value class
cooling	Pdesignc 10.0 kW	cooling	SEER 5.22 A
heating / Average	Pdesignh 13.0 kW	heating / Average	SCOP/A <b>4.10</b> A+
heating / Warmer	Pdesignh – kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C unit
Declared capacity at outdoor ter	nperature Tdesignh	Back up heating capacity at outdoor	
heating / Average (-10°C)	Pdh <b>10.91</b> kW	heating / Average (-10°C)	elbu 2.09 kW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu – kW
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu – kW
Declared capacity for cooling, at	indoor temperature 27(19)°C and	Declared energy efficiency ratio, at in	ndoor temperature 27(19)°C and
outdoor temperature Tj		outdoor temperature Tj	
Tj=35°C	Pdc <b>10.0</b> kW	Tj=35°C	EERd 3.73 -
Tj=30℃ Tj=25℃	Pdc 7.42 kW Pdc 5.58 kW	Tj=30°C Tj=25°C	EERd 4.84 - EERd 7.43 -
Tj=20°C	Pdc <b>5.87</b> kW	Tj=25°C	EERd 7.43 -
., ====			10170
Declared capacity for heating / A		Declared coefficient of performance	
temperature 20°C and outdoor t Ti=-7°C		temperature 20°C and outdoor temperature 7°C	
Tj=-7 C Tj=2°C	Pdh 11.5 kW Pdh 6.89 kW	Tj=-7 C	COPd <b>2.54</b> - COPd <b>4.07</b> -
Tj=7°C	Pdh <b>4.50</b> kW	Tj=7°C	COPd 5.52 -
Tj=12°C	Pdh <b>5.20</b> kW	Tj=12°C	COPd <b>6.50</b> -
Tj=bivalent temperature	Pdh 11.5 kW	Tj=bivalent temperature	COPd <b>2.54</b> -
Tj=operating limit	Pdh <b>8.96</b> kW	Tj=operating limit	COPd <b>2.16</b> -
Declared capacity for heating / \	Warmer season, at indoor	Declared coefficient of performance	/ Warmer season, at indoor
temperature 20°C and outdoor t		temperature 20°C and outdoor temperature	erature Tj
Tj=2°C	Pdh – kW	Tj=2°C	COPd – -
Tj=7°C	Pdh – kW	Tj=7°C	COPd — -
Tj=12°C Tj=bivalent temperature	Pdh – kW	Tj=12°C Tj=bivalent temperature	COPd – - COPd – -
Tj=stratent temperature Tj=operating limit	Pdh – kW	Tj=blvalent temperature Tj=operating limit	COPd -
Declared capacity for heating / (		Declared coefficient of performance	
temperature 20°C and outdoor to Ti=-7°C	Pdh - kW	temperature 20°C and outdoor temperature 7°C	COPd
Tj=2°C	Pdh – kW	Tj=2°C	COPd -
Tj=7°C	Pdh – kW	Tj=7℃	COPd – -
Tj=12°C	Pdh – kW	Tj=12℃	COPd – -
Tj=bivalent temperature Tj=operating limit	Pdh — kW Pdh — kW	Tj=bivalent temperature Tj=operating limit	COPd — - COPd — -
Tj=-15°C	Pdh – kW	Tj=-15°C	COPd -
.,		.,	00.4
Bivalent temperature		Operating limit temperature	
heating / Average	Tbiv	heating / Average	Tol
heating / Warmer heating / Colder	Tbiv − °C Tbiv − °C	heating / Warmer heating / Colder	Tol − °C Tol − °C
Cycling interval capacity		Cycling interval efficiency	
for cooling	Pcycc – kW	for cooling	EERcyc — -
for heating	Pcych – kW	for heating	COPcyc
Degradation coefficient		Degradation coefficient	
cooling	Cdc <b>0.25</b> -	heating	Cdh <b>0.25</b> -
Electric nower input in news	odes other than 'active made'	Annual electricity consumption	
Electric power input in power mo off mode	Poff 20 W	cooling	Qce <b>670</b> kWh/a
standby mode	Psb <b>20</b> W	heating / Average	Qhe <b>4,437</b> kWh/a
thermostat-off mode	Pto <b>45</b> W	heating / Warmer	Qhe – kWh/a
crankcase heater mode	Pck <b>25</b> W	heating / colder	Qhe – kWh/a
Capacity control(indicate one of	three options)	Other items	
Suparity Control(maleate one of	so options/	Sound power level(indoor)	Lwa <b>65</b> dB(A)
		Sound power level(outdoor)	Lwa <b>70</b> dB(A)
fixed	No	Global warming potential	GWP <b>1,975</b> kgCO <sub>2</sub> ec
staged	No	Rated air flow(indoor)	- <b>2,160</b> m <sup>3</sup> /h
variable	Yes	Rated air flow(outdoor)	- <b>6,000</b> m <sup>3</sup> /h
Contact details for obtaining more information	Name and address of the Mitsubishi Heavy Industries Air-	e manufacturer or of its authorised represen	tative.
more implifiation	5 The Square, Stockley Park, U		
	United Kingdom		
			D 100007/22 *
			PJG000Z462 <u>A</u>

#### FDU100VSXVF2

FDU100VSXVF2			
Information to identify the model(s			
Indoor unit model name	FDU100VF2	information relates to. Indicated value	
Outdoor unit model name	FDC100VSX	heating season at a time. Include at le	east the heating season 'Average'.
		<b>_</b>	
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
H	and the land of the second	lk	and the land of the land
Item Design load	symbol value unit	Item	symbol value class
cooling	Pdesignc 10.0 kW	Seasonal efficiency and energy efficie cooling	SEER 5.19 A
heating / Average	Pdesignh 13.0 kW	heating / Average	SCOP/A <b>4.10</b> A+
heating / Warmer	Pdesignh – kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh – kW	heating / Colder	SCOP/C
rieating / Colder	ruesigiiii — KVV	rieating / Colder	unit
Declared capacity at outdoor temp	erature Tdesignh	Back up heating capacity at outdoor to	
heating / Average (-10°C)	Pdh 10.91 kW	heating / Average (-10°C)	elbu <b>2.09</b> kW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu – kW
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu – kW
ricating / colder (-22 c)	i dii	ricating / Golder (-22 G)	CIDU
Declared capacity for cooling, at in	door temperature 27(19)°C and	Declared energy efficiency ratio, at inc	door temperature 27(19)°C and
outdoor temperature Tj		outdoor temperature Tj	topo.ataro 27 (10) 0 and
Tj=35°C	Pdc <b>10.0</b> kW	Tj=35°C	EERd <b>3.73</b> -
Tj=33℃	Pdc 7.42 kW	Tj=30℃	EERd 4.84 -
Tj=30 ℃ Tj=25℃	Pdc 7.42 kW	Tj=30 C   Tj=25°C	EERd 7.43
Tj=20°C	Pdc <b>5.87</b> kW	Tj=20°C	EERd 7.43 -
1,1-20 0	1 GO   3.01   NVV	13-200	LENG 10.40 -
Declared capacity for heating / Ave	erage season, at indoor	Declared coefficient of performance /	Average season, at indoor
temperature 20°C and outdoor tem		temperature 20°C and outdoor temper	
Ti=-7°C	Pdh 11.5 kW	Ti=-7°C	COPd <b>2.54</b> -
Tj=2℃	Pdh <b>6.89</b> kW	Tj=2°C	COPd <b>4.07</b> -
Tj=7°C	Pdh <b>4.50</b> kW	7j=7°C	COPd <b>5.52</b> -
Tj=12°C	Pdh <b>5.20</b> kW	Ti=12°C	COPd <b>6.50</b> -
Tj=bivalent temperature	Pdh 11.5 kW	Tj=bivalent temperature	COPd <b>2.54</b> -
Tj=operating limit	Pdh <b>8.96</b> kW	Ti=operating limit	COPd <b>2.16</b> -
rj-operating limit	1 dii   0.90   KVV	1)-operating limit	2.10
Declared capacity for heating / Wa	rmer season, at indoor	Declared coefficient of performance /	Warmer season, at indoor
temperature 20°C and outdoor tem		temperature 20°C and outdoor temper	
Tj=2°C	Pdh – kW	Tj=2°C	COPd
Tj=7°C	Pdh – kW	Tj=7°C	COPd
Tj=12℃	Pdh – kW	Tj=12℃	COPd
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd
Ty operating innit	T GIT		001 4
Declared capacity for heating / Col	lder season, at indoor	Declared coefficient of performance /	Colder season, at indoor
temperature 20°C and outdoor tem		temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor 20°C and outdoor 20°C and outdoo	
Tj=-7°C	Pdh – kW	Tj=-7°C	CÓPd
Tj=2℃	Pdh – kW	Tj=2℃	COPd
Ti=7°C	Pdh – kW	∏ Ti=7°C	COPd
Ti=12℃	Pdh – kW	Tj=12℃	COPd
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd – -
Tj=-15°C	Pdh – kW	Tj=-15°C	COPd
1, 100	T GIT	1, 100	001 4
Bivalent temperature		Operating limit temperature	
heating / Average	Tbiv -7 °C	heating / Average	Tol <b>-20</b> ℃
heating / Warmer	Tbiv – °C	heating / Warmer	Tol − °C
heating / Colder	Tbiv − °C	heating / Colder	Tol − °C
Cycling interval capacity		Cycling interval efficiency	
for cooling	Pcycc – kW	for cooling	EERcyc
for heating	Pcych - kW	for heating	COPcyc
Degradation coefficient	Cdo 0.55	Degradation coefficient	Cdb 055
cooling	Cdc <b>0.25</b> -	heating	Cdh <b>0.25</b> -
Electric power input in power mod-	es other than 'active mode'	Annual electricity consumption	
off mode	Poff 40 W	cooling	Qce <b>675</b> kWh/a
standby mode	Psb <b>20</b> W	heating / Average	Qde <b>6/5</b> kWh/a Qhe <b>4,441</b> kWh/a
thermostat-off mode	Pto <b>65</b> W	heating / Average	Qhe 4,441 kWh/a
crankcase heater mode	Pck <b>25</b> W	heating / warmer	Qhe – kWh/a
Granikouse neater mode	1 OK 25 VV	ricating / colder	QUIC   NVVII/d
Capacity control(indicate one of th	ree options)	Other items	
	-r/	Sound power level(indoor)	Lwa <b>65</b> dB(A)
		Sound power level(outdoor)	Lwa <b>70</b> dB(A)
fixed	No	Global warming potential	GWP 1,975 kgCO <sub>2</sub> e
		<del>-</del> 1	<u> </u>
staged	No	Rated air flow(indoor)	- <b>2,160</b> m <sup>3</sup> /h
variable	Yes	Rated air flow(outdoor)	- <b>6,000</b> m <sup>3</sup> /h
			·
Contact details for obtaining		manufacturer or of its authorised representa	ative.
	Mitsubishi Heavy Industries Air-Co		
	The Square, Stockley Park, Uxb	riage, Middlesex, UB11 1ET,	
'	Jnited Kingdom		
			D.100007400 A
			PJG000Z462 A

#### FDU125VNXVF

Model(s): FDC125VNX /	FDU125V	'F					
Outdoor side heat exchanger of air conditi	ioner :	air					
Indoor side heat exchanger of air condition	ner:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space co	poling energy		
	Prated,c	12.5	kW	efficiency ηs,c		210.5	%
_							
Declared cooling capacity for part load at	given outdoo	r temperatu	res		fficiency ratio or gas utilization efficie	-	<del>.</del> .
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fac	ctor for part load at given outdoor ten	nperatures	IJ
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or		1
			_	1]=+33 C	GUEc,bin / AEFc,bin	358.0	%
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	EERd or		1
		ļ.		,, 55 5	GUEc,bin / AEFc,bin	456.0	%
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or	700.0	0/
			_		GUEc,bin / AEFc,bin	700.0	%
Tj=+20°C	Pdc	5.8	kW	Tj=+20°C	EERd or	1,017.0	%
			_		GUEc,bin / AEFc,bin	1,017.0	]/0
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**							
Power consumpiton in other than 'active n	node'						
Off mode	D	0.045	kW	Crankcase heater	mode P <sub>CK</sub>	0.045	kW
Thermostat-off mode	P <sub>OFF</sub> P <sub>TO</sub>	0.045	kW	Standby mode	P <sub>SB</sub>	0.045	kW
memostat-on mode	• то	0.055	7~~	Stariuby mode	' SB	0.043	]ĸvv
Other items							
				For air-to-air air co	nditioner:	0.000	3,,
Capacity control		variable		air flow-rate,outdoo	or measured	6,000	m <sup>3</sup> /h
			_				_
Sound power level,	$L_WA$	70.0	dB				
outdoor	***						
			7				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
GWP of the			]ka CO				
		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			], , ,				
Contact details Mitsubis	hi heavy indu	ustries thern	nal systems,l	TD			
** If Cdc is not determined by measureme					shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners	the test res	sult and perfo	rmance data be obta	ined on the basis of the performance	•	
of the outdoor unit, with a combination of i							
						P ICOO	0Z462 <u>A</u>

Information to identify the model(s) to whi	ch the inform	ation relates	s:	FDC125VNX /	FDU125VF		
Outdoor side heat exchanger of heat pum		air					
Indoor side heat exchanger of heat pump		air					
Indication if the heater is equipped with a	supplementa			No			
if applicable : electric motor		-					
Parameters shall be declared for the aver	age heating s	season , par	ameters for t	the warmer and colder he	eating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	0,,,,,,	74,45			ng energy efficiency ηs,h	1	J
Trace nouning supusity	Prated,h	14.0	kW		ig chargy chickensy ([c,ii	152.0	%
Declared heating capacity for part load at	indoor tempe	erature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj	indoor tempe	oralare 20 0			for part load at given outdoor t	-	. Ti
and satuser temperature 1,				l advantary onlongy radion	ior partious at given outsoon t	.omporataroc	,
T <sub>j</sub> =-7°C	Pdh	10.1	kW	T <sub>i</sub> =-7°C	COPd or		1
j			_		GUEh,bin / AEFh,bin	302.0	%
T <sub>i</sub> =+2°C	Pdh	6.1	kW	T <sub>i</sub> =+2°C	COPd or		
1,-120	T GIT		7	1,20		353.0	%
T-+7°C	Pdh	4.3	kW	T <sub>i</sub> =+7°C	GUEh,bin / AEFh,bin COPd or		
T <sub>j</sub> =+7°C	Pull	4.5	JKVV	1 <sub>j</sub> -+7 C		512.0	%
- 100-		4.5	1	- 400-	GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	4.5	kW	T <sub>j</sub> =+12°C	COPd or	625.0	%
	_		7	_	GUEh,bin / AEFh,bin	<u> </u>	
T <sub>biv</sub> =bivalent temperature	Pdh	11.4	kW	T <sub>biv</sub> =bivalent	COPd or	279.0	%
			7	temperature	GUEh,bin / AEFh,bin	<u> </u>	
T <sub>OL</sub> =operation limit	Pdh	9.0	kW	T <sub>OL</sub> =operation limit	COPd or	238.0	%
			,		GUEh,bin / AEFh,bin		
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water hea	at COPd or		%
T <sub>j</sub> =-15°C		-		pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		,,,
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			-
, ,							
Bivalent temperature	T <sub>biv</sub>	-10.0	l∘c	For water-to-air hea	at		1
	- DIV		J -	pumps:Operation lir	mit	_	°C
Degradation			1	T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25		To tomporataro		<u> </u>	J
heat pumps**	C <sub>dh</sub>	0.20	ľ				
near pumps							
							1
Power consumpiton in modes other than '	active mode'			Supplementary hea	ter elbu	_	kW
			7	back-up heating cap	pacity		ļ
Off mode	P <sub>OFF</sub>	0.045	kW			_	1
Thermostat-off mode	P <sub>TO</sub>	0.100	kW	Type of energy inpu	ıt P <sub>SB</sub>	0.045	kW
Crankcase heater mode	P <sub>CK</sub>	0.045	kW	Standby mode	35		
Other items							_
				For air-to-air heat p	umps:	6,000	3//-
Capacity control		variable	]	air flow-rate,outdoo		0,000	m <sup>3</sup> /h
			-				•
Sound power level,			]	For water-/brine-to-	air heat pumps ·		
outdoor measured	$L_{WA}$	70.0	dB	Rated brine or wate		-	m³/h
Salubbi medsuleu			J	11		1	
Emissions of -th			ma er // A A //	outdoor side heat e	volgilikei	Ш	ı
Emissions of nitrogen	NOx	l _	mg/kWh				
oxides(if applicable)	***		fuel input				
			GCV				
				<b> </b>			
			7				
GWP of the		2088	kg CO <sub>2eq</sub>				
refrigerant			(100years)				
Contact details Mitsubi	shi heavy ind	ustries thern	nal systems.	LTD			
** If Cdh is not determined by measurement					II be 0,25.		
*** from 26 September 2018		Ü					
· ·	r condition -	the test	ult and	ermanoo data ba -Lt-:	I on the basis of the	00	
Where information relates to multi-spilt ai					on the basis of the performan	Ce	
of the outdoor unit, with a combination of	indoor unit(s)	recommend	aed by the m	anutacturer or importer.			
						I DICOC	7462 *
						PJG000	)Z462 🛝

#### FDU125VSXVF

Model(s): FDC125VSX /	FDU125V	F					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	ling energy		
	Prated,c	12.5	kW	efficiency ηs,c		216.5	%
Declared cooling capacity for part load at g	iven outdoo	r temperatu	res		ciency ratio or gas utilization efficier	-	<del>-</del>
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	peratures	IJ
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or		]
			_	1]=+33 C	GUEc,bin / AEFc,bin	358.0	%
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	EERd or		
		L	_	1,7 100 0	GUEc,bin / AEFc,bin	465.0	%
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or	7440	0/
			_		GUEc,bin / AEFc,bin	714.0	%
Tj=+20°C	Pdc	5.8	kW	Tj=+20°C	EERd or	1,038.0	%
			,		GUEc,bin / AEFc,bin	1,000.0	70
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**			_				
Power consumpiton in other than 'active mo	ode'						
Off mode	P <sub>OFF</sub>	0.040	kW	Crankcase heater m	ode P <sub>CK</sub>	0.040	kW
Thermostat-off mode	P <sub>TO</sub>	0.055	kW	Standby mode	P <sub>SB</sub>	0.040	kW
			_				J
Other items							_
			_	For air-to-air air cond	ditioner:	6,000	m <sup>3</sup> /h
Capacity control		variable	]	air flow-rate,outdoor	measured		],
			,				
Sound power level,	$L_WA$	70.0	dB				
outdoor			_				
			1				
If engine driven:	NOx	_	mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides		ļ	JGCV				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
			_				
Contact details Mitsubish	i heavy indu	stries thern	nal systems,L	.TD			
** If Cdc is not determined by measuremen	t then the de	efault degra	dation coeffic	cient air conditioners s	hall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air of							
of the outdoor unit, with a combination of in	door unit(s)	recommend	ded by the ma	anufacturer or importe	r.		
						PJG000	)Z462 <u>A</u>

Information to identify the model(s) to whi	ch the informa	ation relates	::	FDC125VSX /	FDU125VF		
Outdoor side heat exchanger of heat pum	p:	air					
Indoor side heat exchanger of heat pump	:	air					
Indication if the heater is equipped with a	supplementa			No			
if applicable : electric motor							
Parameters shall be declared for the aver	age heating s	season . par	ameters for	he warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Syllibol	value	Offic	11	ng energy efficiency ηs,h	Value	Offic
Rated heating capacity	Prated,h	14.0	kW	Seasonal space nealin	ig energy eniciency rps,n	153.2	%
				l		<u> </u>	
Declared heating capacity for part load at	indoor tempe	erature 20°C			performance or gas utilization	•	-
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor t	emperatures	5 IJ
T = 7°0	Pdh	12.4	1.34/	T - 7º0	0001		1
T <sub>j</sub> =-7°C	Pan	12.4	kW	T <sub>j</sub> =-7°C	COPd or	284.0	%
T :000	Б. II	7.5	1	T090	GUEh,bin / AEFh,bin		-
T <sub>j</sub> =+2°C	Pdh	7.5	kW	T <sub>j</sub> =+2°C	COPd or	364.0	%
_			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	4.9	kW	T <sub>j</sub> =+7°C	COPd or	512.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	4.5	kW	T <sub>j</sub> =+12°C	COPd or	638.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	14.0	kW	T <sub>biv</sub> =bivalent	COPd or	263.0	%
			7	temperature	GUEh,bin / AEFh,bin		
T <sub>OL</sub> =operation limit	Pdh	10.9	kW	T <sub>OL</sub> =operation limit	COPd or	238.0	%
			-		GUEh,bin / AEFh,bin		]
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water hea	at COPd or	l _	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		,,,
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			=
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air hea	at		1
			-	pumps:Operation lir	mit	-	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	_				
heat pumps**	uii						
			1				
Power consumpiton in modes other than '	activo modo!			Supplementary hear	tor		1
Power consumption in modes other than	active mode				eibu	_	kW
Off mode	Poff	0.040	kW	back-up heating cap	pacity		J
Thermostat-off mode	P <sub>TO</sub>	0.095	kW				1
Crankcase heater mode	P <sub>CK</sub>	0.040	kW	Type of energy inpu	ıt P <sub>SB</sub>	0.040	kW
Grankoase fleater filode	I CK	0.040	I KVV	Standby mode			J
Other items							1
		dalala	1	For air-to-air heat p		6,000	m³/h
Capacity control		variable		air flow-rate,outdoor	r measured		]
			7				1
Sound power level,	$L_{WA}$	70.0	dB	For water-/brine-to-	air heat pumps :		
outdoor measured			]	Rated brine or wate	er flow-rate,	-	m³/h
			1	outdoor side heat ex	xchanger		j
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	-	fuel input				
			GCV				
			_				
GWP of the		2088	kg CO <sub>2eq</sub>				
refrigerant		2000	(100years)				
-			_				
Contact details Mitsubis	shi heavy indu	ustries thern	nal systems.	LTD			
** If Cdh is not determined by measurement					II be 0,25.		
*** from 26 September 2018		ŭ					
Where information relates to multi-spilt ai	r conditioners	the test res	ult and norfa	rmance data he ekteined	on the basis of the performan	ce	
•					on the basis of the performan	od	
of the outdoor unit, with a combination of	indoor unit(s)	recommend	ied by the m	anuracturer or importer.			
<u> </u>						PJG000	0Z462 A

#### FDU140VNXVF

Model(s): FDC140VNX /	FDU140V	F					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	ling energy		
	Prated,c	14.0	kW	efficiency ηs,c		205.9	%
Declared cooling capacity for part load at g	iven outdoo	r temperatu	res	I	ciency ratio or gas utilization efficier	-	<del>-</del>
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	peratures	IJ
Tj=+35°C	Pdc	14.0	kW	Tj=+35°C	EERd or		]
			_	1]=+33 C	GUEc,bin / AEFc,bin	327.0	%
Tj=+30°C	Pdc	10.3	kW	Tj=+30°C	EERd or		
		L	_	1,7 100 0	GUEc,bin / AEFc,bin	445.0	%
Tj=+25°C	Pdc	6.6	kW	Tj=+25°C	EERd or	CEC O	0/
			_		GUEc,bin / AEFc,bin	656.0	%
Tj=+20°C	Pdc	6.0	kW	Tj=+20°C	EERd or	1,026.0	%
			,		GUEc,bin / AEFc,bin	1,020.0	70
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**			_				
Power consumpiton in other than 'active mo	ode'						
Off mode	P <sub>OFF</sub>	0.045	kW	Crankcase heater m	ode P <sub>CK</sub>	0.045	kW
Thermostat-off mode	P <sub>TO</sub>	0.060	kW	Standby mode	P <sub>SB</sub>	0.045	kW
			₫				J
Other items							_
			_	For air-to-air air cond	ditioner:	6,000	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outdoor	measured		],
			1				
Sound power level,	$L_WA$	72.0	dB				
outdoor			]				
			1				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides		ļ	]GCV				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
			_				
Contact details Mitsubish	i heavy indu	stries thern	nal systems,L	.TD			
** If Cdc is not determined by measuremen	t then the de	efault degra	dation coeffic	cient air conditioners s	hall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air of							
of the outdoor unit, with a combination of in	door unit(s)	recommend	ded by the m	anufacturer or importe	r.		
						PJG000	)Z462 🛝

Information to identify the model(s) to which	ch the inform	ation relates	s:	FDC140VNX /	FDU140VF		
Outdoor side heat exchanger of heat pum		air					
Indoor side heat exchanger of heat pump		air					
Indication if the heater is equipped with a	supplementa			No			
if applicable : electric motor							
Parameters shall be declared for the aver-	age heating s	season , par	ameters for t	the warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	o y i i i i i	74,45			ng energy efficiency ηs,h	Value	J
	Prated,h	16.0	kW		.55,, -	151.1	%
Declared heating capacity for part load at	indoor tempe	erature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj	maoor tompe	oralare 20 0			for part load at given outdoor to	•	. Ti
and outdoor temperature 15				duxinary energy ractor	ior partioud at given outdoor t	cimporataroc	, ,,
T <sub>j</sub> =-7°C	Pdh	11.5	kW	T <sub>i</sub> =-7°C	COPd or		1
,			_		GUEh,bin / AEFh,bin	295.0	%
T <sub>i</sub> =+2°C	Pdh	7.0	kW	T <sub>i</sub> =+2°C	COPd or		
., .2.5			]			351.0	%
T <sub>i</sub> =+7°C	Pdh	4.5	kW	T <sub>i</sub> =+7°C	GUEh,bin / AEFh,bin COPd or		
1,-+7 0	Full	4.0	] <sub>VAA</sub>	1 <sub>j</sub> =+7 C		511.0	%
T : 10%	Б.	4.5	1	T . 40%	GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	4.5	kW	T <sub>j</sub> =+12°C	COPd or	631.0	%
		40.5	7	II	GUEh,bin / AEFh,bin		-
T <sub>biv</sub> =bivalent temperature	Pdh	13.0	kW	T <sub>biv</sub> =bivalent	COPd or	267.0	%
			٦	temperature	GUEh,bin / AEFh,bin		
T <sub>OL</sub> =operation limit	Pdh	10.3	kW	T <sub>OL</sub> =operation limit	COPd or	235.0	%
			_		GUEh,bin / AEFh,bin		
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water hea	at COPd or	_	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air hea	at		
			-	pumps:Operation lir	mit	_	°C
Degradation			1	T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	_				ı
heat pumps**	-un						
			J				
Daniel Control of the				C	4		1
Power consumpiton in modes other than 'a	active mode			Supplementary hea	eibu	_	kW
Off mode	Poff	0.045	kW	back-up heating cap	pacity		l
Thermostat-off mode	P <sub>TO</sub>	0.105	kW				1
		-	-	Type of energy inpu	ıt P <sub>SB</sub>	0.045	kW
Crankcase heater mode	P <sub>CK</sub>	0.045	kW	Standby mode			ļ
Other items							1
			7	For air-to-air heat p	umps:	6,000	m³/h
Capacity control		variable		air flow-rate,outdoo	r measured		
			7				1
Sound power level,	$L_{WA}$	72.0	dB	For water-/brine-to-	air heat pumps :		
outdoor measured	-wa			Rated brine or wate	r fiow-rate,	-	m³/h
			_	outdoor side heat e			
Emissions of nitrogen			mg/kWh				
oxides(if applicable)	NOx ***	-	fuel input				
			GCV				
GWP of the			kg CO <sub>2eq</sub>				
		2088	(100years)				
refrigerant			」				
				<u> </u>			
			nal systems,		II ha 0.25		
** If Cdh is not determined by measureme	nt then the d	erault degra	uation coeffic	cient air conditioners shal	II DE U,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners	the test res	ult and perfo	rmance data be obtained	on the basis of the performance	ce	
of the outdoor unit, with a combination of i	ndoor unit(s)	recommend	ded by the m	anufacturer or importer.			
					<u> </u>	PJG000	)Z462 🛝

#### FDU140VSXVF

Model(s): FDC140VSX /	FDU140V	F					
Outdoor side heat exchanger of air condition	oner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	ling energy		
	Prated,c	14.0	kW	efficiency ηs,c		211.4	%
Declared cooling capacity for part load at g	iven outdoo	r temperatu	res	Declared energy effi	ciency ratio or gas utilization efficier	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy factor	or for part load at given outdoor tem	peratures <sup>-</sup>	Гј
			<sub>1</sub>				1
Tj=+35°C	Pdc	14.0	kW	Tj=+35°C	EERd or	327.0	%
T:- 120°0	D.I.	40.0	7,,,,,		GUEc,bin / AEFc,bin		
Tj=+30°C	Pdc	10.3	kW	Tj=+30°C	EERd or	454.0	%
Tj=+25°C	Pdc	6.6	kW		GUEc,bin / AEFc,bin		
	i do	0.0	],,,	Tj=+25°C	EERd or	669.0	%
Tj=+20°C	Pdc	6.0	kW	T:- : 00°0	GUEc,bin / AEFc,bin		
1720 0	1 40	0.0	]	Tj=+20°C	EERd or	1,047.0	%
Degradation			1		GUEc,bin / AEFc,bin		J
coefficient for	Cdc	0.25	_				
air conditioners**	odo						
all conditioners			_				
Power consumpiton in other than 'active m	ode'						
'							
Off mode	$P_{OFF}$	0.040	kW	Crankcase heater m	ode P <sub>CK</sub>	0.040	kW
Thermostat-off mode	$P_{TO}$	0.060	kW	Standby mode	$P_{SB}$	0.040	kW
Other items							
			,	For air-to-air air cond	ditioner:	6,000	m <sup>3</sup> /h
Capacity control		variable	]	air flow-rate,outdoor	measured	-,	],
			,				
Sound power level,	$L_WA$	72.0	dB				
outdoor			]				
			,				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
CNA/D of the			] 00				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			]`				
Contact details Mitsubisl	ni heavy indu	etrice thern	nal eveteme l	I TD			
** If Cdc is not determined by measuremen			nal systems,L idation coeffic		hall be 0,25.		
*** from 26 September 2018		5					
Where information relates to multi-spilt air	conditioners	the test res	sult and nerfo	rmance data be obtain	ned on the basis of the performance	<u>.</u>	
of the outdoor unit, with a combination of in						•	
and the second s	(0)	. 500.711110111					
						PJG000	)Z462 🛝

Information to identify the model(s) to w	high the informa	tion relates		FDC140VSX /	FDU140VF		
Information to identify the model(s) to w  Outdoor side heat exchanger of heat pu			•	FDC140V3X /	FD0140VF		
Indoor side heat exchanger of heat pum		air					
Indication if the heater is equipped with		air v heater :		No			
if applicable : electric motor	а определения	y noutor .					
Parameters shall be declared for the av	erage heating s	eason . para	ameters for	the warmer and colder he	eating seasons are option	al.	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Symbol	value	OTIIL	11	ng energy efficiency ηs,h	Value	Offic
realing capacity	Prated,h	16.0	kW	Geasonal space heath	ig energy emoleticy rps,ir	152.3	%
Declared heating capacity for part load and outdoor temperature Tj	at indoor tempe	rature 20°C			f performance or gas utilizer for part load at given out	-	s Tj
T <sub>j</sub> =-7°C	Pdh	13.7	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	279.0	%
T <sub>j</sub> =+2°C	Pdh	8.4	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	363.0	%
T <sub>j</sub> =+7°C	Pdh	5.4	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	508.0	%
T <sub>j</sub> =+12°C	Pdh	4.5	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	644.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	15.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	237.0	%
T <sub>OL</sub> =operation limit	Pdh	11.9	kW	T <sub>OL</sub> =operation limit		212.0	%
For air-to-water heat pumps : T <sub>j</sub> =-15°C	Pdh	-	kW	For air-to-water heapumps:T <sub>j</sub> =-15°C		_	%
(if T <sub>OL</sub> <-20°C)			_	(if T <sub>OL</sub> <-20°C)			_
Bivalent temperature	$T_biv$	-10.0	°C	For water-to-air hea		_	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				
Power consumpiton in modes other than Off mode Thermostat-off mode Crankcase heater mode	P <sub>OFF</sub> P <sub>TO</sub> P <sub>CK</sub>	0.040 0.100 0.040	kW kW kW	Supplementary hea back-up heating ca  Type of energy inpostandby mode	pacity	- P <sub>SB</sub> 0.040	kW
Other items							1
Capacity control		variable	]	For air-to-air heat p		6,000	m³/h
Sound power level,			1	For water-/brine-to-	air hoot numns :		1
outdoor measured	$L_{WA}$	72.0	dB	Rated brine or water	er fiow-rate,	_	m³/h
Emissions of nitrogen oxides(if applicable)	NOx ***	_	mg/kWh fuel input GCV	outdoor side heat e	xcnanger		I
GWP of the refrigerant		2088	kg CO <sub>2eq</sub> (100years)				
Contact details Mitsul	bishi heavy indu	stries therm	nal systems	LTD			
** If Cdh is not determined by measuren					III be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt	air conditioners.	the test res	ult and perfo	ormance data be obtained	d on the basis of the perfo	rmance	
of the outdoor unit, with a combination o			-		,		
						I PIGOO	

## Models FDU71VF1, 100VF2, 125VF, 140VF

Model(s): FDU71VF1							
ltem	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	5.8	kW	Total electric power input	$P_{elec}$	0.250	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	1.3	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	65.0	dB
Heating capacity	$P_{\text{rated,h}}$	8.0	kW				
Contact details Mitsubishi heavy industries thermal systems,LTD							

Model(s): FDU100VF2							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{\text{rated,c}}$	7.7	kW	Total electric power input	$P_{elec}$	0.350	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	2.3	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	65.0	dB
Heating capacity	$P_{rated,h}$	11.2	kW				
Contact details Mitsubishi heavy industries thermal systems,LTD							

Model(s): FDU125VF							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{\text{rated,c}}$	10.5	kW	Total electric power input	$P_{elec}$	0.400	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	2.0	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	67.0	dB
Heating capacity	$P_{\text{rated,h}}$	14.0	kW				
Contact details Mitsubishi heavy industries thermal systems,LTD							

Model(s): FDU140VF							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{\text{rated,c}}$	11.2	kW	Total electric power input	$P_{elec}$	0.550	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	2.8	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	70.0	dB
Heating capacity	$P_{rated,h}$	16.0	kW				
Contact details Mitsubishi heavy industries thermal systems,LTD							

# 2. MICRO INVERTER PACKAGED AIR-CONDITIONERS

CONTENTS
2.1 SPECIFICATIONS
2.2 EXTERIOR DIMENSIONS
(1) Indoor units
(2) Outdoor units
(3) Remote control (Option parts)
2.3 ELECTRICAL WIRING
(1) Indoor units
(2) Outdoor units
2.4 NOISE LEVEL
2.5 CHARACTERISTIC OF FAN
2.6 TEMPERATURE AND VELOCITY DISTRIBUTION
2.7 PIPING SYSTEM
2.8 RANGE OF USAGE & LIMITATIONS
2.9 SELECTION CHART
2.9.1 Capacity tables 315
2.9.2 Correction of cooling and heating capacity in relation to air flow rate control (fan speed) 341
2.9.3 Correction of cooling and heating capacity in relation to one way length of refrigerant piping 341
2.9.4 Height difference between the indoor unit and outdoor unit 341
2.10 APPLICATION DATA
2.10.1 Installation of indoor unit
2.10.2 Electric wiring work installation
2.10.3 Installation of wired remote control (Option parts)
2.10.4 Installation of outdoor unit
(1) Models FDC100-140VNA, 100-140VSA
(2) Models FDC200, 250VSA
2.10.5 Method for connecting the accessory pipe
2.10.6 Instructions for branching pipe set (DIS-WA1,WB1,TA1,TB1) 368
2.11 TECHNICAL INFORMATION
Example: FDE 100 VNA P VG
Series code
□ Single type
P: Twin type T: Triple type
D : Double twin type  Applicable power sourceSee the specification
Product capacity
Model name   FDE : Ceiling suspended type   FDI M : Dust connected Low/Middle static pressure type
FDUM: Duct connected-Low/Middle static pressure type FDU: Duct connected-High static pressure type
FDC : Outdoor unit

## 2.1 SPECIFICATIONS

## (1) Ceiling suspended type (FDE)

## (a) Single type

			Model	FDE100	VNAVG			
Item				Indoor unit FDE100VG	Outdoor unit FDC100VNA			
Power sour	ce			1 Phase, 220-240V	50Hz / 220V, 60Hz			
	Nominal cooling capacity	(range)	kW	10.0 [ 4.0(Mir	.)-11.2(Max.)]			
	Nominal heating capacity	(range)	kW	11.2 [ 4.0(Mir	.)-12.5(Max.)]			
	Cooling			2.85				
	Power consumption	Heating	kW	2.	70			
	Max power consumption		1 [	6.	40			
	B	Cooling		13.8	14.4			
	Running current	Heating	A	13.2	13.8			
0 1	Inrush current, max currer		1	5,	24			
Operation	D ( )	Cooling	0/	9	0			
data	Power factor	Heating	%  -	8	9			
	EER	Cooling		3.	51			
	COP	Heating	1	4.	15			
		Cooling						
	Sound power level	Heating	1	64	70			
		Cooling	dB(A)	D.I. 40 III 40 IA 00 I 5:	54			
	Sound pressure level	Heating	` ` ′	P-Hi: 48 Hi: 43 Me: 38 Lo: 34	56			
	Silent mode sound pressu		1	_	50/44 (Normal/Silent)			
Exterior dim	nensions (Height × Width ×		mm	250 × 1,620 × 690	845 × 970 × 370			
Exterior app	, <u> </u>	-1/		Plaster white	Stucco white			
Munsell co				(6.8Y8.9/0.2) near equivalent	( 4.2Y7.5/1.1 ) near equivalent			
Net weight	- /		kg	43	80			
	r type & Q'ty		9	<del>_</del>	RMT5126MCE3 (Twin rotary type )×1			
	r motor (Starting method)	-	kW		Direct line start			
	oil (Amount, type)	,	e e	<u>_</u>	0.9 (M-MA68)			
	(Type, amount, pre-charge	lonath)	kg	R410A 3.8kg in outdoor unit (Incl. t				
leat excha		lengin)	Ny	Louver fin & inner grooved tubing	Straight fin & inner grooved tubing			
Refrigerant	<u> </u>			Electronic ex				
an type &		-		Centrifugal fan ×4	Propeller fan ×1			
	Starting method)		W	80 < Direct line start >	86 < Direct line start >			
-an motor (	Starting method)	Cooling	VV	80 < Direct line start >	75			
Air flow		Cooling Heating	m³/min	P-Hi: 32 Hi: 26 Me: 21 Lo: 16.5	73			
Available av	ternal static pressure	пеанпу	Pa	0				
		-	га	Not possible				
Outside air					<del>-</del>			
	ality / Quantity oration absorber			Pocket plastic net ×2(Washable)	— — — — — — — — — — — — — — — — — — —			
			W	Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)			
Electric hea			VV	— (Oution) Minada DO EVO DO E	20 (Crank case heater)			
Operation	Remote control			(Option) Wired: RC-EX3,RC-E	<u>·</u>			
control	Room temperature contro	l		I nermostat t	by electronics			
	Operation display			-	-			
				Overload protect	tion for fan motor ion thermostat			
Safety equip	oments				stat for fan motor			
					emperature protection			
	Refrigerant piping size ( O	D )	mm	Liquid line: I/U $\phi$ 9.52 (3/8") Pipe	φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8")			
	nemgeram piping size ( O	.ט. )	mm	Gas line: $\phi$ 15.88 (5/8") $\phi$	15.88(5/8")×1.0 φ 15.88 (5/8")			
	Connecting method			Flare piping	Flare piping			
nstallation	Attached length of piping		m	_	_			
data	Insulation for piping			Necessary (both L	iquid & Gas lines)			
	Refrigerant line (one way)	length	m		50m			
	Vertical height diff. between O/		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
Drain hose			Hose connectable with VP20 (O.D.26)	Hole size φ20 × 3 pcs				
		mm	— (0.2.20)	——————————————————————————————————————				
	ded breaker size		А	-	_			
			A		.0			
			'					
nterconnec	Interconnecting wires   Size × Core number			φ 1.6mm × 3 cores + earth cable / Termainal block (Screw fixing type				
				IPX0 IP24				
P number	ccessories							
Interconnect P number Standard act Option parts				Mounting kit, Drain hose	1P24 — nsor : LB-E			

Notes (1) The data are measured at the following conditions

(1) The data are	inoaoaroa at	and ronowing oc	The pipe length le 7.5m.		
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model	FDE100	OVSAVG	
Item				Indoor unit FDE100VG	Outdoor unit FDC100VSA	
Power source	ce			3 Phase, 380-415V	, 50Hz / 380V, 60Hz	
	Nominal cooling capacity	(range)	kW	10.0 [ 4.0(Mir	n.)-11.2(Max.)]	
	Nominal heating capacity	(range)	kW	11.2 [ 4.0(Mir	n.)-12.5(Max.)]	
	Power consumption	Cooling		2.	85	
	Fower consumption	Heating	kW	2.	70	
	Max power consumption			10	.20	
	Bunning ourrent	Cooling		4.5	/ 4.8	
	Running current	Heating	Α	4.3 /	/ 4.5	
Operation	Inrush current, max curren	it		5,	15	
data	Power factor	Cooling	%	91 /	/ 90	
uaia	L L L L L L L L L L L L L L L L L L L	Heating	70	9	1	
	EER	Cooling	<u> </u>	3.	51	
	COP	Heating		4.	15	
	Sound power level	Cooling		64	70	
	Souria power level	Heating	] [	04	70	
	Sound pressure level	Cooling	dB(A)	P-Hi: 48 Hi: 43 Me: 38 Lo: 34	54	
	Souria pressure level	Heating		F-III. 46 III. 43 IVIE. 30 LO. 34	56	
	Silent mode sound pressu			_	50/44 (Normal/Silent)	
	ensions (Height × Width ×	Depth)	mm	250 × 1,620 × 690	845 × 970 × 370	
Exterior app	earance			Plaster white	Stucco white	
( Munsell co	lor)			(6.8Y8.9/0.2) near equivalent	( 4.2Y7.5/1.1 ) near equivalent	
Net weight			kg	43	82	
Compressor	r type & Q'ty			_	RMT5126MCE4 (Twin rotary type)×1	
Compressor	r motor (Starting method)		kW	<del>-</del>	Direct line start	
Refrigerant	oil (Amount, type)		l	_	0.9 (M-MA68)	
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 3.8kg in outdoor unit (Incl. t	the amount for the piping of : 30m)	
Heat exchar	nger			Louver fin & inner grooved tubing	Straight fin & inner grooved tubing	
Refrigerant	control			Electronic ex	pansion valve	
Fan type & 0				Centrifugal fan ×4	Propeller fan ×1	
Fan motor (	Starting method)		W	80 < Direct line start >	86 < Direct line start >	
Air flow		Cooling	m³/min	P-Hi: 32 Hi: 26 Me: 21 Lo: 16.5	75	
/ III IIOW		Heating			73	
	ternal static pressure		Pa	0	_	
Outside air i				Not possible	_	
	ality / Quantity			Pocket plastic net ×2(Washable)	_	
	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor )	
Electric heat			W	<del>-</del>	20 (Crank case heater)	
Operation	Remote control				5,RCH-E3 Wireless : RCN-E-E3	
control	Room temperature control			Thermostat b	by electronics	
	Operation display				<del>-</del>	
					tion for fan motor ion thermostat	
Safety equip	oments				stat for fan motor	
				Abnormal discharge t	temperature protection	
	Pofrigoront pining size (O	D )	mm	Liquid line: I/U φ 9.52 (3/8") Pipe	φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8")	
	Refrigerant piping size ( O.	.U. )	mm		15.88(5/8")×1.0 φ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	_	<u> </u>	
data	Insulation for piping			Necessary (both L	Liquid & Gas lines)	
	Refrigerant line (one way)		m	Max	.50m	
	Vertical height diff. between O/U and I/U		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose			Hose connectable with VP20 (O.D.26)	Hole size $\phi 20 \times 3$ pcs	
Drain pump	, max lift height		mm	<del>-</del>		
Recommend	ded breaker size		Α	-	_	
	red rotor ampere)		А	5	.0	
Interconnec	ting wires Size × Core nur	nber		$\phi$ 1.6mm × 3 cores + earth cable /	Termainal block (Screw fixing type)	
IP number	·			IPX0	IP24	
Standard ac	cessories			Mounting kit, Drain hose	_	
Option parts	3			•	nsor : LB-E	
Notes (1) Th	e data are measured at the	following	condition	is.	The pipe length is 7.5m.	
<u>`</u>						

( )							
Item	Indoor air temperature		Outdoor air	temperature	Standards		
Operation	DB	WB	DB	WB	Standards		
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1		
Heating	20°C	_	7°C	6°C	1303131-11		

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

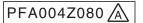
			Model	FDE125	VNAVG				
Item				Indoor unit FDE125VG	Outdoor unit FDC125VNA				
Power source	ce			1 Phase, 220-240V,	50Hz / 220V, 60Hz				
	Nominal cooling capacity	(range)	kW	12.5 [ 5.0(Min	.)-14.0(Max.)]				
	Nominal heating capacity	(range)	kW	14.0 [ 4.0(Min.)-16.0(Max.)]					
	Power consumption Cooling			4.45					
		Heating	kW		3.74				
	Max power consumption			6.4					
	Running current	Cooling		20.3 /					
		Heating	A	17.5 /					
Operation	Inrush current, max curren			5,					
data	Power factor	Cooling	%	9:	-				
	EED.	Heating		9:					
	EER	Cooling		2.8					
	СОР	Heating		3.7	/4				
	Sound power level	Cooling Heating		64	71				
	Sound pressure level	Cooling	dB(A)	P-Hi: 48 Hi: 45 Me: 40 Lo: 35	55				
	·	Heating			57				
Futori - :: -!'	Silent mode sound pressu		ma /==	— 050 :: 1 600 - 600	51/45 (Normal/Silent) 845 × 970 × 370				
	ensions (Height × Width ×	Deptn)	mm	250 × 1,620 × 690					
Exterior app				Plaster white	Stucco white				
( Munsell co	olor)		lea.	( 6.8Y8.9/0.2 ) near equivalent 43	( 4.2Y7.5/1.1 ) near equivalent 80				
	r turno 8 Oltu		kg	43 —					
	r type & Q'ty r motor (Starting method)		kW		RMT5126MCE3 (Twin rotary type )×1  Direct line start				
	oil (Amount, type)		l RVV		0.9 (M-MA68)				
	(Type, amount, pre-charge	length)	kg kg	R410A 3.8kg in outdoor unit (Incl. t	,				
Heat exchar		iengin)	, kg	Louver fin & inner grooved tubing	Straight fin & inner grooved tubing				
Refrigerant	0			Electronic exp	<u> </u>				
Fan type & 0				Centrifugal fan ×4	Propeller fan ×1				
	Starting method)		W	80 < Direct line start >	86 < Direct line start >				
,	<u> </u>	Cooling			75				
Air flow		Heating	m³/min	P-Hi: 32 Hi: 29 Me: 23 Lo: 17	73				
Available ex	ternal static pressure		Pa	0	_				
Outside air i				Not possible	_				
	ality / Quantity			Pocket plastic net ×2(Washable)	_				
	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor )				
Electric hea	ter		W		20 (Crank case heater)				
Onevetion	Remote control			(Option) Wired: RC-EX3,RC-E5	5,RCH-E3 Wireless : RCN-E-E3				
Operation control	Room temperature control		ĺ	Thermostat b	y electronics				
CONTROL	Operation display			_	-				
Safety equip	oments			Frost protecti Internal thermos	tion for fan motor ion thermostat stat for fan motor emperature protection				
	Refrigerant piping size ( O.	.D.)	mm	Liquid line: I/U φ 9.52 (3/8") Pipe α	φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8")				
	Connecting method			Gas line: φ15.88 (5/8") φ  Flare piping	15.88(5/8")×1.0 φ 15.88 (5/8")  Flare piping				
Installation	Attached length of piping		m	гіаге рірігіу —	riale pipilig —				
data	Insulation for piping		m	— Necessary (both L	iquid & Gas lines)				
uaia	Refrigerant line (one way)	lenath	m	Max.	• •				
	Vertical height diff. between O/U and I/U		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)				
	Drain hose	unu I/U	- '''	Hose connectable with VP20 (O.D.26)	Hole size $\phi 20 \times 3$ pcs				
Drain pump	, max lift height		mm	— (O.D.20)	— — — — — — — — — — — — — — — — — — —				
	ded breaker size		A						
	ked rotor ampere)		A	5.					
	ting wires   Size × Core nur	nber	- '		Termainal block (Screw fixing type)				
IP number	ang wires joize x core nur	11001		Ψ 1.0Hill × 3 coles + earth cable /	IP24				
Standard ac	ccessories			Mounting kit, Drain hose	— —				
Option parts				<u> </u>	nsor : LB-E				
Notes (1) The data are measured at the following co					The pipe length is 7.5m				

Notes (1) The data are measured at the following conditions.

The pipe length is 7.5m.

Item	Indoor air t	emperature Outdoor air tempe		temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.



			Model	FDE125	SVSAVG				
Item				Indoor unit FDE125VG	Outdoor unit FDC125VSA				
Power sour	ce			3 Phase, 380-415V,	50Hz / 380V, 60Hz				
	Nominal cooling capacity	(range)	kW	12.5 [ 5.0(Min	.)-14.0(Max.)]				
	Nominal heating capacity	(range)	kW	14.0 [ 4.0(Min.)-16.0(Max.)]					
	Power consumption	Power consumption Cooling		4.45					
		Heating	kW		74				
	Max power consumption	Max power consumption		10.					
	Running current	Cooling		6.9					
		Heating	Α	5.9 /					
Operation	Inrush current, max curren	1		5,					
data	Power factor	Cooling	%	93 91 / 92					
	EER	Heating Cooling		2.1					
	COP	Heating	}	3.					
	COP	Cooling		ა.	74				
	Sound power level	Heating		64	71				
	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 48 Hi: 45 Me: 40 Lo: 35	<u>55</u> 57				
	Silent mode sound pressu	re level	1 [	_	51/45 (Normal/Silent)				
Exterior dim	nensions (Height × Width ×	Depth)	mm	250 × 1,620 × 690	845 × 970 × 370				
Exterior app	pearance			Plaster white	Stucco white				
( Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent				
Net weight			kg	43	82				
Compresso	r type & Q'ty			_	RMT5126MCE4 (Twin rotary type)×1				
Compresso	Compressor motor (Starting method)		kW	_	Direct line start				
Refrigerant	Refrigerant oil (Amount, type)		Q	_	0.9 (M-MA68)				
	Refrigerant (Type, amount, pre-charge length)		kg	R410A 3.8kg in outdoor unit (Incl. t	11 0 /				
	Heat exchanger			Louver fin & inner grooved tubing	Straight fin & inner grooved tubing				
Refrigerant				Electronic exp					
Fan type &				Centrifugal fan ×4	Propeller fan ×1				
Fan motor (	Starting method)	T	W	80 < Direct line start >	86 < Direct line start >				
Air flow		Cooling Heating	m³/min	P-Hi:32 Hi:29 Me:23 Lo:17	75 73				
Available ex	ternal static pressure		Pa	0	_				
Outside air	intake			Not possible	_				
Air filter, Qu	ality / Quantity			Pocket plastic net ×2(Washable)	_				
Shock & vib	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)				
Electric hea	ter		W	_	20 (Crank case heater)				
Operation	Remote control			(Option) Wired: RC-EX3,RC-E5	·				
control	Room temperature contro	l		Thermostat b	y electronics				
	Operation display				-				
Safety equip	oments			Frost protect Internal thermos	tion for fan motor ion thermostat stat for fan motor emperature protection				
	Refrigerant piping size ( O	.D.)	mm -	Liquid line: I/U φ 9.52 (3/8") Pipe (	φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8")				
	Connecting method			Gas line: $\phi$ 15.88 (5/8") $\phi$ Flare piping	15.88(5/8")×1.0				
Installation	Attached length of piping		m		——————————————————————————————————————				
data	Insulation for piping			Necessary (both L	iquid & Gas lines)				
	Refrigerant line (one way)	length	m	Max.	50m				
	Vertical height diff. between O/U and I/U		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)				
	Drain hose			Hose connectable with VP20 (O.D.26)	Hole size $\phi 20 \times 3$ pcs				
	, max lift height		mm	<u> </u>					
Recommen	ded breaker size		Α						
	red rotor ampere)		А	5.	.0				
Interconnec	ting wires   Size × Core nur	mber			Termainal block (Screw fixing type)				
IP number				IPX0	IP24				
Standard ad	ccessories			Mounting kit, Drain hose	-				
Option parts					nsor : LB-E				
Notes (1) The data are measured at the following conditions  The pine length is 7.5m									

Notes (1) The data are measured at the following conditions.

The pipe length is 7.5m.

( /			11 0		
Item	Indoor air temperature		Outdoor air temperature		Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	- ISO5151-T1
Heating	20°C	_	7°C	6°C	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

			Model	FDE140	VNAVG	
Item				Indoor unit FDE140VG	Outdoor unit FDC140VNA	
Power source	ce				, 50Hz / 220V, 60Hz	
Nominal cooling capacity (range)		kW	13.6 [ 5.0(Min			
	Nominal heating capacity	(range)	kW	15.5 [ 4.0(Min	i.)-16.5(Max.)]	
	B	Cooling		5.:	21	
	Power consumption	Heating	kW	4.4	42	
	Max power consumption		1	6.4	40	
		Cooling		22.9	/ 23.9	
	Running current	Heating	A	19.4 /	/ 20.3	
	Inrush current, max curren		i	5,	24	
Operation	B ( )	Cooling	0/	9	9	
data	Power factor	Heating	%  -	9	9	
	EER	Cooling		2.0	61	
	COP	Heating	1	3.5	51	
		Cooling		25		
	Sound power level	Heating	1	65	73	
		Cooling	dB(A)	D.II. 40 III. 45 IA. 40 I. 00	57	
	Sound pressure level	Heating	` ` ′	P-Hi: 49 Hi: 45 Me: 40 Lo: 36	59	
	Silent mode sound pressu		1	_	53/47 (Normal/Silent)	
Exterior dim	ensions (Height × Width ×		mm	250 × 1,620 × 690	845 × 970 × 370	
Exterior app		- ~~ ")		Plaster white	Stucco white	
( Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	43	80	
	r type & Q'ty		I Ng	_	RMT5126MCE3 (Twin rotary type )×1	
	r motor (Starting method)		kW	_	Direct line start	
	oil (Amount, type)		Q Q	<u>_</u>	0.9 (M-MA68)	
3	. ( , , , , , , , , , , , , , , ,	lenath)	kg	R/10A 3 8kg in outdoor unit (Incl. t	the amount for the piping of : 30m)	
Refrigerant (Type, amount, pre-charge length) Heat exchanger		Ng	Louver fin & inner grooved tubing	Straight fin & inner grooved tubing		
Refrigerant control				pansion valve		
Fan type & 0				Centrifugal fan ×4	Propeller fan ×1	
Fan motor (Starting method)		W	90 < Direct line start >	86 < Direct line start >		
Tall Hotol (	Starting method)	Cooling		30 \ Direct line start >	75	
Air flow		Heating	m³/min	P-Hi: 34 Hi: 29 Me: 23 Lo: 18	73	
Available ex	ternal static pressure	ricating	Pa	0	_	
Outside air i			ıα	Not possible	_	
	ality / Quantity			Pocket plastic net ×2(Washable)		
	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)	
Electric hea			W	- Tubber sleeve (for fair friotor)	20 (Crank case heater)	
Liectific flea	Remote control		V V	(Option) Wired: RC-EX3,RC-E5,RCH-E3 Wireless: RCN-E-E3		
Operation	Room temperature control			Thermostat by electronics		
control	Operation display			Thermostat b	_	
	Operation display			Overload protoc	tion for fan motor	
0-4-4					ion thermostat	
Safety equip	oments			Internal thermos	stat for fan motor	
					temperature protection	
	Refrigerant piping size ( O.	.D. )	mm -	Liquid line: I/U $\phi$ 9.52 (3/8") Pipe		
		,		, , , , ,	15.88(5/8")×1.0 φ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
	Attached length of piping		m	_	_	
data Insulation for piping  Refrigerant line (one way) length  Vertical height diff. between O/U and I/U			Necessary (both L			
		m		.50m		
		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose			Hose connectable with VP20 (O.D.26)	Hole size $\phi$ 20 × 3 pcs		
	, max lift height		mm	_	_	
Recommend	ded breaker size		A			
	red rotor ampere)		A		.0	
Interconnec	ting wires Size x Core nur	nber		,	Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ac	ccessories			Mounting kit, Drain hose	_	
Option parts	3			Motion ser	nsor : LB-E	
Notes (1) Th	e data are measured at the	following	condition	s.	Γhe pipe length is 7.5m.	

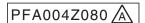
(1) THE data are	illeasureu at i	the following co	maitions.		The pipe length is 7.5m.			
Item	Indoor air t	emperature	Outdoor air	emperature Standards				
Operation	DB	WB	DB	WB	Standards			
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1			
Heating	20°C		7°C	6°C	1000101-11			

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model	FDE140	OVSAVG	
Item				Indoor unit FDE140VG	Outdoor unit FDC140VSA	
Power sou	,				, 50Hz / 380V, 60Hz	
Nominal cooling capacity (range)		kW		n.)-14.5(Max.)]		
	Nominal heating capacity	<del>`                                    </del>	kW		n.)-16.5(Max.)]	
	Power consumption	Cooling	ļ ļ		21	
	<u> </u>	Heating	kW		42	
	Max power consumption	0 "			.20	
	Running current	Cooling			/ 8.4	
		Heating	Α		/7.2	
Operation	Inrush current, max curren				15 94	
data	Power factor	Cooling	%		/ 93	
	EER	Heating Cooling			7 93 61	
	COP	Heating	-		51	
	СОР	Cooling		ა.	51 	
	Sound power level	Heating		65	73	
	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 49 Hi: 45 Me: 40 Lo: 36	57 59	
	Silent mode sound pressu		1	_	53/47 (Normal/Silent)	
Exterior dir	mensions (Height × Width ×		mm	250 × 1,620 × 690	845 × 970 × 370	
Exterior ap	<u> </u>	. /		Plaster white	Stucco white	
( Munsell c				( 6.8Y8.9/0.2 ) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	43	82	
Compresso	or type & Q'ty			_	RMT5126MCE4 (Twin rotary type)×1	
	or motor (Starting method)		kW	_	Direct line start	
Refrigerant	t oil (Amount, type)		Q.	_	0.9 (M-MA68)	
	(Type, amount, pre-charge	e length)	kg	R410A 3.8kg in outdoor unit (Incl.	the amount for the piping of : 30m)	
Heat exchanger			Louver fin & inner grooved tubing	Straight fin & inner grooved tubing		
Refrigerant control			Electronic ex	pansion valve		
Fan type & Q'ty			Centrifugal fan ×4	Propeller fan ×1		
Fan motor	(Stating method)		W	90 < Direct line start >	86 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi: 34 Hi: 29 Me: 23 Lo: 18	75 73	
Available e	xternal static pressure	1	Pa	0	_	
Outside air				Not possible	_	
	uality / Quantity			Pocket plastic net ×2 (Washable)	_	
	bration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)	
Electric hea	ater		W		20 (Crank case heater)	
0	Remote control			(Option) Wired: RC-EX3,RC-E5,RCH-E3 Wireless: RCN-E-E3		
Operation control	Room temperature control			Thermostat by electronics		
COLLLOI	Operation display					
Safety equ	ipments			Frost protecti Internal thermos	tion for fan motor on thermostat stat for fan motor emperature protection	
	Refrigerant piping size ( O.	.D. )	mm	Liquid line: I/U φ 9.52 (3/8") Pipe	φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8")	
	Connecting method			Flare piping	15.88(5/8")×1.0	
Inetallation	Attached length of piping		m		ι ιαισ ριμπις	
data	Insulation for piping		m	— Necessary (both I	 Liquid & Gas lines)	
autu	Refrigerant line (one way)	length	m		.50m	
	Vertical height diff. between O/		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose	o unu I/O	111	Hose connectable with VP20 (O.D.26)	Hole size $\phi 20 \times 3$ pcs	
Drain num	p, max lift height		mm	— — — — — — — — — — — — — — — — — — —		
	nded breaker size		A		<u> </u>	
	ked rotor ampere)		A		.0	
	cting wires   Size × Core nu	mber			Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
	accessories			Mounting kit, Drain hose	_	
Option par				<u> </u>	nsor : LB-E	
	he data are measured at th		100		The pipe length is 7.5m	

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
  (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.



(b) Twin type

			Model	FDE100	OVNAPVG	
tem				Indoor unit FDE50VG (2 units)	Outdoor unit FDC100VNA	
Power source	ce				V, 50Hz / 220V, 60Hz	
	Nominal cooling capacity	(range)	kW	10.0 [ 4.0(Mi	n.)-11.2(Max.)]	
	Nominal heating capacity		kW		n.)-12.5(Max.)]	
		Cooling			.12	
	Power consumption	Heating	kW	2	.99	
	Max power consumption	J J	1 1	6	.40	
	·	Cooling			/ 14.3	
	Running current	Heating	A		/ 13.7	
	Inrush current, max curre		1 ()		24	
Operation	midsir current, max curren	Cooling		·	99	
data	Power factor	Heating	%		99	
	EER	Cooling			.21	
	COP		-		.75	
	COP	Heating		<u></u>	/5	
	Sound power level	Cooling		60	70	
		Heating				
	Sound pressure level	Cooling	dB(A)	P-Hi: 46 Hi: 38 Me: 36 Lo: 31	54	
	<u> </u>	Heating	ļ ļ		56	
	Silent mode sound pressu				50 / 44 (Normal / Silent)	
Exterior dim	nensions (Height × Width ×	Depth)	mm	210 × 1,070 × 690	845 × 970 × 370	
Exterior app	pearance			Plaster white	Stucco white	
Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	28	80	
Compresso	r type & Q'ty			_	RMT5126MCE3 (Twin rotary type)×1	
	r motor (Starting method)		kW	_	Direct line start	
	oil (Amount, type)		Q.		0.9 (M-MA68)	
	(Type, amount, pre-charge	lenath)	kg	R410A 3 8kg in outdoor unit (Incl.	the amount for the piping of : 30m)	
Heat exchar	( ) 1 / 0	e letigiti)	Ny	Louver fin & inner grooved tubing	Straight fin & inner grooved tubing	
					cpansion valve	
Refrigerant						
an type &			141	Centrifugal fan ×2	Propeller fan ×1	
-an motor (	Starting method)	T	W	30 < Direct line start >	86 < Direct line start >	
Air flow		Cooling	m³/min	P-Hi: 13 Hi: 10 Me: 9 Lo: 7	75	
		Heating			73	
Available ex	ternal static pressure		Pa	0	_	
Outside air	intake			Not possible	_	
Air filter, Qu	ality / Quantity			Pocket plastic net ×2(Washable)	_	
Shock & vib	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)	
Electric hea	ter		W	_	20 (Crank case heater)	
	Remote control			(Option) Wired: RC-EX3, RC-E	5, RCH-E3 Wireless : RCN-E-E3	
Operation	Room temperature contro	ol			by electronics	
control	Operation display				<del></del>	
Safety equip				Overload protection for fan motor Frost protection thermostat Internal thermostat for fan motor Abnormal discharge temperature protection		
	Refrigerant piping size ( C	).D. )	mm		) x0.8 ① φ 9.52 (3/8") x0.8 O/U φ 9.52 (3/8" 0.8 ① φ 15.88 (5/8") x1.0 O/U φ 15.88 (5/8"	
	Connecting method			Flare piping	Flare piping	
nstallation	Attached length of piping		m	——————————————————————————————————————	—	
data	Insulation for piping				Liquid & Gas lines)	
	Refrigerant line (one way)	lenath	m		k.50m	
	Vertical height diff. between O		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
		o and I/O	111	·	· · · · · · · · · · · · · · · · · · ·	
) wala :	Drain hose			Hose connectable with VP20 (O.D.26)	Hole size φ 20 × 3 pcs	
irain niimn	, max lift height		mm	<u> </u>	_	
	Recommended breaker size		Α		_	
Recommen	L.R.A. (Locked rotor ampere)		Α		5.0	
Recommen				4 1 6mm y 2 garge + garth gable	/ Termainal block (Screw fixing type)	
Recommen	ked rotor ampere) cting wires  Size × Core nu	mber		$\phi$ 1.011111 x 3 cores + earth cable i	r termainal block (Screw fixing type)	
Recommen R.A. (Lock nterconnec		mber		φ r.onin × 3 cores + earth cable ;	IP24	
Recommen R.A. (Lock nterconnec P number	ting wires  Size × Core nu	mber				
Recommen R.A. (Lock nterconnec P number Standard ac	cting wires   Size × Core nu	mber		IPX0 Mounting kit, Drain hose	IP24	
Recommen L.R.A. (Lock Interconnec IP number Standard ac Option parts	cting wires   Size × Core nu		conditio	IPX0 Mounting kit, Drain hose Motion se	IP24 —	

The pipe	e length i	s 7.5m.

- ( )			-   -   -   -   -   -   -   -   -		
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Stariuarus
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together.
- (7) Branching pipe set "DIS-WA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

			Model	FDE100	VSAPVG
Item				Indoor unit FDE50VG (2 units)	Outdoor unit FDC100VSA
Power source	ce				, 50Hz / 380V, 60Hz
	Nominal cooling capacity	(range)	kW	10.0 [ 4.0(Mir	n.)-11.2(Max.)]
	Nominal heating capacity	(range)	kW	11.2 [ 4.0(Mir	n.)-12.5(Max.)]
	D	Cooling		3.	12
	Power consumption	Heating	kW	2.	99
	Max power consumption		1 [	10	.20
	B : .	Cooling		4.6	/ 4.8
	Running current	Heating	Α	4.4	/ 4.6
Operation	Inrush current, max currer	nt	1 [	5,	15
	Power factor	Cooling	- %	98 /	/ 99
data	Power factor	Heating	1 %	98.	/ 99
	EER	Cooling		3.	21
	COP	Heating	1 [	3.	75
	Cound names lavel	Cooling		60	70
	Sound power level	Heating	1	60	70
	Sound propoure lovel	Cooling	dB(A)	P-Hi: 46 Hi: 38 Me: 36 Lo: 31	54
	Sound pressure level	Heating	]	F-HI. 40 HI. 30 IVIE. 30 LO. 31	56
	Silent mode sound pressu	ire level		_	50 / 44 (Normal / Silent)
Exterior dim	nensions (Height × Width ×	Depth)	mm	210 × 1,070 × 690	845 × 970 × 370
Exterior app	pearance			Plaster white	Stucco white
( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent	( 4.2Y7.5/1.1 ) near equivalent
Net weight			kg	28	82
Compresso	or type & Q'ty			_	RMT5126MCE4 (Twin rotary type)×1
Compresso	or motor (Starting method)		kW	_	Direct line start
Refrigerant	oil (Amount, type)		Q	_	0.9 (M-MA68)
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 3.8kg in outdoor unit (Incl. t	the amount for the piping of : 30m)
Heat exchanger				Louver fin & inner grooved tubing	Straight fin & inner grooved tubing
Refrigerant control			Electronic ex	pansion valve	
Fan type &				Centrifugal fan ×2	Propeller fan ×1
Fan motor (	(Starting method)		W	30 < Direct line start >	86 < Direct line start >
Air flow		Cooling	m³/min	P-Hi:13 Hi:10 Me:9 Lo:7	75
		Heating	111 /111111		73
Available ex	xternal static pressure		Pa	0	_
Outside air				Not possible	_
	ıality / Quantity			Pocket plastic net ×2 (Washable)	_
	oration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor )
Electric hea			W		20 (Crank case heater)
Operation	Remote control			(Option) Wired: RC-EX3,RC-E5,RCH-E3 Wireless: RCN-E-E3	
control	Room temperature contro	<u> </u>		Thermostat b	by electronics
	Operation display				<del>_</del>
				Overload protect	tion for fan motor ion thermostat
Safety equip	pments				stat for fan motor
					temperature protection
	Defrigerent pining size / C	. D )	m	Liquid line: I/U $\phi$ 6.35 (1/4") ② $\phi$ 9.52 (3/8")	x0.8 ① φ 9.52 (3/8") x0.8 O/U φ 9.52 (3/8")
	Refrigerant piping size (O	י.ט. )	mm	Gas line: I/U $\phi$ 12.7 (1/2") ② $\phi$ 12.7 (1/2") x(	0.8 ① $\phi$ 15.88 (5/8") x1.0 O/U $\phi$ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping		m	_	<u> </u>
data	Insulation for piping			Necessary (both I	iquid & Gas lines)
	Refrigerant line (one way)	length	m	Max	.50m
	Vertical height diff. between O/	U and I/U	m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
Drain hose			Hose connectable with VP20 (O.D.26)	Hole size $\phi 20 \times 3$ pcs	
Drain pump, max lift height		mm	_	_	
Recommen	ided breaker size		А		
	ked rotor ampere)		А		.0
Interconnec	cting wires   Size × Core nu	mber		,	Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard ac	ccessories			Mounting kit, Drain hose	_
Option parts					nsor : LB-E
Notes (1) Th	ne data are measured at the	e following	conditio	ns.	The pipe length is 7.5m.

. ( )		5	1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,		
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together. (7) Branching pipe set "DIS-WA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

			Model	FDE125\	/NAPVG	
Item				Indoor unit FDE60VG (2 units)	Outdoor unit FDC125VNA	
Power source				1 Phase, 220-240V.		
	Nominal cooling capacity	(range)	kW	12.5 [ 5.0(Min		
	Nominal heating capacity			14.0 [ 4.0(Min	7 72	
		Cooling		4.	/ /-	
	Power consumption	Heating	kW	3.5	54	
	Max power consumption		1 1	6	40	
	B	Cooling		18.3 /	<sup>7</sup> 19.1	
	Running current	Heating	Α	15.6 /	16.3	
Onevetion	Inrush current, max curren	it	i i	5,	24	
Operation	Device feeter	Cooling	%	9	9	
data	Power factor	Heating	90	9	9	
	EER	Cooling		3.0	00	
	COP	Heating		3.9	95	
	Sound power level	Cooling		60	71	
	Souria power level	Heating	] [	00	<i>i</i> i	
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	55	
	Courta pressure level	Heating		1 111.47 111.41 Mic. 07 Ec. 02	57	
	Silent mode sound pressu			_	51 / 45 (Normal / Silent)	
	ensions (Height × Width ×	Depth)	mm	210 × 1,320 × 690	845 × 970 × 370	
Exterior app				Plaster white	Stucco white	
( Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	33	80	
	r type & Q'ty			_	RMT5126MCE3 (Twin rotary type)×1	
	r motor (Starting method)		kW	_	Direct line start	
	oil (Amount, type)		l		0.9 (M-MA68)	
	(Type, amount, pre-charge	length)	kg	R410A 3.8kg in outdoor unit (Incl. t		
Heat exchanger				Louver fin & inner grooved tubing	Straight fin & inner grooved tubing	
Refrigerant control			Electronic exp			
Fan type & Q'ty Fan motor (Starting method)		W	Centrifugal fan ×4	Propeller fan ×1		
Fan motor (	Starting method)	Caalina	VV	50 < Direct line start >	86 < Direct line start > 75	
Air flow		Cooling Heating	m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10	73	
Available ev	ternal static pressure	rieating	Pa	0	——————————————————————————————————————	
Outside air			ια	Not possible		
	ality / Quantity			Pocket plastic net ×2 (Washable)		
	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor )	
Electric hea			w	—	20 (Crank case heater)	
	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3		
Operation	Room temperature control			Thermostat by electronics		
control	Operation display			-	-	
				Overload protect	tion for fan motor	
Safety equip	oments				ion thermostat	
outer, equi					stat for fan motor emperature protection	
				Liquid line: I/U \$\phi\$ 6.35 (1/4") (2) \$\phi\$ 9.52 (3/8")		
	Refrigerant piping size (O	.D. )	mm	Gas line: I/U $\phi$ 12.7 (1/2") ② $\phi$ 12.7 (1/2") x0		
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	— — — — — — — — — — — — — — — — — — —	——————————————————————————————————————	
data	Insulation for piping			Necessary (both L	iguid & Gas lines)	
	Refrigerant line (one way)	length	m		50m	
Vertical height diff. between O/U and I/U			m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable with VP20 (O.D.26)	Hole size $\phi$ 20 × 3 pcs		
Drain pump, max lift height		mm	_	_		
Recommended breaker size		Α	-	-		
	ked rotor ampere)		Α	5.	.0	
	ting wires   Size × Core nur	nber		$\phi$ 1.6mm × 3 cores + earth cable /	Termainal block (Screw fixing type)	
IP number	· · · · · · · · · · · · · · · · · · ·			IPX0	IP24	
Standard ac	ccessories			Mounting kit, Drain hose	_	
Option parts	3			Motion ser	nsor : LB-E	
Notes (1) Th	e data are measured at the	following	conditio	ns.	The pipe length is 7.5m.	
	Item Indoor air tom					

Outdoor air temperature Standards DB

- Item Indoor air temperature Operation Cooling DB 19°C ISO5151-T1 Heating 20°C 7°C 6°C
- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together.
- (7) Branching pipe set "DIS-WA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

			Model	FDE125	VSAPVG	
Item				Indoor unit FDE60VG (2 units)	Outdoor unit FDC125VSA	
Power source	ce			3 Phase, 380-415V	, 50Hz / 380V, 60Hz	
	Nominal cooling capacity	(range)	kW	12.5 [ 5.0(Mir	i.)-14.0(Max.)]	
	Nominal heating capacity (range)		kW	14.0 [ 4.0(Mir	n.)-16.0(Max.)]	
	Dawar canaumatica	Cooling		4.	16	
	Power consumption	Heating	kW	3.	54	
	Max power consumption		i i	10	.20	
		Cooling		6.1 /	6.4	
	Running current	Heating	Α	5.2	/ 5.5	
Operation	Inrush current, max curren	t	i i	5,	15	
•	Power factor	Cooling	%	98 /	/ 99	
data	Power factor	Heating	90	9	8	
	EER	Cooling		3.	00	
	COP	Heating	1 [	3.	95	
	6	Cooling		60	74	
	Sound power level	Heating	1	60	71	
İ	6	Cooling	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	55	
İ	Sound pressure level	Heating	1	P-HI: 47 HI: 41 Me: 37 LO: 32	57	
	Silent mode sound pressu	re level		_	51 / 45 (Normal / Silent)	
Exterior dim	nensions (Height × Width ×	Depth)	mm	210 × 1,320 × 690	845 × 970 × 370	
Exterior app				Plaster white	Stucco white	
( Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight	•		kg	33	82	
Compresso	r type & Q'ty			_	RMT5126MCE4 (Twin rotary type )×1	
	r motor (Starting method)		kW	_	Direct line start	
	oil (Amount, type)		Q.	_	0.9 (M-MA68)	
	(Type, amount, pre-charge	length)	kg	R410A 3.8kg in outdoor unit (Incl. t	the amount for the piping of : 30m)	
Heat exchanger				Louver fin & inner grooved tubing	Straight fin & inner grooved tubing	
Refrigerant control					pansion valve	
Fan type & Q'ty				Centrifugal fan ×4	Propeller fan ×1	
Fan motor (Starting method)		W	50 < Direct line start >	86 < Direct line start >		
,	,	Cooling	37 .	D. I. C. I. 10 M. 10 I. 10	75	
Air flow		Heating	m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10	73	
Available ex	ternal static pressure		Pa	0	_	
Outside air i	intake			Not possible	_	
Air filter, Qu	ality / Quantity			Pocket plastic net ×2 (Washable)	_	
Shock & vib	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)	
Electric hea	ter		W	_	20 (Crank case heater)	
Onevetion	Remote control			(Option) Wired: RC-EX3, RC-E5	, RCH-E3 Wireless : RCN-E-E3	
Operation	Room temperature control			Thermostat by electronics		
control	Operation display			-	_	
				Overload protect	tion for fan motor	
Safety equip	oments				ion thermostat	
2 - 1-1					stat for fan motor temperature protection	
					x0.8 ① φ 9.52 (3/8") x0.8 O/U φ 9.52 (3/8")	
	Refrigerant piping size (O	.D. )	mm -		0.8 ① φ 15.88 (5/8") x1.0 O/U φ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	— — — — — — — — — — — — — — — — — — —		
data	Insulation for piping			Necessary (both L	iguid & Gas lines)	
Refrigerant line (one way) length		m		.50m		
	Vertical height diff. between O/		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose	- 4 1/ 0		Hose connectable with VP20 (O.D.26)	Hole size $\phi 20 \times 3$ pcs	
Drain pump, max lift height		mm	— (O.D.20)	—		
	ded breaker size		A		L	
	ked rotor ampere)		A	5	.0	
	ting wires   Size × Core nur	nber	- '		Termainal block (Screw fixing type)	
IP number	9 WII 00   0.120 × 0016 Hul			IPX0	IP24	
Standard ac	cessories			Mounting kit, Drain hose	IF24  -	
Option parts					nsor : LB-E	
	e data are measured at the	following	conditio		The pipe length is 7.5m.	
110169 (1) 11	ie data are measured at the	ionownig	COLIGITIO	10.	The pipe length is 7.5m.	

. ( )		5	1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,		
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together. (7) Branching pipe set "DIS-WA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

			Model	FDE140\	/NAPVG	
Item				Indoor unit FDE71VG (2 units)	Outdoor unit FDC140VNA	
Power source				1 Phase, 220-240V,		
	Nominal cooling capacity	/ (range)	kW	13.6 [ 5.0(Min	.)-14.5(Max.)]	
	Nominal heating capacity	/ (range)	kW	15.5 [ 4.0(Min	.)-16.5(Max.)]	
	Power consumption	Cooling		4.7		
	T OWER CONSUMPTION	Heating	kW	4.2	21	
	Max power consumption			6.4	40	
	Running current	Cooling		20.8 /	21.8	
	nullilling current	Heating	Α	18.5 /	19.3	
Operation	Inrush current, max curre	ent		5,	24	
data	Power factor	Cooling	%	9	9	
luata	Power lactor	Heating	70	9	9	
	EER	Cooling		2.8	37	
	COP	Heating		3.6	68	
	Sound nower lovel	Cooling		60	73	
	Sound power level	Heating	]	60	73	
	Cound procesure level	Cooling	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	57	
	Sound pressure level	Heating	1	P-HI: 47 HI: 41 ME: 37 LO: 32	59	
	Silent mode sound press	ure level	]	_	53 / 47 (Normal / Silent)	
Exterior dim	ensions (Height × Width >	< Depth)	mm	210 × 1,320 × 690	845 × 970 × 370	
Exterior app	pearance			Plaster white	Stucco white	
( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	33	80	
Compresso	r type & Q'ty		_ ĭ	_	RMT5126MCE3 (Twin rotary type)×1	
	r motor (Starting method)		kW	_	Direct line start	
	oil (Amount, type)		Q	_	0.9 (M-MA68)	
	(Type, amount, pre-charg	e length)	kg	R410A 3.8kg in outdoor unit (Incl. the amount for the piping of : 30m)		
Heat exchar		,		Louver fin & inner grooved tubing	Straight fin & inner grooved tubing	
Refrigerant				Electronic exp		
Fan type & 0				Centrifugal fan ×4	Propeller fan ×1	
	Fan motor (Starting method)		W	50 < Direct line start >	86 < Direct line start >	
	<u> </u>	Cooling	3, .	D. I.I. 00 I.I. 10 I. 10 I.	75	
Air flow		Heating	m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10	73	
Available ex	ternal static pressure		Pa	0	_	
Outside air i				Not possible	_	
Air filter, Qu	ality / Quantity			Pocket plastic net ×2 (Washable)	_	
	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)	
Electric hea	ter		W		20 (Crank case heater)	
	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3		
Operation	Room temperature contr	ol		Thermostat b	y electronics	
control	Operation display			_		
Safety equip	oments			Frost protecti Internal thermos	tion for fan motor ion thermostat stat for fan motor emperature protection	
	Refrigerant piping size (	O.D. )	mm	Liquid line: I/U φ 9.52 (3/8") ② φ 9.52 (3/8")  Gas line: I/U φ 15.88 (5/8") ② φ 15.88 (5/8") >		
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping	 1	m	— 	— 	
data	Insulation for piping	,		Necessary (both L	iguid & Gas lines)	
	Refrigerant line (one way	/) lenath	m	Max.		
	Vertical height diff. between C		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable with VP20 (O.D.26)	Hole size $\phi 20 \times 3$ pcs		
Drain numn	, max lift height		mm	— — —	- Γιοίε 3126 φ20 × 3 μc3	
Recommended breaker size		A	<u> </u>			
		A	5.			
L.R.A. (Locked rotor ampere)  Interconnecting wires   Size × Core number		_ ^		Termainal block (Screw fixing type)		
IP number	ung wires joize x cole ill	ai i i DCi		φ 1.6Him × 3 cores + earth cable /	IP24	
Standard ac	noesories			Mounting kit, Drain hose	IP24 —	
Option parts					nsor : LB-E	
	s le data are measured at th	o followin ~	conditi-		he pipe length is 7.5m.	
110162 (1) 111	ltem Indoor air te				The pipe length is 7.5m.	
	HELLI INGOOR AIR TO	unerature	1 ()11	tdoor air temperature	1	

( )		5			1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,
Item	Indoor air t	Indoor air temperature		temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together.
- (7) Branching pipe set "DIS-WA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

			Model	FDE140	VSAPVG	
Item				Indoor unit FDE71VG (2 units)	Outdoor unit FDC140VSA	
Power sour	ce			3 Phase, 380-415V.		
Nominal cooling capacity (range)		kW	13.6 [ 5.0(Min	i.)-14.5(Max.)]		
	Nominal heating capacity	(range)	kW	15.5 [ 4.0(Min	i.)-16.5(Max.)]	
		Cooling			74	
	Power consumption	Heating	kW	4.:	21	
	Max power consumption		i i	10.	20	
	Dt	Cooling		6.9	7.3	
	Running current	Heating	Α [	6.2 /	76.5	
Operation	Inrush current, max curren	t		5,	15	
data	Power factor	Cooling	%	9	9	
uata		Heating	/0		8	
	EER	Cooling		2.1		
	COP	Heating		3.0	68	
	Sound power level	Cooling		60	73	
	Dealing perior level	Heating				
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	57	
	·	Heating			59	
	Silent mode sound pressu				53 / 47 (Normal / Silent)	
	nensions (Height × Width ×	Depth)	mm	210 × 1,320 × 690	845 × 970 × 370	
Exterior app				Plaster white	Stucco white	
( Munsell co	pior)			( 6.8Y8.9/0.2 ) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight	1 0 011		kg	33	82	
	r type & Q'ty		130/		RMT5126MCE4 (Twin rotary type)×1	
	r motor (Starting method)		kW		Direct line start	
	oil (Amount, type) (Type, amount, pre-charge	lon ath)	Q Iso	D410A 2 Oka in autdaar unit (Inal. t	0.9 (M-MA68)	
Heat excha	( ) 1	ierigiri)	kg	R410A 3.8kg in outdoor unit (Incl. t	Straight fin & inner grooved tubing	
Refrigerant	<u> </u>			Louver fin & inner grooved tubing  Electronic exi		
Fan type &				Centrifugal fan ×4	Propeller fan ×1	
Fan motor (Starting method)		W	50 < Direct line start >	86 < Direct line start >		
,	Starting metriod)	Cooling			75	
Air flow		Heating	m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10	73	
Available ex	ternal static pressure	- routing	Pa	0		
Outside air	· · · · · · · · · · · · · · · · · · ·			Not possible	_	
	ality / Quantity			Pocket plastic net ×2 (Washable)	_	
	oration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)	
Electric hea	ter		W		20 (Crank case heater)	
Oneration	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3		
Operation control	Room temperature control			Thermostat b	by electronics	
CONTROL	Operation display					
					tion for fan motor	
Safety equip	pments				ion thermostat stat for fan motor	
					temperature protection	
	B (1 1 1 1 1 2	D.)		Liquid line: I/U φ 9.52 (3/8") ② φ 9.52 (3/8")		
	Refrigerant piping size ( O	.U. )	mm -	Gas line: I/U $\phi$ 15.88 (5/8") 2 $\phi$ 15.88 (5/8") x		
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	<del>-</del>	<del>-</del>	
data	Insulation for piping			Necessary (both L	iquid & Gas lines)	
	Refrigerant line (one way)	length	m	Max	.50m	
	Vertical height diff. between O/U and I/U		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable with VP20 (O.D.26)	Hole size $\phi 20 \times 3$ pcs		
		mm		<u> </u>		
Recommended breaker size		Α	-			
L.R.A. (Locked rotor ampere)		Α		.0		
	ting wires Size x Core nur	nber			Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ad				Mounting kit, Drain hose		
Option part			<u> </u>		nsor: LB-E	
INOTES (1) If	ne data are measured at the	_			Γhe pipe length is 7.5m.	
Itam Indoor air tomporatura Outdoor air tomporatura						

. ( )		5			1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,
Item	Indoor air temperature		Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together. (7) Branching pipe set "DIS-WA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

		,	Model	FDE200	VSAPVG	
Item				Indoor unit FDE100VG (2 units)	Outdoor unit FDC200VSA	
Power sour					50Hz / 380V 60Hz	
	Nominal cooling capacity		kW	19.0 [ 5.2(Min	, , ,,,	
	Nominal heating capacity	<del>, , , , , , , , , , , , , , , , , , , </del>	kW	22.4 [ 3.3(Min	, , , , , ,	
Power consumption Cooling				34		
		Heating	kW		10 2.0	
	Max power consumption			9.7 /		
	Running current	Cooling Heating	A		79.9	
	Inrush current, max curre		^		20	
Operation		Cooling			4	
data	Power factor	Heating	%		4	
	EER	Cooling		3.	00	
	COP	Heating	1 [	3.	67	
	Sound power level	Cooling		64	72	
	Souria power level	Heating	] [	04	74	
	Sound pressure level	Cooling	dB(A)	P-Hi: 48 Hi: 43 Me: 38 Lo: 34	58	
	<u> </u>	Heating		1-111.40 TII.40 Me.30 L0.34	59	
	Silent mode sound press	sure level		_	52	
Exterior dim	nensions (Height x Width x	( Depth)	mm	250 × 1,620 × 690	1,300×970×370	
Exterior app				Plaster white	Stucco white	
( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	43	115	
	r type & Q'ty			_	RMT5134MDE3 (Twin rotary type)×1	
	r motor (Starting method)		kW		Direct line start	
	oil (Amount, type)		l		0.9(compressor) + 0.6(unit) (M-MA68)	
	(Type, amount, pre-charg	e length)	kg		the amount for the piping of : 30m)	
Heat exchain Refrigerant				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing pansion valve	
Fan type &				Centrifugal fan ×4	Propeller fan ×2	
	Starting method)		W	80 < Direct line start >	86 x 2 < Direct line start >	
Air flow	otaring money	Cooling Heating	m³/min	P-Hi: 32 Hi: 26 Me: 21 Lo: 16.5	135	
Available ex	ternal static pressure	Tricating	Pa	0		
Outside air			1 4	Not possible	_	
	ality / Quantity			Pocket plastic net ×2(Washable)	_	
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	ter		W	– 20(Crank case heater)		
Oneration	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3		
Operation control	Room temperature contr	ol		Thermostat by electronics		
	Operation display			<del>-</del>	-	
					ion for fan motor	
Safety equip	pments			Frost protecti Internal thermos	on thermostat	
				Internal thermos Abnormal discharge to		
				Liquid line: I/U $\phi$ 9.52 (3		
		0.5.		① $\phi$ 9.52(3/8")x0.8 or $\phi$ 12.7	7(1/2")x0.8 O/U \( \phi \) 9.52 (3/8")	
	Refrigerant piping size (	O.D.)	mm	Gas line: I/U φ 15.88 (5/8		
					r φ 28.58(1 1/8")x1.0 O/U φ 22.22 (7/8")	
Inetal!-+!-	Connecting method			Flare piping	Liquid : Flare / Gas : Brazing	
Installation data	Attached length of piping	9	m		<u> </u>	
	Insulation for piping			Necessary (both L		
	Refrigerant line (one way	y) length	m	Max.70m(Liquid piping: $\phi$ 12.7, Max.40m(Liquid piping: $\phi$ 9.52,		
	Vertical height diff. between 0	D/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs		
			mm		<u>–                                      </u>	
	Recommended breaker size A					
	ked rotor ampere)		А		.0	
Interconnec	ting wires Size x Core r	number			Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ad				Mounting kit, Drain hose	Connecting pipe, Edging nsor: LB-E	
Option parts				ditions The pine length is		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1803131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data are two indoor units combined and run together. (7) Branching pipe set "DIS-WA1G"×1(option). ①: Pipe of O/U-Branch ②: Pipe of Branch-I/U
- (8) Use 1/2H pipes having a 1.0mm or thicker wall for  $\phi$  19.05 or larger pipes.

Model				FDE250VSAPVG			
Item				Indoor unit FDE125VG (2 units)	Outdoor unit FDC250VSA		
Power source				3 Phase 380-415V 50Hz / 380V 60Hz			
	Nominal cooling capacit	y (range)	kW	24.0 [ 6.9(Mir	n.)-28.0(Max.)]		
	Nominal heating capacity (range)		kW	27.0 [ 5.5(Mir	n.)-31.5(Max.)]		
	Cooling			8.	52		
	Power consumption	Heating	kW	7.	54		
	Max power consumption	1	] [	13	3.7		
	Dunning gurrant	Cooling		13.4	/ 14.1		
	Running current	Heating	A	11.8	/ 12.5		
Operation	Inrush current, max curre	ent		5 ,	21		
Operation data	Power factor	Cooling	%	g	2		
uata	Fower lactor	Heating	70	9	2		
	EER	Cooling		2.	82		
	COP	Heating	] [	3.	58		
	Sound nower level	Cooling		64	73		
	Sound power level	Heating		04	75		
	Sound pressure level	Cooling	dB(A)	P-Hi: 48 Hi: 45 Me: 40 Lo: 35	59		
	Souria pressure level	Heating		F-III. 46 III. 45 IVIE. 40 LO. 55	62		
	Silent mode sound press	sure level		_	54		
Exterior dim	nensions (Height x Width	v Denth)	mm	250 × 1,620 × 690	1,505×970×370		
LAIGHUI UIII	ieriaioria (rieigrit x vvidtri)	v pehili)	''''	250 x 1,020 x 030	1,505.870.8370		
Exterior app	pearance			Plaster white	Stucco white		
( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	43	143		
Compresso	r type & Q'ty			_	GTC5150NC40KF (Scroll type) ×1		
Compresso	r motor (Starting method)		kW	_	Direct line start		
Refrigerant	oil (Amount, type)	,	Q.	_	1.45 (M-MA32R)		
Refrigerant	(Type, amount, pre-charge	ge length)	kg	R410A 7.2kg in outdoor unit (Incl.	the amount for the piping of : 30m)		
Heat excha	nger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant	control			Electronic ex	pansion valve		
Fan type &	Q'ty			Centrifugal fan ×4	Propeller fan ×2		
Fan motor (	Starting method)		W	80 < Direct line start >	86 x 2 < Direct line start >		
Air flow		Cooling	m³/min	P-Hi: 32 Hi: 29 Me: 23 Lo: 17	143		
		Heating	111 /111111	F-III. 32 TII. 29 WIE. 23 LO. 17	151		
Available ex	ternal static pressure		Pa	0	_		
Outside air	intake			Not possible	_		
Air filter, Qu	ality / Quantity			Pocket plastic net ×2(Washable)	_		
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea	ter		W	_	20(Crank case heater)		
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3			
control	Room temperature contr	rol		Thermostat by electronics			
CONTROL	Operation display			<del>-</del>			
				•	tion for fan motor		
Safety equi	oments			•	on thermostat		
outory oqui	omonto				stat for fan motor		
				Abnormal discharge t	emperature protection		
					x0.8 ① φ 12.7(1/2")x0.8 O/U φ 12.7 (1/2")		
	Refrigerant piping size (	O.D. )	mm		8") ② φ 15.88(5/8")x1.0		
					or φ 28.58(1 1/8")x1.0 O/U φ 22.22 (7/8")		
Installation	Connecting method			Flare piping	Liquid : Flare / Gas : Brazing		
data	Attached length of piping	g	m	<del>-</del>			
	Insulation for piping	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			Liquid & Gas lines)		
	Refrigerant line (one wa		m		8.58), Max.35m(Gas piping: φ 22.22)		
	Vertical height diff. between	U/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs			
		mm	<del>-</del>	_			
	ded breaker size		Α				
,	ked rotor ampere)		Α		.0		
Interconnec	ting wires Size x Core	number		r	Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad				Mounting kit, Drain hose	Connecting pipe, Edging		
Option part	S			Motion sei	nsor : LB-E		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB	WB	Staridards	
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data are two indoor units combined and run together. (7) Branching pipe set "DIS-WA1G"×1(option). ①: Pipe of O/U-Branch ②: Pipe of Branch-I/U
- (8) Use 1/2H pipes having a 1.0mm or thicker wall for  $\phi$  19.05 or larger pipes.

(c) Triple type

			Model	FDE140\	/NATVG		
tem				Indoor unit FDE50VG (3 units)	Outdoor unit FDC140VNA		
Power sour	ce			1 Phase, 220-240V,	50Hz / 220V, 60Hz		
Nominal cooling capacity (range)			kW	13.6 [ 5.0(Min	.)-14.5(Max.)]		
	Nominal heating capacit	y (range)	kW	15.5 [ 4.0(Min	.)-16.5(Max.)]		
	Power consumption	Cooling		4.7	74		
	Fower Consumption	Heating	kW	4.2	21		
	Max power consumption	ו		6.4	-		
	Running current	Cooling		20.8 /	21.8		
	Truming current	Heating	A	18.5 /			
Operation	Inrush current, max current			5,			
data	Power factor	Cooling	% -	99	-		
Julu		Heating	/*	99	-		
	EER	Cooling		2.8			
	COP	Heating		3.6	88		
	Sound power level	Cooling		60	73		
	Codita power level	Heating					
	Sound pressure level	Cooling	dB(A)	P-Hi: 46 Hi: 38 Me: 36 Lo: 31	57		
	·	Heating			59		
	Silent mode sound press			_	53 / 47 (Normal / Silent)		
	nensions (Height × Width	× Depth)	mm	210 × 1,070 × 690	845 × 970 × 370		
Exterior app				Plaster white	Stucco white		
Munsell co	plor)			( 6.8Y8.9/0.2 ) near equivalent	( 4.2Y7.5/1.1 ) near equivalent		
Net weight			kg	28	80		
	r type & Q'ty			_	RMT5126MCE3 (Twin rotary type)×1		
	r motor (Starting method)		kW	_	Direct line start		
	oil (Amount, type)		Q	_	0.9 (M-MA68)		
	(Type, amount, pre-charge	ge length)	kg	R410A 3.8kg in outdoor unit (Incl. t			
Heat excha	<u> </u>			Louver fin & inner grooved tubing	Straight fin & inner grooved tubing		
Refrigerant				Electronic exp	pansion valve		
an type &				Centrifugal fan ×2	Propeller fan ×1		
Fan motor (Starting method)		W	30 < Direct line start >	86 < Direct line start >			
Air flow		Cooling	m³/min	P-Hi:13 Hi:10 Me:9 Lo:7	75		
		Heating	111 / 1111111	1-111.10 TII.10 We.9 LO.7	73		
Available ex	ternal static pressure		Pa	0			
Outside air				Not possible	<u> </u>		
	ality / Quantity			Pocket plastic net ×2 (Washable)			
	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor )		
Electric hea			W	_	20 (Crank case heater)		
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5	, RCH-E3 Wireless : RCN-E-E3		
ontrol	Room temperature conti	rol		Thermostat b	y electronics		
JOHNO	Operation display				-		
				Overload protect	tion for fan motor		
Safety equi	oments			Frost protection thermostat			
				Internal thermostat for fan motor Abnormal discharge temperature protection			
	B 44			Liquid line: I/U φ 6.35 (1/4") ② φ 9.52(3/8")			
	Refrigerant piping size (	O.D. )	mm -	Gas line: I/U $\phi$ 12.7 (1/2") ② $\phi$ 12.7(1/2")x0			
	Connecting method			Flare piping	Flare piping		
nstallation	Attached length of piping	a	m	— — — — — — — — — — — — — — — — — — —	— 		
data	Insulation for piping	<u></u>		Necessary (both L	iquid & Gas lines)		
	Refrigerant line (one wa	v) lenath	m	Max.			
	Vertical height diff. between		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose			Hose connectable with VP20 (O.D.26)	Hole size $\phi 20 \times 3$ pcs		
rain numn	, max lift height	,	mm	— — —	— — — — — — — — — — — — — — — — — — —		
	ded breaker size		A				
			A	5.			
L.R.A. (Locked rotor ampere)  Interconnecting wires   Size × Core number		_ ^	$\phi$ 1.6mm × 3 cores + earth cable /				
P number	TING WILES TOISE X COLE II	ui incl		φ 1.6ππ × 3 cores + earth cable /	IP24		
Standard a	coesories			Mounting kit, Drain hose	IP24 —		
Option part				Motion ser			
upululi Part	J						
Jotos (1) Th	ne data are measured at the	ha fallawir-	condition	т.	he pipe length is 7.5m.		

The bibe leni	guris 7.5iii.
Standards	

( )		5			1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,
Item	Indoor air t	Indoor air temperature		temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is three indoor units are combined and run together.
- (7) Branching pipe set "DIS-TA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

			Model	FDE140	VSATVG
Item				Indoor unit FDE50VG (3 units)	Outdoor unit FDC140VSA
Power sour	ce			3 Phase, 380-415V,	50Hz / 380V, 60Hz
Nominal cooling capacity (range)		kW	13.6 [ 5.0(Min	.)-14.5(Max.)]	
	Nominal heating capacity (range)		kW	15.5 [ 4.0(Min	.)-16.5(Max.)]
	Power consumption	Cooling		4.7	
		Heating	kW	4.2	
	Max power consumption			10.	
	Running current	Cooling		6.9 /	
	Training current	Heating	A	6.2 /	
Operation	Inrush current, max currer	Υ		5,	
data	Power factor	Cooling	%	9	
data		Heating	,,,	9	
	EER	Cooling		2.8	
	COP	Heating		3.6	68
	Sound power level	Cooling Heating		60	73
	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 46 Hi: 38 Me: 36 Lo: 31	57 59
	Silent mode sound pressu	re level		_	53 / 47 (Normal / Silent)
Exterior dim	nensions (Height × Width ×		mm	210 × 1,070 × 690	845 × 970 × 370
Exterior app				Plaster white	Stucco white
( Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight	,		kg	28	82
Compresso	r type & Q'ty			_	RMT5126MCE4 (Twin rotary type )×1
	r motor (Starting method)		kW	_	Direct line start
	oil (Amount, type)		Q	_	0.9 (M-MA68)
3 - 5 -	(Type, amount, pre-charge	lenath)	kg	R410A 3.8kg in outdoor unit (Incl. t	, ,
	Heat exchanger		9	Louver fin & inner grooved tubing	Straight fin & inner grooved tubing
Refrigerant				Electronic exp	<u> </u>
Fan type &				Centrifugal fan ×2	Propeller fan ×1
	Starting method)		W	30 < Direct line start >	86 < Direct line start >
,	<u> </u>	Cooling	m³/min		75
Air flow		Heating	·	P-Hi:13 Hi:10 Me:9 Lo:7	73
	ternal static pressure		Pa	0	<del>-</del>
Outside air				Not possible	<del>-</del>
	ality / Quantity			Pocket plastic net ×2 (Washable)	<del>-</del>
	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor )
Electric hea	ter		W	_	20 (Crank case heater)
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5	
control	Room temperature contro	l		Thermostat b	y electronics
33111131	Operation display			<del>-</del>	
Safety equi	pments			Frost protecti Internal thermos	tion for fan motor ion thermostat stat for fan motor emperature protection
	Refrigerant piping size ( O	.D.)	mm	Liquid line: I/U $\phi$ 6.35 (1/4") ② $\phi$ 9.52 (3/8") Gas line: I/U $\phi$ 12.7 (1/2") ② $\phi$ 12.7 (1/2") x0	x0.8 ① φ 9.52 (3/8") x0.8 O/U φ 9.52 (3/8")
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping		m	<u> </u>	<del>-</del>
data	Insulation for piping			Necessary (both L	iquid & Gas lines)
	Refrigerant line (one way)	length	m	Max.	
	Vertical height diff. between O/		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
Drain hose			Hose connectable with VP20 (O.D.26)	Hole size $\phi$ 20 × 3 pcs	
Drain pump, max lift height		mm	_ ` ′	<del>-</del>	
	ded breaker size		Α	-	_
	ked rotor ampere)		Α	5.	.0
	ting wires   Size × Core nur	mber		$\phi$ 1.6mm × 3 cores + earth cable /	Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard ad	ccessories			Mounting kit, Drain hose	<del>-</del>
Option part					nsor : LB-E
Notes (1) The data are measured at the following conditions  The pine length is 7.5m					

( )		111111111111111111111111111111111111111				
Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB WB		Standards	
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is three indoor units are combined and run together.
- (7) Branching pipe set "DIS-TA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

			Model	FDE200	VSATVG				
Item				Indoor unit FDE71VG (3 units)	Outdoor unit FDC200VSA				
Power source					50Hz / 380V 60Hz				
	Nominal cooling capacity		kW	<u> </u>	n.)-22.4(Max.)]				
	Nominal heating capacity	· • ·	kW		n.)-25.0(Max.)]				
	Power consumption	Cooling			6.33 5.94				
	May rever experient Heating		kW		94 2.0				
	Max power consumption Cooling				10.2				
	Running current Heating		A		79.6				
	Inrush current, max current		1 ^ }		20				
Operation		Cooling		94					
data	Power factor	Heating	%		4				
	EER	Cooling		3.00					
	COP	Heating	1 [	3.	77				
	Sound power level	Cooling		60	72				
	Sourid power level	Heating	] [	60	74				
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	58				
		Heating	] [	F-111.47 111.41 Me.37 L0.32	59				
	Silent mode sound pressu	re level			52				
Exterior dim	nensions (Height x Width x	Depth)	mm	210 × 1,320 × 690	1,300×970×370				
Exterior app				Plaster white	Stucco white				
( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent	(4.2Y7.5/1.1) near equivalent				
Net weight			kg	33	115				
	r type & Q'ty		1347	<del>-</del>	RMT5134MDE3 (Twin rotary type)×1				
	r motor (Starting method)		kW	<u> </u>	Direct line start				
	oil (Amount, type)	1 11 \	Q	— — — — — — — — — — — — — — — — — — —	0.9(compressor) + 0.6(unit) (M-MA68)				
	(Type, amount, pre-charge	length)	kg	<u> </u>	the amount for the piping of : 30m)				
Heat exchai				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant Fan type & 0				Centrifugal fan ×4	pansion valve  Propeller fan ×2				
	Starting method)		W	50 < Direct line start >	86 x 2 < Direct line start >				
Air flow	Starting metriou)	Cooling Heating	m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10	135				
Available ex	ternal static pressure	rieating	Pa	0	_				
Outside air	· · · · · · · · · · · · · · · · · · ·		ıα	Not possible					
	ality / Quantity			Pocket plastic net ×2(Washable)	_				
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)				
Electric hea			W	_	20(Crank case heater)				
	Remote control			(Option) Wired: RC-EX3, RC-E	5 , RCH-E3 Wireless : RCN-E-E3				
Operation control	Room temperature contro				by electronics				
COLLING	Operation display			-					
					tion for fan motor				
Safety equip	oments			•	on thermostat				
					stat for fan motor				
					emperature protection				
					3/8") ② φ 9.52(3/8")x0.8 7(1/2")x0.8 O/U φ 9.52 (3/8")				
	Refrigerant piping size ( O	.D.)	mm		7(1/2 )x0.6 0/0 φ9.52 (3/6 ) B") ② φ15.88(5/8")x1.0				
					r φ28.58(1 1/8")x1.0 O/U φ22.22 (7/8")				
	Connecting method			Flare piping	Liquid: Flare / Gas: Brazing				
Installation	Attached length of piping		m	—	—				
data	Insulation for piping				Liquid & Gas lines)				
	Refrigerant line (one way)	length	m	Max.70m(Liquid piping: φ 12.7,	Gas piping: $\phi$ 25.4 or $\phi$ 28.58), Max.35m(Gas piping: $\phi$ 22.22)				
	Vertical height diff. between O/	U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)				
	Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs				
Drain pump	, max lift height		mm	_	<u> </u>				
	ded breaker size		Α	-	_				
L.R.A. (Lock	ked rotor ampere)		Α	5	.0				
Interconnec IP number		ımber		$\phi$ 1.6mm×3 cores + earth cable / IPX0	Termainal block (Screw fixing type) IP24				
Standard ac	ccessories			Mounting kit, Drain hose	Connecting pipe, Edging				
Option parts				<u> </u>	011 0				
Ομιίοι μαιτο					Motion sensor : LB-E				

Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB	WB	Standards	
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data are three indoor units combined and run together.
  (7) Branching pipe set "DIS-TB1G"×1(option). ①: Pipe of O/U-Branch. ②: Pipe of Branch-I/U
- (8) Use 1/2H pipes having a 1.0mm or thicker wall for  $\phi$  19.05 or larger pipes.

# (d) Double twin type

			Model	FDE200'	VSADVG				
Item				Indoor unit FDE50VG (4 units)	Outdoor unit FDC200VSA				
Power sour	-				50Hz / 380V 60Hz				
	Nominal cooling capacity	<u> </u>	kW		n.)-22.4(Max.)]				
	Nominal heating capacity	<del>` ` ` ` </del>	kW		n.)-25.0(Max.)]				
	Power consumption Cooling Heating		kW		90 10				
	Max power consumption		L VV		2.0				
		Cooling			/ 11.2				
	Running current Heating		Α		/ 11.4				
	Inrush current, max currer		1 1	5 ,	20				
Operation data	Power factor	Cooling	- %	94					
uala	Power lactor	Heating	70	9	5				
	EER	Cooling			75				
	СОР	Heating		3.	15				
	Sound power level	Cooling		60 72					
		Heating	4D(V)		74				
	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 46 Hi: 38 Me: 36 Lo: 31	58 59				
	Silent mode sound pressu		-	_	52				
	'	-			-				
	mensions (Height x Width x	Depth)	mm	210 × 1,070 × 690	1,300×970×370				
Exterior ap				Plaster white	Stucco white				
(Munsell co			le=	( 6.8Y8.9/0.2 ) near equivalent	(4.2Y7.5/1.1) near equivalent				
Net weight	or type & Q'ty		kg	28	115 RMT5134MDE3 ( Twin rotary type )×1				
	or motor (Starting method)		kW		Direct line start				
	oil (Amount, type)		l L		0.9(compressor) + 0.6(unit) (M-MA68)				
	(Type, amount, pre-charge	lenath)	kg	B410A 5 6kg in outdoor unit (Incl. t	the amount for the piping of : 30m)				
Heat excha		, icrigin)	i iig	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant	<u> </u>			v v	pansion valve				
Fan type &				Centrifugal fan ×2	Propeller fan ×2				
Fan motor	(Starting method)		W	30 < Direct line start >	86 x 2 < Direct line start >				
Air flow		Cooling Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:7	135				
Available e	xternal static pressure		Pa	0	-				
Outside air				Not possible	<del>-</del>				
	uality / Quantity			Pocket plastic net ×2(Washable)					
	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor )				
Electric hea	1		W	(Ontion) Wired : DC EV2 DC EV	20(Crank case heater) 5 , RCH-E3 Wireless : RCN-E-E3				
Operation	Remote control Room temperature contro				by electronics				
control	Operation display	'1		memostat t					
	oporation diopidy			Overload protect	tion for fan motor				
0-4-4	·				on thermostat				
Safety equi	ipments			Internal thermos	tat for fan motor				
					emperature protection				
					(4") ③② φ 9.52(3/8")x0.8				
	Refrigerant piping size (O	.D.)	mm		7(1/2")x0.8 O/U φ 9.52 (3/8")				
					③ φ 12.7x0.8 ③ φ 15.88x1.0 r φ 28.58(1 1/8")x1.0 O/U φ 22.22 (7/8")				
	Connecting method			Flare piping	Liquid : Flare / Gas : Brazing				
Installation	Attached length of piping		m	–					
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)				
	Refrigerant line (one way)	length	m		Gas piping: $\phi$ 25.4 or $\phi$ 28.58), Max.35m(Gas piping: $\phi$ 22.22)				
	Vertical height diff. between O	/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)				
	Drain hose	o unu i/O		Hose connectable with VP20(O.D.26)	Hole size $\phi 20 \times 3$ pcs				
Drain pump	o, max lift height		mm	—	_				
<u>.</u>	nded breaker size		Α	-	_				
	ked rotor ampere)		Α	5	.0				
Interconnec		umber		$\phi$ 1.6mm×3 cores + earth cable / IPX0	Termainal block (Screw fixing type) IP24				
Standard a	nccessories			Mounting kit, Drain hose	Connecting pipe, Edging				
				<u> </u>	nsor : LB-E				
Option parts			1	141011011 301					

Notes (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB	WB	Standards	
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data are four indoor units combined and run together.
- (7) Branching pipe set "DIS-WB1G"×1,"DIS-WA1G"×2 (option). Pipe ①: O/U-Branch, ②: Branch-Branch, ③: Branch-I/U
- (8) Use 1/2H pipes having a 1.0mm or thicker wall for  $\phi$  19.05 or larger pipes.

			Model	FDE250	VSADVG				
Item				Indoor unit FDE60VG (4 units) Outdoor unit FDC250VSA					
Power source	ce			3 Phase 380-415V	50Hz / 380V 60Hz				
	Nominal cooling capacity	/ (range)	kW	24.0 [ 6.9(Mir	n.)-28.0(Max.)]				
	Nominal heating capacity	(range)	kW	27.0 [ 5.5(Mir	n.)-31.5(Max.)]				
	Power consumption	Cooling		8.00					
	Heating		kW		02				
	Max power consumption			13	3.7				
	Running current	Cooling	[	12.2	12.2 / 12.8				
	Heating		Α [		/ 11.2				
Operation	Inrush current, max curre	ent		-	21				
data	Power factor	Cooling	%	95					
data		Heating	/ 0		5				
	EER	Cooling			00				
	COP	Heating		3.	85				
	Sound power level	Cooling		60	73				
	Courta power level	Heating			75				
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	59				
	·	Heating		1 111 17 111 11 1110 107 20 102	62				
	Silent mode sound press	ure level		_	54				
Exterior dim	nensions (Height x Width x	(Depth)	mm	210 × 1,320 × 690	1,505×970×370				
				·	·				
Exterior app				Plaster white	Stucco white				
( Munsell co	plor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent				
Net weight			kg	33	143				
	r type & Q'ty			_	GTC5150NC40KF (Scroll type) ×1				
	r motor (Starting method)		kW	_	Direct line start				
	oil (Amount, type)		Q	_	1.45 (M-MA32R)				
	(Type, amount, pre-charg	e length)	kg	<u> </u>	the amount for the piping of : 30m)				
Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing					
Refrigerant					pansion valve				
Fan type & 0				Centrifugal fan ×4	Propeller fan ×2				
Fan motor (	Starting method)	1	W	50 < Direct line start >	86 x 2 < Direct line start >				
Air flow		Cooling	m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10	143				
		Heating			151				
	ternal static pressure		Pa	0	_				
Outside air				Not possible	_				
	ality / Quantity			Pocket plastic net ×2(Washable)					
	ration absorber		141	Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)				
Electric hea			W	- C. II. ) W. I. DO EVO DO E	20(Crank case heater)				
Operation	Remote control				5 , RCH-E3 Wireless : RCN-E-E3				
control	Room temperature control	OI		Thermostat b	by electronics				
	Operation display			Overland protect	-				
				•	tion for fan motor on thermostat				
Safety equip	oments			•	stat for fan motor				
					emperature protection				
		-			emperature protection 3")x0.8 ① $\phi$ 12.7(1/2")x0.8 O/U $\phi$ 12.7 (1/2")				
	Pofrigorant piping size ( (	) D )	mm						
	Refrigerant piping size (	J.D. )	mm	Gas line. I/U $\varphi$ 12.7 (1/2) $\varphi$ 32.7 (1/2) $\varphi$ 32.7 (1/2) $\varphi$ 32.7 (1/2) $\varphi$ 32.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 33.7 (1/2) $\varphi$ 34.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 35.7 (1/2) $\varphi$ 36.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37.7 (1/2) $\varphi$ 37	③ φ 12.7x0.8 ② φ 15.88x1.0 or φ 28.58(1 1/8")x1.0 O/U φ 22.22 (7/8")				
	Connecting method			Flare piping	Liquid : Flare / Gas : Brazing				
Installation	Attached length of piping	1	m	i iaie pipilig					
data	Insulation for piping	1	111	Necessary (both I	 _iquid & Gas lines)				
	Refrigerant line (one way	/) length	m		8.58), Max.35m(Gas piping: $\phi$ 22.22)				
	Vertical height diff. between 0		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)				
		oro and I/O	111	Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs				
Drain hose Drain pump, max lift height		mm	—	— 1 loie size ψ20 x 3 pcs					
<u>-</u>	ded breaker size		A		<u> </u>				
	ked rotor ampere)	-	A		.0				
Interconnec		numher	_ ^		Termainal block (Screw fixing type)				
IP number	ung wires   Oize x Oole i	IGITIDEI		φ 1.6ππ×3 cores + earth cable /	IP24				
Standard ac	ccessories			Mounting kit, Drain hose	Connecting pipe, Edging				
Option parts					nsor: LB-E				
Option parts				MOUOTI SETISOF: LB-E					

The	nine	lenath	ie	7.5m

Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB	WB	Standards	
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1909191-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data are four indoor units combined and run together.
- (7) Branching pipe set "DIS-WB1G"×1,"DIS-WA1G"×2 (option). Pipe ①: O/U-Branch, ②: Branch-Branch, ③: Branch-I/U
- (8) Use 1/2H pipes having a 1.0mm or thicker wall for  $\phi$  19.05 or larger pipes.

# (2) Duct connected-Low/Middle static pressure type (FDUM)

# (a) Single type

. ,	Single type		Model	FDUM10	0VNAVF2			
Item				Indoor unit FDUM100VF2	Outdoor unit FDC100VNA			
Power source					, 50Hz / 220V, 60Hz			
	Nominal cooling capacity		kW	£ \	n.)-11.2(Max.)]			
	Nominal heating capacity (range)		kW		n.)-12.5(Max.)]			
	Power consumption Cooling Heating		]		84			
			kW		78			
	Max power consumption				40			
	Running current	Cooling		13.6 / 14.2				
		Heating	Α		/ 13.9			
Operation	Inrush current, max curre				26			
data	Power factor	Cooling	- %		1			
		Heating			1			
	EER	Cooling			52			
	COP	Heating		4.	03			
	Sound power level	Cooling		65	70			
		Heating		**				
	Sound pressure level	Cooling	dB(A)	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	54			
		Heating			56			
=	Silent mode sound press			_	50/44 (Normal/Silent)			
	nensions (Height × Width >	× Depth)	mm	280 × 1,370 × 740	845 × 970 × 370			
Exterior app				_	Stucco white			
( Munsell co	olor)				(4.2Y7.5/1.1) near equivalent			
Net weight			kg	54	80			
	r type & Q'ty			_	RMT5126MCE3 (Twin rotary type)×1			
	r motor (Starting method)		kW	_	Direct line start			
	oil (Amount, type)		Q	_	0.9 (M-MA68)			
	(Type, amount, pre-charg	e length)	kg		the amount for the piping of : 30m)			
Heat excha				Louver fin & inner grooved tubing	Straight fin & inner grooved tubing			
Refrigerant control					pansion valve			
Fan type &				Centrifugal fan ×3	Propeller fan ×1			
Fan motor (	Stating method)		W	100 + 130 < Direct line start >	86 < Direct line start >			
Air flow		Cooling	m³/min	P-Hi: 36 Hi: 28 Me: 25 Lo: 19	75			
		Heating			73			
	ternal static pressure		Pa	Standard: 60 Max: 100	_			
Outside air				Possible	_			
	ality / Quantity			Procure locally	<u> </u>			
	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)			
Electric hea			W	_	20 (Crank case heater)			
Operation	Remote control				RCH-E3 Wireless : RCN-KIT4-E2			
control	Room temperature contr	ol		Thermostat b	by electronics			
	Operation display			-	_			
				Overload protect	tion for fan motor on thermostat			
Safety equip	pments			Frost protecti	on tnermostat stat for fan motor			
					emperature protection			
	B (1				φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8")			
	Refrigerant piping size (	O.D.)	mm	. , , , ,	15.88(5/8")×1.0 φ 15.88 (5/8")			
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping		m	——————————————————————————————————————	——————————————————————————————————————			
data	Insulation for piping	,		Necessary (both I	Liquid & Gas lines)			
	Refrigerant line (one way	v) lenath	m	2 .	.50m			
	Vertical height diff. between 0		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
Drain hose				Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi 20 \times 3$ pcs			
Drain pump	, max lift height		mm	Built-in drain pump, 600	—			
	ded breaker size		A		<u> </u>			
	ked rotor ampere)		A	5	.0			
Interconnec		number	- '		Termainal block (Screw fixing type)			
IP number	g			IPX0	IP24			
Standard ad	cessories			Mounting kit, Drain hose	_			
Option part					Motion sensor : LB-KIT			
	ne data are measured at th	ne following	Conditio		The pipe length is 7.5m.			

Notes (1) The data are measured at the following conditions.

` '						11 0	
Item	Indoor air t	emperature	ature Outdoor air temperature External static pressure		Standards		
Operation	DB	WB DB WB		WB	of indoor unit	Staridards	
Cooling	27°C	19°C 35°C 24°C		24°C	60Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	OUFA	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
- (6) Static pressure of option air filter "UM-FL3EF" is 5Pa initially.
- (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model		0VSAVF2			
Item				Indoor unit FDUM100VF2	Outdoor unit FDC100VSA			
Power source		, ,	134/	3 Phase, 380-415V,				
	Nominal cooling capacity (		kW	10.0 [ 4.0(Min				
	Nominal heating capacity	(range) Cooling	kW	11.2 [ 4.0(Min	i.)-12.5(Max.)j 84			
	Power consumption Heating		kW	2.				
	Max power consumption	ricating	I KVV		.20			
		Cooling			4.6			
	Running current Heating		Α	4.3 / 4.5				
Onevetien	Inrush current, max current			5,	17			
Operation data	Power factor	Cooling	%		/ 94			
uata		Heating	70		/ 94			
	EER	Cooling		3.52				
	COP	Heating		4.	03			
	Sound power level	Cooling Heating		65	70			
	Sound pressure level	Cooling Heating	dB(A)	P-Hi:44 Hi:38 Me:36 Lo:30	54 56			
	Silent mode sound pressu	re level		_	50/44 (Normal/Silent)			
Exterior dim	nensions (Height × Width ×	Depth)	mm	280 × 1,370 × 740	845 × 970 × 370			
Exterior app				_	Stucco white			
( Munsell co	plor)				(4.2Y7.5/1.1) near equivalent			
Net weight			kg	54	82			
	r type & Q'ty			_	RMT5126MCE4 (Twin rotary type)×1			
	r motor (Starting method)		kW	_	Direct line start			
	oil (Amount, type)	I 4I-\	Q.	— D440A 0 00 iii (II	0.9 (M-MA68)			
	(Type, amount, pre-charge	iengtn)	kg	R410A 3.8kg in outdoor unit (Incl.	11 9 /			
Heat exchanger Refrigerant control				Louver fin & inner grooved tubing	Straight fin & inner grooved tubing pansion valve			
Fan type &				Centrifugal fan ×3	Propeller fan ×1			
	Starting method)		W	100 + 130 < Direct line start >	86 < Direct line start >			
,	otarting metriody	Cooling			75			
Air flow		Heating	m³/min	P-Hi:36 Hi:28 Me:25 Lo:19	73			
Available ex	ternal static pressure		Pa	Standard: 60 Max: 100	_			
Outside air				Possible	<del>-</del>			
	ality / Quantity			Procure locally	_			
	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor )			
Electric hea			W		20 (Crank case heater)			
Operation	Remote control	·			RCH-E3 Wireless : RCN-KIT4-E2			
control	Room temperature control Operation display			i nermostat b	by electronics			
Safety equip	, , , , , , , , , , , , , , , , , , , ,			Frost protection	ion for fan motor on thermostat tat for fan motor emperature protection			
	Refrigerant piping size ( O.	.D. )	mm	Liquid line: I/U φ 9.52 (3/8") Pipe (	φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8")			
	Connecting method			Gas line: $\phi$ 15.88 (5/8") $\phi$ Flare piping	15.88(5/8")×1.0			
Installation	Attached length of piping		m	- lare piping	–			
data	Insulation for piping			Necessary (both L	Liquid & Gas lines)			
	Refrigerant line (one way)	length	m		.50m			
	Vertical height diff. between O/		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
Drain hose				Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 × 3 pcs			
Drain pump, max lift height			mm	Built-in drain pump , 600				
Recommen	ded breaker size		Α		-			
	red rotor ampere)		Α		.0			
Interconnec	ting wires Size × Core nu	umber			Termainal block (Screw fixing type)			
IP number				IPX0	IP24			
Standard ad		,		Mounting kit, Drain hose	<u> </u>			
Option parts					Motion sensor : LB-KIT			
Notes (1) The data are measured at the following				ans.	The nine length is 7.5m			

` '		Ü				11 0
Item	Indoor air temperature Outdoor air temp		temperature	External static pressure	Standards	
Operation	DB	WB	WB DB WB		of indoor unit	Staridards
Cooling	27°C	C 19°C 35°C 24°C		24°C	60Pa	ISO5151-T1
Heating	g 20°C —		7°C	6°C	OUFa	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
- (6) Static pressure of option air filter "UM-FL3EF" is 5Pa initially.
- (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

14		,	Model		25VNAVF			
Item				Indoor unit FDUM125VF	Outdoor unit FDC125VNA			
Power source		(\	1-10/	1 Phase, 220-240V,	·			
	Nominal cooling capacity  Nominal heating capacity		kW kW	12.5 [ 5.0(Min 14.0 [ 4.0(Min	7 72			
	Nominal fleating capacity	Cooling	KVV	14.0 [ 4.0(Will)	, , , , , , , , , , , , , , , , , , , ,			
	Power consumption	Heating	kW	3.				
	Max power consumption	1.100119		6.				
		Cooling		20.3	/ 21.3			
	Running current	Heating	Α	17.8 / 18.7				
Onevetien	Inrush current, max current			5,	26			
Operation data	Power factor	Cooling	%	9	3			
Heating		70		0				
	EER	Cooling		2.	<u> </u>			
	COP	Heating		3.	79			
	Sound power level	Cooling Heating		67	71			
	Sound pressure level	Cooling Heating	dB(A)	P-Hi:45 Hi:40 Me:34 Lo:29	55 57			
	Silent mode sound pressu	re level		_	51/45 (Normal/Silent)			
Exterior dim	ensions (Height × Width ×	Depth)	mm	280 × 1,370 × 740	845 × 970 × 370			
Exterior app				_	Stucco white			
( Munsell color )					(4.2Y7.5/1.1) near equivalent			
Net weight			kg	54	80			
Compressor type & Q'ty				_	RMT5126MCE3 (Twin rotary type)×1			
Compressor motor (Starting method)			kW	_	Direct line start			
Refrigerant oil (Amount, type)			l		0.9 (M-MA68)			
Refrigerant (Type, amount, pre-charge length)			kg	R410A 3.8kg in outdoor unit (Incl. t				
Heat exchanger				Louver fin & inner grooved tubing	Straight fin & inner grooved tubing			
Refrigerant control Fan type & Q'ty				Centrifugal fan ×3	pansion valve			
	ડા iy Stating method)		W	100 + 200 < Direct line start >	Propeller fan ×1  86 < Direct line start >			
,	Stating method)	Cooling			75			
Air flow		Heating	m³/min	P-Hi:39 Hi:32 Me:26 Lo:20	73			
	ternal static pressure		Pa	Standard: 60 Max: 100	<del>-</del>			
Outside air				Possible	<del>-</del>			
	ality / Quantity			Procure locally	<del>-</del>			
	ration absorber		141	Rubber sleeve (for fan motor)	Rubber sleeve (for compressor )			
Electric hea			W	— 20 (Crank case heater)  (Option) Wired: RC-EX3,RC-E5,RCH-E3 Wireless: RCN-KIT4-E2				
Operation	Remote control Room temperature control	ı						
control	Operation display			memostat t	by electronics			
Safety equip				Frost protection	ion for fan motor on thermostat tat for fan motor emperature protection			
	Refrigerant piping size ( O.	.D. )	mm	Liquid line: I/U φ 9.52 (3/8") Pipe (	φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8")			
	Connecting method			Gas line: $\phi$ 15.88 (5/8") $\phi$ Flare piping	15.88(5/8")×1.0			
Installation	Attached length of piping		m	–	— —			
data	Insulation for piping			Necessary (both L	Liquid & Gas lines)			
	Refrigerant line (one way)	length	m		.50m			
	Vertical height diff. between O/		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
	Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 × 3 pcs			
	, max lift height		mm	Built-in drain pump , 600				
Recommen	ded breaker size		Α		-			
	red rotor ampere)		Α		.0			
Interconnec	ting wires Size x Core nu	umber			Termainal block (Screw fixing type)			
IP number				IPX0	IP24			
Standard ad				Mounting kit, Drain hose	<u> </u>			
Option parts					Motion sensor : LB-KIT			
NIOTAS (1) Th	ne data are measured at the	tollowing	conditio	ans.	The pine length is 7.5m			

` '		Ü				11 0
Item	Indoor air t	emperature	Outdoor air temperature External static		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
- (6) Static pressure of option air filter "UM-FL3EF" is 5Pa initially.
- (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM12	25VSAVF		
Item				Indoor unit FDUM125VF	Outdoor unit FDC125VSA		
Power source	,			3 Phase, 380-415V,	·		
	Nominal cooling capacity		kW	12.5 [ 5.0(Min			
	Nominal heating capacity	<del>`                                    </del>	kW	14.0 [ 4.0(Min	, , , , , , , , , , , , , , , , , , , ,		
	Power consumption	Cooling	ļ <u>ļ</u>	4.:			
	·	Heating	kW	3.			
	Max power consumption	lo "			.20		
	Running current	Cooling		6.8 / 7.2			
	Heating		Α	5.9 /			
Operation	Inrush current, max curren			5,	/ 92		
data	Power factor	Cooling Heating	%		0		
1	EER	Cooling		2.			
	COP	Heating	<del> </del>	3.	<u> </u>		
		Cooling					
	Sound power level	Heating		67	71		
1		Cooling	dB(A)		55		
1	Sound pressure level	Heating	` ` '	P-Hi: 45 Hi: 40 Me: 34 Lo: 29	57		
	Silent mode sound pressu	re level	1 1	_	51/45 (Normal/Silent)		
Exterior dim	ensions (Height × Width ×	Depth)	mm	280 × 1,370 × 740	845 × 970 × 370		
Exterior app				_	Stucco white		
( Munsell co	olor)			_	( 4.2Y7.5/1.1 ) near equivalent		
Net weight			kg	54	82		
Compressor type & Q'ty				_	RMT5126MCE4 (Twin rotary type)×1		
Compressor motor (Starting method)			kW	_	Direct line start		
Refrigerant oil (Amount, type)			l	_	0.9 (M-MA68)		
Refrigerant (Type, amount, pre-charge length)		length)	kg	R410A 3.8kg in outdoor unit (Incl.	11 0 /		
Heat exchanger			Louver fin & inner grooved tubing	Straight fin & inner grooved tubing			
Refrigerant					pansion valve		
Fan type & 0				Centrifugal fan ×3	Propeller fan ×1		
Fan motor (	Starting method)		W	100 + 200 < Direct line start >	86 < Direct line start >		
Air flow		Cooling	m³/min	P-Hi:39 Hi:32 Me:26 Lo:20	75		
Available	townal atatic processes	Heating	Pa	Standard : 60 Max : 100	73 —		
Outside air i	ternal static pressure		Ра	Possible			
	ality / Quantity			Procure locally	<u> </u>		
	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor )		
Electric hear			W	—	20 (Crank case heater)		
	Remote control			(Option) Wired: RC-EX3,RC-E5,	,		
Operation	Room temperature control			( ) / / / /	by electronics		
control	Operation display				-		
Safety equip	oments			Frost protection	ion for fan motor on thermostat tat for fan motor emperature protection		
	Refrigerant piping size ( O.	.D.)	mm -	Liquid line: I/U φ 9.52 (3/8") Pipe (	<u> </u>		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	_	<u> </u>		
data	Insulation for piping			Necessary (both L	Liquid & Gas lines)		
	Refrigerant line (one way)	length	m	Max.			
	Vertical height diff. between O/	U and I/U	m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi 20 \times 3$ pcs		
	, max lift height		mm	Built-in drain pump , 600	_		
Recommended breaker size			Α		-		
<u> </u>	red rotor ampere)		А	5.			
Interconnec	ting wires Size x Core nu	umber			Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ac				Mounting kit, Drain hose	<del>-</del>		
Option parts	S			Filter set : UM-FL3EF, I	Motion sensor : LB-KIT		

. ,							
Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Stariuarus	
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1	
Heating	20°C	_	7℃	6°C	OUFA	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
- (6) Static pressure of option air filter "UM-FL3EF" is 5Pa initially. (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM14	OVNAVF		
Item				Indoor unit FDUM140VF	Outdoor unit FDC140VNA		
Power source				1 Phase, 220-240V,			
	Nominal cooling capacity		kW	13.6 [ 5.0(Min			
	Nominal heating capacity	<del>` ' '                                 </del>	kW	15.5 [ 4.0(Min	, , , , , , , , , , , , , , , , , , , ,		
	Power consumption	Cooling	ļ ļ	4.93			
		Heating	kW	4.:			
	Max power consumption	0		6.			
	Running current	Cooling	,	22.8 / 23.8 20.3 / 21.3			
	Inrush current, max current		Α		27 27		
Operation	inrush current, max curren	Cooling			4		
data	Power factor	Heating	%		0		
	EER	Cooling		2.	-		
	COP	Heating	<del> </del>	3.			
		Cooling					
	Sound power level	Heating		70	73		
1		Cooling	dB(A)		57		
	Sound pressure level	Heating	""	P-Hi: 47 Hi: 40 Me: 35 Lo: 30	59		
	Silent mode sound pressu		1	_	53/47 (Normal/Silent)		
Exterior dim	nensions (Height × Width ×		mm	280 × 1,370 × 740	845 × 970 × 370		
Exterior app				,	Stucco white		
( Munsell co				_	(4.2Y7.5/1.1) near equivalent		
Net weight	<del></del> /		kg	54	80		
Compressor type & Q'ty				_	RMT5126MCE3 (Twin rotary type )×1		
Compressor motor (Starting method)			kW	_	Direct line start		
Refrigerant oil (Amount, type)			Q.	_	0.9 (M-MA68)		
Refrigerant (Type, amount, pre-charge length)		length)	kg	R410A 3.8kg in outdoor unit (Incl.	the amount for the piping of : 30m)		
Heat exchanger			Louver fin & inner grooved tubing	Straight fin & inner grooved tubing			
Refrigerant	control			Electronic ex	pansion valve		
Fan type & 0	Q'ty			Centrifugal fan ×3	Propeller fan ×1		
Fan motor (	Stating method)		W	100 + 200 < Direct line start >	86 < Direct line start >		
Air flow		Cooling	m³/min	P-Hi: 48 Hi: 35 Me: 28 Lo: 22	75		
		Heating			73		
	ternal static pressure		Pa	Standard: 60 Max: 100	_		
Outside air i				Possible	<del>-</del>		
	ality / Quantity			Procure locally			
	ration absorber		14/	Rubber sleeve (for fan motor)	Rubber sleeve (for compressor )		
Electric heat			W	- (Onting) Wind I DO EVO DO EE	20 (Crank case heater)		
Operation	Remote control Room temperature control	i		( ) / / / /	RCH-E3 Wireless : RCN-KIT4-E2		
control	<u> </u>			memostat t	by electronics		
<u> </u>	Operation display			Overland protect	- ion for fan motor		
					on thermostat		
Safety equip	oments			Internal thermos	tat for fan motor		
				Abnormal discharge to	<u> </u>		
	Refrigerant piping size ( O.	.D. )	mm	Liquid line: I/U φ 9.52 (3/8") Pipe α	, , , , , ,		
	· · · · · ·				15.88(5/8")×1.0 φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
	Attached length of piping		m				
data Insulation for piping			Necessary (both L	,			
	Refrigerant line (one way)		m		.50m		
	Vertical height diff. between O/	o and I/U	m	Max.50m (Outdoor unit is higher)  Hose connectable VP25(I.D.25, O.D.32)	Max.15m (Outdoor unit is lower)		
Drain	Drain hose		mm	, ,	Hole size $\phi$ 20 × 3 pcs		
Drain pump, max lift height			mm ^	Built-in drain pump , 600	<del>-</del>		
Recommended breaker size  L.R.A. (Locked rotor ampere)			A		 .0		
Interconnec		ımher	A		Termainal block (Screw fixing type)		
IP number	ung wires   Size x Core fit	ai i i D <del>e</del> l		φ 1.onim × 3 cores + earth cable /	IP24		
Standard ac	ccessories			Mounting kit, Drain hose			
Option parts					— Motion sensor : LB-KIT		
option parts	-			I III SEL . OIVI-I LOLI, I	TOTION SCHOOL LD IVII		

. ( )		5				
Item	Indoor air t	emperature	Outdoor air temperature External static		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19℃	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
- (6) Static pressure of option air filter "UM-FL3EF" is 5Pa initially.
- (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM14	IOVSAVF			
Item				Indoor unit FDUM140VF	Outdoor unit FDC140VSA			
Power source				3 Phase, 380-415V				
	Nominal cooling capacity		kW	13.6 [ 5.0(Mir				
	Nominal heating capacity	<del>` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '</del>	kW	15.5 [ 4.0(Mir	, , , , , , , , , , , , , , , , , , , ,			
	Power consumption	Cooling	l	4.93				
		Heating	kW	4.				
	Max power consumption	0			.20			
	Running current	Cooling	,	7.8 / 8.2 6.8 / 7.1				
	Inruch ourrent may ourren	Heating	Α		18			
Operation	Inrush current, max curren	Cooling						
data	Power factor	Heating	%		/ 90			
	EER	Cooling		2.				
	COP	Heating		3.				
		Cooling						
	Sound power level	Heating		70	73			
		Cooling	dB(A)		57			
	Sound pressure level	Heating	(')	P-Hi: 47 Hi: 40 Me: 35 Lo: 30	59			
	Silent mode sound pressure level		1	_	53/47 (Normal/Silent)			
Exterior dim	ensions (Height × Width ×		mm	280 × 1,370 × 740	845 × 970 × 370			
Exterior app		-1- /		,	Stucco white			
( Munsell co				_	(4.2Y7.5/1.1) near equivalent			
Net weight	•		kg	54	82			
Compressor type & Q'ty				_	RMT5126MCE4 (Twin rotary type )×1			
Compressor motor (Starting method)			kW	_	Direct line start			
Refrigerant oil (Amount, type)			Q.	_	0.9 (M-MA68)			
Refrigerant (Type, amount, pre-charge length)		length)	kg	R410A 3.8kg in outdoor unit (Incl. t	the amount for the piping of : 30m)			
Heat exchanger			Louver fin & inner grooved tubing	Straight fin & inner grooved tubing				
Refrigerant	control			Electronic ex	pansion valve			
Fan type &	Q'ty			Centrifugal fan ×3	Propeller fan ×1			
Fan motor (	Starting method)		W	100 + 200 < Direct line start >	86 < Direct line start >			
Air flow		Cooling	m³/min	P-Hi: 48 Hi: 35 Me: 28 Lo: 22	75			
		Heating			73			
	ternal static pressure		Pa	Standard : 60 Max : 100	_			
Outside air				Possible	<del>-</del>			
	ality / Quantity			Procure locally	—			
	ration absorber		W	Rubber sleeve (for fan motor)	Rubber sleeve (for compressor )			
Electric hea			VV	(Ontion) Wired : DC EV2 DC EF	20 (Crank case heater) RCH-E3 Wireless: RCN-KIT4-E2			
Operation	Remote control Room temperature control			( 1 )	by electronics			
control	Operation display			memostat t	by electronics			
	Ορσιατίστι αιδρίας			Overland protect	ion for fan motor			
Cofoty oc:	amanta				on thermostat			
Safety equip	Dirients			Internal thermos	tat for fan motor			
	Т			Abnormal discharge to	<u> </u>			
	Refrigerant piping size ( O	.D. )	mm	Liquid line: I/U φ 9.52 (3/8") Pipe	, , , , , ,			
		,		. , , , ,	15.88(5/8")×1.0			
 	Connecting method			Flare piping	Flare piping			
	Attached length of piping		m	— N // 0.1	iquid 9 Cas lines)			
data Insulation for piping  Refrigerant line (one way) length		m-	Necessary (both L	. ,				
	<u> </u>		m	Max.50m (Outdoor unit is higher)	.50m Max.15m (Outdoor unit is lower)			
	Vertical height diff. between O/	o and I/U	m	Hose connectable VP25(I.D.25, O.D.32)	,			
Drain numa	Drain hose		mm	( , , ,	Hole size $\phi 20 \times 3$ pcs			
	, max lift height ded breaker size		mm	Built-in drain pump , 600				
			A	-	 .0			
Interconnec	ting wires   Size × Core nu	ımher	Α		.u Termainal block(Screw fixing type)			
IP number	ung wires   Size x Core nu	umber		φ 1.6πm × 3 cores + earth cable /	IP24			
Standard ac	consorios			Mounting kit, Drain hose	IF'24			
Option parts					— Motion sensor : LB-KIT			
option parts				FIILEI SEL . UIVI-FLSEF, I	VIOLION SENSON . LD-IVII			

` '		0				11 0
Item	Indoor air t	Indoor air temperature		temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	oura	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
- (6) Static pressure of option air filter "UM-FL3EF" is 5Pa initially.
- (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

#### (b) Twin type

			Model	FDUM100	OVNAPVF			
Item				Indoor unit FDUM50VF (2 units)	Outdoor unit <b>FDC100VNA</b>			
Power source	ce			1 Phase, 220-240V,	, 50Hz / 220V, 60Hz			
	Nominal cooling capacity	<u> </u>	kW	10.0 [ 4.0(Min	, , , , , , , , , , , , , , , , , , , ,			
	Nominal heating capacity	(range)	kW	11.2 [ 4.0(Min	, , , , , , , , , , , , , , , , , , , ,			
	Power consumption	Cooling		3.25				
	ower consumption	Heating	kW	<u></u>	3.21			
	Max power consumption			6.				
	Running current	Cooling		14.6				
	Training current	Heating	Α	14.4 /				
Operation	Inrush current, max curren	t		5,	26			
data	Power factor	Cooling	%	9				
l		Heating	/0	9				
	EER	Cooling		3.0				
	COP	Heating		3.4	49			
	Sound power level	Cooling Heating		60	70			
	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 37 Hi: 32 Me: 29 Lo: 26	54 56			
	Silent mode sound pressu			_	50 / 44 (Normal / Silent)			
Exterior dim	nensions (Height × Width ×		mm	280 × 750 × 635	845 × 970 × 370			
Exterior app		-11			Stucco white			
(Munsell co				-	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	29	80			
	r type & Q'ty		1.9	_	RMT5126MCE3 (Twin rotary type )×1			
	r motor (Starting method)		kW	_	Direct line start			
Refrigerant oil (Amount, type)			e e	_	0.9 (M-MA68)			
Refrigerant (Type, amount, pre-charge length)			kg	R410A 3.8kg in outdoor unit (Incl.				
Heat exchanger		ioriganij	1.9	Louver fin & inner grooved tubing	Straight fin & inner grooved tubing			
Refrigerant control				ů ů	pansion valve			
Fan type & Q'ty				Centrifugal fan ×1	Propeller fan ×1			
	Stating method)		W	100 < Direct line start >	86 < Direct line start >			
Air flow	otating memory	Cooling	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	75			
		Heating			73			
	ternal static pressure		Pa	Standard: 35 Max: 100	<del>-</del>			
Outside air i				Possible	_			
	ality / Quantity			Procure locally				
	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor )			
Electric hea			W		20 (Crank case heater)			
Operation	Remote control			(Option) Wired: RC-EX3,RC-E5,				
control	Room temperature control			Thermostat b	by electronics			
	Operation display				_			
Safety equip	oments			Overload protect Frost protecti Internal thermos Abnormal discharge t	on thermostat tat for fan motor			
	Refrigerant piping size ( O.	.D. )	mm	Liquid line: I/U φ 6.35 (1/4") ② φ 9.52(3/8")	)x0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")			
	Connecting method			Gas line: I/U φ 12.7 (1/2") ② φ 12.7(1/2")x0  Flare piping	0.8 (1) φ 15.88(5/8")Χ1.0 (0/0 φ 15.88 (5/8") Flare piping			
Installation	Attached length of piping		m	—	—			
data	Insulation for piping			Necessary (both L	iquid & Gas lines)			
	Refrigerant line (one way)	length	m	Max.	,			
	Vertical height diff. between O/		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
	Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs			
Drain pump	, max lift height		mm	Built-in drain pump , 600	—			
	ded breaker size		Α	-	_			
	ked rotor ampere)		A	5.				
Interconnec	<del></del>	ımber		$\phi$ 1.6mm × 3 cores + earth cable /				
IP number	WII CO   OIZO × OOIE III			Ψ1.0Hill × 3 coles + earth cable /	IP24			
Standard ac	ccessories			Mounting kit, Drain hose	_			
Option parts				Filter set: UM-FL1EF, I				
	a data are massarired at the	fallouina	ditio	·	The pine length is 7 Fm			

Notes (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Staridards	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	JOPA	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together.

- (7) Branching pipe set "DIS-WA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U
  (8) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM10	OVSAPVF		
Item				Indoor unit FDUM50VF (2 units)	Outdoor unit FDC100VSA		
Power sour	ce			3 Phase, 380-415V	, 50Hz / 380V, 60Hz		
	Nominal cooling capacity	(range)	kW	10.0 [ 4.0(Min	i.)-11.2(Max.)]		
	Nominal heating capacity	(range)	kW	11.2 [ 4.0(Min	ı.)-12.5(Max.)]		
	Power consumption	Cooling		3.25			
	1 ower consumption	Heating	kW	3.5			
	Max power consumption	,			.20		
	Running current	Cooling		4.8			
		Heating	A		/ 5.0		
Operation	Inrush current, max currer	t			17		
data	Power factor	Cooling	%		/ 97		
data		Heating	/ 0		/ 98		
	EER	Cooling			08		
	COP	Heating		3.	49		
	Sound power level	Cooling Heating		60	70		
	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 37 Hi: 32 Me: 29 Lo: 26	54 56		
	Silent mode sound pressu			_	50 / 44 (Normal / Silent)		
Exterior dim	nensions (Height × Width ×		mm	280 × 750 × 635	845 × 970 × 370		
Exterior app	<u>`</u>				Stucco white		
( Munsell co	olor)			_	(4.2Y7.5/1.1) near equivalent		
Net weight	•		kg	29	82		
Compressor type & Q'ty				_	RMT5126MCE4 (Twin rotary type )×1		
	or motor (Starting method)		kW	_	Direct line start		
Refrigerant oil (Amount, type)			Q.	_	0.9 (M-MA68)		
	(Type, amount, pre-charge	length)	kg	R410A 3.8kg in outdoor unit (Incl. t	the amount for the piping of : 30m)		
Heat exchanger			Ŭ	Louver fin & inner grooved tubing	Straight fin & inner grooved tubing		
Refrigerant control					pansion valve		
Fan type & Q'ty				Centrifugal fan ×1	Propeller fan ×1		
	(Stating method)		W	100 < Direct line start >	86 < Direct line start >		
Air flow	,	Cooling Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	75 73		
Available ev	kternal static pressure	riodaling	Pa	Standard: 35 Max: 100	_		
Outside air			. u	Possible			
	iality / Quantity			Procure locally			
	oration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)		
Electric hea			W	_	20 (Crank case heater)		
	Remote control		·	(Option) Wired: RC-EX3 RC-F5	RCH-E3 Wireless : RCN-KIT4-E2		
Operation	Room temperature contro				by electronics		
control	Operation display				-		
Safety equip	pments			Frost protection Internal thermos	ion for fan motor on thermostat tat for fan motor emperature protection		
	Refrigerant piping size ( O	.D.)	mm	Liquid line: I/U $\phi$ 6.35 (1/4") ② $\phi$ 9.52(3/8") Gas line: I/U $\phi$ 12.7 (1/2") ② $\phi$ 12.7(1/2")x0	x0.8 ① $\phi$ 9.52(3/8")x0.8 O/U $\phi$ 9.52 (3/8")		
	Connecting method			Flare piping	Flare piping		
Installation			m	— biba	—		
data Insulation for piping				Necessary (both L	iquid & Gas lines)		
	Refrigerant line (one way)	length	m		.50m		
	Vertical height diff. between O/		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs			
Drain pump, max lift height		mm	Built-in drain pump, 600	<del>-</del>			
	ded breaker size		Α		_		
	ked rotor ampere)		Α	5.	.0		
Interconnec	4	umber		$\phi$ 1.6mm × 3 cores + earth cable /			
IP number	5 2   0 0.010111			IPX0	IP24		
Standard ad	ccessories			Mounting kit, Drain hose	——————————————————————————————————————		
Option parts				Filter set : UM-FL1EF, I	Motion sensor : LB-KIT		
	he data are measured at the			<u>-</u>	The pine length is 7 Fm		

Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	33Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together.

- (7) Branching pipe set "DIS-WA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U
  (8) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM12	5VNAPVF
Item				Indoor unit FDUM60VF (2 units)	Outdoor unit FDC125VNA
Power source				1 Phase, 220-240V	·
	Nominal cooling capacity	<u> </u>	kW		ı.)-14.0(Max.)]
	Nominal heating capacity	<del>`                                    </del>	kW	14.0 [ 4.0(Mir	/ /2
	Power consumption	Cooling			53
	·	Heating	kW	3.	
	Max power consumption			6.	
	Running current	Cooling		20.3	
		Heating	A	16.8	
Operation	Inrush current, max curren			5,	
data	Power factor	Cooling Heating	%	9	7
	EER	Cooling		2.	
	COP	Heating	}	3.	
	COP	Cooling		3.	13
	Sound power level	Heating		60	71
	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 36 Hi: 31 Me: 28 Lo: 25	55 57
	Silent mode sound pressure level			_	51 / 45 (Normal / Silent)
Exterior dim	ensions (Height × Width ×		mm	280 × 950 × 635	845 × 970 × 370
Exterior app					Stucco white
( Munsell co				_	(4.2Y7.5/1.1) near equivalent
Net weight	•		kg	34	80
Compressor type & Q'ty			Ŭ	_	RMT5126MCE3 (Twin rotary type)×1
Compressor motor (Starting method)			kW	_	Direct line start
Refrigerant oil (Amount, type)			Q.	_	0.9 (M-MA68)
Refrigerant (Type, amount, pre-charge length)			kg	R410A 3.8kg in outdoor unit (Incl.	the amount for the piping of : 30m)
Heat exchanger				Louver fin & inner grooved tubing	Straight fin & inner grooved tubing
Refrigerant control				Electronic ex	pansion valve
Fan type &				Centrifugal fan ×2	Propeller fan ×1
Fan motor (	Stating method)		W	130 < Direct line start >	86 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi: 20 Hi: 15 Me: 13 Lo: 10	75 73
Available ex	ternal static pressure		Pa	Standard: 35 Max: 100	_
Outside air	intake			Possible	_
Air filter, Qu	ality / Quantity			Procure locally	_
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea	ter		W	_	20 (Crank case heater)
Operation	Remote control			(Option) Wired: RC-EX3,RC-E5,	RCH-E3 Wireless: RCN-KIT4-E2
control	Room temperature control			Thermostat b	by electronics
COTILIO	Operation display			<del>_</del>	
Safety equip	oments			Frost protection	ion for fan motor on thermostat tat for fan motor emperature protection
	Refrigerant piping size ( O	.D. )	mm	Liquid line: I/U $\phi$ 6.35 (1/4") ② $\phi$ 9.52(3/8"):	x0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")
	Connecting method			Gas line: I/U $\phi$ 12.7 (1/2") ② $\phi$ 12.7(1/2")x0 Flare piping	.8 (5/8")x1.0 O/U φ 15.88 (5/8") Flare piping
Installation	Attached length of piping		m	<del>-</del>	<del>-</del>
data Insulation for piping Refrigerant line (one way) length			Necessary (both L	iquid & Gas lines)	
		m	Max	.50m	
Vertical height diff. between O/U and I/U		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs	
Drain pump, max lift height		mm	Built-in drain pump , 600	_	
Recommended breaker size			А		_
,	red rotor ampere)		Α		.0
Interconnec	ting wires Size x Core nu	umber			Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard ad				Mounting kit, Drain hose	<del>-</del>
Option parts				Filter set : UM-FL2EF, I	
NI - + /4 \ TI	so data are massured at the	c 11 '			The pine length is 7 Em

Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Ctondoudo
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	35Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together.

- (7) Branching pipe set "DIS-WA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U
  (8) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.
  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM125VSAPVF		
Item				Indoor unit FDUM60VF (2 units)	Outdoor unit FDC125VSA	
Power sour	се			3 Phase, 380-415V	, 50Hz / 380V, 60Hz	
	Nominal cooling capacity	(range)	kW	12.5 [ 5.0(Min	i.)-14.0(Max.)]	
	Nominal heating capacity	(range)	kW	14.0 [ 4.0(Min	ı.)-16.0(Max.)]	
	Power consumption	Cooling			53	
	- Ower consumption	Heating	kW		75	
	Max power consumption				.20	
	Running current	Cooling		6.7 / 7.1		
	Training Current	Heating	A		/ 5.9	
Operation	Inrush current, max current				17	
data	Power factor	Cooling	%		/ 97	
data		Heating	/0		7	
	EER	Cooling			76	
	COP	Heating		3.	73	
	Sound power level	Cooling Heating		60	71	
	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 36 Hi: 31 Me: 28 Lo: 25	55 57	
	Silent mode sound pressure level			_	51 / 45 (Normal / Silent)	
Exterior din	nensions (Height × Width ×		mm	280 × 950 × 635	845 × 970 × 370	
Exterior app	<u>`</u>				Stucco white	
( Munsell co	olor)			_	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	34	82	
Compressor type & Q'ty				_	RMT5126MCE4 (Twin rotary type )×1	
Compressor motor (Starting method)			kW	_	Direct line start	
Refrigerant	oil (Amount, type)		e e	_	0.9 (M-MA68)	
Refrigerant (Type, amount, pre-charge length)			kg	R410A 3.8kg in outdoor unit (Incl.	the amount for the piping of : 30m)	
Heat exchanger				Louver fin & inner grooved tubing	Straight fin & inner grooved tubing	
Refrigerant control			Electronic ex	pansion valve		
Fan type &				Centrifugal fan ×2	Propeller fan ×1	
Fan motor (	Stating method)		W	130 < Direct line start >	86 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi: 20 Hi: 15 Me: 13 Lo: 10	75 73	
Available ex	ternal static pressure		Pa	Standard: 35 Max: 100	_	
Outside air	intake			Possible	_	
Air filter, Qu	ality / Quantity			Procure locally	_	
Shock & vib	oration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)	
Electric hea	iter		W	_	20 (Crank case heater)	
Operation	Remote control				RCH-E3 Wireless : RCN-KIT4-E2	
control	Room temperature control	l		Thermostat b	by electronics	
	Operation display				_	
Safety equi	pments			Frost protection Internal thermos	ion for fan motor on thermostat tat for fan motor emperature protection	
	Refrigerant piping size ( O	.D.)	mm	Liquid line: I/U $\phi$ 6.35 (1/4") ② $\phi$ 9.52(3/8"): Gas line: I/U $\phi$ 12.7 (1/2") ② $\phi$ 12.7(1/2")x0	x0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	— biba	—	
data	Insulation for piping			Necessary (both L	iquid & Gas lines)	
	Refrigerant line (one way)	length	m		.50m	
Vertical height diff. between O/U a			m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs		
Drain pump, max lift height		mm	Built-in drain pump , 600	_		
Recommended breaker size		Α		_		
	ked rotor ampere)	-	Α	5	.0	
Interconnec	<del></del>	umber		$\phi$ 1.6mm × 3 cores + earth cable /	Termainal block (Screw fixing type)	
IP number	,			IPX0	IP24	
Standard ad	ccessories			Mounting kit, Drain hose	<del>-</del>	
Option part				Filter set : UM-FL2EF, I	Motion sensor : LB-KIT	
NI I (4) TI	as data are massured at the	6 11 1			The nine length is 7.5m	

Item	Item Indoor air temperature		Outdoor air	temperature	External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	35Fa	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together.

- (7) Branching pipe set "DIS-WA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U
  (8) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.
  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM140	VNAPVF1
Item				Indoor unit FDUM71VF1 (2 units)	Outdoor unit FDC140VNA
Power source	ce			1 Phase, 220-240V,	, 50Hz / 220V, 60Hz
	Nominal cooling capacity	(range)	kW	13.6 [ 5.0(Min	i.)-14.5(Max.)]
	Nominal heating capacity	<del>`                                    </del>	kW	15.5 [ 4.0(Min	/ /2
	Power consumption	Cooling		5.0	
	·	Heating	kW	4.:	
	Max power consumption			6.4	
	Running current	Cooling		22.5 /	
		Heating	Α	18.8 /	
Operation	Inrush current, max curren			5,	
data	Power factor	Cooling	%		7
	550	Heating		9	
	EER	Cooling		2.7	
	COP	Heating		3.1	09
	Sound power level	Cooling Heating		65	73
	Sound pressure level	Cooling Heating	dB(A)	P-Hi:38 Hi:33 Me:29 Lo:25	57 59
	Silent mode sound pressu		i i	_	53 / 47 (Normal / Silent)
Exterior dim	ensions (Height × Width ×		mm	280 × 950 × 635	845 × 970 × 370
Exterior app					Stucco white
( Munsell co				-	(4.2Y7.5/1.1) near equivalent
Net weight	•		kg	34	80
Compressor type & Q'ty			Ŭ	_	RMT5126MCE3 (Twin rotary type)×1
Compressor motor (Starting method)			kW	-	Direct line start
Refrigerant oil (Amount, type)			Q	-	0.9 (M-MA68)
Refrigerant (Type, amount, pre-charge length)		length)	kg	R410A 3.8kg in outdoor unit (Incl.	the amount for the piping of : 30m)
Heat exchanger				Louver fin & inner grooved tubing	Straight fin & inner grooved tubing
Refrigerant control				Electronic ex	pansion valve
Fan type &				Centrifugal fan ×2	Propeller fan ×1
Fan motor (	Stating method)		W	130 < Direct line start >	86 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi:24 Hi:19 Me:15 Lo:10	75 73
Available ex	ternal static pressure		Pa	Standard: 35 Max: 100	_
Outside air	intake			Possible	_
Air filter, Qu	ality / Quantity			Procure locally	_
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea	ter		W	_	20 (Crank case heater)
Operation	Remote control			(Option) Wired: RC-EX3,RC-E5,	RCH-E3 Wireless: RCN-KIT4-E2
control	Room temperature control			Thermostat b	by electronics
00111101	Operation display			<del>_</del>	
Safety equip	oments			Frost protection	tat for fan motor
	Refrigerant piping size ( O.	.D. )	mm	Liquid line: I/U φ 9.52 (3/8") ② φ 9.52(3/8"):	x0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")
	Connecting method			Gas line: I/U φ 15.88 (5/8") ② φ 15.88(5/8")x Flare piping	1.0 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")  Flare piping
Installation	Attached length of piping		m		<u> </u>
data Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U and I/U				Necessary (both L	iquid & Gas lines)
			m	Max.	.50m
		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs	
Drain pump, max lift height		mm	Built-in drain pump , 600	<del>-</del>	
Recommended breaker size			Α		-
,	ked rotor ampere)		Α		.0
Interconnec	ting wires Size x Core nu	umber			Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard ac				Mounting kit, Drain hose	<del>-</del>
Option parts				Filter set : UM-FL2EF, I	
NI - + /4 \ TI-	so data are massured at the	c 11 '	1000		The pine length is 7 Fm

The pipe length is 7.5m.

Item	Item Indoor air temperature		Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	35Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together.

- (7) Branching pipe set "DIS-WA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U
  (8) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.
  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

PJG000Z466 🛕

			Model	FDUM140	VSAPVF1	
Item				Indoor unit FDUM71VF1 (2 units)	Outdoor unit FDC140VSA	
Power sour	ce			3 Phase, 380-415V	, 50Hz / 380V, 60Hz	
	Nominal cooling capacity	(range)	kW	13.6 [ 5.0(Min	i.)-14.5(Max.)]	
	Nominal heating capacity	(range)	kW	15.5 [ 4.0(Min	[ 4.0(Min.)-16.5(Max.)]	
	Power consumption	Cooling		5.	02	
	Fower consumption	Heating	kW	4.5	20	
	Max power consumption			10	.20	
	Running current	Cooling		7.5 / 7.9		
	Heating		Α		/ 6.6	
Operation	Inrush current, max current			<u> </u>	18	
data	Power factor	Cooling	%	9	7	
data	1 Ower factor	Heating	70	98 /	/ 97	
	EER	Cooling			71	
	COP	Heating		3.	69	
	Sound power level	Cooling Heating		65	73	
	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 38 Hi: 33 Me: 29 Lo: 25	57 59	
	Silent mode sound pressu			_	53 / 47 (Normal / Silent)	
Exterior din	nensions (Height × Width ×		mm	280 × 950 × 635	845 × 970 × 370	
Exterior app		F_ /			Stucco white	
( Munsell co				_	(4.2Y7.5/1.1) near equivalent	
Net weight	,		kg	34	82	
	or type & Q'ty		g	<u> </u>	RMT5126MCE4 (Twin rotary type )×1	
	r motor (Starting method)	,	kW	_	Direct line start	
Refrigerant oil (Amount, type)			Q.	_	0.9 (M-MA68)	
Refrigerant (Type, amount, pre-charge length)		lenath)	kg	R410A 3.8kg in outdoor unit (Incl.	the amount for the piping of : 30m)	
Heat exchanger			g	Louver fin & inner grooved tubing	Straight fin & inner grooved tubing	
Refrigerant control				pansion valve		
Fan type &				Centrifugal fan ×2	Propeller fan ×1	
	(Stating method)		W	130 < Direct line start >	86 < Direct line start >	
Air flow	<u> </u>	Cooling Heating	m³/min	P-Hi: 24 Hi: 19 Me: 15 Lo: 10	75 73	
Aveilable ev	kternal static pressure	пеаші	Pa	Standard: 35 Max: 100	13	
Outside air			га	Possible	<del>-</del>	
	iality / Quantity			Procure locally		
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor )	
Electric hea			W	Trabber sieeve(for fair friotor)	20 (Crank case heater)	
Liectric riea	Remote control		V V	(ontion) Wired : RC-EY3 RC-E5	RCH-E3 Wireless : RCN-KIT4-E2	
Operation	Room temperature control			(1 )	by electronics	
control	Operation display			memostat t	_	
Safety equi				Frost protection Internal thermos	ion for fan motor on thermostat tat for fan motor emperature protection	
	Refrigerant piping size ( O	.D.)	mm	Liquid line: I/U φ 9.52 (3/8") ② φ 9.52(3/8"): Gas line: I/U φ 15.88 (5/8") ② φ 15.88(5/8")x	x0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")	
	Connecting method			Flare piping	Flare piping	
Installation			m	—	—	
data	Insulation for piping			Necessary (both I	iquid & Gas lines)	
	Refrigerant line (one way)	length	m		.50m	
	Vertical height diff. between O/		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs		
Drain pump, max lift height		mm	Built-in drain pump, 600	— — — — — — — — — — — — — — — — — — —		
Recommended breaker size		Α				
	ked rotor ampere)		A		.0	
Interconnec		ımber	'		Termainal block (Screw fixing type)	
IP number	g			IPX0	IP24	
Standard ad	ccessories			Mounting kit, Drain hose	——————————————————————————————————————	
Option part				Filter set : UM-FL2EF, I	Motion sensor : LB-KIT	
	he data are measured at the			<u>-</u>	The pine length is 7 Fm	

Item	Item Indoor air temperature		Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	35Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together.

- (7) Branching pipe set "DIS-WA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U
  (8) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.
  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model					
Item				Indoor unit FDUM100VF2 (2 units)	Outdoor unit FDC200VSA			
Power sour	rce			3 Phase 380-415V	50Hz / 380V 60Hz			
	Nominal cooling capacity	/ (range)	kW	19.0 [ 5.2(Min.	)— 22.4(Max.)]			
	Nominal heating capacity	/ (range)	kW	22.4 [ 3.3(Min.	)— 25.0(Max.)]			
	Power consumption	Cooling		6.51				
		Heating	kW	6.	-			
	Max power consumption			12				
	Running current	Cooling		10.2				
	Heating		A	9.5 / 9.9				
Operation Inrush current, max curre				5, 22				
data	Power factor	Cooling	%	92 / 93 92 / 93				
		Heating						
	EER	Cooling		2.				
	COP	Heating		3.				
	Sound power level	Cooling Heating		65	72 74			
		Cooling	dB(A)		58			
	Sound pressure level	Heating	UD(A)	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	59			
	Silent mode sound press			<u> </u>	52			
Exterior din	nensions (Height × Width >	< Depth)	mm	280 × 1,370 × 740	1,300×970×370			
Exterior app				_	Stucco white			
( Munsell co					( 4.2Y7.5/1.1) near equivalent			
Net weight			kg	54	115			
Compressor type & Q'ty					RMT5134MDE3 (Twin rotary type)×1			
Compressor motor (Starting method)			kW	<del>-</del>	Direct line start			
Refrigerant oil (Amount, type)			ℓ kg	<del>_</del>	0.9(compressor) + 0.6(unit) (M-MA68)			
	Refrigerant (Type, amount, pre-charge length)			R410A 5.6kg in outdoor unit (Incl.				
Heat excha				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant					pansion valve			
Fan type &			14/	Centrifugal fan ×3	Propeller fan ×2			
Fan motor	(Starting method)	lo!:	W	100 + 130 < Direct line start >	86 x 2 < Direct line start >			
Air flow		Cooling Heating	m³/min	P-Hi: 36 Hi: 28 Me: 25 Lo: 19	135			
Available ex	xternal static pressure		Pa	Standard: 60 Max: 100	1			
Outside air	intake			Possible	_			
Air filter, Qu	uality / Quantity			Procure locally	_			
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for compressor)			
Electric hea	· · · · · · · · · · · · · · · · · · ·		W		20 (Crank case heater)			
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5,				
control	Room temperature contr	ol		Thermostat b	y electronics			
	Operation display			-	-			
					tion for fan motor ion thermostat			
Safety equi	pments				stat for fan motor			
	T .				emperature protection			
				Liquid line: I/U φ 9.52 (3				
	Refrigerant piping size (	O.D. )	mm	① $\phi$ 9.52(3/8")x0.8 or $\phi$ 12.				
	3	- ,		Gas line: I/U φ 15.88 (5/8 ① φ 22 22(7/8")x1 0 or φ 25 4(1")x1	3") ② φ 15.88(5/8")x1.0 0 or   φ 28.58(11/8")x1.0 O/U φ 22.22			
	Connecting method			Flare piping	Liquid: Flare / Gas: Brazing			
Installation	Attached length of piping	1	m	–	— — —			
data	Insulation for piping			Necessary (both L	iguid & Gas lines)			
				Max.70m (Liquid piping : $\phi$ 12.7,	•			
Refrigerant line (one way) length  Vertical height diff. between O/U and I/U  Drain hose			m	Max.40m (Liquid piping : $\phi$ 9.52)	, Max.35m (Gas piping : φ 22.22)			
		m	Max.30m (Outdoor unit is higher)  Hose connectable VP25(I.D.25, O.D.32)	Max.15m (Outdoor unit is lower) Hole size $\phi 20 \times 3$ pcs				
Drain pump, max lift height		mm	Built-in Drain pump , 600	<u>-</u>				
· · · · · · · · · · · · · · · · · · ·		А	-	- -				
	ked rotor ampere)		Α	5.	.0			
,	cting wires   Size × Core no	umber			Fermainal block (Screw fixing type)			
IP number				IPX0	IP24			
Standard a	ccessories			Mounting kit, Drain hose	Connecting pipe, Edging			
Option part					Motion sensor : LB-KIT			
	The data are measured a	at the follow	ina conc		The pipe length is 7.5m.			

Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	oura	1303131-11

- Heating 20°C 7°C 6°C |

  (2) This air-conditioner is manufactured and tested in conformity with the ISO.

  (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

  (4) Select the breaker size according to the own national standard.

  (5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

  (6) Indoor unit specifications for one unit. Capacity and operation data are two indoor units combined run together.

  (7) Branching pipe set "DIS-WB1G"×1(option). ①: Pipe of O/U-Branch ②: Pipe of Branch-I/U

  (8) Static pressure of optional air filter "UM-FL3EF" is 5Pa initially.

  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

  (10) Use 1/2H pipes having a 1.0mm or thicker wall for φ19.05 or larger pipes.

	_		Model	EDIIM250	DVSAPVF	
Item			wodei	Indoor unit FDUM125VF (2 units)	Outdoor unit FDC250VSA	
Power sou	Irce			3 Phase 380-415V		
1 0WC1 300	Nominal cooling capacity	(range)	kW	24.0 [ 6.9(Min.):		
	Nominal heating capacit		kW	27.0 [ 5.5(Min.)	( //2	
		Cooling		8.3	. 72	
	Power consumption	Heating	kW	7.5		
	Max power consumption		1 1	13		
		Cooling		13.2 /		
	Running current	Heating	Α	12.1 /		
	Inrush current, max curre		1		24	
Operation	,	Cooling	0/	9:		
data	Power factor	Heating	%	90	)	
	EER Cooling COP Heating			2.8	38	
			1	3.5	59	
	0 1 1	Cooling		0.7	73	
	Sound power level	Heating		67	75	
	0	Cooling	dB(A)	D.H. 45 H. 40 M- 24 L- 00	59	
	Sound pressure level	Heating	i ` ´	P-Hi: 45 Hi: 40 Me: 34 Lo: 29	62	
	Silent mode sound press	sure level	1 1	_	54	
Exterior di	imensions (Height x Width	y Donth)	mm	280 × 1,370 × 740	1,505×970×370	
Exterior di	imensions (Height X Widti	i x Deptii)	111111	280 ^ 1,370 ^ 740	1,505^970^570	
Exterior a	Exterior appearance			_	Stucco white	
( Munsell o	color)			_	(4.2Y7.5/1.1) near equivalent	
Net weigh	t		kg	54	143	
Compressor type & Q'ty			_	GTC5150NC40KF(Scroll type)×1		
Compress	Compressor motor (Starting method)		kW	_	Direct line start	
	Refrigerant oil (Amount, type)			_	1.45 (M-MA32R)	
Refrigerant (Type, amount, pre-charge length)			kg	R410A 7.2kg in outdoor unit (Incl. the	ne amount for the piping of : 30m)	
Heat exch	Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerar				Electronic ex	pansion valve	
Fan type 8				Centrifugal fan ×3	Propeller fan ×2	
Fan motor	(Stating method)		W	100 + 200 < Direct line start >	86 x 2 < Direct line start >	
Air flow		Cooling	m³/min	P-Hi: 39 Hi: 32 Me: 26 Lo: 20	143	
		Heating			151	
	external static pressure		Pa	Standard : 60 Max : 100		
Outside ai				Possible		
	Quality / Quantity			Procure locally		
	ribration absorber		101	Rubber sleeve(for fan motor)	Rubber sleeve(for Compressor )	
Electric he			W		20 (Crank case heater)	
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-KIT4-E2		
control	Room temperature contr	UI		I hermostat b	by electronics	
	Operation display		$\vdash$	Od 1	- ion for for motor	
				Overload protect Frost protecti		
Safety equ	uipments			Internal thermos		
-	I		$\vdash$	Abnormal discharge to Liquid line: $1/U\phi$ 9.52 (3/8") $2\phi$ 9.52(3/8")x0		
	Refrigerant piping size (	O D \	mm		8") ②φ15.88(5/8")x1.0	
	Tronigerant piping size (	J.D. )		$\bigcirc$ 422.22(7/8")x1.0 or $\phi$ 25.4(1")x1.0 or		
	Connecting method		<del>                                     </del>	Flare piping	Liquid : Flare / Gas : Brazing	
Installation	Attached length of piping	1	m	i iaie pipiliy —	Liquid . Flate / Gas . Diazilig	
data	Insulation for piping	1	- '''	Necessary (both L	iquid & Gas lines)	
		ıv) lenath	m	Max.70m(Gas piping: $\phi$ 25.4 or $\phi$ 28		
Refrigerant line (one way) length  Vertical height diff. between O/U and I/U		m	Max.70π(Gas piping, φ25.4 or φ26	Max.15m (Outdoor unit is lower)		
Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs		
Drain pump, max lift height		mm	Built-in Drain pump , 600	——————————————————————————————————————		
Recommended breaker size		Α	Sant in Stant parity, 000	-		
L.R.A. (Locked rotor ampere)		Α	5.	0		
	ecting wires Size x Cor	e number		φ 1.6mm × 3 cores + earth cable/ Terma	-	
IP number				IPX0	IP24	
	accessories			Mounting kit, Drain hose	Connecting pipe, Edging	
Option par				Filter set : UM-FL3EF, I		
	(1) The data are measur	ed at the fo	llowina a		The pipe length is 7.5m.	
1	<u> </u>	1 1		0.11 1.1 1.15	<u> </u>	

Item Indoor air temperature Standards Operation DB WB DB WB of indoor unit Cooling 27°C 19°C 35°C 24°C 60Pa ISO5151-T1

(2) This air-conditioner is manufactured and tested in conformity with the ISO.

(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

7°C

(4) Select the breaker size according to the own national standard.

20°C

Heating

- (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data are two indoor units combined and run together.

6°C

- (7) Branching pipe set "DIS-WB1G"×1(option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U (8) Static pressure of option air filter "UM-FL3EF" is 5Pa initially.
- (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)
- (10) Use 1/2H pipes having a 1.0mm or thicker wall for  $\phi$  19.05 or larger pipes.

#### (c) Triple type

			Model	FDUM14	0VNATVF
Item				Indoor unit FDUM50VF (3 units)	Outdoor unit FDC140VNA
Power source	ce			1 Phase, 220-240V	50Hz / 220V, 60Hz
	Nominal cooling capacity	(range)	kW	13.6 [ 5.0(Mir	ı.)-14.5(Max.)]
ľ	Nominal heating capacity	(range)	kW	15.5 [ 4.0(Mir	i.)-16.5(Max.)]
İ		Cooling			02
	Power consumption	Heating	kW	4.5	20
l	Max power consumption	J J	1		40
İ		Cooling			/ 23.5
	Running current Heating		l a l		/ 19.7
l	Inrush current, max curre		1		27
Operation		Cooling		9	
data	Power factor Heating		% -	9	
ŀ	EER	Cooling		2.	
	COP	Heating	1 -		69
1	COF	Cooling	<del>                                     </del>	3.	09
	Sound power level		1 1	60	73
		Heating	-ID(A)		57
	Sound pressure level	Cooling	dB(A)	P-Hi: 37 Hi: 32 Me: 29 Lo: 26	57
ļ	·	Heating	<b>↓</b>		59
	Silent mode sound press				53 / 47 (Normal / Silent)
	ensions (Height × Width ×	Depth)	mm	280 × 750 × 635	845 × 970 × 370
Exterior app				_	Stucco white
( Munsell co	lor)				(4.2Y7.5/1.1) near equivalent
Net weight			kg	29	80
Compressor type & Q'ty				_	RMT5126MCE3 (Twin rotary type)×1
Compressor motor (Starting method)		kW	_	Direct line start	
Refrigerant oil (Amount, type)		Q	_	0.9 (M-MA68)	
Refrigerant (Type, amount, pre-charge length)		kg	R410A 3.8kg in outdoor unit (Incl. t	the amount for the piping of : 30m)	
Heat exchanger				Louver fin & inner grooved tubing	Straight fin & inner grooved tubing
Refrigerant control				Electronic ex	pansion valve
Fan type & C	Q'ty			Centrifugal fan ×1	Propeller fan ×1
Fan motor (S	Stating method)		W	100 < Direct line start >	86 < Direct line start >
A : £1		Cooling	3/!	D.11: . 10 . 11: . 10 . M 0 . 1 0	75
Air flow		Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	73
Available ex	ternal static pressure		Pa	Standard: 35 Max: 100	_
Outside air ii				Possible	_
	ality / Quantity			Procure locally	_
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric heat			W	_	20 (Crank case heater)
	Remote control			(Ontion) Wired : BC-EX3 BC-E5	RCH-E3 Wireless : RCN-KIT4-E2
Operation	Room temperature contro	nl .			by electronics
control	Operation display	21		-	-
	Operation diopidy			Overload protect	ion for fan motor
0 ( )				Frost protecti	ion for fan motor on thermostat
Safety equip	oments			Internal thermos	tat for fan motor
					emperature protection
	Refrigerant piping size ( C	ו חו	mm	Liquid line: I/U φ 6.35 (1/4") ② φ 9.52(3/8"):	$\times 0.8 \ \ \bigcirc \phi \ 9.52(3/8") \times 0.8 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$
	Literingerant piping Size ( C	J.D. J	_ '''''	Gas line: I/U $\phi$ 12.7 (1/2") ② $\phi$ 2.7(1/2")x0.	8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping		m	_	_
	Insulation for piping			Necessary (both L	iquid & Gas lines)
ļ	Refrigerant line (one way	) length	m	Max	
Vertical height diff. between O/U and I/U		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs	
Drain pump, max lift height		mm	Built-in drain pump , 600	—	
Recommended breaker size		А		_	
	ed rotor ampere)		A	5	.0
Interconnect		number	<del>' ' '</del>		Termainal block (Screw fixing type)
	ung wires   Dize x Cole i	IGITID <del>O</del> I		φ 1.6Hill × 3 cores + earth cable /	IP24
IP number				-	
	ressories		1 1		_
Standard ac Option parts				Mounting kit, Drain hose	— Motion sensor : LB-KIT

Notes (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	JOPA	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is three indoor units are combined and run together.

- (7) Branching pipe set "DIS-TA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U
  (8) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM14	0VSATVF		
Item				Indoor unit FDUM50VF (3 units)	Outdoor unit FDC140VSA		
Power sour	ce			3 Phase, 380-415V	, 50Hz / 380V, 60Hz		
	Nominal cooling capacity	<u> </u>	kW	13.6 [ 5.0(Min	, , , , , , , , , , , , , , , , , , ,		
	Nominal heating capacity	<del>, , , , , , , , , , , , , , , , , , , </del>	kW	15.5 [ 4.0(Min	<u> </u>		
	Power consumption	Cooling		5.02			
	·	Heating	kW	4.20			
	Max power consumption				.20		
	Running current	Cooling		7.5 / 7.9			
	Heating		Α		/ 6.6		
Operation	Inrush current, max current			<u> </u>	18		
data	Power factor Cooling		%		7		
	FED	Heating			/ 97		
	EER COP	Cooling			71 69		
	СОР	Heating		ა.	09		
	Sound power level	Cooling Heating		60	73		
	Sound pressure level	Cooling Heating	dB(A)	P-Hi:37 Hi:32 Me:29 Lo:26	57 59		
	Silent mode sound pressu	re level		_	53 / 47 (Normal / Silent)		
Exterior din	nensions (Height × Width ×		mm	280 × 750 × 635	845 × 970 × 370		
Exterior app	pearance				Stucco white		
( Munsell co	olor)			_	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	29	82		
Compresso	r type & Q'ty			_	RMT5126MCE4 (Twin rotary type)×1		
Compresso	r motor (Starting method)		kW	_	Direct line start		
	oil (Amount, type)		l	_	0.9 (M-MA68)		
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 3.8kg in outdoor unit (Incl. t	the amount for the piping of : 30m)		
Heat excha	nger			Louver fin & inner grooved tubing	Straight fin & inner grooved tubing		
Refrigerant					pansion valve		
Fan type &				Centrifugal fan ×1	Propeller fan ×1		
Fan motor (	Stating method)		W	100 < Direct line start >	86 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	75 73		
Available ex	ternal static pressure		Pa	Standard: 35 Max: 100	_		
Outside air	intake			Possible	_		
Air filter, Qu	ality / Quantity			Procure locally	_		
Shock & vib	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea	ter		W	_	20 (Crank case heater)		
Operation	Remote control			(Option) Wired: RC-EX3,RC-E5,	RCH-E3 Wireless: RCN-KIT4-E2		
control	Room temperature control	<u> </u>		Thermostat b	by electronics		
Control	Operation display			<del>_</del>	_		
Safety equi	pments			Frost protection Internal thermos	tion for fan motor on thermostat itat for fan motor emperature protection		
	Refrigerant piping size ( O	.D.)	mm	Liquid line: I/U $\phi$ 6.35 (1/4") ② $\phi$ 9.52(3/8"): Gas line: I/U $\phi$ 12.7 (1/2") ② $\phi$ 12.7(1/2")x0	x0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")		
	Connecting method			Gas line: 1/0 φ 12.7 (1/2") ② φ 12.7 (1/2")x0  Flare piping	1.8 (1 φ 15.88(5/8")Χ1.0 Ο/Ο φ 15.88 (5/8")  Flare piping		
Installation	Attached length of piping		m	— —			
data	Insulation for piping			Necessary (both L	iquid & Gas lines)		
	Refrigerant line (one way)	length	m		.50m		
	Vertical height diff. between O/	/U and I/U	m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs		
Drain pump, max lift height		mm	Built-in drain pump , 600	<del>-</del>			
	ded breaker size		Α	-	_		
L.R.A. (Loci	L.R.A. (Locked rotor ampere)				.0		
Interconnec	cting wires Size × Core nu	umber		$\phi$ 1.6mm × 3 cores + earth cable /	Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad	ccessories			Mounting kit, Drain hose			
Option part				Filter set : UM-FL1EF, I			
INT A COLT	an data are managired at the	c 11 .		· · · · · · · · · · · · · · · · · · ·	The pine length is 7 Fm		

Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	33Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data is three indoor units are combined and run together.

- (7) Branching pipe set "DIS-TA1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U
  (8) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	EDI MOOO	1\/QAT\/E1				
Itom			Model	FDUM200 Indoor unit FDUM71VF1 (3 units)	Outdoor unit FDC200VSA				
Item Power sou	Iroo		$\overline{}$	3 Phase 380-415V					
rower soc		(rongo)	kW	19.0 [ 5.2(Min.)					
	Nominal cooling capacity		kW						
	Nominal heating capacity	<del>, , , , , , , , , , , , , , , , , , , </del>	NVV	22.4 [ 3.3(Min.) - 25.0(Max.)]					
	Power consumption	Cooling	kW		6.46 6.15				
		Heating	KVV						
	Max power consumption	1		12					
	Running current Cooling			10.0 / 10.6					
	Heating		Α	9.6 /					
Operation	Inrush current, max current			5 ,					
data	Power factor Cooling Heating EER Cooling COP Heating		%	9:	3				
uata			70	92 /	93				
				2.9	94				
				3.6	64				
	Carried marrian larval	Cooling		C.F.	72				
	Sound power level	Heating	1	65	74				
		Cooling	dB(A)		58				
	Sound pressure level	Heating	` ′	P-Hi: 38 Hi: 33 Me: 29 Lo: 25	59				
	Silent mode sound press			_	52				
	Olichi mode sound press	oute level			OE .				
Exterior di	imensions (Height x Width	x Depth)	mm	280 × 950 × 635	1,300×970×370				
Exterior ap	ppearance			_	Stucco white				
( Munsell o	color)				(4.2Y7.5/1.1) near equivalent				
Net weight	t		kg	34	115				
Compress	or type & Q'ty			-	RMT5134MDE3 (Twin rotary type )×1				
	sor motor (Starting method	4)	kW	_	Direct line start				
	nt oil (Amount, type)	/	$\ell$	_	0.9(compressor) + 0.6(unit) (M-MA68)				
	nt (Type, amount, pre-cha	rae lenath)	kg	R410A 5.6kg in outdoor unit (Incl. tl					
Heat exch		inge ierigiii)	ng .	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigeran					pansion valve				
Fan type 8			101	Centrifugal fan ×2	Propeller fan ×2				
Fan motor	(Stating method)	T=	W	130 < Direct line start >	86 x 2 < Direct line start >				
Air flow		Cooling Heating	m³/min	P-Hi: 24 Hi: 19 Me: 15 Lo: 10	135				
Available 6	external static pressure		Pa	Standard : 35 Max : 100	_				
Outside ai				Possible	_				
	Quality / Quantity			Procure locally	_				
	ribration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)				
Electric he			W	—	20(Crank case heater)				
LICOTIO IIC	Remote control			(Option) Wired : PC EV3 PC E5	, RCH-E3 Wireless : RCN-KIT4-E2				
Operation	Room temperature contr	ما							
control		OI		Thermostat b	by electronics				
	Operation display				-				
				Overload protect					
Safety equ	uipments			Frost protection					
ou.or, oq				Internal thermos					
				Abnormal discharge te					
	1			Liquid line: I/Uφ9.52 (3.	/8") ②φ9.52(3/8")x0.8				
	Refrigerant piping size (	0.0.)		$\bigcirc \phi 9.52(3/8") \times 0.8 \text{ or } \phi 12.7$	7(1/2")x0.8 O/U $\phi$ 9.52(3/8")				
	Reingerant piping size (	O.D. )	mm	Gas line: I/Uφ15.88 (5/8	B") ② φ 15.88(5/8")x1.0				
				① $\phi$ 22.22(7/8")x1.0 or $\phi$ 25.4(1")x1.0 or	r φ28.58(1 1/8")x1.0 O/Uφ22.22 (7/8")				
	Connecting method				Liquid : Flare / Gas : Brazing				
IIIStaliation	Attached length of piping	1	m	— F.L2					
data	Insulation for piping			Necessary (both L	iquid & Gas lines)				
				Max.70m(Liquid piping: $\phi$ 12.7,					
	Refrigerant line (one wa	y) length	m		, Max.35m(Gas piping:\( \phi 22.32 \)				
	Vertical height diff. between	O/U and I/U	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)				
Drain hose				Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs				
<del>                                     </del>			mm	Built-in Drain pump , 600	<del>-</del> ·				
1 11			Α		_				
	cked rotor ampere)		Α	5.	.0				
	ecting wires Size x Cor	e number			Termainal block (Screw fixing type)				
IP number		o mumber		IPX0	IP24				
			<b>H</b>	Mounting kit, Drain hose					
Standard accessories				Mounting kit, Drain nose Filter set : UM-FL2EF, M	Connecting pipe, Edging				
Option par		4 // 6 /-	l						
Notes	(1) The data are measur		_		he pipe length is 7.5m.				
	Item Indoor	air tempera	iture	Outdoor air temperature External static pressure	Standards				

Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19℃	35℃	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	JJFa	1003131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (5) The operation data indicate when the air-conditioner is operated at 400V50H2 or 380V60H2.
  (6) Indoor unit specifications for one unit. Capacity and operation data are three indoor units combined and run together.
  (7) Branching pipe set "DIS-TB1G"×1(option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U
  (8) Static pressure of option air filter "UM-FL2EF" is 5Pa initially.
  (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)
  (10) Use 1/2H pipes having a 1.0mm or thicker wall for \$\phi\$ 19.05 or larger pipes.

# (3) Duct connected-High static pressure type (FDU) Single type

			Model	FDU100	VNAVF2		
Item			5461	Indoor unit FDU100VF2	Outdoor unit FDC100VNA		
Power source				,	, 50Hz / 220V, 60Hz		
	Nominal cooling capacity	<u> </u>	kW	<u> </u>	n.)-11.2(Max.)]		
	Nominal heating capacity		kW	11.2 [ 4.0(Mir	/ /-		
	Power consumption	Cooling		2.8			
	•	Heating	kW	2.			
	Max power consumption	TO 11		6.4			
	Running current	Cooling	,	13.6 /			
		Heating	A	13.3 /			
Operation	Inrush current, max curre				26		
data	Power factor Cooling Heating		%	% 91 91			
	EER	Cooling		3.9			
	COP			4.			
	COP	Heating Cooling		4.	03		
	Sound power level	Heating		65	70		
	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	54 56		
	Silent mode sound pressu			_	50/44 (Normal/Silent)		
Exterior dim	nensions (Height × Width ×		mm	280 × 1,370 × 740	845 × 970 × 370		
Exterior app	<u> </u>				Stucco white		
( Munsell co				_	( 4.2Y7.5/1.1 ) near equivalent		
Net weight			kg	54	80		
Compresso	r type & Q'ty			-	RMT5126MCE3 (Twin rotary type)×1		
Compresso	r motor (Starting method)		kW	_	Direct line start		
	oil (Amount, type)		Q	-	0.9 (M-MA68)		
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 3.8kg in outdoor unit (Incl.	the amount for the piping of : 30m)		
Heat exchar	nger			Louver fin & inner grooved tubing	Straight fin & inner grooved tubing		
Refrigerant					pansion valve		
Fan type & 0				Centrifugal fan ×3	Propeller fan ×1		
Fan motor (	Stating method)		W	100 + 130 < Direct line start >	86 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi:36 Hi:28 Me:25 Lo:19	75 73		
Available ex	ternal static pressure		Pa	Standard: 60 Max: 200	_		
Outside air i	intake			Possible	-		
Air filter, Qu	ality / Quantity			Procure locally	-		
Shock & vib	ration absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)		
Electric hear	ter		W	_	20 (Crank case heater)		
Operation	Remote control			(Option) Wired :RC-EX3, RC-E5,	RCH-E3 Wireless : RCN-KIT4-E2		
control	Room temperature contro	ol		Thermostat b	by electronics		
CONTROL	Operation display			<del>-</del>	_		
Safety equip	oments			Internal thermos	tion for fan motor on thermostat stat for fan motor emperature protection		
	Refrigerant piping size ( C	).D. )	mm	Liquid line: I/U $\phi$ 9.52 (3/8") Pipe	φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8")		
	0 11 0 1	,			15.88(5/8")×1.0		
	Connecting method			Flare piping	Flare piping		
	Attached length of piping		m	- Naccesswi /			
data	Insulation for piping Refrigerant line (one way	) longth	- m		.50m		
	Vertical height diff. between O		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	<u> </u>	y U and I/U	m	Hose connectable VP25 (I.D.25, O.D.32)	Hole size $\phi 20 \times 3$ pcs		
Drain pump, may lift height		mm	Built-in drain pump,600	Hole size φ 20 × 3 pcs			
Drain pump, max lift height Recommended breaker size			A		<u> </u>		
L.R.A. (Locked rotor ampere)			A		.0		
Interconnec		umher	^		Termainal block (Screw fixing type)		
IP number	ung wires   Dize x Colle II	IGITIDEI		φ 1.6Him × 3 cores + earth cable /	IP24		
Standard ac	ccessories			Mounting kit, Drain hose	IF24 —		
Option parts				<u> </u>	sor : LB-KIT		
	o data are measured at th				The pipe length is 7.5m		

Notes (1) The data are measured at the following conditions.

		_				
Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	Julia	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient condition.
  (4) Select the breaker size according to the own national standard.
  (5) When wireless remote controller is used, fan is 3 speed setting (Hi-Me-Lo) only.
  (6) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
  (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)

			Model	FDU100	VSAVF2			
Item				Indoor unit FDU100VF2	Outdoor unit FDC100VSA			
Power source					, 50Hz / 380V, 60Hz			
	Nominal cooling capacity		kW		n.)-11.2(Max.)]			
	Nominal heating capacity	<del>` ' '                                 </del>	kW	11.2 [ 4.0(Mir	, , , , , , , , , , , , , , , , , , , ,			
	Power consumption	Cooling	ļ, ļ		84			
		Heating	kW		78			
	Max power consumption				.20			
	Running current	Cooling	,	4.4 / 4.6				
	Inruch ourrent may ourren	Heating	Α	4.3 / 4.5 5. 17				
Operation	Inrush current, max curren	Cooling			/ 94			
data	Power factor	Heating	%					
	EER	Cooling		93 / 94 3.52				
	COP	Heating	<b> </b>		03			
		Cooling						
	Sound power level	Heating		65	70			
		Cooling	dB(A)		54			
	Sound pressure level	Heating	` ` /	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	56			
	Silent mode sound pressu	re level	i i	_	50/44 (Normal/Silent)			
Exterior dim	ensions (Height × Width ×	Depth)	mm	280 × 1,370 × 740	845 × 970 × 370			
Exterior app	pearance				Stucco white			
( Munsell co	olor)			_	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	54	82			
	r type & Q'ty			-	RMT5126MCE4 (Twin rotary type)×1			
Compresso	r motor (Starting method)		kW	_	Direct line start			
Refrigerant	oil (Amount, type)		l	_	0.9 (M-MA68)			
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 3.8kg in outdoor unit (Incl.	the amount for the piping of : 30m)			
Heat exchai				Louver fin & inner grooved tubing	Straight fin & inner grooved tubing			
Refrigerant					pansion valve			
Fan type &				Centrifugal fan ×3	Propeller fan ×1			
Fan motor (	Stating method)		W	100 + 130 < Direct line start >	86 < Direct line start >			
Air flow		Cooling	m³/min	P-Hi: 36 Hi: 28 Me: 25 Lo: 19	75			
-		Heating			73			
	ternal static pressure		Pa	Standard: 60 Max: 200				
Outside air				Possible	<del>-</del>			
	ality / Quantity			Procure locally	— — — — — — — — — — — — — — — — — — —			
Electric hea	ration absorber		W	Rubber sleeve (for fan motor)	Rubber sleeve (for compressor ) 20 (Crank case heater)			
Electric nea	Remote control		VV	(Option) Wired :PC EY3 PC E5	RCH-E3 Wireless : RCN-KIT4-E2			
Operation	Room temperature control				by electronics			
control	Operation display			memostat t	_			
Safety equip				Frost protecti Internal thermos	tion for fan motor on thermostat stat for fan motor			
	D-6:	D.)		Abnormal discharge to Liquid line: I/U φ 9.52 (3/8") Pipe	emperature protection φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8")			
	Refrigerant piping size ( O	.U. )	mm	Gas line: φ15.88 (5/8") φ	15.88(5/8")×1.0 $\phi$ 15.88 (5/8")			
Inetallation	Connecting method		m	Flare piping	Flare piping			
Installation data	Attached length of piping Insulation for piping		m	Noossan /hath l				
Gata	Refrigerant line (one way)	lenath	m	, ,	.50m			
	Vertical height diff. between O/		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
	Drain hose	- unu 1/0		Hose connectable VP25 (I.D.25, O.D.32)	Hole size $\phi 20 \times 3$ pcs			
Drain numn			mm	Built-in drain pump,600	—			
Drain pump, max lift height Recommended breaker size			A	- Built in Grain pump,000				
	ked rotor ampere)		A	5	.0			
Interconnec	i	umber			Termainal block (Screw fixing type)			
IP number				IPX0	IP24			
Standard ac	cessories			Mounting kit, Drain hose	<u></u>			
Option parts					sor : LB-KIT			
1 1								

. ( )		5				111111111111111111111111111111111111111
Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19℃	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote controller is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

  (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 - 200 Pa.(For RC-EX3 and RC-E5 only)

			Model	FDU12	5VNAVF			
Item				Indoor unit FDU125VF	Outdoor unit FDC125VNA			
Power source					, 50Hz / 220V, 60Hz			
	Nominal cooling capacity		kW		n.)-14.0(Max.)]			
	Nominal heating capacity	<del>` ' '                                 </del>	kW	14.0 [ 4.0(Mir	, , , , , , , , , , , , , , , , , , , ,			
	Power consumption	Cooling	ļ, ļ	4.36				
		Heating	kW		69			
	Max power consumption	0			40			
	Running current	Cooling	,	20.3 / 21.3				
	Inruch ourrent may ourren	Heating	Α	17.8 / 18.7 5, 26				
Operation	Inrush current, max curren	Cooling			3			
data	Power factor	Heating	%					
	EER	Cooling		90 2.87				
	COP	Heating	1 1		79			
		Cooling						
	Sound power level	Heating		67	71			
		Cooling	dB(A)		55			
	Sound pressure level	Heating	( 7	P-Hi: 45 Hi: 40 Me 34 Lo: 29	57			
	Silent mode sound pressu	re level	1 1	_	51/45 (Normal/Silent)			
Exterior dim	ensions (Height × Width ×	Depth)	mm	280 × 1,370 × 740	845 × 970 × 370			
Exterior app	pearance				Stucco white			
( Munsell co	olor)			_	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	54	80			
	r type & Q'ty			-	RMT5126MCE3 (Twin rotary type)×1			
Compresso	r motor (Starting method)		kW	_	Direct line start			
Refrigerant	oil (Amount, type)		l	_	0.9 (M-MA68)			
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 3.8kg in outdoor unit (Incl.	the amount for the piping of : 30m)			
Heat exchai	nger			Louver fin & inner grooved tubing	Straight fin & inner grooved tubing			
Refrigerant					pansion valve			
Fan type &				Centrifugal fan ×3	Propeller fan ×1			
Fan motor (	Stating method)		W	100 + 200 < Direct line start >	86 < Direct line start >			
Air flow		Cooling	m³/min	P-Hi: 39 Hi: 32 Me: 26 Lo: 20	75			
		Heating		0	73			
	ternal static pressure		Pa	Standard : 60 Max : 200				
Outside air				Possible	<del>-</del>			
	ality / Quantity			Procure locally	— — — — — — — — — — — — — — — — — — —			
Electric hea	ration absorber		W	Rubber sleeve (for fan motor)	Rubber sleeve (for compressor ) 20 (Crank case heater)			
Electric flea	Remote control		VV	(Option) Wired :PC EY3 PC E5	RCH-E3 Wireless : RCN-KIT4-E2			
Operation	Room temperature control				by electronics			
control	Operation display			memostat t	_			
Safety equip	, , , , , , , , , , , , , , , , , , , ,			Frost protecti Internal thermos	tion for fan motor on thermostat tat for fan motor emperature protection			
	Refrigerant piping size ( O	.D. )	mm -	Liquid line: I/U φ 9.52 (3/8") Pipe				
	Connecting method			Gas line: φ 15.66 (5/6 ) φ Flare piping	15.66(5/6 )×1.0 φ 15.66 (5/6 )  Flare piping			
Installation	Attached length of piping		m	i iaie pipilig —	- i iaie piping			
data	Insulation for piping		111	Necessary (both I				
aaiu	Refrigerant line (one way)	lenath	m	, ,	.50m			
	Vertical height diff. between O/		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
	Drain hose			Hose connectable VP25 (I.D.25, O.D.32)	Hole size $\phi 20 \times 3$ pcs			
Drain pump	, max lift height		mm	Built-in drain pump,600	—			
	Recommended breaker size			pap,000	<u> </u>			
	ked rotor ampere)		A	5.	/5			
Interconnec	i	umber	<u> </u>		Termainal block (Screw fixing type)			
IP number	<u> </u>			IPX0	IP24			
Standard ac	cessories			Mounting kit, Drain hose	_			
Option parts					sor : LB-KIT			
		-						

` '		Ü				11 0
Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote controller is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)

			Model	FDU12	5VSAVF		
Item				Indoor unit FDU125VF	Outdoor unit FDC125VSA		
Power source	,				, 50Hz / 380V, 60Hz		
	Nominal cooling capacity		kW		n.)-14.0(Max.)]		
	Nominal heating capacity	<del>` ' '                                 </del>	kW		n.)-16.0(Max.)]		
	Power consumption	Cooling	ļ ļ		36		
		Heating	kW		69		
	Max power consumption	0			.20		
	Running current	Cooling	,	6.8 / 7.2 5.9 / 6.2			
	Inwich accept many acceptance	Heating	Α		17		
Operation	Inrush current, max curren	Cooling		· · · · · · · · · · · · · · · · · · ·	/ 92		
data	Power factor	Heating	%		0		
	EER	Cooling			87		
	COP	Heating	} }		79		
		Cooling					
	Sound power level	Heating		67	71		
		Cooling	dB(A)		55		
	Sound pressure level	Heating	( 7	P-Hi: 45 Hi: 40 Me: 34 Lo: 29	57		
	Silent mode sound pressu	re level	1 1	_	51/45 (Normal/Silent)		
Exterior dim	ensions (Height × Width ×		mm	280 × 1,370 × 740	845 × 970 × 370		
Exterior app				_	Stucco white		
( Munsell co	olor)			_	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	54	82		
	r type & Q'ty			-	RMT5126MCE4 (Twin rotary type)×1		
Compresso	r motor (Starting method)		kW	_	Direct line start		
Refrigerant	oil (Amount, type)		l	-	0.9 (M-MA68)		
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 3.8kg in outdoor unit (Incl.	the amount for the piping of : 30m)		
Heat exchai				Louver fin & inner grooved tubing	Straight fin & inner grooved tubing		
Refrigerant					pansion valve		
Fan type &				Centrifugal fan ×3	Propeller fan ×1		
Fan motor (	Stating method)		W	100 + 200 < Direct line start >	86 < Direct line start >		
Air flow		Cooling	m³/min	P-Hi: 39 Hi: 32 Me: 26 Lo: 20	75		
		Heating			73		
	ternal static pressure		Pa	Standard: 60 Max: 200			
Outside air				Possible	<del>-</del>		
	ality / Quantity			Procure locally	— — — — — — — — — — — — — — — — — — —		
Electric hea	ration absorber		W	Rubber sleeve (for fan motor)  Rubber sleeve (for compre			
Electric nea	Remote control		VV	(Option) Wired : PC EY3 PC E5	20 (Crank case heater) RCH-E3 Wireless: RCN-KIT4-E2		
Operation	Room temperature control				by electronics		
control	Operation display			memostat t	_		
	Operation display				tion for fan motor		
Safety equip	oments				on thermostat stat for fan motor		
					emperature protection		
	Refrigerant piping size ( O	.D.)	mm -	Liquid line: I/U φ 9.52 (3/8") Pipe Gas line: φ 15.88 (5/8") φ	φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8") 15.88(5/8")×1.0 φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	i iaie pipilig	- Liaie pipilig		
data	Insulation for piping			Necessary (both I			
	Refrigerant line (one way)	lenath	m		.50m		
	Vertical height diff. between O/		m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose			Hose connectable VP25 (I.D.25, O.D.32)	Hole size $\phi 20 \times 3$ pcs		
Drain pump	, max lift height		mm	Built-in drain pump,600	——————————————————————————————————————		
	ded breaker size		Α		<u> </u>		
	ked rotor ampere)		Α	5.	/5		
Interconnec		umber			Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ac	cessories			Mounting kit, Drain hose	_		
Option parts	S				sor : LB-KIT		
· · · · · · · · · · · · · · · · · · ·							

3							
	Item	Indoor air temperature		Outdoor air temperature		External static pressure	Standards
	Operation	DB	WB	DB	WB	of indoor unit	Staridards
	Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
	Heating	20°C		7°C	6°C	Julia	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote controller is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)

			Model	FDU140	OVNAVF		
Item				Indoor unit FDU140VF	Outdoor unit FDC140VNA		
Power source					, 50Hz / 220V, 60Hz		
	Nominal cooling capacity		kW		n.)-14.5(Max.)]		
	Nominal heating capacity	<del>` ' '                                 </del>	kW		n.)-16.5(Max.)]		
	Power consumption Cooling		ļ, ļ		93		
		Heating	kW		21		
	Max power consumption	0			40		
	Running current	Cooling	,				
	Invited attract may attract	Heating	Α		27		
Operation	Inrush current, max curren	Cooling			<u>27</u> 04		
data	Power factor	Heating	%		00		
	EER	Cooling			76		
	COP	Heating	} }		68		
		Cooling					
	Sound power level	Heating		70	73		
Power source   No   No   No   No   No   No   No   No		Cooling	dB(A)		57		
	Sound pressure level	Heating	( 7	P-Hi: 47 Hi: 40 Me: 35 Lo: 30	59		
	Silent mode sound pressu	re level	1 1	_	53/47 (Normal/Silent)		
Exterior dim	ensions (Height × Width ×	Depth)	mm	280 × 1,370 × 740	845 × 970 × 370		
Exterior app	pearance				73  57  59  53/47 (Normal/Silent)  845 × 970 × 370  Stucco white  (4.2Y7.5/1.1) near equivalent  80  RMT5126MCE3 (Twin rotary type)×1  Direct line start  0.9 (M-MA68) e amount for the piping of: 30m)  Straight fin & inner grooved tubing nsion valve  Propeller fan ×1  86 < Direct line start >  75  73  —  Rubber sleeve (for compressor)  20 (Crank case heater)  CH-E3 Wireless: RCN-KIT4-E2 electronics		
( Munsell co	lor)			_	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	54	80		
				-	RMT5126MCE3 (Twin rotary type)×1		
Compressor motor (Starting method)			kW	_	Direct line start		
Refrigerant oil (Amount, type)			l	_	0.9 (M-MA68)		
Refrigerant (Type, amount, pre-charge length)		kg	R410A 3.8kg in outdoor unit (Incl.	the amount for the piping of : 30m)			
Heat exchanger			Louver fin & inner grooved tubing				
Refrigerant control				pansion valve			
Fan type & Q'ty			Centrifugal fan ×3				
Fan motor (	(Stating method)		W	100 + 200 < Direct line start >			
Air flow		Cooling	m³/min	P-Hi: 48 Hi: 35 Me: 28 Lo: 22	75		
		Heating		0			
			Pa	Standard: 60 Max: 200			
				Possible			
				Procure locally			
			W	Rubber sleeve (for fan motor)	` ' '		
Electric near	Remote control		VV	(Ontion) Wired :PC EY3 PC E5			
Operation	Room temperature control						
control	Operation display			memostat t	_		
Safety equip				Frost protecti	ection for fan motor ction thermostat		
					emperature protection		
	Refrigerant piping size ( O.D. )		mm	Liquid line: I/U φ 9.52 (3/8") Pipe	φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8") 15.88(5/8")×1.0 φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	_			
	Insulation for piping			Necessary (both I	iquid & Gas lines)		
	Refrigerant line (one way)	length	m	Max	.50m		
	Vertical height diff. between O/	U and I/U	m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose			Hose connectable VP25 (I.D.25, O.D.32)	Hole size $\phi 20 \times 3$ pcs		
	, max lift height		mm	Built-in drain pump,600	_		
Recommend	ded breaker size		Α		-		
<u> </u>	red rotor ampere)		А		/5		
	ting wires Size x Core no	umber			Termainal block (Screw fixing type)		
				IPX0	IP24		
		,		Mounting kit, Drain hose	_		
Option parts	3			Motion sen	sor : LB-KIT		

Notes (1) The data are measured at the following conditions.

The pipe length is 7.5m.

` '		Ü				11 0
Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote controller is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
  (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 - 200 Pa.(For RC-EX3 and RC-E5 only)

			Model	FDU14	0VSAVF		
Item				Indoor unit FDU140VF	Outdoor unit FDC140VSA		
Power source				<u> </u>	, 50Hz / 380V, 60Hz		
	Nominal cooling capacity		kW		n.)-14.5(Max.)]		
	Nominal heating capacity	<del>` ' '                                 </del>	kW		n.)-16.5(Max.)]		
	Power consumption	Cooling			93		
		Heating	kW		21		
	Max power consumption	Caalina			.20		
	Running current	Cooling	,		/ 8.2		
	Inruch ourrent may ourren	Heating	Α		/ <u>7.1</u> 18		
Operation	Inrush current, max curren	Cooling		· · · · · · · · · · · · · · · · · · ·	01		
data	Power factor	Heating	%		/ 90		
	FFR	Cooling			76		
		Heating	<b> </b>		68		
		Cooling					
	Sound power level	Heating		70	73		
Power source   No   No   No   No   No   No   No   No		Cooling	dB(A)		57		
Power source   Nomi   N	Sound pressure level	Heating	' '	P-Hi: 47 Hi: 40 Me: 35 Lo: 30	59		
	Silent mode sound pressu	re level	i i	_	53/47 (Normal/Silent)		
Exterior dim	ensions (Height × Width ×	Depth)	mm	280 × 1,370 × 740	845 × 970 × 370		
Exterior app	pearance				73 57 59 53/47 (Normal/Silent) 845 × 970 × 370 Stucco white (4.2Y7.5/1.1) near equivalent 82 RMT5126MCE4 (Twin rotary type)×1 Direct line start 0.9 (M-MA68) e amount for the piping of : 30m) Straight fin & inner grooved tubing nsion valve  Propeller fan ×1 86 < Direct line start > 75 73 — Rubber sleeve (for compressor ) 20 (Crank case heater) CH-E3 Wireless : RCN-KIT4-E2		
( Munsell co	olor)			_	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	54	82		
Compressor	r type & Q'ty			_	RMT5126MCE4 (Twin rotary type)×1		
Compressor motor (Starting method)			kW	_	Direct line start		
Refrigerant oil (Amount, type)			l	_	0.9 (M-MA68)		
Refrigerant (Type, amount, pre-charge length)		kg	R410A 3.8kg in outdoor unit (Incl.	the amount for the piping of : 30m)			
Heat exchanger			Louver fin & inner grooved tubing				
Refrigerant control							
Fan type & Q'ty			Centrifugal fan ×3				
Fan motor (	motor (Stating method)		W	100 + 200 < Direct line start >			
Air flow		Cooling	m³/min	P-Hi: 48 Hi: 35 Me: 28 Lo: 22			
		Heating		0			
			Pa	Standard: 60 Max: 200			
				Possible			
				Procure locally			
			۱۸/	Rubber sleeve (for fan motor)	` ' '		
Electric near	Remote control		VV				
Operation	Room temperature control						
control	Operation display			memostati	_		
	, , , , , , , , , , , , , , , , , , , ,						
Sarety equip	oments			Internal thermos	stat for fan motor		
	Refrigerant piping size ( O	.D. )	mm	1 , , , ,	53/47 (Normal/Silent)  845 × 970 × 370  Stucco white  (4.2Y7.5/1.1) near equivalent  82  RMT5126MCE4 (Twin rotary type)×1  Direct line start  0.9 (M-MA68)  cl. the amount for the piping of : 30m)  Straight fin & inner grooved tubing expansion valve  Propeller fan ×1  86 < Direct line start >  75  73  —  Rubber sleeve (for compressor)		
	Connecting method			Flare piping			
Installation	Attached length of piping		m				
	Insulation for piping			Necessary (both I	Liquid & Gas lines)		
	Refrigerant line (one way)	length	m	Max	.50m		
	Vertical height diff. between O/	U and I/U	m	Max.50m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose			Hose connectable VP25 (I.D.25, O.D.32)	Hole size $\phi$ 20 × 3 pcs		
			mm	Built-in drain pump,600	_		
Recommend	ded breaker size		Α	-			
<u> </u>	i		А				
	ting wires Size x Core no	umber					
				IPX0	IP24		
		,		Mounting kit, Drain hose	ļ		
Option parts	3			Motion sen	sor : LB-KIT		

Notes (1) The data are measured at the following conditions.

The pipe length is 7.5m.

` '		Ü				11 0
Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote controller is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

  (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 - 200 Pa.(For RC-EX3 and RC-E5 only)

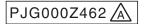
			Model	FDU200	OVSAVG			
Item			WIGUEI	Indoor unit FDU200VG	Outdoor unit FDC200VSA			
Power sou	ırce			3 Phase 380-415V				
	Nominal cooling capacit	y (range)	kW	19.0 [ 5.2(Min.)	— 22.4(Max.)]			
Nominal heating capacity (range)  Power consumption  Cooling Heating			kW	22.4 [ 3.3(Min.) — 25.0(Max.)]				
	Power consumption			6.				
Max power consumption	Heating	kW	6.03					
	Max power consumption			12				
	Running current	Cooling Heating	Α	9.6 /				
	Inrush current, max curr	, ,	_ ^	9.5 / 9.9 5 . 25				
Operation		Cooling		· · · · · · · · · · · · · · · · · · ·	/ 93			
data	Power factor	Heating	%		/ 93			
	EER	Cooling			09			
	COP	Heating		3.	71			
	Sound nower level	Cooling		75	72			
	Sound power level	Heating		75	74			
	Sound pressure level	Cooling	dB(A)	P-Hi:52 Hi:50 Me:47 Lo:45	58			
	Souria pressure level	Heating		P-HI:32 HI:30 Me:47 L0:43	59			
	Silent mode sound press	sure level		_	52			
Exterior di	mensions (Height x Widtl	n x Depth)	mm	379 × 1600 × 893	9 1 72 74 58 59 52 1300 x 970 x 370 Stucco white (4.2Y7.5/1.1) near equivalent 115 RMT513MDE3 (Twin rotary type )×1 Direct line start 0.9(compressor) + 0.6(unit) (M-MA68) e amount for the piping of : 30m) M shape fin & inner grooved tubing ansion valve  Propeller fan ×2 86 ×2 < Direct line start > 135 — — — — —			
Exterior ap	opearance			_	Stucco white			
( Munsell o	•				( 4.2Y7.5/1.1 ) near equivalent			
Net weigh	t		kg	89				
Compress	or type & Q'ty			_	RMT513MDE3 (Twin rotary type)×1			
	or motor (Starting metho	d)	kW	_				
	nt oil (Amount, type)		$\ell$	-				
	nt (Type, amount, pre-cha	arge length)	kg					
Heat exch				Louver fin & inner grooved tubing	1 0			
Refrigerant control								
Fan type & Q'ty		10/	Centrifugal fan ×3	'				
Fan motor	(Starting method)	lo "	W	130 + 350 < Direct line start >	86 ×2 < Direct line start >			
Air flow		Cooling Heating	m³/min	P-Hi:80 Hi:72 Me:64 Lo:56	135			
	external static pressure		Pa	Standard:72 Max:200	<u> </u>			
Outside ai				Possible				
	Quality / Quantity			Procure locally				
	ibration absorber		141	Rubber sleeve(for fan motor)	Rubber sleeve(for compressor )			
Electric he			W		20 (Crank case heater)			
Operation	Remote control				, RCH-E3 Wireless : RCN-KIT4-E2			
control	Room temperature control	UI		Thermostat by	/ electronics			
	Operation display			Overload protecti	ion for fan motor			
				Frost protection				
Safety equ	Safety equipments		Internal thermostat for fan motor					
				Abnormal discharge te				
	D. C	0.0.		Liquid line: I/U $\phi$ 9.52 (3/8") Pipe $\phi$ 9.52 (3/8"				
	Refrigerant piping size (	O.D. )	mm		4 (1")x1.0 or φ28.58 (1 1/8")x1.0 O/U φ22.22 (7/8")			
	Connecting method			Brazing	Liquid : Flare / Gas : Brazing			
	Attached length of piping	9	m	_				
Installation data	Insulation for piping		İ	Necessary (both	h Liquid & Gas lines)			
uala	Refrigerant line (one wa	ay) length	m	Max.70m(Liquid piping: $\phi$ 12.7, Max.40m(Liquid piping: $\phi$ 9.52),	Gas piping: $\phi$ 25.4 or $\phi$ 28.58),			
	Vertical height diff. between 0	7/LL and I/LL	m	Max.30m (Outdoor unit is higher)	Max.15m(Outdoor unit is lower)			
	Drain hose	5,5 and 1/0		Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs			
Drain num	p, max lift height		mm	—	——————————————————————————————————————			
	nded breaker size		A		<u>-</u>			
	cked rotor ampere)		Α	5.	.0			
	ecting wires Size x Cor	e number			Termainal block (Screw fixing type)			
IP number	J			IPX0	IP24			
	accessories			Mounting kit	Connecting pipe, Edging			
Option par				Motion senso				
	(1) The data are measure				The nine length is 7.5m			

Notes (1) The data are measured at the following conditions.

The pipe length is 7.5m.

Indoor air t	emperature	Outdoor air t	temperature	External static pressure	Standards		
DB	WB	DB	WB	of indoor unit			
27°C	19°C	35°C	24°C	72Pa			
20°C	_	7°C			1000101-11,111		
	DB 27°C	DB WB 27°C 19°C	DB WB DB 27°C 19°C 35°C	DB         WB         DB         WB           27°C         19°C         35°C         24°C	DB         WB         DB         WB         of indoor unit           27°C         19°C         35°C         24°C         72Pa		

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
  (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)
  (8) Use 1/2H pipes having a 1.0mm or thicker wall for \$\phi\$ 19.05 or larger pipes.

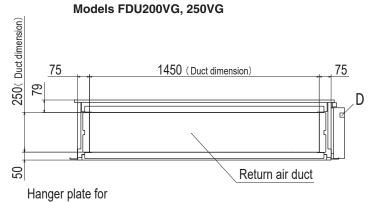


				Mode	I		FDU250	VSAVG		
Item						Indoor unit	FDU250VG	Outdoor u	unit FDC250VSA	
Power sou	ırce							50Hz / 380V 60Hz		
	Nominal coolir	ng capacity	v (range)	kW				) - 28.0(Max.)]		
	Nominal heati	<u> </u>	, , , ,	kW			<u> </u>	) — 31.5(Max.)]		
	_ Cooling							98		
	Power consun	nption	Heating	kW			7.			
	May power co	ncumption		i.vv	-		13			
	Max power co	nsumption								
Running current Cooling Heating Inrush current, max current								/ 12.8		
				Α				/ 12.0		
Operation	Inrush current	, max curre						, 27		
lata	Power factor		Cooling	%				14		
iata	1 ower lactor		Heating	,,			9	2		
	EER		Cooling				3.0			
	COP		Heating	1			3.	75		
			Cooling						73	
	Sound power	level	Heating	1		75			75	
				dB(A)					59	
	Sound pressu	re level	Cooling	ub(A)	P	-Hi:52 Hi:50	Me:47 Lo:45			
			Heating	4					62	
	Silent mode so	ound press	sure level					54		
Exterior di	imensions (Hei	ght x Width	n x Depth)	mm	379 × 1600 × 893			1505 x 970 x 370		
Exterior appearance					†			Sti	ucco white	
Munsell						_			.1) near equivalent	
				ka	1	00		(4.217.5/1		
Net weight Compressor type & Q'ty				kg	<del> </del>	89		143 GTC5150NC40KE ( Scroll type )x1		
Compressor type & Q'ty Compressor motor (Starting method) Refrigerant oil (Amount, type)				,,,,,	1			GTC5150NC40KF ( Scroll type )×1  Direct line start		
			d)	kW						
Refrigeran	nt oil (Amount, t	ype)		$\ell$		_		1.45	5 (M-MA32R)	
Refrigeran	nt (Type, amou	nt, pre-cha	arge length)	kg		R410A 7	.2kg in outdoor unit (Incl.	the amount for the pipi	ng of : 30m)	
leat exchanger				Ĭ	Lou		grooved tubing		inner grooved tubing	
Refrigeran				l	1	2	0 0	pansion valve	<u> </u>	
Fan type & Q'ty				1	Centrifugal			eller fan ×2		
			W	10						
Fan motor (Starting method)			٧٧	13	30 + 350 < Dir	eci iine start >	86 ×2 <1	Direct line start >		
Air flow Cooling Heating			m³/mir	P-	Hi:80 Hi:72	Me:64 Lo:56		143 151		
Available e	external static p	ressure		Pa		Standard:72	Max:200		_	
Outside ai						Poss			_	
	Quality / Quantit	V			Procure locally			_		
	ribration absorb				Rubber sleeve(for fan motor)			Rubber sleeve(for compressor )		
Electric he		-1		W	Rubber sleeve(lorial motor)				ink case heater)	
_100010 110	Remote contro	N		**	1	(Option) Wired :RC-EX3, RC-E5,RCH-E3 Wireless : RCN-KIT4-E2				
Operation			al .	-	1	(Option	•		UN-KI14-E2	
control	Room tempera		OI		ļ		Thermostat by	y electronics		
	Operation disp	olay			ļ			_		
					Overload protection for fan motor Frost protection thermostat					
Safety equ	uinmonto									
salety eqt	uipiiieiiiS						Internal thermos	tat for fan motor		
							Abnormal discharge te			
					1	Liquid line:		2.7 (1/2")x0.8 O/U $\phi$ 12.7 (1/2")		
	Refrigerant pip	oing size (	O.D. )	mm	Gas line			.4 (1")x1.0 or φ28.58 (1 1/8")x1.0 O/U φ22.22 (7/8")		
	Connecting m	othod			OGC AIRC					
nstallation					1	Braz	ing	Liquid : Flare / Gas : Brazing		
lata	Attached length	- 1 1	3	m	1			L	_	
	Insulation for p				1			Liquid & Gas lines)		
	Refrigerant lin	ne (one wa	y) length	m		Max.70m(	Gas piping: $\phi$ 25.4 or $\phi$ 28	8.58), Max.35m(Gas pi	ping: φ 22.22)	
	Vertical height dif	f. between C	)/U and I/U	m	N	lax.30m (Outde	oor unit is higher)	Max.15m(C	Outdoor unit is lower)	
	Drain hose				Hose	connectable VF	P25 (I.D.25, O.D.32)	Hole siz	ze φ20 x 3 pcs	
Drain pum	np, max lift heig	ht		mm		_	,		_	
	ended breaker s			Α	İ			_		
	cked rotor amp			A	1		E	.0		
			o numbor	<del>- ^`</del>	1	416			v fiving type)	
		Size x Core	e number	<b>.</b>	1		1 × 3 cores + earth cable/	remainai block (Screv		
P number					ļ	IPX			IP24	
Standard a	accessories					Mountir			ting pipe, Edging	
Option par							Motion sens	sor : LB-KIT		
Notes	(1) The data ar	e measure	ed at the follo	owing c	onditions.			The pipe length is 7.5	m.	
	Item	Indoor a	air temperat	ure T	Outdoor air t	temperature	External static pressure	Ot !		
	Operation	DB	W	-	DB	WB	of indoor unit	Standards		
	$\overline{}$			$\overline{}$			5goor unit			
	Cooling	27°C	19°	-	35°C	24°C	72Pa	ISO5151-T1, Hi	]	
	Heating	20°C	-	- 1	7°C	6°C	1 .=	1	İ	

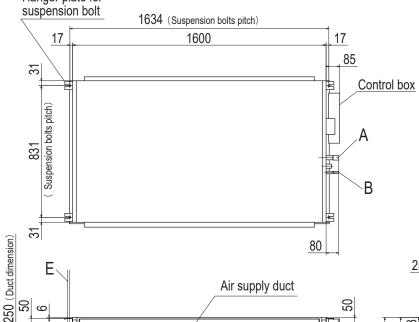
- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)
- (8) Use 1/2H pipes having a 1.0mm or thicker wall for  $\,\phi$  19.05 or larger pipes.

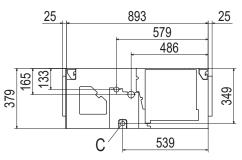
# 2.2 EXTERIOR DIMENSIONS





Cumbal		Content	
Symbol	MODEL	200	250
Α	Gas piping	φ 25.4(1")(	
В	Liquid piping	$\phi$ 9.52(3/8")(Brazing)	φ 12.7(1/2")(Brazing)
С	Drain piping (Gravity drainage)	VP25(I.D.2	5, O.D.32)
D	Hole for wiring		
Е	Suspension bolts	M	10
F	Inspection hole	(450)	(450)



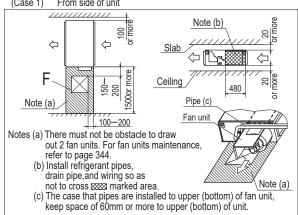


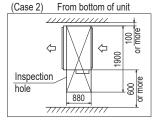
Space for installation and service

75

Select either of two cases to keep space for installation and services. (Case 1) From side of unit

1450 (Duct dimension)





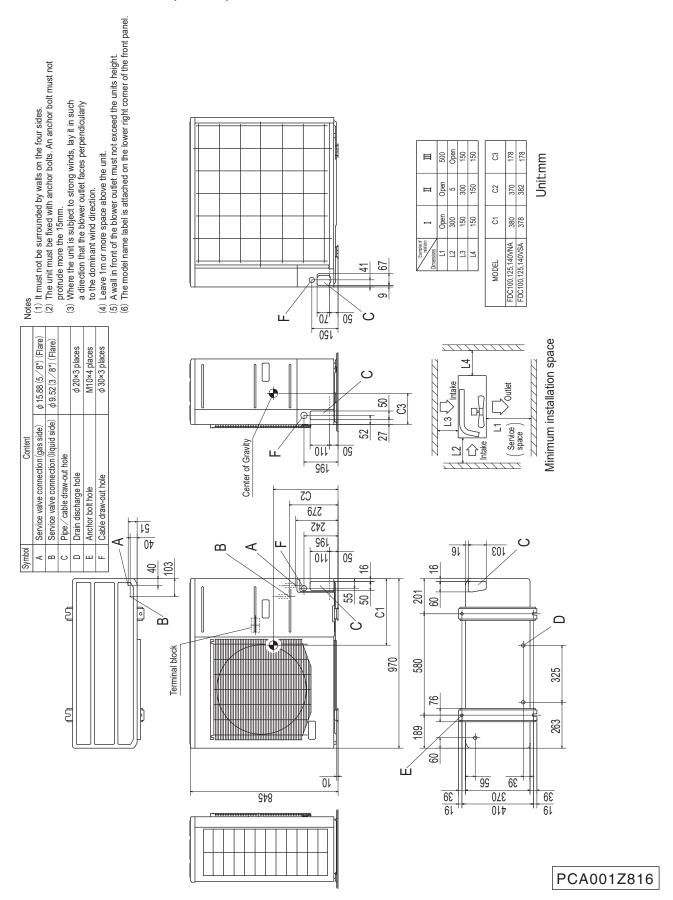
Note(1) The model name label is attached on the lid of the control box.

Unit:mm

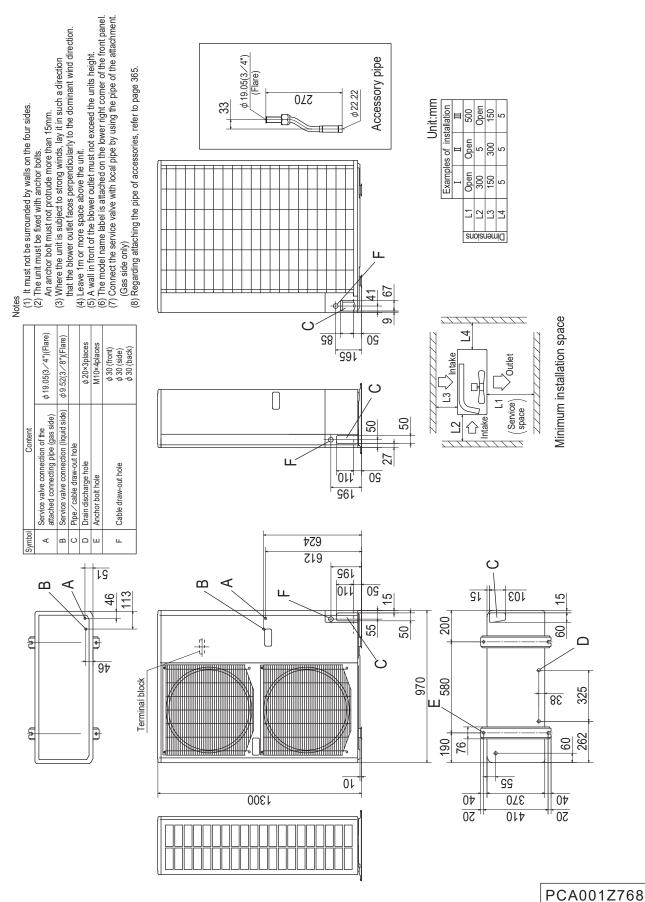
PJG000Z285

75

# (2) Outdoor units Models FDC100VNA, 125VNA, 140VNA 100VSA, 125VSA, 140VSA

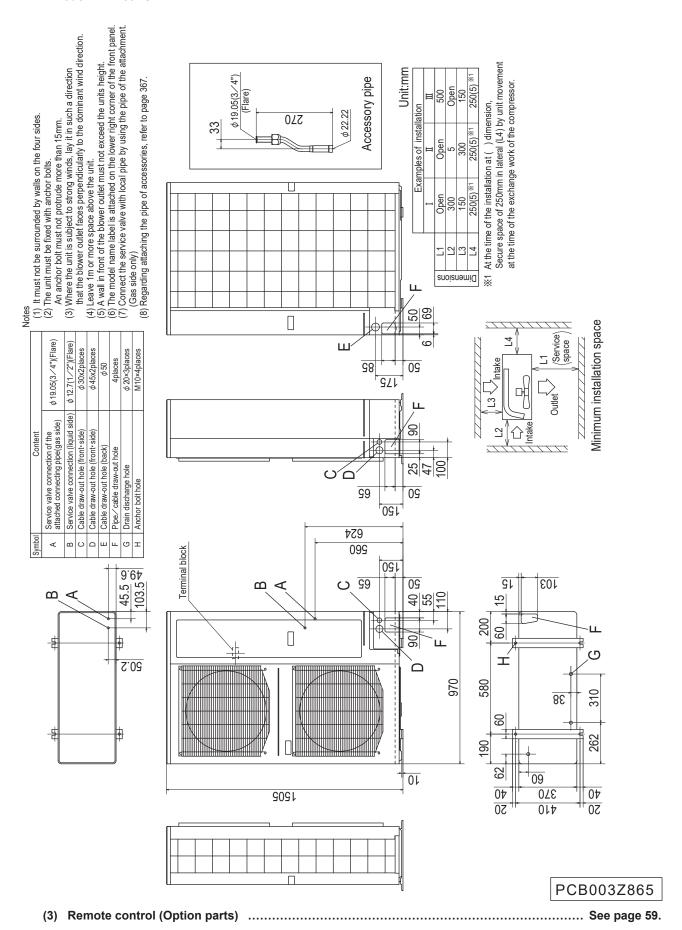


### **Model FDC200VSA**



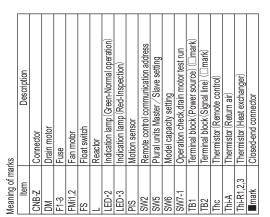
**- 294 -**

### **Model FDC250VSA**

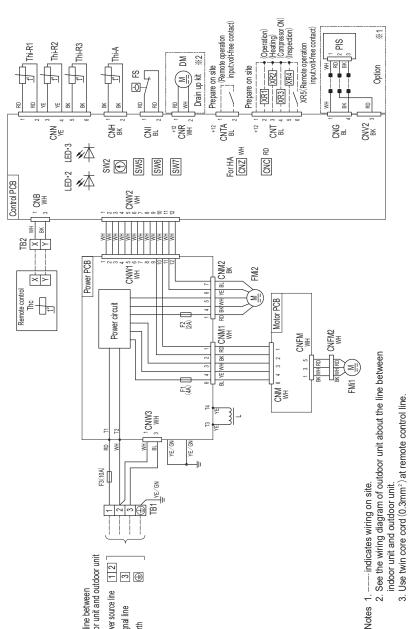


# 2.3 ELECTRICAL WIRING

Models FDU200VG, 250VG







<u>-1~~@</u> <u>E</u>

3 1 2

Power source line Signal line Earth

The line between indoor unit

See spec sheet of remote control in case that the total length is more than 100m.

Do not put remote control line alongside power source line.
 Section 1 (※1) shows electric circuit of motion sensor (Option)
 Section 2 (※2) is not included as standard from factory.
 This circuit is an option when using drain up kit.

PJG000Z465

### (2) Outdoor units Models FDC100VNA, 125VNA, 140VNA

Meaning of marks	y of m	ıarks
ITEM	_	DESCRIPTION
СН		Crankcase heater
CM		Compressor motor
S		Connector
CT1		Current sensor
ВН		Drain pan heater
EEVC		Expansion valve for cooling
EEVH		Expansion valve for heating
ш		Fuse
FM1		Fan motor
IPM		Intelligent power module
LED1		Indication lamp (GREEN)
LED2		Indication lamp (RED)
L1,2		Reactor
SW1		Switch
SW3,5,7	7	Local setting switch
TB		Terminal block
THo-A		Thermistor (Outdoor air temp.)
THo-D		Thermistor (Discharge pipe temp.)
THo-R1,R2	,R2	Thermistor (Heat exchanger temp.)
THo-S		Thermistor (Suction pipe temp.)
208		Solenoid valve for 4-way valve
52X1		Auxiliary relay
52X3		Auxiliary relay
52X11		Auxiliary relay (for 20S)
52X14		Auxiliary relay (for CH)
52X15		Auxiliary relay (for DH)
63H1		High pressure switch
Color marks	arks	
Mark	Color	
RK	Black	

are switt											
I IIGII PICSSAIC	arks	Color	Black	Blue	Brown	Green	Orange	Red	White	Yellow	Yellow/Green
- 50	Color marks	Mark	BK	BL	BR	NS	OR	RD	MM	<b>&gt;</b>	Y/GN

The defrosting operation interval becomes shorter by uning 0N lites awitch. This switch should be turned 0N lite area where outside lemperature becomes below the reazing point.

When this switch is turned ON, the outdoor unif ran will run will run will must be consortisin every 10 minutes, when outdoor impressure fails to mind switch to ON. The outdoor will run with on the order of the outdoor in the outdoor will run will an operation. The outdoor will run will a operation of the operation when SW43 is ON.

Scoring that operation will be performed when SW43 is ON.

Scoring that operation will be performed when SW43 is ON.

Swards in the operation will be performed when SW43 is ON.

Swards in the operation will be performed when SW43 is ON.

Special run of FS W93-3 fler the trial operation is finished.

Details a position higher than indoor unit is installed at a position higher than indoor unit by 30m or more.

Trial operation

Snow guard fan control

Defrost control change

			OM 18 18 18 18 18 18 18 18 18 18 18 18 18	2	Local setting switch SW3,5,7 (Set up at shipment OFF)
2409	TB TO INDOOR UNIT STORM AND TO INDOOR UNIT STO	PCB7  PCB7  PMM  PMM  PMM  PMM  PMM  PMM  PMM  P	CT1	CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONTROL   CONT	Local setting switch SW3,
Power source 1 Phase 220-240V 50Hz / 1 Phase 220V 60Hz	TB F GM BB F GM CMI				Power cable, indoor-outdoor connecting wires

	_		()	$\rightarrow$		<u> </u>					
SW3-1		SW3-2				SW3-3,4					
Earth wire size (mm)		91.6			Earth wire size (mm)		Ø1.6				
Indoor-outdoor wire size x number		Ø1.6mm x 3			Indoor-outdoor wire size x number		Ø1.6mm x 3				
Power cable length (m)		22			Power cable length (m)						
Power cable size $(\mathrm{mm}^2)$		5.5			5.5 Type indoor unit		st type indoor unit.	Power cable size (mm²)		5.5	
MAX over current (A)		24		*At the connection with the duct type indoor unit.	MAX over current (A)	90	07	27			
Model	100	125	140	*At the	Model	100	125	140			

	High height difference operation control
	SW5-2
	specifications shown in the above table are for units without heaters. For units with heaters, refer ne installation instructions or the construction instructions of the indoor unit.
27	ecifications shown in rstallation instruction
0	spe ne in

Set this switch to ON when managing unit operation by remote control connected external equipment. Upper limit of compressor speed and fan speed becomes lower in silent mode.

Defrost control change

Lower noise silent mode

SW7-3

The specifications shown in the above table are for units without heaters. For units with heaters, refer
to the installation instructions or the construction instructions of the indoor unit.
 Switchgear of Circuit breaker capacity which is calculated from MAX. over current should be chosen
along the regulations in each country.
 The each specifications are based on the assumption that a metal or plastic conduit is used with no
more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling
outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation
in effect in each country.

PCA001Z817

# Models FDC100VSA, 125VSA, 140VSA

Meaning of marks	y of n	ıarks
ITEM	5	DESCRIPTION
CH		Crankcase heater
CM		Compressor motor
S		Connector
ВН		Drain pan heater
EEVC		Expansion valve for cooling
EEVH		Expansion valve for heating
ட		Fuse
FM1		Fan motor
IPM		Intelligent power module
_		Reactor
LED1		Indication lamp (GREEN)
LED2		Indication lamp (RED)
SW1		Switch
SW3,5,7	7	Local setting switch
ΤB		Terminal block
THo-A		Thermistor (Outdoor air temp.)
THo-D		Thermistor (Discharge pipe temp.)
THo-R1,R2	,R2	Thermistor (Heat exchanger temp.)
THo-S		Thermistor (Suction pipe temp.)
208		Solenoid valve for 4-way valve
52X1		Auxilliary relay
52X2		Auxiliary relay
52X6		Auxiliary relay (for FM1)
52X11		Auxilliary relay (for 20S)
52X14		Auxilliary relay (for CH)
52X15		Auxilliary relay (for DH)
63H1		High pressure switch
Color marks	arks	
Mark	Color	
BK	Black	
ВГ	Blue	
BR	Brown	u.
2	Croc	Ę

			Wd   Wd   Wd   Wd   Wd   Wd   Wd   Wd	at shipment OFF)
		H	SW SW SW SW SW SW SW SW SW SW SW SW SW S	Local setting switch SW3,5,7 (Set up at shipment OFF)
		EVC ETVH ORES 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SW3 SW3 SW3 SW3 SW4 SW3 SW4 SW4 SW4 SW4 SW4 SW4 SW4 SW4 SW4 SW4	Local setting switch
		33 TEZ 181 TEL 182 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL 183 TEL	SSS	
	85 151 151 151 151 151 151 151 151 151 1	HWW DBJ MW MW MW MW MW MW MW MW MW MW MW MW MW	1827 F 257 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F 197 F	
	TB1   F (104)   TB6   PB   PB   PB   PB   PB   PB   PB		Ω	
7	8 2 2 2 2 × ⊕²	VV		
3 Phase 380-415V 50Hz		WOOM THE COMMON THE CO	TO INDOOR UNIT POWER CARLETIES	

The defrosting operation interval becomes shorter by turning ON this switch.  This switch should be turned ON in the area		When this switch is turned ON, the outdoor			running when the unit is used in a very snowy country, set this switch to ON.	Method of trial operation	Trial operation can be performed by using	SW5-3,4.	(2) Compressor will be in the operation when SW3-3 is ON.	(3)Cooling trial operation will be performed	when SW3-4 is OFF, and heating trial	operation when SW3-4 is ON	(4) Be sure to turn OFF SW3-3 after the trial operation is finished.		installed at a position higher than indoor	diffe by control motor.		_	external equipment.	t mode speed becomes lower in silent mode.
epoeto Imposteoide			Spow guard fan control	ollow gualu iail o					1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	SW3-3,4 Irial operation				High beight difference	operation control			Defrost control change		Lower noise silent mode
SW3-1			C1M3-2	2-0440					9	SW3-3,4					SW5-2			SW7-2		SW7-3
	Earth wire size	(mm)		016	2			Farth wire size	(mm)			9	5.	]	neaters, refer		pe chosen		sed with no	on falling regulation

Indoor-outdoor wire size x number

Power cable length (m)

Power cable size (mm<sup>2</sup>)

MAX over current (A)

Model

\*\*At the connection with the duct type indoor unit.

Ø1.6mm x 3

3.5

18

125

38

<ul> <li>The specifications shown in the above table are for units without heaters. For units with heaters, refer</li> </ul>
to the installation instructions or the construction instructions of the indoor unit.
<ul> <li>Switchgear of Circuit breaker capacity which is calculated from MAX. over current should be chosen</li> </ul>
along the regulations in each country.
<ul> <li>The cable specifications are based on the assumption that a metal or plastic conduit is used with no</li> </ul>
more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling
outside of these conditions please follow the internal cabling requisions. Adopt it to the regulation

outside of these condition in effect in each country.

PCA001Z818

Indoor-outdoor wire size x number

Power cable length (m)

Power cable size (mm<sup>2</sup>)

MAX over current (A)

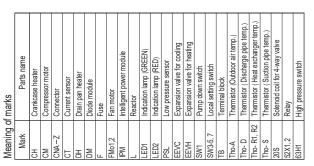
3.5

125

Power cable, indoor-outdoor connecting wires

### **Model FDC200VSA**

Power source 3 Phase 380-415V 50Hz / 380V 60Hz



	_	_			_							_
Color marks	Color	Black	Blue	Brown	Green	Orange	Red	White	Yellow	Yellow/Green	Gray	Pink
Color	Mark	Æ	뮴	BR	NS	OR	CN ON	WH	ΥE	УG	λS	PK

F F F F F F F F F F F F F F F F F F F	CAN   WUNTER CAN CAN CAN CAN CAN CAN CAN CAN CAN CAN	( Section 2) Property (Section	Well (Solver) Well of converses terminals
	A Those Thos		ED ON THE PROPERTY OF THE PROP

shipment OFF)	The defrosting op by turning ON this	turned ON in the a becomes below the	
Local setting switch SW3( Set up at	otrol o		
Local sett	CANO 4	-5000	
	Earth wire size	φ1.6mm	
	Indoor-outdoor wire size x number	φ 1.6mm x 3	
wires	Power cable length (m)	43	
connecting	Power cable size (mm²)	5.5	
Power cable, indoor-outdoor	MAX over current (A)	25	

 SW3-1	SW3-1 Defrost control change	The defrosting operation interval becomes shorter yurning Of Nits switch. This switch should be turned ON in the area where outside temperature becomes below the freezing point.
SW3-2	SW3-2 Snow guard fan control	When this switch is turned ON, the outdoor unit fan will run for 30 seconds in every 10 minutes, when outdoor temperature falls to 3°C or lower and the compressor is not running when the unit is used in a very snowy country, set this switch to ON.
SW3-3,4	SW3-3,4 Trial operation	Method of trial operation  (3) Trial operation can be performed by using SW3-3.4.  (3) Compressor will be in the operation when  (3) W3-3 is ON.  (3) Cooling trial operation will be performed when  (3) W3-4 is OFF, and heating trial operation when  (3) W3-4 is OFF, and heating trial operation when  (4) Be sure to turn OFF SW3-3 after the trial operation  (5) Initials of

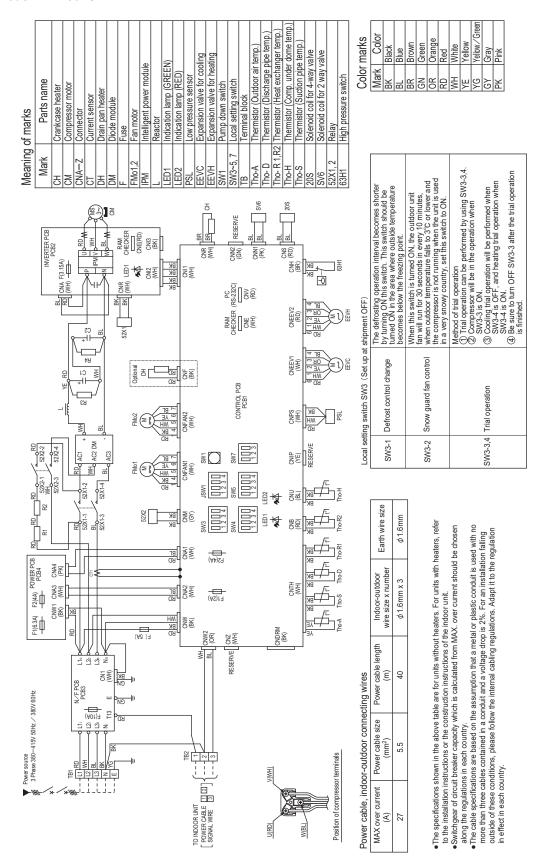
• The specifications shown in the above table are for units without heaters. For units with heaters, refer to the installation instructions or the construction instructions of the indoor unit.

• Switchgear of circuit breaker capacity which is calculated from MAX. over current should be chosen along the regulations have been country.

• The cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voitage drop is 2%. For an installation falling outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation in effect in each country.

PCA001Z769

### Model FDC250VSA



PCB003Z866

# 2.4 NOISE LEVEL

Notes(1) The data are based on the following conditions.

Ambient air temperature: Indoor unit 27°CWB. Outdoor unit 35°CDB.

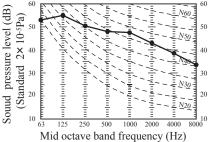
- (2) The data in the chart are measured in an anechoic room.
- (3) The noise levels measured in the field are usually higher than the data because of reflection.

### 

### Duct connected-High static pressure type (FDU)

### Models FDU200VG, 250VG

Noise level 52dB (A) at P-HIGH 50dB (A) at HIGH 47dB (A) at MEDIUM 45dB (A) at LOW



### (2) Outdoor units

Measured based on JIS B 8616

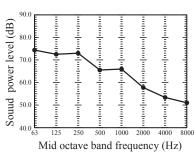
Mike position: at highest noise level in position as mentioned below

Distance from front side 1m Height

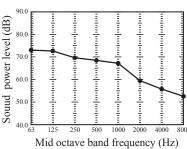
### (a) FDC100-140

### (i) Sound power level

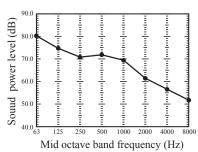
### Models FDC100VNA,100VSA Noise level 70 dB (A)



### Models FDC125VNA,125VSA Noise level 71 dB (A)



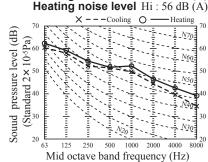
### Models FDC140VNA,140VSA Noise level 73 dB (A)



### (ii) Sound pressure level

1) Rating mode

### Models FDC100VNA,100VSA Cooling noise level Hi: 54 dB (A)



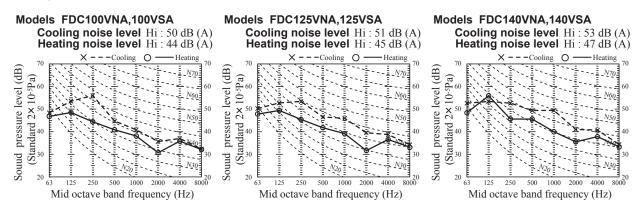
### Models FDC125VNA,125VSA Cooling noise level Hi: 55 dB (A)

Heating noise level Hi: 57 dB (A) (dB) (Standard  $2 \times 10^{-5} Pa$ ) pressure level Sound 1000 2000 4000 Mid octave band frequency (Hz)

### Models FDC140VNA,140VSA Cooling noise level Hi: 57 dB (A)

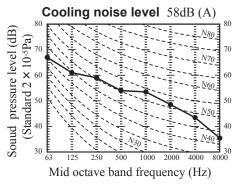
Heating noise level Hi: 59 dB (A) 0 pressure level (dB) 10-5Pa) (Standard 2× Sound 1000 2000 Mid octave band frequency (Hz)

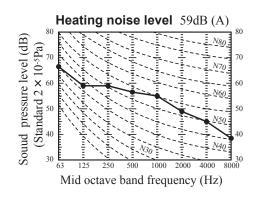
### 2) Silent mode



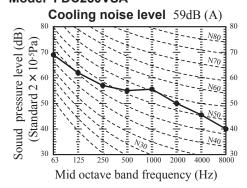
### (b) FDC200, 250

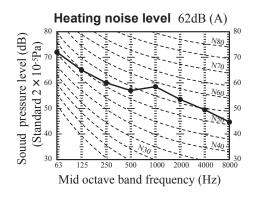
### Model FDC200VSA





# Model FDC250VSA





# 2.5 CHARACTERISTICS OF FAN

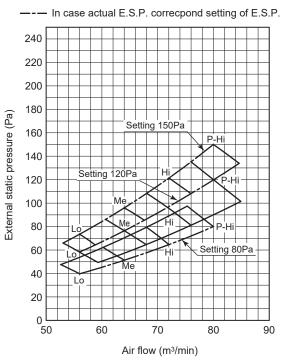
See page 76 of 1.5 chaper. (Except FDU200VG, 250VG)

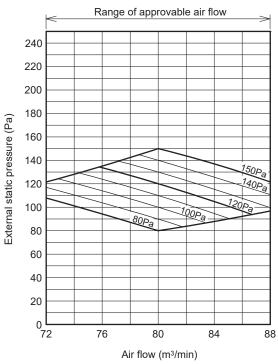
### Models FDU200VG, 250VG

Characteristic FAN (1)

■SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa)



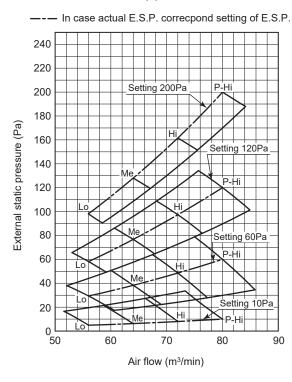


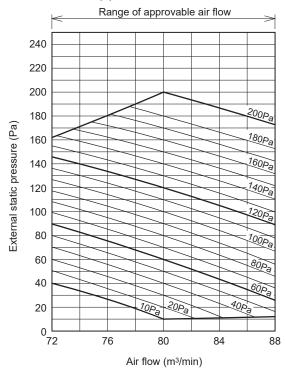


■ SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)

### Characteristic FAN (2)





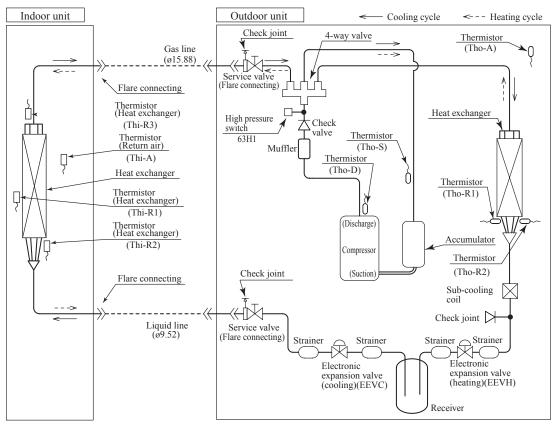
# 2.6 TEMPERATURE AND VELOCITY DISTRIBUTION

See page 83 of 1.6 chaper.

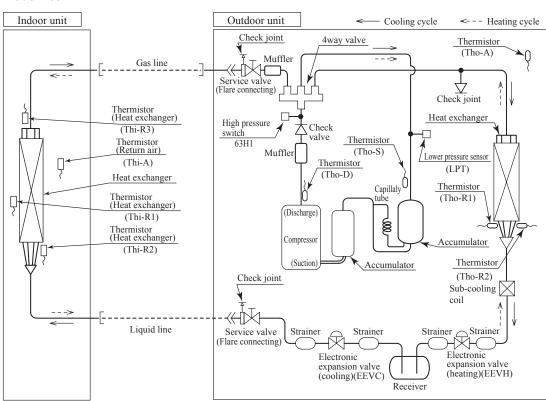
# 2.7 PIPING SYSTEM

### (1) Single type

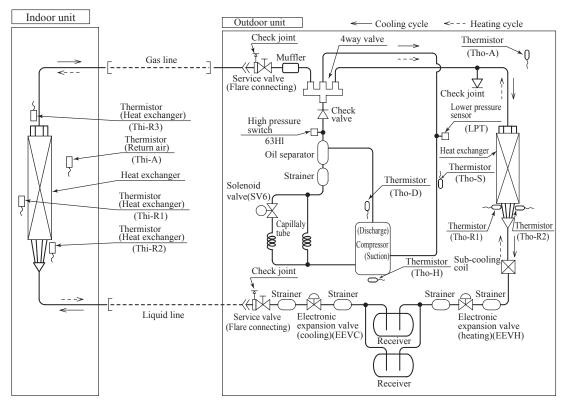
### Models 100, 125, 140



### Model 200



### Model 250

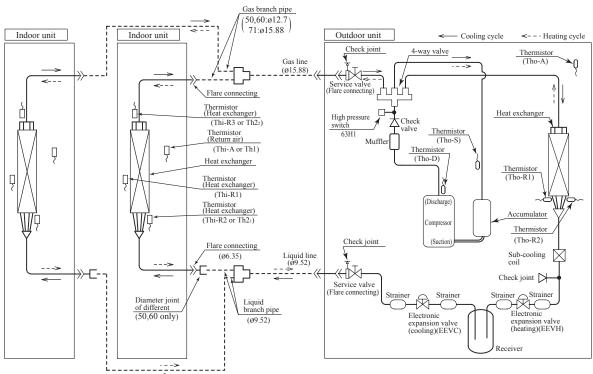


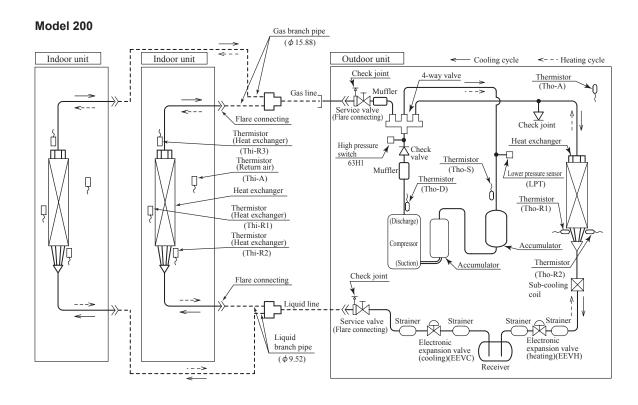
●Refrigerant line (one way) pipe size

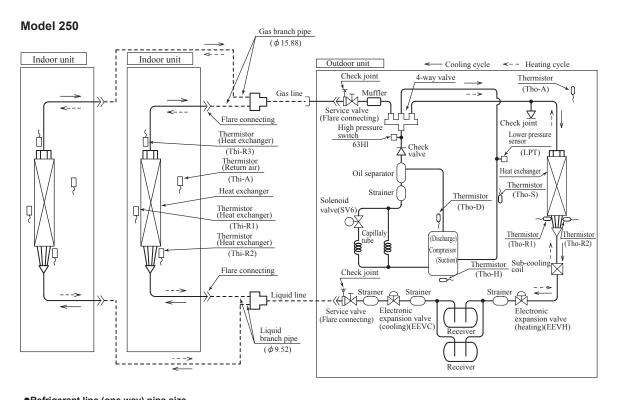
Model	Gas line	Liquid line
200	In case of $\phi$ 22.22 : 35m	In case of $\phi$ 9.52 : 40m In case of $\phi$ 12.7 : 70m
250	In case of $\phi$ 25.4 or $\phi$ 28.58 : 70m	In case of $\phi$ 12.7 : 70m

# (2) Twin type

# Models 100, 125, 140



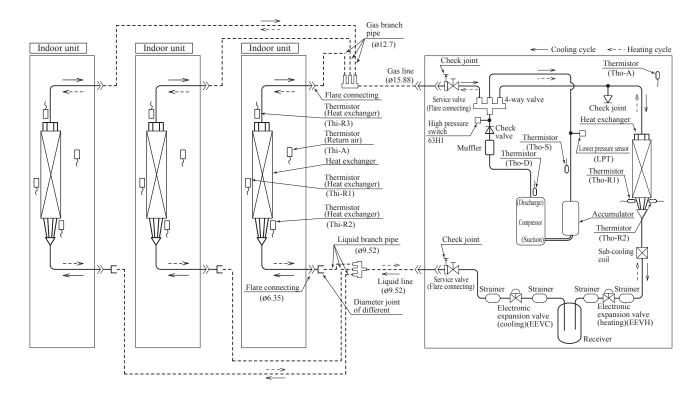




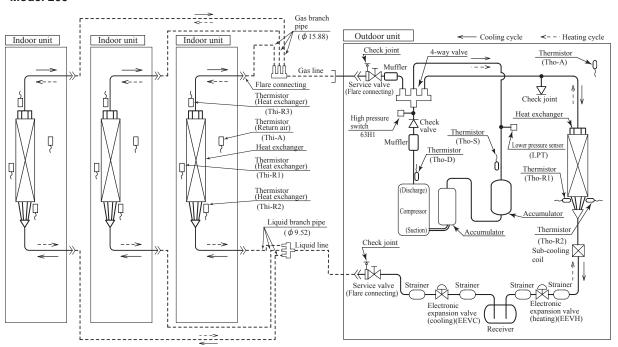
•Refrigerant line (one way) pipe size

Model	Gas line	Liquid line
200	In case of $\phi$ 22.22 : 35m	In case of $\phi$ 9.52 : 40m In case of $\phi$ 12.7 : 70m
250	In case of $\phi$ 25.4 or $\phi$ 28.58 : 70m	In case of $\phi$ 12.7 : 70m

# (3) Triple type Model 140



### Model 200

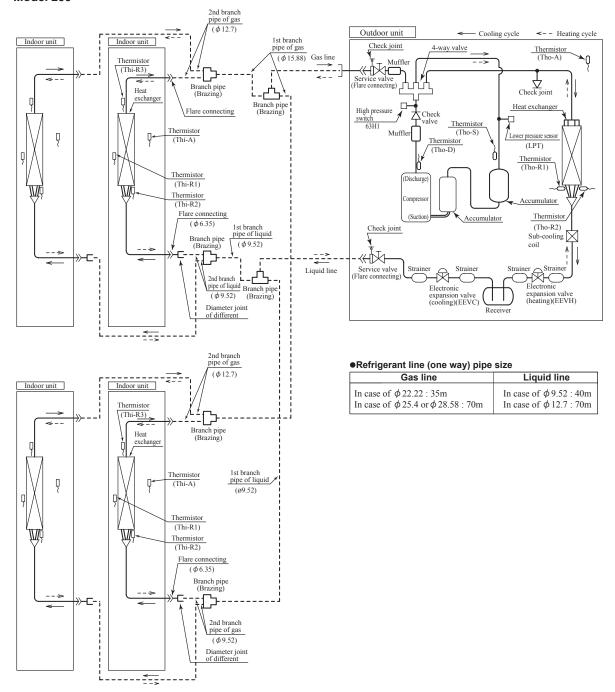


●Refrigerant line (one way) pipe size

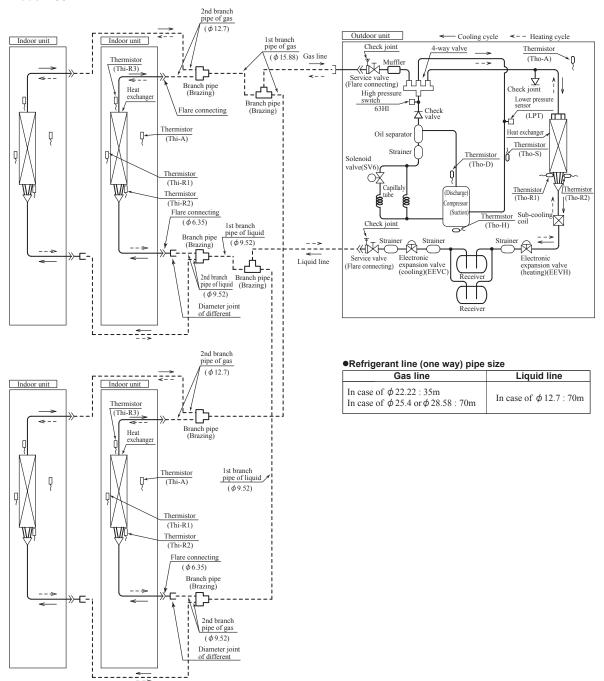
Gas line	Liquid line
In case of $\phi$ 22.22 : 35m	In case of $\phi$ 9.52 : 40m
In case of $\phi$ 25.4 or $\phi$ 28.58 : 70m	In case of $\phi$ 12.7 : 70m

# (4) Double twin type

### Model 200



### Model 250



# **Preset point of the protective devices**

Parts name	Mark	Equipped unit	100, 125, 140 model	200, 250 model
Thermistor (for protection over- loading in heating)	Thi-R	Indoor unit		63°C 56°C
Thermistor (for frost prevention)	Thi-R			1.0°C 10°C
Thermistor (for protection high pressure in cooling.)	Tho-R	Outdoor unit		65°C 51°C
Thermistor (for detecting dis- charge pipe temp.)	Tho-D	Outdoor unit	OFF 115°C ON 85°C	OFF 135°C ON 90°C
High pressure switch (for protection)	63H1	Outdoor unit		15MPa 15MPa
Low pressure sensor (for protection)	LPT	Outdoor unit	_	OFF 0.079MPa ON 0.227MPa

# 2.8 RANGE OF USAGE & LIMITATIONS

		See next page.
Operating temperature ran	ige	When used below -5°C, install a snow hood (FDC100-250 only).
Recommendable area to in	nstall	Considering to get sufficient heating capacity, the area where the averaged lowest ambient air temperature in day time during winter is above 0°C, and it has no accumulation of snow.
Installation site		The limitations of installation space are shown in the page for exterior dimensions.  Install the indoor unit at least 2.5m higher than the floor surface.
Temperature and humidity indoor unit in the ceiling (N	conditions surrounding the ote 2)	Dew point temperature : 28°C (FDE : 23°C) or less, relative hummdity : 80% or less
Limitations on unit and pip	ing installation	See pages 313 and 314.
Compressor	Cycle time	7 minutes or more (from OFF to OFF) or (from ON to ON)
ON-OFF cycling	Stop time	3 minutes or more
	Voltage range	Rating ±10%
Power source	Voltage drop at start-up	Min.85% of rating
	Phase-to-phase umbalance	3% or less

Note 1. Do not install the unit in places which:

- 1) Flammable gas may leak.
- 2) Carbon fiber, metal particles, powder, etc. are floating.
- 3) Cosmetic or special sprays are used frequently.
- 4) Exposed to oil splashes or steam (e.g. kitchen and machine plant).
- 5) Exposed to sea breeze (e.g. coastal area) or calcium chloride (e.g. snow melting agent).
- 6) Exposed to ammonia substance (e.g. organic fertilizer).
- 7) Matters affecting devices, such as sulfuric gas, chlorine gas, acid, alkali, etc. may generate or accumulate.
- 8) Chimney smoke is hanging.
- 9) Sucking the exhaust gas from heat exchanger.
- 10) Adjacent to equipment generating electromagnetic waves or high frequency waves.
- 11) There is light beams that affect the receiving device of indoor unit in case of the wireless specification.
- 12) Snow falls heavily.
- 13) At an elevation of 1000 meters or higher.
- 14) On mobile machine (e.g. vehicle, ship, etc.)
- 15) Splashed with water to indoor unit (e.g. laundry room).
- 16) Indoor units of twin, triple and double-twin specifications separately in a room with partition.
- Note 2. If ambient temperature and humidity exceed the above values, add polyurethane foam insulation on the outer plate (10mm or thicker) of indoor unit.

Both gas and liquid pipes need to be coverd with 20mm or thicker heat insulation materials at the place where humidity exceeds 70%.

Note 3. When used below -5°C, install a snow hood on site.

Regarding outline of a snow hood, refer to our technical maunal.

PFA004Z051

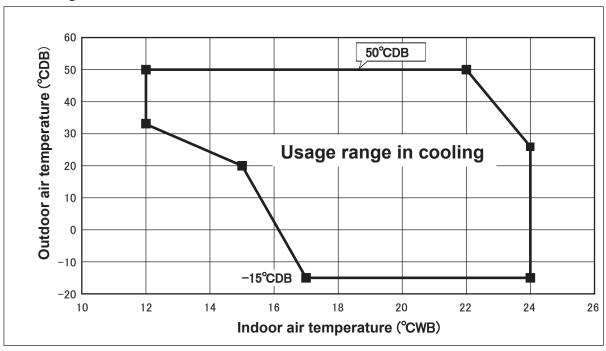
PJG000Z014

PJG000Z055

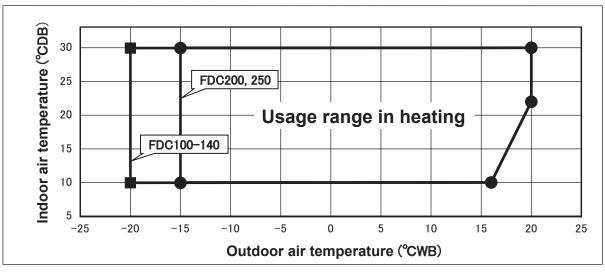
PCA001Z779

# Operating temperature range

### ■ Cooling



### ■ Heating



Decline in cooling and heating capacity or operation stop may occur when the outdoor unit is installed in places where natural wind can increase or decrease its design air flow rate.

"CAUTION" Cooling operation under low outdoor air temperature conditions

PAC models can be operated in cooling mode at low outdoor air temperature condition within above temperature range. However in case of severely low temperature conditions if the following precaution is not observed, it may not be operated in spite of operable temperature range mentioned above and cooling capacity may not be established under certain conditions.

### [Precaution]

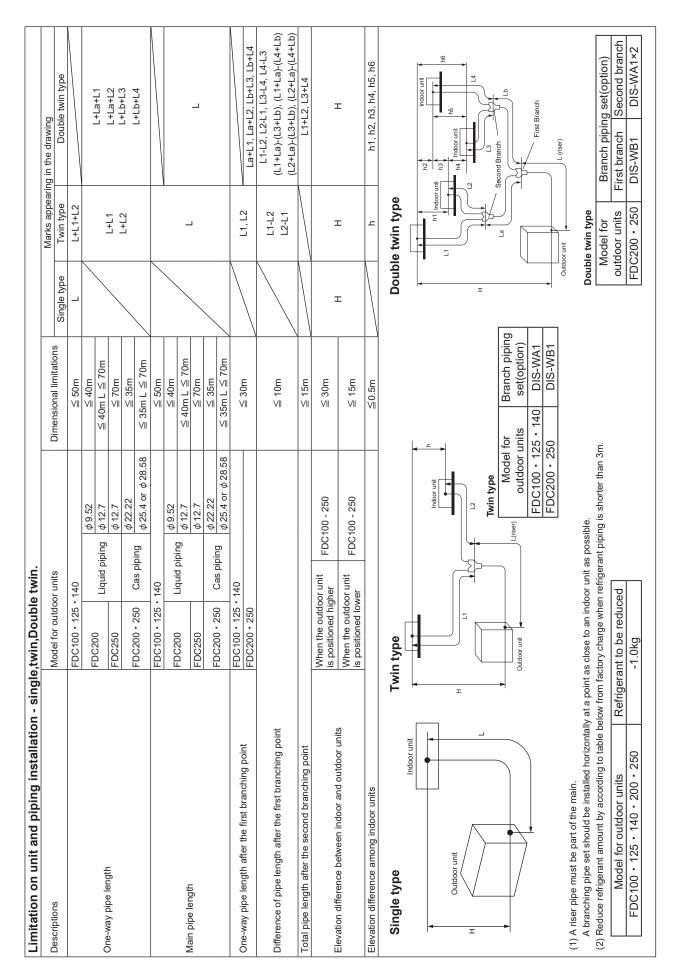
In case of severely low temperature condition

- 1) Install the outdoor unit at the place where strong wind cannot blow directly into the outdoor unit.
- 2) If there is no installation place where can prevent strong wind from directly blowing into the outdoor unit, mount the flex flow adapter (prepared as optional part) or like such devices onto the outdoor unit in order to divert the strong wind.

### [Reason]

Under the low outdoor air temperature conditions of -5°C or lower, the outdoor fan is controlled at lower or lowest speed by outdoor fan control, but if strong wind directly blow into the outdoor unit, the outdoor heat exchanger temperature will drop more.

This makes high and low pressures to drop as well. This low pressure drop makes the indoor heat exchanger temperature to drop and will activate anti-frost control at indoor heat exchanger at frequent intervals, that cooling operation may not be established for any given time.



Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Companies   Comp	Limitation on unit and piping installation - triple.							
Leads pipe   A   Case pipe	Triple type (In case of FDC140 • 200)	One-way pipe length differ	ence from the first bra	nching point to the indoor unit				N 3m
Liber   1999   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6925   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400   6400		Model for outdoor units			Dimensional limitations	Triple type A	Trip	Triple type B
Case pipers   0.25% or 2.218   5.70m   Little Lists   Lists		FDC140			≥ 50m	L+L1+L2+L3	L+La+L1+L2+L3	+L2+L3
Case piping   625.5 cm 28.58   5.50m   List. L			paiaia binoi I	φ9.52	≥ 40m			
Class plant   0.522	One-way pipe length	FDC200		Ø12.7	m0./≥	L+L1, L+L2, L+L3	L+L1	*
Class ploting   625.22   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625.00   625			Gas piping	\$25.4 or \$28.58	/ 25			
Class plane   652.2   25 m				\$ 22.22	III N			
Class plant   252.22   25.0m   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13   1.1. 12.13		FDC140		(1)	wos ≤			
Class piping	-		Liquid piping	20.50	₩ 40m	_		-
Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploints   Class ploint	Main pipe length	FDC200		φ12.7 φ25.4 or φ28.58		_		_
Signary   Lit. Lit. Lit. Lit. Lit. Lit. Lit. Lit.			Gas piping	\$22.50 \$22.20	A 35m			
Signature   1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	Pining length between the first branching point and the second branching on	tio		) 1	E V			
Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Comparison   Com	One-way pine langth between the first branching point and indoor unite				10 N	1 2 3	-	
Signature   1	One-way pipe length from the first brenching point and motor units through the	+diod paidoderd bacoos ed				L1, L2, L3	CHO	- × - × - × - × - × - × - × - × - × - ×
se town the first branching point is blacked until framework in second branching for the first branching point is blacked until framework in second branching point is blacked until framework in the second branching point is blacked until framework in the second branching point is blacked by a positioned branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in blacked until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point in finder until my first branching point branching point propriet producer the until my first branching point producer the until my first branching point producer the until my first branching point producer the until my first branch	One-way pipe length from the first prancining point to find of the construction of the	le second prancing point			// 200	0 - 1 - 0 - 1 - 0 - 0 - 0 - 0 - 0 - 0 -	רמ+רכ,	- 11
The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.  The part of the main.	Piping length difference from the first branching point to indoor unit				3m > 10m	LI-LE, LI-LO, LE-LO	(2   1 = () -1	11-(13+13) %1
Vivine ms autosor units   Vivine ms autosor units positioned lugier   Sistem   His ite	One-way pipe length difference from the second branching point to indoor ur	mit			N 10m		1-5-1	
Trick plear from the factor units and addoor units around control of the factor of the		Г	ositioned higher		× 30m			
rough sector cuts    Frozens of FOC260    Model for contact cuts   Frozens of FOC260    Model for contact cuts   Frozens of FOC260    Model for contact cuts   Frozens of FOC260    Model for contact cuts   Frozens of FOC260    Model for contact cuts   Frozens of FOC260    Model for contact cuts   Frozens of FOC260    Model for contact cuts   Frozens of FOC260    Model for contact cuts   Frozens of FOC260    Model for contact cuts   Frozens of FOC260    Model for contact cuts   Frozens of FOC260    Model for contact cuts   Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FOC260    Frozens of FoC260    Frozens of FoC260    Frozens of FoC260    Frozens of FoC260    Frozens of FoC260    Frozens of FoC260    Frozens of Frozens of FoC260    Frozens of FoC260    Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of Frozens of	Elevation difference between indoor and outdoor units	When the outdoor unit is p	ositioned lower		N 15m	I		I
Triple type    Triple type   T	Elevation difference among indoor units				≥ 0.5m	h1, h2, h3	h1,	h1, h2, h3
increase of FDC280)    Account for cutsor units in the control may be a plant of the cutsor units in the c	Triple type					Marks	appearing in the drawing	
More the cardoor units are part of the mail.   More the factory charge when refrigerant to pink the part of the mail.   More the factory charge when refrigerant to pink the solution units as close to an indoor unit as possible.   EDC140   DIS-TR1   EDC200   DIS-TR1   DIS-WR	(incase of FDC250)	One-way pipe length differ	ence from the first bra	anching point to the indoor unit				≥ 3m
Class piping   42222   2570n   Class   1.1 Licitati2   1.2 Licitati3   1.2 Estimating point from to the second branching point and color until as posteround injector until as posteround i	Restrictions	Model for outdoor units			Dimensional restrictions	Triple type B		
Poet from the first branching point from the netted branching point from the netted branching point from the lines branching point from the lines branching point from the lines branching point from the lines branching point to indoor units a positioned higher some freed to see from the lines branching point to indoor units and the lines branching point to indoor units and the lines branching point to indoor units and the lines branching point to indoor units and the lines branching point to indoor units and the lines branching point to indoor units and the lines branching point to indoor units and the lines branching point to indoor units and the lines branching point to indoor units and the lines branching point of the lines branching point of the lines branching point of the lines branching point of the lines branching point of the lines branching point of the lines branching point properties and the lines branching point of the lines branching point of the lines branching point properties and the lines branching point of the lines branching point properties and the lines branching point of the lines branching point properties and the lines branching point of the lines branching point of the lines branching point properties and the lines branching point of the lines branching point properties and the lines branching point of the lines branching point properties and the lines branching point properties and the lines branching point properties and the lines branching point properties and the lines branching properties are point as close to an indoor unit as possible.  In the lines branching point properties and the lines branching properties are part of the main.  In the lines branching point properties are part of the main.  In the lines branching point properties are part of the lines branching properties and the lines branching properties are part of the lines branching properties and the lines branching properties are part of the lines branching properties are part of the lines branching properties and the	One-way pipe length		Gas piping	φ22.22	≤ 35m			
Class piping   \$\frac{\text{dispersion}}{\text{post}} \frac{\text{dispersion}}{\text{post}} \frac{\text{dispersion}}{\text{dispersion}} \text{disp	مناه مالم اداقات		0	φ25.4 or φ28.58	≥ 70m			
## 1	Main pipe length		Gas piping	φ 22.22	≤ 35m	٦		
Triple type B  Triple type B  Triple type B  Hand Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  Solve to an indoor unit as possible.  FDC200  DIS-TR1  DIS-WR1  Propagator Property Part Property Part Part Part Part Part Part Part Part				\$425.4 or \$428.58	m0./≤			
Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type A  Triple type A  Triple	One-way pipe length between the first branching point from to the second bi	ranching point			me √		Prohik	Prohibition of use
Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple type B  Triple	One-way pipe length between the first branching point and indoor units				⊪ 30m			
Triple type B  ** I Install the indoor units so becomes the longest one- Report the pipe length differ  ** I Install the indoor units so  ** I	Piping length difference from the first branching point to indoor unit				< 3m	L1-(La+L2), L1-(La+L3)   L2-L3, L3-L2		
Triple type B  ** 1 Install the indoor units so becomes the longest one-keep the pipe length different indoor unit as possible.  Triple type B  ** 1 Install the indoor units so becomes the longest one-keep the pipe length different indoor unit as possible.  ** 2 Connect the unit that is the capacity with L1.  ** 2 Connect the unit that is the capacity with L1.  ** 3 Install the indoor units so become stall the indoor units so become stall indoor units as possible.  ** 4 Install the indoor units so become stall indoor units so become stall indoor units so become stall indoor units so become stall indoor units so indoor unit as possible.  ** 5 Connect the unit that is the capacity with L1.  ** 5 Connect the unit that is the capacity with L1.  ** 6 Connect the unit that is the capacity with L1.  ** 7 Install the indoor units so become stall indoor units as possible.  ** 6 Connect the unit that is the capacity with L1.  ** 7 Connect the unit that is the capacity with L1.  ** 8 Connect the unit that is the capacity with L1.  ** 8 Connect the unit that is the capacity with L1.  ** 1 Install the indoor units so indoor unit as possible.  ** 1 Install the indoor units so indoor unit as possible.  ** 1 Install the indoor units so indoor units as possible.  ** 1 Install the indoor units so indoor units as possible.  ** 2 Connect the unit that is the indoor units as possible.  ** 2 Connect the unit that is the indoor units as possible.  ** 2 Connect the unit that is the indoor units as possible.  ** 2 Connect the unit that is the indoor units as possible.  ** 3 Connect the unit that is the indoor units as possible.  ** 4 Install the indoor units as possible.  ** 4 Install the indoor units as possible.  ** 5 Connect the unit that is the indoor units as possible.  ** 5 Connect the unit that is the indoor units as possible.  ** 5 Connect the unit that is the indoor units as possible.  ** 5 Connect the unit that is the indoor units as possible.  ** 6 Connect the unit that is the indoor units as possible.  ** 1 Connect the unit		When the outdoor unit is g	ositioned higher		≥ 30m			
Triple type B  ** 1 Install the indoor units so becomes the longest one-keep the pipe length difference to an indoor unit as possible.  Triple type B  ** 1 Install the indoor units so becomes the longest one-keep the pipe length difference to an indoor unit as possible.    Possible   P	Elevation difference between indoor and outdoor units	When the outdoor unit is p	ositioned lower		≥ 15m	I		
** 1 Install the indoor units so becomes the longest one- Keep the pipe length difference to the	Elevation difference among indoor units				≥ 0.5m	h1, h2, h3		
hindoor unit high his had becomes the longest one-from the pipe length difference in the pipe le	Triple type A		Triple type	<b>B</b>		* 1 Insta	II the indoor units so the	at L+L1
First Branch  Model for  Model for  FDC140  DIS-TA1  DIS-WA1  DIS-WA1  DIS-WA1  DIS-WA1  DIS-WA1  DIS-WA1  DIS-WB1								
First Branch  Triple type  Model for Type A  PDC140  DIS-TA1  Those with L1.  Resp the pipe length differ the unit that is the capacity with L1.  Branch piping set(op Type A  First Branch pipe  First Branch pipe  First branch  FDC140  DIS-WA1  FDC200  DIS-TB1  DIS-WB1	Indoor unit	<b>4</b> 14	4	Indoor unit	-	poed	mes the longest one-wa	ay pipe.
First Branch  Triple type  Model for Type A  Outdoor units  FDC140  DIS-TA1  L1 and (La+L2) or (La+L3)  ** 2 Connect the unit that is th capacity with L1.  Branch piping set(op Type A  FIRST Branch Piping Set(op Dis-TA1  FDC140  DIS-WA1  FDC200  DIS-TB1  DIS-WB1					h2	Keep	the pipe length differen	ice between
** 2 Connect the unit that is th capacity with L1.    Triple type		h2				L1 ar	nd (La+L2) or (La+L3) wi	thin 10m.
First Branch  Triple type  Model for Type A  PDC140  DIS-TB1  MIS-WB1  Model for Type A  FIRST branch piping set(op Branch piping set(op Branch piping set(op Branch pipe)  FDC200  DIS-TB1  DIS-WB1		*	I			, acc	a od+ si +ed+ tidii od+ toor	mixed
Triple type   Print Branch   Print				[1]	E7		ect the diff that is the control with 1.1	וומאוווומווו
First Branch  Model for Type A  Outdoor units  FDC140  DIS-TB1  Triple type  Branch piping set(op Type A  Type A  Branch piping set(op Type A  Branch piping set(op Type A  Branch piping set(op Type A  Branch Dis-Wa1  FDC200  DIS-TB1  DIS-WB1					,	Cal	City with E1.	
Model for			_					
Model for Type A Trist branch piping set(op outdoor units Branch pipe First branch FDC140 DIS-TA1 DIS-WA1 FDC200 DIS-TB1 DIS-WB1				First		, De		
Model for Type A Type Outdoor units Branch pipe First branch FDC140 DIS-TA1 DIS-WA1 FDC200 DIS-TB1 DIS-WB1			•	(ricar)			oitao)too saiaia doa	
Outdoor units         Type A         Typ           Procession         DIS-TA1         DIS-WA1           FDC200         DIS-TB1         DIS-WB1			Outdoor ur				ilicii pipiiig setoptit	11)
FDC140 DIS-TA1 DIS-WA1 FDC200 DIS-TB1 DIS-WB1					2 7		Type B	В
FDC140 DIS-TA1 FDC200 DIS-TB1					250			Second branch
FDC200 DIS-TB1	(1) A riser pipe must be part of the main.	-	-	-	FDC		DIS-WA1	DIS-WA1
	A branching pipe set should be installed norizonta	ally at a point as close t	o an Indoor uni	t as possible.	FDC		DIS-WR1	DIS-WA1
	(2) Reduce refrigerant amount by 1.0kg from the fact	ory charge when refrige	erant piping is s	horter than 3m.			5	

# 2.9 SELECTION CHART

Correct the cooling and heating capacity in accordance with the operating conditions. The net cooling and heating capacity can be obtained in the following way.

Net capacity = Capacity shown in the capacity tables (2.9.1) × Correction factors shown in the table (2.9.2) (2.9.3) (2.9.4).

**Caution:** In case that the cooling operation during low outdoor air temperature below -5°C is expected, install the outdoor unit where it is not influenced by natural wind. Otherwise protection control by low pressure will be activated much more frequently and it will cause insufficient capacity or breakdown of the compressor in worst case.

### 2.9.1 Capacity tables

(1) Ceiling susponded type (FDE) (a) Single type

ModelFDE100VNAVGIndoor unitFDE100VGOutdoor unitFDC100VNACooling mode(kW) Heating mode:HC(kW)

							Indo	oor air t	empera	iture							Ou	tdoor		Indoor	air temp	perature	;
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	air	emp.			°CDB		
15111p.	12 °	CWB	14 °	CWB	16 °C	CWB	18 °C	CWB	19 °	CWB	20 °	CWB	22 °	CWB	24 °C	CWB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	6.82	6.79	6.77	6.75	6.72
11					8.12	7.37	8.59	8.01	8.82	7.95	9.07	7.89	9.56	8.38	10.06	8.23	-17.7	-18	7.16	7.14	7.10	7.08	7.04
13					8.50	7.52	9.00	8.17	9.26	8.11	9.52	8.05	10.06	8.53	10.60	8.38	-15.7	-16	7.50	7.46	7.44	7.40	7.37
15					8.88	7.67	9.42	8.32	9.69	8.26	9.98	8.20	10.56	8.69	11.14	8.54	-13.5	-14	7.86	7.83	7.79	7.76	7.72
17					9.26	7.83	9.84	8.48	10.12	8.42	10.43	8.36	11.05	8.85	11.67	8.69	-11.5	-12	8.23	8.19	8.15	8.12	8.08
19					9.46	7.91	10.05	8.56	10.34	8.50	10.65	8.44	11.29	8.92	11.92	8.77	-9.5	-10	8.58	8.55	8.50	8.47	8.42
21					9.65	7.99	10.25	8.64	10.56	8.58	10.88	8.52	11.52	9.00	12.16	8.84	-7.5	-8	8.93	8.89	8.85	8.80	8.75
23					9.65	7.99	10.28	8.65	10.59	8.59	10.91	8.53	11.56	9.01	12.21	8.85	-5.5	-6	9.05	9.00	8.97	8.91	8.86
25			8.93	8.14	9.64	7.99	10.31	8.66	10.62	8.60	10.95	8.54	11.61	9.03	12.27	8.87	-3.0	-4	9.17	9.12	9.07	9.03	8.97
27			8.86	8.11	9.64	7.99	10.34	8.68	10.65	8.61	10.96	8.55	11.57	9.01			-1.0	-2	9.29	9.23	9.19	9.13	9.07
29			8.80	8.08	9.50	7.93	10.17	8.61	10.49	8.56	10.81	8.49	11.45	8.98			1.0	0	9.40	9.34	9.29	9.23	9.18
31			8.73	8.05	9.35	7.87	9.99	8.54	10.32	8.49	10.66	8.44	11.32	8.93			2.0	1	9.45	9.39	9.34	9.28	9.22
33	8.22	7.48	8.58	7.98	9.21	7.81	9.82	8.48	10.16	8.43	10.51	8.39	11.19	8.89			3.0	2	9.82	9.77	9.71	9.67	9.63
35	8.05	7.40	8.44	7.92	9.06	7.75	9.64	8.41	10.00	8.38	10.36	8.34	11.07	8.85			5.0	4	10.21	10.15	10.09	10.08	10.07
37	7.92	7.34	8.30	7.86	8.91	7.69	9.46	8.34	9.79	8.30	10.13	8.26	10.80	8.77			7.0	6	11.33	11.27	11.20	11.22	11.23
39	7.78	7.27	8.16	7.80	8.75	7.62	9.28	8.27	9.59	8.23	9.90	8.18	10.53	8.68			9.0	8	11.78	11.71	11.64	11.62	11.59
41	7.64	7.21	8.02	7.74	8.60	7.56	9.09	8.20	9.38	8.15	9.68	8.10	10.26	8.60			11.5	10	12.23	12.16	12.09	12.02	11.94
43	7.50	7.14	7.88	7.67	8.45	7.50	8.91	8.13	9.18	8.08	9.45	8.02	9.99	8.51			13.5	12	12.91	12.83	12.75	12.65	12.60
46	7.33	7.06	7.67	7.52	8.22	7.41	8.58	8.01	8.83	7.95	9.07	7.89	9.57	8.38			15.5	14	13.59	13.50	13.42	13.29	13.26
50	7.09	6.95	7.39	7.24	7.91	7.28	8.19	7.87	8.35	7.79	8.51	7.70	8.83	8.15			16.5	16	13.93	13.84	13.75	13.61	13.59

PFA004Z048 🛕

**Model FDE100VSAVG** Indoor unit FDE100VG Outdoor unit FDC100VSA Cooling mode

(kW) Heating mode:HC

(kW)

																		Outdoor Indoor air temperature					
0.11			_		_		Indo	oor air t	empera	ture					_		Οι	tdoor		Indoor	air temp	erature	;
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	air	emp.			°CDB		
un tomp.	12 °C	CWB	14 °0	CWB	16 °C	CWB	18 °0	CWB	19 °C	CWB	20 °C	CWB	22 °	CWB	24 °C	CWB	°CDE	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	6.82	6.79	6.77	6.75	6.72
11					8.12	7.37	8.59	8.01	8.82	7.95	9.07	7.89	9.56	8.38	10.06	8.23	-17.7	-18	7.16	7.14	7.10	7.08	7.04
13					8.50	7.52	9.00	8.17	9.26	8.11	9.52	8.05	10.06	8.53	10.60	8.38	-15.7	-16	7.50	7.46	7.44	7.40	7.37
15					8.88	7.67	9.42	8.32	9.69	8.26	9.98	8.20	10.56	8.69	11.14	8.54	-13.5	-14	7.86	7.83	7.79	7.76	7.72
17					9.26	7.83	9.84	8.48	10.12	8.42	10.43	8.36	11.05	8.85	11.67	8.69	-11.5	-12	8.23	8.19	8.15	8.12	8.08
19					9.46	7.91	10.05	8.56	10.34	8.50	10.65	8.44	11.29	8.92	11.92	8.77	-9.5	-10	8.58	8.55	8.50	8.47	8.42
21					9.65	7.99	10.25	8.64	10.56	8.58	10.88	8.52	11.52	9.00	12.16	8.84	-7.5	-8	8.93	8.89	8.85	8.80	8.75
23					9.65	7.99	10.28	8.65	10.59	8.59	10.91	8.53	11.56	9.01	12.21	8.85	-5.5	-6	9.05	9.00	8.97	8.91	8.86
25			8.93	8.14	9.64	7.99	10.31	8.66	10.62	8.60	10.95	8.54	11.61	9.03	12.27	8.87	-3.0	-4	9.17	9.12	9.07	9.03	8.97
27			8.86	8.11	9.64	7.99	10.34	8.68	10.65	8.61	10.96	8.55	11.57	9.01			-1.0	-2	9.29	9.23	9.19	9.13	9.07
29			8.80	8.08	9.50	7.93	10.17	8.61	10.49	8.56	10.81	8.49	11.45	8.98			1.0	0	9.40	9.34	9.29	9.23	9.18
31			8.73	8.05	9.35	7.87	9.99	8.54	10.32	8.49	10.66	8.44	11.32	8.93			2.0	1	9.45	9.39	9.34	9.28	9.22
33	8.22	7.48	8.58	7.98	9.21	7.81	9.82	8.48	10.16	8.43	10.51	8.39	11.19	8.89			3.0	2	9.82	9.77	9.71	9.67	9.63
35	8.05	7.40	8.44	7.92	9.06	7.75	9.64	8.41	10.00	8.38	10.36	8.34	11.07	8.85			5.0	4	10.21	10.15	10.09	10.08	10.07
37	7.92	7.34	8.30	7.86	8.91	7.69	9.46	8.34	9.79	8.30	10.13	8.26	10.80	8.77			7.0	6	11.33	11.27	11.20	11.22	11.23
39	7.78	7.27	8.16	7.80	8.75	7.62	9.28	8.27	9.59	8.23	9.90	8.18	10.53	8.68			9.0	8	11.78	11.71	11.64	11.62	11.59
41	7.64	7.21	8.02	7.74	8.60	7.56	9.09	8.20	9.38	8.15	9.68	8.10	10.26	8.60			11.5	10	12.23	12.16	12.09	12.02	11.94
43	7.50	7.14	7.88	7.67	8.45	7.50	8.91	8.13	9.18	8.08	9.45	8.02	9.99	8.51			13.5	12	12.91	12.83	12.75	12.65	12.60
46	7.33	7.06	7.67	7.52	8.22	7.41	8.58	8.01	8.83	7.95	9.07	7.89	9.57	8.38			15.5	14	13.59	13.50	13.42	13.29	13.26
50	7.09	6.95	7.39	7.24	7.91	7.28	8.19	7.87	8.35	7.79	8.51	7.70	8.83	8.15			16.5	16	13.93	13.84	13.75	13.61	13.59

Notes (1) These data show average status

) These data show average status.
Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (Cooling only) In the heating mode in which the outside air temperature is 0°C DB or less, the compressor operates at maximum frequency.

in the heating flow in which the outside at tenoperates at maximum frequency.
(2) Capacities are based on the following conditions.
Corresponding refrigerant piping length: 7.5m
Level difference of Zero. (3) Symbols are as follows

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)



FDE125VNAVG Indoor unit FDE125VG Outdoor unit FDC125VNA Model (kW) Heating mode:HC (kW) Cooling mode Indoor air temperature Outdoor Indoor air temperature Outdoo 18 °CDB 21 °CDB 23 °CDB 27 °CDB 28 °CDB 31 °CDB 33 °CDB air temp 26 °CDB °CDB air temp 12 °CWB 14 °CWB 16 °CWB 18 °CWB 19 °CWB 20 °CWB 22 °CWB 24 °CWB CDB CWE 16 18 20 22 24 °CDB TC SHC SHC TC SHC SHC TC SHC 19.8 -20 7.77 7.73 7.67 7.65 TC SHC TC TC SHC SHC TC TC 7.70 10.74 8.83 11.03 8.76 1.96 2.57 8.96 8.03 10.15 8.20 11.34 8.68 -17.7 -18 8.16 8.13 8.11 8.06 13 10.63 8.41 11.26 9.03 11.57 8.96 11.91 8.89 12.58 9.35 13.25 9.16 -15.7 -16 8.57 8.53 8.50 8.46 8.42 15 11.10 8.61 11.78 9.24 12.11 9.17 12.47 9.10 13.20 9.56 13.92 9.37 -13.5 -14 9.02 8.98 8.94 8.90 8.86 17 11.58 8.82 12.29 9.45 12.65 9.38 13.04 9.31 13.82 9.77 14.59 9.58 -11.5 -12 9.46 9.41 9.37 9.33 9.28 11.82 9.70 19 8.92 12.56 9.56 12.92 9.48 13.32 9.41 14.11 9.87 14.90 9.68 -9.5 -10 9.90 9.84 9.80 9.76 21 12.06 9.03 12.82 9.66 13.19 9.59 13.60 9.52 14.40 9.97 5.20 9.77 -7.5 -8 10.32 10.28 10.23 10.17 10.12 23 12.06 9.03 12.85 9.68 13.23 9.60 13.64 9.53 14.45 9.99 5.27 9.79 -5.5 -6 10.50 10.45 10.39 10.33 10.28 25 -3.0 -4 10.66 10.61 10.55 10.49 10.43 11.16 9.16 12.06 9.03 12.89 9.69 13.27 9.62 13.68 9.55 14.51 10.01 15.34 9.82 27 11.08 9.13 12.05 9.02 12.92 9.71 13.31 9.64 13.69 9.55 14.47 9.99 -1.0 -2 10.82 10.77 10.71 10.65 10.58 29 11.00 9.09 11.87 8.94 12.71 9.62 13.11 9.56 13.51 9.48 14.31 9.94 1.0 0 10.99 10.93 10.87 10.80 10.73 31 10.92 9.05 11.69 8.87 12.49 9.53 12.90 9.47 13.32 14.15 9.88 2.0 11.07 11.01 10.94 10.88 10.81 9.41 1 1.92 11.78 11.68 33 10.27 10.72 8.96 11.51 8.79 12.27 9.44 12.70 9.40 13.13 13.99 9.83 3.0 11.85 11.73 4 35 10.07 8.39 10.55 8.88 11.33 8.71 12.06 9.35 12.50 9.32 12.94 9.27 13.83 9.77 5.0 12.76 12.69 12 61 12 60 12 58 37 9.90 8.30 8.80 11.13 8.62 9.26 12.24 12.66 9.17 13.50 9.66 7.0 6 14.16 14.08 14.00 14.02 14.04 10.38 11.83 9.22 39 9.72 8.21 10.20 8.71 10.94 8.54 11.60 9.17 11.99 9.12 12.38 9.06 13.16 9.54 9.0 14.72 14.64 14.56 14.52 14.49 41 10.75 9 43 10 15 28 15 20 15 11 15.02 14 93 9 55 8 13 10.02 8 63 8 46 1137 9.08 1173 9.02 12 09 8.96 1282 11.5 43 9.38 8.04 9.85 8.55 10.56 8.38 11.14 8.99 11.47 8.92 11.81 8.85 2.48 9.31 13.5 12 16.13 16.04 15.94 15.82 15.75 46 9.21 7.96 9.53 8.41 10.28 8.26 10.88 8.89 11.12 8.79 11.28 8.66 11.96 9.14 15.5 14 16.98 | 16.88 | 16.77 | 16.62 16.58 16 16.5 17.41 17.30 17.19 17.02 50 7.43 7.11 7.63 7.48 8.25 7.42 8.67 8.78 7.94 7.80 9.05 8.22 16.99 8.04 8.80

PFA004Z048

Model FDE125VSAVG Indoor unit FDE125VG Outdoor unit FDC125VSA Cooling mode (kW) Heating mode:HC (kW)

							Indo	oor air t	empera	ture								Outd	oor		Indoor	air temp	erature	;
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB		air te	mp.			°CDB		
un tomp.	12 °(	CWB	14 °C	CWB	16 °C	CWB	18 °0	CWB	19 °C	CWB	20 °	CWB	22 °C	CWB	24 °C	CWB	°C	CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-1	19.8	-20	7.77	7.73	7.70	7.67	7.65
11					10.15	8.20	10.74	8.83	11.03	8.76	11.34	8.68	11.96	9.14	12.57	8.96	-1	17.7	-18	8.16	8.13	8.11	8.06	8.03
13					10.63	8.41	11.26	9.03	11.57	8.96	11.91	8.89	12.58	9.35	13.25	9.16	-1	15.7	-16	8.57	8.53	8.50	8.46	8.42
15					11.10	8.61	11.78	9.24	12.11	9.17	12.47	9.10	13.20	9.56	13.92	9.37	-1	13.5	-14	9.02	8.98	8.94	8.90	8.86
17					11.58	8.82	12.29	9.45	12.65	9.38	13.04	9.31	13.82	9.77	14.59	9.58	-1	11.5	-12	9.46	9.41	9.37	9.33	9.28
19					11.82	8.92	12.56	9.56	12.92	9.48	13.32	9.41	14.11	9.87	14.90	9.68	-	9.5	-10	9.90	9.84	9.80	9.76	9.70
21					12.06	9.03	12.82	9.66	13.19	9.59	13.60	9.52	14.40	9.97	15.20	9.77	-	7.5	-8	10.32	10.28	10.23	10.17	10.12
23					12.06	9.03	12.85	9.68	13.23	9.60	13.64	9.53	14.45	9.99	15.27	9.79	-	5.5	-6	10.50	10.45	10.39	10.33	10.28
25			11.16	9.16	12.06	9.03	12.89	9.69	13.27	9.62	13.68	9.55	14.51	10.01	15.34	9.82	-3	3.0	-4	10.66	10.61	10.55	10.49	10.43
27			11.08	9.13	12.05	9.02	12.92	9.71	13.31	9.64	13.69	9.55	14.47	9.99			F	1.0	-2	10.82	10.77	10.71	10.65	10.58
29			11.00	9.09	11.87	8.94	12.71	9.62	13.11	9.56	13.51	9.48	14.31	9.94			•	1.0	0	10.99	10.93	10.87	10.80	10.73
31			10.92	9.05	11.69	8.87	12.49	9.53	12.90	9.47	13.32	9.41	14.15	9.88			2	2.0	1	11.07	11.01	10.94	10.88	10.81
33	10.27	8.49	10.72	8.96	11.51	8.79	12.27	9.44	12.70	9.40	13.13	9.34	13.99	9.83			3	3.0	2	11.92	11.85	11.78	11.73	11.68
35	10.07	8.39	10.55	8.88	11.33	8.71	12.06	9.35	12.50	9.32	12.94	9.27	13.83	9.77			Ę	5.0	4	12.76	12.69	12.61	12.60	12.58
37	9.90	8.30	10.38	8.80	11.13	8.62	11.83	9.26	12.24	9.22	12.66	9.17	13.50	9.66			7	7.0	6	14.16	14.08	14.00	14.02	14.04
39	9.72	8.21	10.20	8.71	10.94	8.54	11.60	9.17	11.99	9.12	12.38	9.06	13.16	9.54			(	9.0	8	14.72	14.64	14.56	14.52	14.49
41	9.55	8.13	10.02	8.63	10.75	8.46	11.37	9.08	11.73	9.02	12.09	8.96	12.82	9.43			1	1.5	10	15.28	15.20	15.11	15.02	14.93
43	9.38	8.04	9.85	8.55	10.56	8.38	11.14	8.99	11.47	8.92	11.81	8.85	12.48	9.31			1	3.5	12	16.13	16.04	15.94	15.82	15.75
46	9.21	7.96	9.53	8.41	10.28	8.26	10.88	8.89	11.12	8.79	11.28	8.66	11.96	9.14			1	5.5	14	16.98	16.88	16.77	16.62	16.58
50	7.43	7.11	7.63	7.48	8.25	7.42	8.67	8.04	8.78	7.94	8.80	7.80	9.05	8.22			1	6.5	16	17.41	17.30	17.19	17.02	16.99

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed. (Cooling only) In the heating mode in which the outside air temperature is 0°C DB or less, the compressor operates at maximum frequency. (2) Capacities are based on the following conditions.

(2) Capacities are based on the following condition
Corresponding refrigerant piping length: 7.5m
Level difference of Zero.
(3) Symbols are as follows
TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

PFA004Z048

FDE140VNAVG Indoor unit FDE140VG Outdoor unit FDC140VNA Model (kW) Heating mode:HC (kW) Cooling mode Indoor air temperature Outdoor Indoor air temperature Outdoo air temp 18 °CDB 21 °CDB 23 °CDB 26 °CDB 27 °CDB 28 °CDB 31 °CDB 33 °CDB °CDB air temp 12 °CWB 14 °CWB 16 °CWB 18 °CWB 19 °CWB 20 °CWB 22 °CWB 24 °CWB °CDB | °CWE 16 18 20 22 24 CDB SHC 19.8 -20 7.94 7.82 TC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC 7.91 7.88 7.85 3.68 11.05 8.83 11.68 9.49 12.00 9.41 12.34 9.33 3.0 9.81 9.62 -17.7 -18 8.44 8.41 8.37 8.34 8.30 13 11.56 9.05 12.25 9.71 12.59 9.63 12.95 9.55 13.69 10.04 14.42 9.84 -15.7 -16 8.94 8.90 8.86 8.82 8.79 15 12.07 9.27 -13.5 -14 9.50 9.46 9.41 9.37 9.33 12.81 9.94 13.18 9.86 13.57 9.78 14.36 10.27 15.14 10.07 9.88 17 12.59 9.49 13.38 10.17 13.77 10.09 14.19 15.04 10.50 15.87 10.29 -11.5 -12 10.07 10.02 9.98 9.93 19 12.86 9.61 13.66 10.28 14.07 10.21 14.49 10.13 15.35 10.61 16.20 10.40 -9.5 -10 10.64 10.59 10.54 10.49 10.44 21 13.12 9.73 13.95 10.40 14.36 10.32 14.79 10.25 15.66 10.72 6.53 -7.5 -8 11.21 11.15 11.10 11.04 10.99 10.51 23 13.12 9.73 13.99 10.42 14.40 10.34 14.84 10.26 15.73 10.74 6.61 10.53 -5.5 -6 11.51 11.45 11.39 11.33 11.27 -3.0 -4 11.80 11.74 11.68 11.62 11.55 25 12.14 9.87 13.11 9.73 14.02 10.43 14.44 10.35 14.89 10.28 15.79 10.76 16.69 10.56 27 12.06 9.83 13.11 9.73 14.06 10.45 14.48 10.37 14.90 10.29 15.74 10.75 -1.0 -2 12.11 12.05 11.98 11.91 11.84 29 11.97 9.79 12.91 9.64 13.82 10.35 14.26 10.28 14.70 10.21 15.56 10.68 1.0 0 12.42 | 12.35 | 12.28 | 12.20 12.13 11.88 9.75 12.72 9.55 13.59 10.26 14.04 10.20 14.49 15.40 10.63 2.0 12.58 12.50 12.43 12.35 12.28 31 10.13 1 33 11.18 11.67 9.65 12.52 9.46 13.36 10.16 13.82 14.29 10.05 5.22 10.57 3.0 3.35 13.27 13.20 13.13 13.08 4 35 10.96 9.04 11.48 9.56 12.32 9.37 13.11 10.06 13.60 10.02 14.09 9.98 15.05 10.50 5.0 14 12 14 05 13 96 13 95 13 93 37 8.94 9.47 9.29 13.77 9.86 10.38 7.0 6 15.68 15.59 15.50 15.52 15.55 10.76 11.29 12.11 12.87 9.96 13.32 9.91 14.69 9.38 9.20 9.86 10.25 16.03 39 10.58 8.85 11.10 11.91 12.62 13.05 9.81 13.46 9.74 14.32 9.0 8 16.30 16.21 16.11 16.07 10 16 63 16.53 41 10.39 8 76 10.91 9 29 1170 9 10 12 37 9 76 12 76 9 70 13 16 9 63 13 95 10 13 11.5 16 91 16 83 16 73 43 11.49 9.02 12.85 10.00 13.5 12 7.86 17.76 17.65 17.52 17.44 10.21 8.67 10.71 12.11 9.66 12.48 9.59 9.52 13.58 9.20 46 10.03 8.57 10.47 9.09 11.13 8.86 11.73 9.51 12.10 9.45 12.27 9.31 13.01 9.81 15.5 14 18.80 18.69 18.57 18.40 18.36 16 16.5 19.28 19.15 19.03 18.84 50 7.61 7.42 7.88 8.35 7.72 8.75 8.38 8.97 8.31 8.98 8.16 8.64 18.81 7.72 9.33

PFA004Z048 🛕

FDE140VSAVG Indoor unit FDE140VG Outdoor unit FDC140VSA Model (kW) Heating mode:HC (kW) Cooling mode Indoor air temperature Indoor air temperature Outdoor Outdoo 18 °CDB 21 °CDB 23 °CDB 26 °CDB 27 °CDB 28 °CDB 31 °CDB 33 °CDB °CDB air temp 14 °CWB 16 °CWB 19 °CWB 20 °CWB 22 °CWB 24 °CWB °CDB °CWE 16 24 12 °CWB 18 °CWB 18 20 22 °CDB SHC SHC TC TC TC TC TC -19.8 -20 7.94 7.91 7.88 7.82 11 11.05 8.83 11.68 9.49 12.00 9 4 1 12 34 9.33 13.01 9.81 13.68 9.62 -17 7 -18 8 44 8 4 1 8.37 8 34 8.30 11.56 8.94 8.79 13 9.05 12.25 9.71 12.59 9.63 12.95 9.55 13.69 10.04 14.42 9.84 -15.7 -16 8.90 8.86 8.82 15 12.07 9.27 12.81 9.94 13.18 9.86 13.57 9.78 14.36 10.27 15.14 10.07 -13.5 -14 9.46 9.41 9.37 9.33 9.50 17 12.59 9.49 13.38 10.17 13.77 10.09 14.19 10.02 15.04 10.50 15.87 10.29 -11.5 -12 10.07 10.02 9.98 9.93 9.88 19 12.86 9.61 13.66 10.28 14.07 10.21 14.49 10.13 15.35 10.61 6.20 10.40 -9.5 -10 0.64 10.59 10.54 10.49 10.44 13.12 10.40 14.36 10.32 10.25 10.72 16.53 11.10 10.99 9.73 13.95 14.79 15.66 10.51 -7.5 1.21 11.15 11.04 23 13.12 9.73 14.40 10.34 14.84 -5.5 -6 11.51 11.45 11.39 11.33 11.27 13.99 10.42 10.26 15.73 10.74 16.61 10.53 25 12.14 9.87 13.11 9.73 14.02 10.43 14.44 10.35 10.28 10.76 16.69 10.56 -3.0 11.80 11.74 11.68 11.62 11.55 27 12.06 9.83 13.11 9.73 14 06 10 45 14 48 10.37 14 90 10 29 15.74 10 75 -1.0 -2 12.11 12.05 11.98 11 91 11 84 29 11.97 9.79 12.91 9.64 14.26 10.28 15.56 10.68 1.0 0 12.42 12.35 12.28 12.20 12.13 13.82 10.35 14.70 10.21 31 11.88 9.75 12.72 13.59 10.26 14.04 10.20 10.13 10.63 2.0 2.58 12.50 12.43 12.35 12.28 33 11 18 9.15 1167 9 65 12.52 9 4 6 13.36 10 16 1382 10 11 14 29 10.05 15 22 10.57 3.0 2 13 35 13 27 13 20 13 13 13.08 11.48 5.0 4 14.05 35 10.96 9.04 9.56 12.32 9.37 13.11 10.06 13.60 10.02 14.09 9.98 15.05 10.50 14.12 13.96 13.95 13.93

13.16 9.63

12 85 9 52

12.27 9.31

13.95 10.13

13.58 10.00

13.01

9.81

Notes (1) These data show average status.

8.57

37

39

41

43

46

10.76 8.94

10.58 8.85

10.39 8.76

10.21 8.67 10.71 9.20

10.03

Depending on the system control, there may be ranges where the operation is not conducted continuously.

12.87 | 9.96 | 13.32 | 9.91 | 13.77 | 9.86 | 14.69 | 10.38

12.37 9.76

11.73 9.51

These data show the case where the operation frequency of a compressor is fixed. (Cooling only)
In the heating mode in which the outside air temperature is 0°CDB or less, the compressor operates at maximum frequency.

12.76 9.70

12 48 9 59

12.10 9.45

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length: 7.5m

11.29 9.47 12.11 9.29

11 10 | 938 | 11 91 | 920 | 12 62 | 986 | 13 05 | 981 | 13 46 | 974 | 14 32 | 10 25

10.91

10.47 9.09

9.29

11.70

11.49 9.02 12.11 9.66

11.13

8.35 7.72 8.75 8.38 8.97 8.31 8.98 8.16 9.33 8.64

9.10

8.86

Level difference of Zero.

(3) Symbols are as follows

Symbols are as follows TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW) PFA004Z048 🛕

18.80 18.69 18.57 18.40 18.36

15.68 | 15.59 | 15.50 | 15.52

17.76 17.65

19.28 19.15 19.03 18.84

16.83 16.73

16.30 | 16.21 | 16.11 | 16.07 | 16.03

6.91

17 86

15 55

18.81

16.63 16.53

17 52 17 44

7.0 6

9.0 8

11.5 10

13.5 12

15.5 14

16.5 16

### (b) Twin type

Model FDE100VNAPVG Indoor unit FDE50VG (2 units) Outdoor unit FDC100VNA (kW) Heatin Cooling mode

					_		Ind	oor air t	empera	ture			_		_		Г	Out	door		Indo
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB		air te	emp.		
un tomp.	12 °	CWB	14 °	CWB	16 °	CWB	18 °	CWB	19 °	CWB	20 °	CWB	22 °	CWB	24 °	CWB	°C	DB	°CWB	16	18
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19	9.8	-20	6.82	6.79
11					8.12	6.61	8.59	7.12	8.82	7.06	9.07	7.00	9.56	7.38	10.06	7.23	-17	7.7	-18	7.16	7.1
13					8.50	6.77	9.00	7.28	9.26	7.23	9.52	7.17	10.06	7.54	10.60	7.40	-15	5.7	-16	7.50	7.4
15					8.88	6.93	9.42	7.45	9.69	7.39	9.98	7.33	10.56	7.71	11.14	7.56	-13	3.5	-14	7.86	7.8
17					9.26	7.10	9.84	7.62	10.12	7.56	10.43	7.50	11.05	7.88	11.67	7.73	-1	1.5	-12	8.23	8.19
19					9.46	7.19	10.05	7.70	10.34	7.64	10.65	7.58	11.29	7.96	11.92	7.80	-9	.5	-10	8.58	8.5
21					9.65	7.27	10.25	7.78	10.56	7.73	10.88	7.67	11.52	8.04	12.16	7.88	-7	.5	-8	8.93	8.89
23					9.65	7.27	10.28	7.80	10.59	7.74	10.91	7.68	11.56	8.05	12.21	7.90	-5	.5	-6	9.05	9.00
25			8.93	7.38	9.64	7.27	10.31	7.81	10.62	7.75	10.95	7.70	11.61	8.07	12.27	7.91	-3	.0	-4	9.17	9.12
27			8.86	7.35	9.64	7.27	10.34	7.82	10.65	7.76	10.96	7.70	11.57	8.05			-1	.0	-2	9.29	9.2
29			8.80	7.32	9.50	7.20	10.17	7.75	10.49	7.70	10.81	7.64	11.45	8.01			1	.0	0	9.40	9.3
31			8.73	7.29	9.35	7.14	9.99	7.68	10.32	7.63	10.66	7.59	11.32	7.97			2	.0	1	9.45	9.3
33	8.22	6.83	8.58	7.22	9.21	7.08	9.82	7.61	10.16	7.57	10.51	7.53	11.19	7.92			3	.0	2	9.82	9.7
35	8.05	6.75	8.44	7.15	9.06	7.01	9.64	7.54	10.00	7.51	10.36	7.47	11.07	7.88			5	.0	4	10.21	10.1
37	7.92	6.68	8.30	7.09	8.91	6.95	9.46	7.46	9.79	7.43	10.13	7.39	10.80	7.79			7.	.0	6	11.33	11.2
39	7.78	6.61	8.16	7.02	8.75	6.88	9.28	7.39	9.59	7.35	9.90	7.30	10.53	7.70			9	.0	8	11.78	11.7
41	7.64	6.54	8.02	6.96	8.60	6.81	9.09	7.32	9.38	7.27	9.68	7.22	10.26	7.61			11	.5	10	12.23	12.1
43	7.50	6.48	7.88	6.89	8.45	6.75	8.91	7.25	9.18	7.20	9.45	7.14	9.99	7.52			13	.5	12	12.91	12.8
46	7.33	6.39	7.67	6.80	8.22	6.65	8.58	7.12	8.83	7.07	9.07	7.00	9.57	7.38			15	.5	14	13.59	13.5
50	7.09	6.28	7.39	6.67	7.91	6.52	8.19	6.97	8.35	6.89	8.51	6.81	8.83	7.14			16	.5	16	13.93	13.8

1)	Heati	ng mo	de:H0	2			(kW)
		door		Indoor	air temp	erature	;
	air te	emp.			°CDB		
1	°CDB	°CWB	16	18	20	22	24
]	-19.8	-20	6.82	6.79	6.77	6.75	6.72
1	-17.7	-18	7.16	7.14	7.10	7.08	7.04
1	-15.7	-16	7.50	7.46	7.44	7.40	7.37
1	-13.5	-14	7.86	7.83	7.79	7.76	7.72
1	-11.5	-12	8.23	8.19	8.15	8.12	8.08
]	-9.5	-10	8.58	8.55	8.50	8.47	8.42
1	-7.5	-8	8.93	8.89	8.85	8.80	8.75
1	-5.5	-6	9.05	9.00	8.97	8.91	8.86
1	-3.0	-4	9.17	9.12	9.07	9.03	8.97
1	-1.0	-2	9.29	9.23	9.19	9.13	9.07
]	1.0	0	9.40	9.34	9.29	9.23	9.18
1	2.0	1	9.45	9.39	9.34	9.28	9.22
1	3.0	2	9.82	9.77	9.71	9.67	9.63
1	5.0	4	10.21	10.15	10.09	10.08	10.07
1	7.0	6	11.33	11.27	11.20	11.22	11.23
1	9.0	8	11.78	11.71	11.64	11.62	11.59
1	11.5	10	12.23	12.16	12.09	12.02	11.94
1	13.5	12	12.91	12.83	12.75	12.65	12.60
1	15.5	14	13.59	13.50	13.42	13.29	13.26
]	16.5	16	13.93	13.84	13.75	13.61	13.59
_		Г					_

PFA004Z048 🛕

Model FDE100VSAPVG Indoor unit FDE50VG (2 units) Outdoor unit FDC100VSA Cooling mode (kW) Heating mode:HC (kW)

0							Inde	oor air t	empera	ture							Ш	Outo	door
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB		air te	emp.
	12 °	CWB	14 °C	CWB	16 °	CWB	18 °	CWB	19 °	CWB	20 °	CWB	22 °	CWB	24 °	CWB	Ш	°CDB	°CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	Ш	-19.8	-20
11					8.12	6.61	8.59	7.12	8.82	7.06	9.07	7.00	9.56	7.38	10.06	7.23	Ш	-17.7	-18
13					8.50	6.77	9.00	7.28	9.26	7.23	9.52	7.17	10.06	7.54	10.60	7.40	Ш	-15.7	-16
15					8.88	6.93	9.42	7.45	9.69	7.39	9.98	7.33	10.56	7.71	11.14	7.56		-13.5	-14
17					9.26	7.10	9.84	7.62	10.12	7.56	10.43	7.50	11.05	7.88	11.67	7.73		-11.5	-12
19					9.46	7.19	10.05	7.70	10.34	7.64	10.65	7.58	11.29	7.96	11.92	7.80		-9.5	-10
21					9.65	7.27	10.25	7.78	10.56	7.73	10.88	7.67	11.52	8.04	12.16	7.88		-7.5	-8
23					9.65	7.27	10.28	7.80	10.59	7.74	10.91	7.68	11.56	8.05	12.21	7.90		-5.5	-6
25			8.93	7.38	9.64	7.27	10.31	7.81	10.62	7.75	10.95	7.70	11.61	8.07	12.27	7.91	Ш	-3.0	-4
27			8.86	7.35	9.64	7.27	10.34	7.82	10.65	7.76	10.96	7.70	11.57	8.05				-1.0	-2
29			8.80	7.32	9.50	7.20	10.17	7.75	10.49	7.70	10.81	7.64	11.45	8.01			Ш	1.0	0
31			8.73	7.29	9.35	7.14	9.99	7.68	10.32	7.63	10.66	7.59	11.32	7.97			Ш	2.0	1
33	8.22	6.83	8.58	7.22	9.21	7.08	9.82	7.61	10.16	7.57	10.51	7.53	11.19	7.92				3.0	2
35	8.05	6.75	8.44	7.15	9.06	7.01	9.64	7.54	10.00	7.51	10.36	7.47	11.07	7.88				5.0	4
37	7.92	6.68	8.30	7.09	8.91	6.95	9.46	7.46	9.79	7.43	10.13	7.39	10.80	7.79			Ш	7.0	6
39	7.78	6.61	8.16	7.02	8.75	6.88	9.28	7.39	9.59	7.35	9.90	7.30	10.53	7.70			Ш	9.0	8
41	7.64	6.54	8.02	6.96	8.60	6.81	9.09	7.32	9.38	7.27	9.68	7.22	10.26	7.61			Ш	11.5	10
43	7.50	6.48	7.88	6.89	8.45	6.75	8.91	7.25	9.18	7.20	9.45	7.14	9.99	7.52			Ш	13.5	12
46	7.33	6.39	7.67	6.80	8.22	6.65	8.58	7.12	8.83	7.07	9.07	7.00	9.57	7.38				15.5	14
50	7.09	6.28	7.39	6.67	7.91	6.52	8.19	6.97	8.35	6.89	8.51	6.81	8.83	7.14				16.5	16

Out	door		Indoor	air temp	erature	)
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	6.82	6.79	6.77	6.75	6.72
-17.7	-18	7.16	7.14	7.10	7.08	7.04
-15.7	-16	7.50	7.46	7.44	7.40	7.37
-13.5	-14	7.86	7.83	7.79	7.76	7.72
-11.5	-12	8.23	8.19	8.15	8.12	8.08
-9.5	-10	8.58	8.55	8.50	8.47	8.42
-7.5	-8	8.93	8.89	8.85	8.80	8.75
-5.5	-6	9.05	9.00	8.97	8.91	8.86
-3.0	-4	9.17	9.12	9.07	9.03	8.97
-1.0	-2	9.29	9.23	9.19	9.13	9.07
1.0	0	9.40	9.34	9.29	9.23	9.18
2.0	1	9.45	9.39	9.34	9.28	9.22
3.0	2	9.82	9.77	9.71	9.67	9.63
5.0	4	10.21	10.15	10.09	10.08	10.07
7.0	6	11.33	11.27	11.20	11.22	11.23
9.0	8	11.78	11.71	11.64	11.62	11.59
11.5	10	12.23	12.16	12.09	12.02	11.94
13.5	12	12.91	12.83	12.75	12.65	12.60
15.5	14	13.59	13.50	13.42	13.29	13.26
16.5	16	13.93	13.84	13.75	13.61	13.59

Notes (1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

In the heating mode in which the outside air temperature is 0°C DB or less, the compressor operates at maximum frequency.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)



Model			NAPV	G	Indoor	unit	FDE6	60VG	(2 unit	s)	Outdo	or uni	t FD	C125\	√NA	(1444)	I I a a Ai			_		20 22				
Cooling	moa	е														(KVV)	Heati	ng mo	ae:H	J			(kW)			
Outdoor							Inde	oor air t	empera	ture								door		Indoor	air temp	erature	)			
air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	air t	emp.			°CDB					
·	12 °C	CWB	14 °0	CWB	16 °C	CWB	18 °	CWB	19 °	CWB	20 °C	CWB	22 °	CWB	24 °	CWB	°CDB	°CWB	16	18	20	22	24			
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	7.77	7.73	7.70	7.67	7.65			
11					10.15	9.21	10.74	10.02	11.03	9.94	11.34	9.87	11.96	10.47	12.57	10.29	-17.7	-18	8.16	8.13	8.11	8.06	8.03			
13					10.63	9.40	11.26	10.21	11.57	10.13	11.91	10.06	12.58	10.67	13.25	10.48	-15.7	-16	8.57	8.53	8.50	8.46	8.42			
15					11.10	9.59	11.78	10.41	12.11	10.33	12.47	10.25	13.20	10.86	13.92	10.67	-13.5	-14	9.02	8.98	8.94	8.90	8.86			
17					11.58	9.79	12.29	10.60	12.65	10.52	13.04	10.45	13.82	11.06	14.59	10.87	-11.5	-12	9.46	9.41	9.37	9.33	9.28			
19					11.82	9.89	12.56	10.70	12.92	10.62	13.32	10.55	14.11	11.15	14.90	10.96	-9.5	-10	9.90	9.84	9.80	9.76	9.70			
21					12.06	9.99	12.82	10.80	13.19	10.72	13.60	10.65	14.40	11.25	15.20	11.05	-7.5	-8	10.32	10.28	10.23	10.17	10.12			
23					12.06	9.99	12.85	10.81	13.23	10.74	13.64	10.66	14.45	11.26	15.27	11.07	-5.5	-6	10.50	10.45	10.39	10.33	10.28			
25			11.16	10.17	12.06	9.99	12.89	10.83	13.27	10.75	13.68	10.68	14.51	11.28	15.34	11.09	-3.0	-4	10.66	10.61	10.55	10.49	10.43			
27			11.08	10.13	12.05	9.99	12.92	10.84	13.31	10.77	13.69	10.68	14.47	11.27			-1.0	-2	10.82	10.77	10.71	10.65	10.58			
29			11.00	10.10	11.87	9.91	12.71	10.76	13.11	10.69	13.51	10.62	14.31	11.22			1.0	0	10.99	10.93	10.87	10.80	10.73			
31			10.92	10.06	11.69	9.84	12.49	10.68	12.90	10.62	13.32	10.55	14.15	11.17			2.0	1	11.07	11.01	10.94	10.88	10.81			
33	10.27	9.35	10.72	9.97	11.51	9.76	12.27	10.59	12.70	10.54	13.13	10.48	13.99	11.12			3.0	2	11.92	11.85	11.78	11.73	11.68			
35	10.07	9.25	10.55	9.90	11.33	9.69	12.06	10.51	12.50	10.47	12.94	10.42	13.83	11.06			5.0	4	12.76	12.69	12.61	12.60	12.58			
37	9.90	9.17	10.38	9.82	11.13	9.61	11.83	10.43	12.24	10.37	12.66	10.32	13.50	10.96			7.0	6	14.16	14.08	14.00	14.02	14.04			
39	9.72	9.09	10.20	9.75	10.94	9.53	11.60	10.34	11.99	10.28	12.38	10.22	13.16	10.85			9.0	8	14.72	14.64	14.56	14.52	14.49			
41	9.55	9.01	10.02	9.67	10.75	9.45	11.37	10.25	11.73	10.19	12.09	10.12	12.82	10.74			11.5	10	15.28	15.20	15.11	15.02	14.93			
43	9.38	8.93	9.85	9.59	10.56	9.37	11.14	10.17	11.47	10.10	11.81	10.03	12.48	10.64			13.5	12	16.13	16.04	15.94	15.82	15.75			
46	9.21	8.85	9.53	9.34	10.28	9.26	10.88	10.07	11.12	9.97	11.28	9.85	11.96	10.47			15.5	14	16.98	16.88	16.77	16.62	16.58			
50	7.43	7.28	7.63	7.48	8.25	8.09	8.67	8.50	8.78	8.60	8.80	8.62	9.05	8.87			16.5	16	17.41	17.30	17.19	17.02	16.99			

PFA004Z048

Model Cooling			SAPV	G	Indoor	unit	FDE6	60VG (	2 unit	s)	Outdo	or uni	t FD	C125\	/SA	(kW)	Heati	ng mo	de:H0	0			(kW)
							Indo	oor air t	empera	ture							Out	door		Indoor	air temp	erature	;
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	air t	emp.			°CDB		
un tomp.	12 °C	CWB	14 °C	CWB	16 °0	CWB	18 °C	CWB	19 °	CWB	20 °	CWB	22 °(	CWB	24 °(	CWB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	7.77	7.73	7.70	7.67	7.65
11					10.15	9.21	10.74	10.02	11.03	9.94	11.34	9.87	11.96	10.47	12.57	10.29	-17.7	-18	8.16	8.13	8.11	8.06	8.03
13					10.63	9.40	11.26	10.21	11.57	10.13	11.91	10.06	12.58	10.67	13.25	10.48	-15.7	-16	8.57	8.53	8.50	8.46	8.42
15					11.10	9.59	11.78	10.41	12.11	10.33	12.47	10.25	13.20	10.86	13.92	10.67	-13.5	-14	9.02	8.98	8.94	8.90	8.86
17					11.58	9.79	12.29	10.60	12.65	10.52	13.04	10.45	13.82	11.06	14.59	10.87	-11.5	-12	9.46	9.41	9.37	9.33	9.28
19					11.82	9.89	12.56	10.70	12.92	10.62	13.32	10.55	14.11	11.15	14.90	10.96	-9.5	-10	9.90	9.84	9.80	9.76	9.70
21					12.06	9.99	12.82	10.80	13.19	10.72	13.60	10.65	14.40	11.25	15.20	11.05	-7.5	-8	10.32	10.28	10.23	10.17	10.12
23					12.06	9.99	12.85	10.81	13.23	10.74	13.64	10.66	14.45	11.26	15.27	11.07	-5.5	-6	10.50	10.45	10.39	10.33	10.28
25			11.16	10.17	12.06	9.99	12.89	10.83	13.27	10.75	13.68	10.68	14.51	11.28	15.34	11.09	-3.0	-4	10.66	10.61	10.55	10.49	10.43
27			11.08	10.13	12.05	9.99	12.92	10.84	13.31	10.77	13.69	10.68	14.47	11.27			-1.0	-2	10.82	10.77	10.71	10.65	10.58
29			11.00	10.10	11.87	9.91	12.71	10.76	13.11	10.69	13.51	10.62	14.31	11.22			1.0	0	10.99	10.93	10.87	10.80	10.73
31			10.92	10.06	11.69	9.84	12.49	10.68	12.90	10.62	13.32	10.55	14.15	11.17			2.0	1	11.07	11.01	10.94	10.88	10.81
33	10.27	9.35	10.72	9.97	11.51	9.76	12.27	10.59	12.70	10.54	13.13	10.48	13.99	11.12			3.0	2	11.92	11.85	11.78	11.73	11.68
35	10.07	9.25	10.55	9.90	11.33	9.69	12.06	10.51	12.50	10.47	12.94	10.42	13.83	11.06			5.0	4	12.76	12.69	12.61	12.60	12.58
37	9.90	9.17	10.38	9.82	11.13	9.61	11.83	10.43	12.24	10.37	12.66	10.32	13.50	10.96			7.0	6	14.16	14.08	14.00	14.02	14.04
39	9.72	9.09	10.20	9.75	10.94	9.53	11.60	10.34	11.99	10.28	12.38	10.22	13.16	10.85			9.0	8	14.72	14.64	14.56	14.52	14.49
41	9.55	9.01	10.02	9.67	10.75	9.45	11.37	10.25	11.73	10.19	12.09	10.12	12.82	10.74			11.5	10	15.28	15.20	15.11	15.02	14.93
43	9.38	8.93	9.85	9.59	10.56	9.37	11.14	10.17	11.47	10.10	11.81	10.03	12.48	10.64			13.5	12	16.13	16.04	15.94	15.82	15.75

11.96 10.47

9.05 8.87

Notes (1) These data show average status.

9.21 8.85

46

9.53 9.34 10.28 9.26 10.88 10.07 11.12 9.97 11.28 9.85

s (1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

In the heating mode in which the outside air temperature is 0°C DB or less, the compressor operates at maximum frequency.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

8.25 8.09 8.67 8.50 8.78 8.60 8.80 8.62

17.41 17.30 17.19 17.02 16.99 PFA004Z048

16.98 16.88 16.77 16.62 16.58

15.5 14

16.5

16

Model	FDE	140VI	NAPV	G	Indoor	unit	FDE	71VG	(2 unit	s)	Outdo	or uni	t FD	C140\	/NA								
Cooling	mod	е														(kW)	Heati	ng mo	de:H0	2			(kW)
0.11							Inde	oor air t	empera	ture							Out	door		Indoor	air temp	erature	;
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	air te	emp.			°CDB		
	12 °C	CWB	14 °	CWB	16 °C	CWB	18 °	CWB	19 °	CWB	20 °C	CWB	22 °	CWB	24 °C	CWB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	7.94	7.91	7.88	7.85	7.82
11					11.05	9.57	11.68	10.37	12.00	10.29	12.34	10.21	13.01	10.80	13.68	10.60	-17.7	-18	8.44	8.41	8.37	8.34	8.30
13					11.56	9.78	12.25	10.58	12.59	10.50	12.95	10.42	13.69	11.02	14.42	10.82	-15.7	-16	8.94	8.90	8.86	8.82	8.79
15					12.07	10.00	12.81	10.80	13.18	10.72	13.57	10.64	14.36	11.23	15.14	11.03	-13.5	-14	9.50	9.46	9.41	9.37	9.33
17					12.59	10.21	13.38	11.02	13.77	10.94	14.19	10.86	15.04	11.46	15.87	11.25	-11.5	-12	10.07	10.02	9.98	9.93	9.88
19					12.86	10.33	13.66	11.13	14.07	11.05	14.49	10.97	15.35	11.56	16.20	11.35	-9.5	-10	10.64	10.59	10.54	10.49	10.44
21					13.12	10.44	13.95	11.24	14.36	11.16	14.79	11.08	15.66	11.66	16.53	11.45	-7.5	-8	11.21	11.15	11.10	11.04	10.99
23					13.12	10.44	13.99	11.26	14.40	11.17	14.84	11.10	15.73	11.69	16.61	11.47	-5.5	-6	11.51	11.45	11.39	11.33	11.27
25			12.14	10.61	13.11	10.43	14.02	11.27	14.44	11.19	14.89	11.11	15.79	11.71	16.69	11.49	-3.0	-4	11.80	11.74	11.68	11.62	11.55
27			12.06	10.57	13.11	10.43	14.06	11.29	14.48	11.21	14.90	11.12	15.74	11.69			-1.0	-2	12.11	12.05	11.98	11.91	11.84
29			11.97	10.53	12.91	10.35	13.82	11.19	14.26	11.12	14.70	11.04	15.56	11.63			1.0	0	12.42	12.35	12.28	12.20	12.13
31			11.88	10.49	12.72	10.26	13.59	11.10	14.04	11.04	14.49	10.97	15.40	11.58			2.0	1	12.58	12.50	12.43	12.35	12.28
33	11.18	9.79	11.67	10.40	12.52	10.18	13.36	11.01	13.82	10.96	14.29	10.90	15.22	11.52			3.0	2	13.35	13.27	13.20	13.13	13.08
35	10.96	9.68	11.48	10.31	12.32	10.10	13.11	10.92	13.60	10.88	14.09	10.82	15.05	11.46			5.0	4	14.12	14.05	13.96	13.95	13.93
37	10.76	9.59	11.29	10.23	12.11	10.01	12.87	10.82	13.32	10.77	13.77	10.71	14.69	11.34			7.0	6	15.68	15.59	15.50	15.52	15.55
39	10.58	9.50	11.10	10.14	11.91	9.93	12.62	10.73	13.05	10.67	13.46	10.60	14.32	11.22			9.0	8	16.30	16.21	16.11	16.07	16.03
41	10.39	9.41	10.91	10.06	11.70	9.84	12.37	10.63	12.76	10.57	13.16	10.50	13.95	11.10			11.5	10	16.91	16.83	16.73	16.63	16.53
43	10.21	9.32	10.71	9.97	11.49	9.75	12.11	10.53	12.48	10.46	12.85	10.39	13.58	10.98			13.5	12	17.86	17.76	17.65	17.52	17.44
46	10.03	9.23	10.47	9.87	11.13	9.61	11.73	10.39	12.10	10.33	12.27	10.18	13.01	10.80			15.5	14	18.80	18.69	18.57	18.40	18.36
50	7.61	7.45	7.88	7.72	8.35	8.19	8.75	8.58	8.97	8.79	8.98	8.80	9.33	9.14			16.5	16	19.28	19.15	19.03	18.84	18.81

PFA004Z048

Model Cooling			SAPV	'G	Indooi	r unit	FDE7	71VG	(2 unit	s)	Outdo	or uni	t FD	C140\	/SA	(kW)	) Heatii	ng mo	de:H	С			(kW)
_							Inde	oor air t	empera	ture							Out	door		Indoor	air temp	erature	,
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	air te	emp.			°CDB		
an temp.	12 °C	CWB	14 °	CWB	16 °	CWB	18 °	CWB	19 °	CWB	20 °	CWB	22 °	CWB	24 °	CWB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	7.94	7.91	7.88	7.85	7.82
11					11.05	9.57	11.68	10.37	12.00	10.29	12.34	10.21	13.01	10.80	13.68	10.60	-17.7	-18	8.44	8.41	8.37	8.34	8.30
13					11.56	9.78	12.25	10.58	12.59	10.50	12.95	10.42	13.69	11.02	14.42	10.82	-15.7	-16	8.94	8.90	8.86	8.82	8.79
15					12.07	10.00	12.81	10.80	13.18	10.72	13.57	10.64	14.36	11.23	15.14	11.03	-13.5	-14	9.50	9.46	9.41	9.37	9.33
17					12.59	10.21	13.38	11.02	13.77	10.94	14.19	10.86	15.04	11.46	15.87	11.25	-11.5	-12	10.07	10.02	9.98	9.93	9.88
19					12.86	10.33	13.66	11.13	14.07	11.05	14.49	10.97	15.35	11.56	16.20	11.35	-9.5	-10	10.64	10.59	10.54	10.49	10.44
21					13.12	10.44	13.95	11.24	14.36	11.16	14.79	11.08	15.66	11.66	16.53	11.45	-7.5	-8	11.21	11.15	11.10	11.04	10.99
23					13.12	10.44	13.99	11.26	14.40	11.17	14.84	11.10	15.73	11.69	16.61	11.47	-5.5	-6	11.51	11.45	11.39	11.33	11.27
25			12.14	10.61	13.11	10.43	14.02	11.27	14.44	11.19	14.89	11.11	15.79	11.71	16.69	11.49	-3.0	-4	11.80	11.74	11.68	11.62	11.55
27			12.06	10.57	13.11	10.43	14.06	11.29	14.48	11.21	14.90	11.12	15.74	11.69			-1.0	-2	12.11	12.05	11.98	11.91	11.84
29			11.97	10.53	12.91	10.35	13.82	11.19	14.26	11.12	14.70	11.04	15.56	11.63			1.0	0	12.42	12.35	12.28	12.20	12.13
31			11.88	10.49	12.72	10.26	13.59	11.10	14.04	11.04	14.49	10.97	15.40	11.58			2.0	1	12.58	12.50	12.43	12.35	12.28
33	11.18	9.79	11.67	10.40	12.52	10.18	13.36	11.01	13.82	10.96	14.29	10.90	15.22	11.52			3.0	2	13.35	13.27	13.20	13.13	13.08
35	10.96	9.68	11.48	10.31	12.32	10.10	13.11	10.92	13.60	10.88	14.09	10.82	15.05	11.46			5.0	4	14.12	14.05	13.96	13.95	13.93

10.71 14.69 11.34

11 22

7.0 6

9.0

11.5 10

13.5 12

15.5 14

16.5 16

8

16.91

Notes (1) These data show average status

10.76 9.59

10.58

10.39

10.21 9.32

10.03 9.23 10.47 9.87

9 50

9.41

11 10 10 14

10.91 10.06 11.70 9.84 12.37

10.71 9.97 11.49 9.75 12.11 10.53 12.48 10.46 12.85 10.39 13.58 10.98

37

39

41

43

46

11.73 10.39 12.10 10.33 12.27 10.18 13.01 10.80

8.75 8.58 8.97

s (1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

In the heating mode in which the outside air temperature is 0°C DB or less, the compressor operates at maximum frequency.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

10.82 13.32

13 05

10.73

10.63 12.76 10.57 13.16 10.50 13.95 11.10

10.77 13.77

13 46 10.60 14 32

10.67

8.79 8.98 8.80 9.33

11.29 10.23 12.11

11 91

11.13 9.61

8.35 8.19

10.01 12.87

9 93 12 62

19.28 19.15 19.03 18.84 18.81 PFA004Z048

15.68 | 15.59 | 15.50 | 15.52 | 15.55

17.86 | 17.76 | 17.65 | 17.52 | 17.44

18.80 18.69 18.57 18.40 18.36

16.03

16.63 16.53

16.30 16.21 16.11 16.07

16.83 16.73

Model		200VS	SAPV	<b>3</b> In	idoor u	ınit F	DE10	0VG (2	2 uints	) (	Outdoo	r unit	FDC:	200VS	SA								
Cooling	mode	9														(kW)	Heati	ng mo	de : H	IC			(kW)
Outdoor							Indo	or air t	emper	ature								tdoor	ln	door a	ir tem	peratu	re
air temp.	18℃	DB	21°C	DB	23°C	DB	26°C	DB	27°0	DB	28°C	DB	31℃	DB	33℃	DB	air t	emp.			°CDB		
	12°C	WB	14°C	WB	16℃	WB	18°C	WB	19℃	WB	20°C	WB	22°C	WB	24℃	WB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20					
11					19.36	14.50	20.45	15.58	20.99	15.34	21.67	15.13	23.02	15.91	24.37	15.39	-17.7	-18					
13					19.46	14.54	20.57	15.62	21.13	15.38	21.78	15.17	23.09	15.93	24.40	15.40	-15.7	-16					
15					19.55	14.57	20.69	15.66	21.26	15.42	21.90	15.20	23.16	15.94	24.43	15.40	-13.5	-14	11.10	10.98	10.86	10.73	10.60
17					19.56	14.57	20.77	15.68	21.37	15.46	21.99	15.23	23.23	15.96	24.47	15.41	-11.5	-12	11.93	11.80	11.67	11.54	11.40
19					19.64	14.60	20.84	15.70	21.48	15.49	22.09	15.25	23.30	15.98	24.51	15.42	-9.5	-10	12.75	12.61	12.48	12.34	12.20
21					19.34	14.49	20.50	15.60	21.11	15.38	21.72	15.15	22.92	15.88	24.13	15.34	-7.5	-8	13.57	13.43	13.29	13.14	13.00
23					19.04	14.39	20.16	15.49	20.74	15.27	21.35	15.04	22.55	15.79	23.76	15.26	-5.5	-6	13.78	13.64	13.51	13.37	13.24
25			17.82	14.94	18.89	14.33	19.99	15.43	20.56	15.21	21.16	14.99	22.37	15.75	23.57	15.22	-3.0	-4	13.99	13.86	13.73	13.60	13.47
27			17.68	14.89	18.74	14.28	19.82	15.38	20.38	15.16	21.25	15.02	22.13	15.69			-1.0	-2	14.20	14.08	13.95	13.83	13.71
29			17.40	14.78	18.43	14.17	19.49	15.28	20.03	15.06	20.93	14.93	21.83	15.62			1.0	0	14.41	14.29	14.18	14.06	13.94
31			17.11	14.67	18.11	14.07	19.15	15.17	19.69	14.96	20.60	14.84	21.52	15.54			2.0	1	14.51	14.40	14.29	14.17	14.06
33	15.84	13.56	16.58	14.46	17.80	13.96	18.82	15.07	19.34	14.86	20.28	14.75	21.21	15.47			3.0	2	16.19	16.05	15.91	15.79	15.67
35	15.73	13.52	16.37	14.39	17.49	13.85	18.49	14.97	19.00	14.76	19.95	14.66	20.91	15.40			5.0	4	19.54	19.35	19.15	19.02	18.89
37	15.52	13.43	16.13	14.30	17.14	13.73	18.05	14.84	18.57	14.63	19.48	14.53	20.39	15.27			7.0	6	22.89	22.64	22.40	22.25	22.11
39	15.31	13.34	15.89	14.20	16.78	13.61	17.61	14.70	18.13	14.51	19.00	14.40	19.87	15.15			9.0	8	23.99	23.78	23.58	23.42	23.25
41	15.10	13.26	15.65	14.12	16.43	13.49	17.18	14.57	17.70	14.39	18.53	14.28	19.36	15.03			11.5	10	25.09	24.92	24.75	24.58	24.40
43	14.89	13.17	15.41	14.03	16.07	13.38	16.74	14.45	17.26	14.27	18.05	14.15	18.84	14.92			13.5	12	25.95	25.79	25.63	25.45	25.27
46	14.58	13.04	15.05	13.89	15.54	13.20	16.09	14.25	16.61	14.09	17.34	13.97	18.06	14.74			15.5	14	26.82	26.66	26.50	26.32	26.14
50	11.25	11.02	11.78	11.54	12.39	12.14	12.68	12.42	12.88	12.62	13.08	12.82	13.28	13.01			16.5	16	27.25	27.10	26.94	26.76	26.57

PFA004Z048

Cooling	mode				
Model	FDE250VSAPVG	Indoor unit	FDE125VG (2 uints)	Outdoor unit	FDC250VSA

0.44							Indo	or air t	emper	ature							١Г
Outdoor air temp.	18°0	DB	21°0	DB	23°0	DB	26°0	DB	27°C	DB	28°C	DB	31°0	DB	33°C	DB	П
all temp.	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19°C	WB	20°C	WB	22°C	WB	24°C	:WB	c
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-
11					24.64	16.48	26.08	17.48	26.80	17.20	27.60	16.92	29.20	17.55	30.80	16.88	-
13					24.67	16.49	26.11	17.49	26.83	17.21	27.63	16.93	29.23	17.56	30.83	16.88	-
15					24.69	16.50	26.14	17.50	26.86	17.22	27.66	16.94	29.26	17.57	30.86	16.89	-
17					24.70	16.51	26.23	17.53	26.99	17.26	27.78	16.98	29.34	17.59	30.91	16.90	-
19					24.81	16.55	26.33	17.57	27.13	17.31	27.90	17.02	29.43	17.62	30.96	16.92	F
21					24.43	16.40	25.90	17.41	26.67	17.15	27.43	16.87	28.96	17.48	30.48	16.80	ı [-
23					24.05	16.25	25.47	17.26	26.20	16.99	26.96	16.72	28.49	17.35	30.01	16.68	ı [-
25			22.51	16.85	23.86	16.17	25.25	17.19	25.97	16.92	26.73	16.64	28.25	17.28	29.77	16.62	ı F
27			22.33	16.77	23.67	16.10	25.04	17.11	25.74	16.84	26.85	16.68	27.96	17.20			ı F
29			21.97	16.62	23.27	15.95	24.61	16.96	25.30	16.70	26.44	16.55	27.57	17.10			ıF
31			21.61	16.47	22.88	15.80	24.19	16.82	24.87	16.55	26.03	16.42	27.18	16.99			ıГ
33	20.01	15.38	20.94	16.19	22.49	15.65	23.77	16.67	24.44	16.41	25.62	16.30	26.80	16.89			ıГ
35	19.87	15.31	20.68	16.08	22.10	15.50	23.35	16.53	24.00	16.27	25.21	16.17	26.41	16.78			ıГ
37	19.61	15.20	20.42	15.98	21.78	15.38	22.94	16.39	23.56	16.13	24.66	16.01	25.76	16.61			ıΓ
39	19.51	15.15	20.33	15.94	21.65	15.33	22.72	16.32	23.30	16.05	24.30	15.90	25.30	16.49			ıΓ
41	20.09	15.41	20.57	16.04	21.47	15.27	22.44	16.23	22.98	15.95	23.88	15.77	24.77	16.35			1
43	19.02	14.93	19.85	15.74	21.05	15.11	21.92	16.05	22.41	15.77	23.19	15.57	23.96	16.14			
46	17.16	14.12	17.71	14.90	18.29	14.13	18.93	15.11	19.55	14.92	20.41	14.78	21.26	15.48			1
50	11.31	11.08	11.84	11.60	12.45	12.20	12.74	12.49	12.94	12.69	13.14	12.88	13.35	13.08			

Out	door	In	door a	ir temp	peratu	re
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20					
-17.7	-18					
-15.7	-16					
-13.5	-14	13.22	13.07	12.93	12.78	12.63
-11.5	-12	13.88	13.73	13.58	13.43	13.28
-9.5	-10	14.55	14.39	14.24	14.08	13.93
-7.5	-8	15.21	15.05	14.89	14.73	14.58
-5.5	-6	15.48	15.32	15.17	15.02	14.87
-3.0	-4	15.74	15.59	15.45	15.30	15.16
-1.0	-2	16.00	15.87	15.73	15.59	15.45
1.0	0	16.27	16.14	16.01	15.87	15.74
2.0	1	16.40	16.27	16.14	16.01	15.88
3.0	2	18.64	18.48	18.32	18.18	18.04
5.0	4	23.11	22.89	22.66	22.50	22.34
7.0	6	27.59	27.29	27.00	26.82	26.65
9.0	8	28.92	28.67	28.42	28.22	28.03
11.5	10	30.24	30.04	29.84	29.63	29.41
13.5	12	31.28	31.09	30.89	30.68	30.46
15.5	14	32.32	32.14	31.95	31.73	31.51
16.5	16	32.85	32.66	32.47	32.25	32.03

(kW) Heating mode : HC

Notes (1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

PFA004Z048

### (c) Triple type

Model FDE140VNATVG Indoor unit FDE50VG (3 units) Outdoor unit FDC140VNA (1.4.4.1) Cooling mode (kW) Heating mode:HC

			_				Ind	oor air t	empera	ture			_		_		Οι	tdoor		Inc
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	air	temp.		
un tomp.	12 °	CWB	14 °	CWB	16 °0	CWB	18 °	CWB	19 °	CWB	20 °	CWB	22 °	CWB	24 °	CWB	°CDE	°CWB	16	Π
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	7.94	7
11					11.05	9.45	11.68	10.22	12.00	10.14	12.34	10.06	13.01	10.63	13.68	10.44	-17.7	-18	8.44	8
13					11.56	9.66	12.25	10.44	12.59	10.35	12.95	10.27	13.69	10.85	14.42	10.65	-15.7	-16	8.94	8
15					12.07	9.87	12.81	10.65	13.18	10.57	13.57	10.49	14.36	11.07	15.14	10.87	-13.5	-14	9.50	9
17					12.59	10.09	13.38	10.87	13.77	10.79	14.19	10.72	15.04	11.29	15.87	11.09	-11.5	-12	10.07	10
19					12.86	10.20	13.66	10.99	14.07	10.91	14.49	10.83	15.35	11.40	16.20	11.19	-9.5	-10	10.64	10
21					13.12	10.32	13.95	11.10	14.36	11.02	14.79	10.94	15.66	11.50	16.53	11.29	-7.5	-8	11.21	11
23					13.12	10.32	13.99	11.12	14.40	11.03	14.84	10.95	15.73	11.53	16.61	11.31	-5.5	-6	11.51	11
25			12.14	10.49	13.11	10.31	14.02	11.13	14.44	11.05	14.89	10.97	15.79	11.54	16.69	11.33	-3.0	-4	11.80	1
27			12.06	10.45	13.11	10.31	14.06	11.14	14.48	11.07	14.90	10.98	15.74	11.53			-1.0	-2	12.11	12
29			11.97	10.41	12.91	10.23	13.82	11.05	14.26	10.98	14.70	10.90	15.56	11.47			1.0	0	12.42	12
31			11.88	10.37	12.72	10.14	13.59	10.96	14.04	10.90	14.49	10.83	15.40	11.41			2.0	1	12.58	12
33	11.18	9.68	11.67	10.27	12.52	10.06	13.36	10.87	13.82	10.81	14.29	10.75	15.22	11.36			3.0	2	13.35	13
35	10.96	9.57	11.48	10.19	12.32	9.97	13.11	10.77	13.60	10.73	14.09	10.68	15.05	11.30			5.0	4	14.12	14
37	10.76	9.48	11.29	10.10	12.11	9.89	12.87	10.68	13.32	10.62	13.77	10.57	14.69	11.18			7.0	6	15.68	15
39	10.58	9.39	11.10	10.02	11.91	9.80	12.62	10.58	13.05	10.52	13.46	10.46	14.32	11.06			9.0	8	16.30	16
41	10.39	9.30	10.91	9.93	11.70	9.71	12.37	10.48	12.76	10.42	13.16	10.35	13.95	10.94			11.5	10	16.91	16
43	10.21	9.21	10.71	9.84	11.49	9.63	12.11	10.39	12.48	10.32	12.85	10.24	13.58	10.82			13.5	12	17.86	17
46	10.03	9.12	10.47	9.73	11.13	9.48	11.73	10.24	12.10	10.18	12.27	10.04	13.01	10.64			15.5	14	18.80	18
50	7.61	7.45	7.88	7.72	8.35	8.19	8.75	8.58	8.97	8.79	8.98	8.80	9.33	9.14			16.5	16	19.28	19

V,	)	Heatii	ng mo	de:H0	3			(kW)
			door		Indoor	air temp	erature	;
		air te	emp.			°CDB		
		°CDB	°CWB	16	18	20	22	24
		-19.8	7.85	7.82				
		-17.7	-18	8.44	8.41	8.37	8.34	8.30
		-15.7	-16	8.94	8.90	8.86	8.82	8.79
		-13.5	-14	9.50	9.46	9.41	9.37	9.33
		-11.5	-12	9.98	9.93	9.88		
		-9.5	-10	10.64	10.59	10.54	10.49	10.44
_		-7.5	-8	11.21	11.15	11.10	11.04	10.99
		-5.5	-6	11.51	11.45	11.39	11.33	11.27
		-3.0	-4	11.80	11.74	11.68	11.62	11.55
		-1.0	-2	12.11	12.05	11.98	11.91	11.84
		1.0	0	12.42	12.35	12.28	12.20	12.13
		2.0	1	12.58	12.50	12.43	12.35	12.28
		3.0	2	13.35	13.27	13.20	13.13	13.08
		5.0	4	14.12	14.05	13.96	13.95	13.93
		7.0	6	15.68	15.59	15.50	15.52	15.55
		9.0	8	16.30	16.21	16.11	16.07	16.03
		11.5	10	16.91	16.83	16.73	16.63	16.53
		13.5	12	17.86	17.76	17.65	17.52	17.44
		15.5	14	18.80	18.69	18.57	18.40	18.36
		16.5	16	19.28	19.15	19.03	18.84	18.81
Ī			Г	,	,	,	,	^

PFA004Z048 🛕

Model FDE140VSATVG Indoor unit FDE50VG (3 units) Outdoor unit FDC140VSA (kW) Cooling mode (kW) Heating mode:HC

0.44							Indo	oor air t	empera	ture							Ou	tdoor		Indoor	air temp	erature	:
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	air	temp.			°CDB		
un tomp.	12 °C	CWB	14 °	CWB	16 °C	CWB	18 °C	CWB	19 °	CWB	20 °	CWB	22 °(	CWB	24 °(	CWB	°CDE	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	7.94	7.91	7.88	7.85	7.82
11					11.05	9.45	11.68	10.22	12.00	10.14	12.34	10.06	13.01	10.63	13.68	10.44	-17.7	-18	8.44	8.41	8.37	8.34	8.30
13					11.56	9.66	12.25	10.44	12.59	10.35	12.95	10.27	13.69	10.85	14.42	10.65	-15.7	-16	8.94	8.90	8.86	8.82	8.79
15					12.07	9.87	12.81	10.65	13.18	10.57	13.57	10.49	14.36	11.07	15.14	10.87	-13.5	-14	9.50	9.46	9.41	9.37	9.33
17					12.59	10.09	13.38	10.87	13.77	10.79	14.19	10.72	15.04	11.29	15.87	11.09	-11.5	-12	10.07	10.02	9.98	9.93	9.88
19					12.86	10.20	13.66	10.99	14.07	10.91	14.49	10.83	15.35	11.40	16.20	11.19	-9.5	-10	10.64	10.59	10.54	10.49	10.44
21					13.12	10.32	13.95	11.10	14.36	11.02	14.79	10.94	15.66	11.50	16.53	11.29	-7.5	-8	11.21	11.15	11.10	11.04	10.99
23					13.12	10.32	13.99	11.12	14.40	11.03	14.84	10.95	15.73	11.53	16.61	11.31	-5.5	-6	11.51	11.45	11.39	11.33	11.27
25			12.14	10.49	13.11	10.31	14.02	11.13	14.44	11.05	14.89	10.97	15.79	11.54	16.69	11.33	-3.0	-4	11.80	11.74	11.68	11.62	11.55
27			12.06	10.45	13.11	10.31	14.06	11.14	14.48	11.07	14.90	10.98	15.74	11.53			-1.0	-2	12.11	12.05	11.98	11.91	11.84
29			11.97	10.41	12.91	10.23	13.82	11.05	14.26	10.98	14.70	10.90	15.56	11.47			1.0	0	12.42	12.35	12.28	12.20	12.13
31			11.88	10.37	12.72	10.14	13.59	10.96	14.04	10.90	14.49	10.83	15.40	11.41			2.0	1	12.58	12.50	12.43	12.35	12.28
33	11.18	9.68	11.67	10.27	12.52	10.06	13.36	10.87	13.82	10.81	14.29	10.75	15.22	11.36			3.0	2	13.35	13.27	13.20	13.13	13.08
35	10.96	9.57	11.48	10.19	12.32	9.97	13.11	10.77	13.60	10.73	14.09	10.68	15.05	11.30			5.0	4	14.12	14.05	13.96	13.95	13.93
37	10.76	9.48	11.29	10.10	12.11	9.89	12.87	10.68	13.32	10.62	13.77	10.57	14.69	11.18			7.0	6	15.68	15.59	15.50	15.52	15.55
39	10.58	9.39	11.10	10.02	11.91	9.80	12.62	10.58	13.05	10.52	13.46	10.46	14.32	11.06			9.0	8	16.30	16.21	16.11	16.07	16.03
41	10.39	9.30	10.91	9.93	11.70	9.71	12.37	10.48	12.76	10.42	13.16	10.35	13.95	10.94			11.5	10	16.91	16.83	16.73	16.63	16.53
43	10.21	9.21	10.71	9.84	11.49	9.63	12.11	10.39	12.48	10.32	12.85	10.24	13.58	10.82			13.5	12	17.86	17.76	17.65	17.52	17.44
46	10.03	9.12	10.47	9.73	11.13	9.48	11.73	10.24	12.10	10.18	12.27	10.04	13.01	10.64			15.5	14	18.80	18.69	18.57	18.40	18.36
50	7.61	7.45	7.88	7.72	8.35	8.19	8.75	8.58	8.97	8.79	8.98	8.80	9.33	9.14			16.5	16	19.28	19.15	19.03	18.84	18.81

Notes (1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

In the heating mode in which the outside air temperature is 0°C DB or less, the compressor operates at maximum frequency.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

PFA004Z048

Model FDE200VSATVG Indoor unit FDE71VG (3 uints) Outdoor unit FDC200VSA Cooling mode Heating mode: HC (kW) Indoor air temperature Outdoor Indoor air temperature Outdoor 18°CDB 21°CDB 23°CDB 26°CDB 28°CDB 31°CDB 33°CDB air temp 27°CDB air temp 12°CWB 14°CWB 16°CWB 18°CWB 19°CWB 20°CWB 22°CWB 24°CWB °CDB °CWE 16 18 20 22 24 °CDB TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC 19.8 -20 19.36 15.16 20.45 16.28 20.99 16.11 21.67 15.98 23.02 16.84 24.37 16.49 17.7 11 -18 13 19.46 15.20 20.57 16.33 21.13 16.16 21.78 16.02 23.09 16.87 24.40 16.50 -15.7 -16 15 19.55 15.24 20.69 16.37 21.26 16.21 21.90 16.06 23.16 16.89 24.43 16.51 13.5 -14 10.98 10.86 10.60 11.10 10.73 17 19.56 15.24 20.77 16.40 21.37 16.25 21.99 16.10 23.23 16.91 24.47 16.52 11.5 -12 11.93 11.80 11.67 11.54 11.40 12.61 12.20 19 19.64 15.28 20.84 16.43 21.48 16.29 22.09 16.13 23.30 16.93 24.51 16.53 -9.5 -10 12.75 12.48 12.34 21 19.34 15.15 20.50 16.30 21.11 16.16 21.72 16.00 22.92 16.82 24.13 16.43 -7.5 -8 13.57 13.43 13.29 13.14 13.00 23 19.04 15.03 20.16 16.17 20.74 16.03 21.35 15.87 22.55 16.70 23.76 16.32 -5.5 -6 13.78 13.64 13.51 13.37 13.24 25 17.82 18.89 14.97 19.99 16.11 20.56 15.96 21.16 15.81 22.37 16.64 23.57 16.27 -3.0 -4 13.99 13.86 13.73 13.60 13.47 15.43 16.05 27 17.68 18.74 20.38 21.25 15.84 14.08 15.37 14.91 19.82 15.89 22.13 16.57 -1.0 14.20 13.95 13.83 13.71 29 17 40 15 24 18 43 14 78 1949 15 92 20.03 15 77 20.93 15.73 21.83 16 48 1 0 Ω 14 41 14 29 14 18 14 06 13 94 31 17.11 15.12 18.11 14.66 19.15 15.80 19.69 15.65 20.60 15.62 21.52 16.38 2.0 14.51 14.40 14.29 14.17 14.06 33 15.84 13.97 16.58 14.89 17.80 14.53 18.82 15.68 19 34 15.53 20.28 15.51 21.21 16.29 3.0 2 16.19 16.05 15.91 15.79 15.67 15.73 13.92 16.37 14.80 17.49 19.00 19.95 16.19 19.54 19.35 19.15 18.89 14.41 18.49 15.55 15.41 15.40 20.91 5.0 19.02 35 4 37 15.52 13.82 16.13 14.70 17.14 14.27 18.05 15.39 18.57 15.26 19.48 15.24 20.39 16.04 7.0 22.89 22.64 6 22.40 22.25 22.11 39 15.31 13.72 15.89 14.59 16.78 14.13 17.61 15.24 18.13 15.11 19.00 15.09 19.87 15.88 9.0 8 23.99 23.78 23.58 23.42 23.25 17.70 41 13.63 15.65 14.49 16.43 13.99 17.18 15.08 14.96 18.53 14.93 19.36 15.73 25.09 24.92 24.75 24.58 24.40 15.10 11.5 10 43 14.89 13.53 15.41 14.39 16.07 13.85 16.74 14.93 17.26 14.81 18.05 14.77 18.84 15.58 13.5 12 25.95 | 25.79 | 25.63 | 25.45 | 25.27 46 14.58 13.39 15.05 14.24 15.54 13.64 16.09 14.69 16.61 14.59 17.34 14.54 18.06 15.35 15.5 14 26.82 26.66 26.50 26.32 26.14 12.88 16 27.25 27.10 26.94 26.76 26.57 50 11.25 11.02 11.78 12.39 12.14 12.68 12.42 12.62 13.08 12.82 13.28 13.01 16.5

PFA004Z048 🛕

Indoor air temperature

°CDB

(kW)

Heating mode: HC

Outdoor air temp.

(kW)

### (d) Double twin type

**Model FDE200VSADVG** Indoor unit FDE50VG (4 uints) Outdoor unit FDC200VSA Cooling mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°C	DB	21°0	DB	23°C	DB	26°C	DB	27°C	DB	28°C	DB	31°C	DB	33°C	DB
un tomp.	12℃	WB	14°C	WB	16°C	WB	18°C	WB	19°C	WB	20°C	WB	22°C	:WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					19.36	14.79	20.45	15.79	20.99	15.66	21.67	15.58	23.02	16.37	24.37	16.11
13					19.46	14.83	20.57	15.84	21.13	15.72	21.78	15.62	23.09	16.40	24.40	16.12
15					19.55	14.87	20.69	15.89	21.26	15.77	21.90	15.67	23.16	16.43	24.43	16.13
17					19.56	14.88	20.77	15.93	21.37	15.82	21.99	15.70	23.23	16.45	24.47	16.15
19					19.64	14.91	20.84	15.96	21.48	15.86	22.09	15.74	23.30	16.47	24.51	16.16
21					19.34	14.78	20.50	15.81	21.11	15.71	21.72	15.60	22.92	16.34	24.13	16.03
23					19.04	14.64	20.16	15.67	20.74	15.57	21.35	15.45	22.55	16.21	23.76	15.91
25			17.82	14.93	18.89	14.57	19.99	15.60	20.56	15.49	21.16	15.38	22.37	16.14	23.57	15.85
27			17.68	14.87	18.74	14.51	19.82	15.53	20.38	15.42	21.25	15.42	22.13	16.06		
29			17.40	14.73	18.43	14.37	19.49	15.39	20.03	15.28	20.93	15.29	21.83	15.95		
31			17.11	14.59	18.11	14.23	19.15	15.26	19.69	15.14	20.60	15.17	21.52	15.84		
33	15.84	13.53	16.58	14.34	17.80	14.09	18.82	15.12	19.34	15.01	20.28	15.05	21.21	15.74		
35	15.73	13.47	16.37	14.25	17.49	13.96	18.49	14.98	19.00	14.87	19.95	14.92	20.91	15.63		
37	15.52	13.37	16.13	14.13	17.14	13.80	18.05	14.81	18.57	14.71	19.48	14.74	20.39	15.45		
39	15.31	13.26	15.89	14.02	16.78	13.65	17.61	14.63	18.13	14.54	19.00	14.57	19.87	15.27		
41	15.10	13.16	15.65	13.91	16.43	13.49	17.18	14.46	17.70	14.37	18.53	14.39	19.36	15.10		
43	14.89	13.05	15.41	13.80	16.07	13.34	16.74	14.28	17.26	14.20	18.05	14.21	18.84	14.92		
46	14.58	12.90	15.05	13.63	15.54	13.11	16.09	14.02	16.61	13.96	17.34	13.95	18.06	14.66		
50	11.25	11.02	11.78	11.54	12.39	11.81	12.68	12.42	12.88	12.58	13.08	12.45	13.28	13.01		

ı	П	u	Jilip.	l		CDB		
	Ш	°CDB	°CWB	16	18	20	22	24
1	Ш	-19.8	-20					
1	Ш	-17.7	-18					
1	Ш	-15.7	-16					
	Ш	-13.5	-14	11.10	10.98	10.86	10.73	10.60
	Ш	-11.5	-12	11.93	11.80	11.67	11.54	11.40
1	Ш	-9.5	-10	12.75	12.61	12.48	12.34	12.20
	Ш	-7.5	-8	13.57	13.43	13.29	13.14	13.00
	Ш	-5.5	-6	13.78	13.64	13.51	13.37	13.24
	Ш	-3.0	-4	13.99	13.86	13.73	13.60	13.47
	Ш	-1.0	-2	14.20	14.08	13.95	13.83	13.71
ı	Ш	1.0	0	14.41	14.29	14.18	14.06	13.94
1	Ш	2.0	1	14.51	14.40	14.29	14.17	14.06
	Ш	3.0	2	16.19	16.05	15.91	15.79	15.67
	Ш	5.0	4	19.54	19.35	19.15	19.02	18.89
	Ш	7.0	6	22.89	22.64	22.40	22.25	22.11
		9.0	8	23.99	23.78	23.58	23.42	23.25
		11.5	10	25.09	24.92	24.75	24.58	24.40
		13.5	12	25.95	25.79	25.63	25.45	25.27
		15.5	14	26.82	26.66	26.50	26.32	26.14
		16.5	16	27.25	27.10	26.94	26.76	26.57

Notes (1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

Symbols are as follows.
TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

PFA004Z048 🛕

Model Cooling		250VS	SADV	G I	ndoor	unit	FDE60	)VG (4	uints)	C	Outdoo	r unit	FDC	250VS	A	(kW)	Heati	ng mo	de : H	IC			(kW
0.44							Indo	or air t	emper	ature							Out	door	In	door a	ir tem	peratur	re
Outdoor air temp.	18°C	DB	21°0	DB	23°C	DB	26°0	DB	27°0	DB	28°0	DB	31°0	DB	33°0	DB	air t	emp.			°CDB		
dii tomp.	12°C	:WB	14°C	WB	16℃	WB	18°C	WB	19°C	WB	20°C	WB	22°C	WB	24°C	:WB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20					
11					24.64	18.95	26.08	20.38	26.80	20.13	27.60	19.89	29.20	20.91	30.80	20.32	-17.7	-18					
13					24.67	18.96	26.11	20.39	26.83	20.14	27.63	19.90	29.23	20.92	30.83	20.33	-15.7	-16					
15					24.69	18.97	26.14	20.40	26.86	20.15	27.66	19.91	29.26	20.92	30.86	20.34	-13.5	-14	13.22	13.07	12.93	12.78	12.63
17					24.70	18.97	26.23	20.43	26.99	20.19	27.78	19.95	29.34	20.95	30.91	20.35	-11.5	-12	13.88	13.73	13.58	13.43	13.28
19					24.81	19.01	26.33	20.47	27.13	20.24	27.90	19.98	29.43	20.97	30.96	20.36	-9.5	-10	14.55	14.39	14.24	14.08	13.93
21					24.43	18.87	25.90	20.32	26.67	20.09	27.43	19.84	28.96	20.84	30.48	20.24	-7.5	-8	15.21	15.05	14.89	14.73	14.58
23					24.05	18.72	25.47	20.17	26.20	19.94	26.96	19.69	28.49	20.71	30.01	20.13	-5.5	-6	15.48	15.32	15.17	15.02	14.87
25			22.51	19.34	23.86	18.65	25.25	20.10	25.97	19.86	26.73	19.62	28.25	20.65	29.77	20.07	-3.0	-4	15.74	15.59	15.45	15.30	15.16
27			22.33	19.27	23.67	18.58	25.04	20.03	25.74	19.79	26.85	19.66	27.96	20.57			-1.0	-2	16.00	15.87	15.73	15.59	15.45
29			21.97	19.12	23.27	18.44	24.61	19.88	25.30	19.65	26.44	19.53	27.57	20.46			1.0	0	16.27	16.14	16.01	15.87	15.74
31			21.61	18.98	22.88	18.29	24.19	19.74	24.87	19.51	26.03	19.41	27.18	20.36			2.0	1	16.40	16.27	16.14	16.01	15.88
33	20.01	17.53	20.94	18.71	22.49	18.15	23.77	19.60	24.44	19.37	25.62	19.28	26.80	20.26			3.0	2	18.64	18.48	18.32	18.18	18.04
35	19.87	17.47	20.68	18.60	22.10	18.00	23.35	19.46	24.00	19.24	25.21	19.16	26.41	20.15			5.0	4	23.11	22.89	22.66	22.50	22.34
37	19.61	17.35	20.42	18.50	21.78	17.89	22.94	19.33	23.56	19.10	24.66	19.00	25.76	19.98			7.0	6	27.59	27.29	27.00	26.82	26.65
39	19.51	17.31	20.33	18.46	21.65	17.84	22.72	19.25	23.30	19.02	24.30	18.89	25.30	19.86			9.0	8	28.92	28.67	28.42	28.22	28.03
41	20.09	17.56	20.57	18.56	21.47	17.77	22.44	19.16	22.98	18.92	23.88	18.77	24.77	19.72			11.5	10	30.24	30.04	29.84	29.63	29.41
43	19.02	17.10	19.85	18.27	21.05	17.62	21.92	18.99	22.41	18.74	23.19	18.57	23.96	19.51			13.5	12	31.28	31.09	30.89	30.68	30.46
46	17.16	16.31	17.71	17.36	18.29	16.65	18.93	18.05	19.55	17.88	20.41	17.77	21.26	18.83			15.5	14	32.32	32.14	31.95	31.73	31.51
50	11.31	11.08	11.84	11.60	12.45	12.20	12.74	12.49	12.94	12.69	13.14	12.88	13.35	13.08			16.5	16	32.85	32.66	32.47	32.25	32.03

Notes (1) These data show average statuses.

s (1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

PFA004Z048 🛕

(kW)

### (2) Duct connected-Low / Middle static pressure type (FDUM) (a) Single type

Model FDUM100VNAVF2 Indoor unit FDUM100VF2 Outdoor unit FDC100VNA (kW) Heating mode:HC Cooling mode

0.11							Indo	or air t	empera	ture								utdoor		Indoor	air temp	erature	
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	а	r temp.			°CDB		
all tomp.	12 °C	CWB	14 °	CWB	16 °C	CWB	18 °C	CWB	19 °0	CWB	20 °C	CWB	22 °C	CWB	24 °0	CWB	°C[	B °CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19	8 -20	6.82	6.79	6.77	6.75	6.72
11					8.12	6.88	8.59	7.50	8.82	7.38	9.07	7.26	9.56	7.69	10.06	7.42	-17	7 -18	7.16	7.14	7.10	7.08	7.04
13					8.50	6.99	9.00	7.61	9.26	7.48	9.52	7.36	10.06	7.78	10.60	7.49	-15	7 -16	7.50	7.46	7.44	7.40	7.37
15					8.88	7.10	9.42	7.71	9.69	7.58	9.98	7.45	10.56	7.87	11.14	7.57	-13	5 -14	7.86	7.83	7.79	7.76	7.72
17					9.26	7.21	9.84	7.82	10.12	7.69	10.43	7.56	11.05	7.96	11.67	7.65	-11	5 -12	8.23	8.19	8.15	8.12	8.08
19					9.46	7.27	10.05	7.88	10.34	7.74	10.65	7.60	11.29	8.01	11.92	7.69	-9.	-10	8.58	8.55	8.50	8.47	8.42
21					9.65	7.33	10.25	7.93	10.56	7.80	10.88	7.66	11.52	8.06	12.16	7.73	-7.	5 -8	8.93	8.89	8.85	8.80	8.75
23					9.65	7.33	10.28	7.94	10.59	7.80	10.91	7.66	11.56	8.06	12.21	7.74	-5.	-6	9.05	9.00	8.97	8.91	8.86
25			8.93	7.64	9.64	7.33	10.31	7.95	10.62	7.81	10.95	7.67	11.61	8.07	12.27	7.75	-3.	-4	9.17	9.12	9.07	9.03	8.97
27			8.86	7.62	9.64	7.33	10.34	7.95	10.65	7.82	10.96	7.68	11.57	8.06			-1.	-2	9.29	9.23	9.19	9.13	9.07
29			8.80	7.59	9.50	7.29	10.17	7.91	10.49	7.78	10.81	7.64	11.45	8.04			1.0	0	9.40	9.34	9.29	9.23	9.18
31			8.73	7.57	9.35	7.24	9.99	7.86	10.32	7.74	10.66	7.61	11.32	8.02			2.0	1	9.45	9.39	9.34	9.28	9.22
33	8.22	7.04	8.58	7.52	9.21	7.20	9.82	7.82	10.16	7.70	10.51	7.57	11.19	7.99			3.0	2	9.82	9.77	9.71	9.67	9.63
35	8.05	6.98	8.44	7.47	9.06	7.15	9.64	7.77	10.00	7.66	10.36	7.54	11.07	7.97			5.0	4	10.21	10.15	10.09	10.08	10.07
37	7.92	6.93	8.30	7.43	8.91	7.11	9.46	7.72	9.79	7.61	10.13	7.49	10.80	7.92			7.0	6	11.33	11.27	11.20	11.22	11.23
39	7.78	6.88	8.16	7.38	8.75	7.06	9.28	7.68	9.59	7.56	9.90	7.44	10.53	7.87			9.	8	11.78	11.71	11.64	11.62	11.59
41	7.64	6.83	8.02	7.33	8.60	7.02	9.09	7.63	9.38	7.51	9.68	7.39	10.26	7.82			11.	5 10	12.23	12.16	12.09	12.02	11.94
43	7.50	6.77	7.88	7.29	8.45	6.97	8.91	7.58	9.18	7.46	9.45	7.34	9.99	7.77			13.	5 12	12.91	12.83	12.75	12.65	12.60
46	7.33	6.71	7.67	7.22	8.22	6.91	8.58	7.50	8.83	7.38	9.07	7.26	9.57	7.70			15.	5 14	13.59	13.50	13.42	13.29	13.26
50	7.09	6.63	7.39	7.13	7.91	6.82	8.19	7.41	8.35	7.28	8.51	7.14	8.83	7.57			16.	5 16	13.93	13.84	13.75	13.61	13.59

PJG000Z013

Model FDUM100VSAVF2 Indoor unit FDUM100VF2 Outdoor unit FDC100VSA Cooling mode (kW) Heating mode:HC (kW)

							Indo	oor air t	empera	ture							Οι	tdoor		Indoor	air temp	erature	
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	_	CDB		CDB	28 °	CDB	31 °	CDB	33 °	CDB		temp.			°CDB		
ан тетпр.	12 °C	CWB	14 °	CWB	16 °C	CWB	18 °C	CWB	19 °C	CWB	20 °C	CWB	22 °(	CWB	24 °C	CWB	°CDE	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	6.82	6.79	6.77	6.75	6.72
11					8.12	6.88	8.59	7.50	8.82	7.38	9.07	7.26	9.56	7.69	10.06	7.42	-17.7	-18	7.16	7.14	7.10	7.08	7.04
13					8.50	6.99	9.00	7.61	9.26	7.48	9.52	7.36	10.06	7.78	10.60	7.49	-15.7	-16	7.50	7.46	7.44	7.40	7.37
15					8.88	7.10	9.42	7.71	9.69	7.58	9.98	7.45	10.56	7.87	11.14	7.57	-13.5	-14	7.86	7.83	7.79	7.76	7.72
17					9.26	7.21	9.84	7.82	10.12	7.69	10.43	7.56	11.05	7.96	11.67	7.65	-11.5	-12	8.23	8.19	8.15	8.12	8.08
19					9.46	7.27	10.05	7.88	10.34	7.74	10.65	7.60	11.29	8.01	11.92	7.69	-9.5	-10	8.58	8.55	8.50	8.47	8.42
21					9.65	7.33	10.25	7.93	10.56	7.80	10.88	7.66	11.52	8.06	12.16	7.73	-7.5	-8	8.93	8.89	8.85	8.80	8.75
23					9.65	7.33	10.28	7.94	10.59	7.80	10.91	7.66	11.56	8.06	12.21	7.74	-5.5	-6	9.05	9.00	8.97	8.91	8.86
25			8.93	7.64	9.64	7.33	10.31	7.95	10.62	7.81	10.95	7.67	11.61	8.07	12.27	7.75	-3.0	-4	9.17	9.12	9.07	9.03	8.97
27			8.86	7.62	9.64	7.33	10.34	7.95	10.65	7.82	10.96	7.68	11.57	8.06			-1.0	-2	9.29	9.23	9.19	9.13	9.07
29			8.80	7.59	9.50	7.29	10.17	7.91	10.49	7.78	10.81	7.64	11.45	8.04			1.0	0	9.40	9.34	9.29	9.23	9.18
31			8.73	7.57	9.35	7.24	9.99	7.86	10.32	7.74	10.66	7.61	11.32	8.02			2.0	1	9.45	9.39	9.34	9.28	9.22
33	8.22	7.04	8.58	7.52	9.21	7.20	9.82	7.82	10.16	7.70	10.51	7.57	11.19	7.99			3.0	2	9.82	9.77	9.71	9.67	9.63
35	8.05	6.98	8.44	7.47	9.06	7.15	9.64	7.77	10.00	7.66	10.36	7.54	11.07	7.97			5.0	4	10.21	10.15	10.09	10.08	10.07
37	7.92	6.93	8.30	7.43	8.91	7.11	9.46	7.72	9.79	7.61	10.13	7.49	10.80	7.92			7.0	6	11.33	11.27	11.20	11.22	11.23
39	7.78	6.88	8.16	7.38	8.75	7.06	9.28	7.68	9.59	7.56	9.90	7.44	10.53	7.87			9.0	8	11.78	11.71	11.64	11.62	11.59
41	7.64	6.83	8.02	7.33	8.60	7.02	9.09	7.63	9.38	7.51	9.68	7.39	10.26	7.82			11.5	10	12.23	12.16	12.09	12.02	11.94
43	7.50	6.77	7.88	7.29	8.45	6.97	8.91	7.58	9.18	7.46	9.45	7.34	9.99	7.77			13.5	12	12.91	12.83	12.75	12.65	12.60
46	7.33	6.71	7.67	7.22	8.22	6.91	8.58	7.50	8.83	7.38	9.07	7.26	9.57	7.70			15.5	14	13.59	13.50	13.42	13.29	13.26
50	7.09	6.63	7.39	7.13	7.91	6.82	8.19	7.41	8.35	7.28	8.51	7.14	8.83	7.57			16.5	16	13.93	13.84	13.75	13.61	13.59

Notes (1) These data show average status.

s (1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

In the heating mode in which the outside air temperature is 0°CDB or less, the compressor operates at maximum frequency.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

FDUM125VNAVF Indoor unit FDUM125VF Outdoor unit FDC125VNA Model (kW) Heating mode:HC (kW) Cooling mode Indoor air temperature Outdoor Indoor air temperature Outdoo 18 °CDB 23 °CDB 28 °CDB 31 °CDB 33 °CDB air temp 21 °CDB 26 °CDB 27 °CDB °CDB air temp 12 °CWB 14 °CWB 16 °CWB 18 °CWB 19 °CWB 20 °CWB 22 °CWB 24 °CWB CDB CWE 16 18 20 22 24 °CDB TC SHC SHC TC SHC SHC TC SHC 19.8 -20 7.77 7.73 7.67 7.65 TC SHC TC TC SHC SHC TC TC 7.70 9.23 10.74 10.04 11.03 9.97 1.96 2.57 8.03 10.15 11.34 9.90 10.51 10.34 -17.7 -18 8.16 8.13 8.11 8.06 13 10.63 9.44 11.26 10.24 11.57 10.17 11.91 10.11 12.58 10.72 13.25 10.55 -15.7 -16 8.57 8.53 8.50 8.46 8.42 15 11.10 9.63 11.78 10.44 12.11 10.37 12.47 10.31 13.20 10.92 13.92 10.75 -13.5 -14 9.02 8.98 8.94 8.90 8.86 17 11.58 9.84 12.29 10.64 12.65 10.58 13.82 14.59 -11.5 -12 9.46 9.41 9.37 9.33 9.28 13.04 10.52 11.13 10.96 11.82 9.76 9.70 19 9.94 12.56 10.75 12.92 10.68 13.32 10.62 14.11 11.23 4.90 11.06 -9.5 -10 9.90 9.84 9.80 21 12.06 10.04 12.82 10.86 13.19 10.79 13.60 10.73 14.40 11.33 5.20 11.15 -7.5 -8 10.32 10.28 10.23 10.17 10.12 23 12.06 10.04 12.85 10.87 13.23 10.80 13.64 10.74 14.45 11.35 5.27 11.17 -5.5 -6 10.50 10.45 10.39 10.33 10.28 25 -3.0 -4 10.66 10.61 10.55 10.49 10.43 11.16 10.20 12.06 10.04 12.89 10.88 13.27 10.82 13.68 10.76 14.51 11.37 15.34 11.20 27 11.08 10.16 12.05 10.04 12.92 10.90 13.31 10.83 13.69 10.76 14.47 11.35 -1.0 -2 10.82 10.77 10.71 10.65 10.58 29 11.00 10.12 11.87 9.96 12.71 10.81 13.11 10.76 13.51 10.69 14.31 11.30 1.0 0 10.99 | 10.93 | 10.87 | 10.80 10.73 31 10.92 10.09 11.69 9.88 12.49 10.72 12.90 10.67 13.32 10.62 14.15 11.24 2.0 11.07 11.01 10.94 10.88 10.81 1 10.64 10.60 11.19 1.92 11.85 11.78 11.68 33 10.27 10.72 9.99 9.81 12.27 12.70 13.13 10.55 13.99 3.0 11.73 4 35 10.07 9.28 10.55 9.92 11.33 9.73 12.06 10.55 12.50 10.52 12.94 10.48 13.83 11.14 5.0 12 76 12 69 12 61 12 60 12 58 37 9.90 9.84 11.13 9.65 10.46 12.24 10.42 12.66 10.38 11.02 7.0 6 14.16 14.08 14.00 14.02 14.04 9.19 10.38 11.83 13.50 39 9.11 10.20 9.76 10.94 9.57 11.60 10.37 11.99 10.33 12.38 10.28 13.16 10.91 9.0 14.72 14.64 14.56 14.52 14.49 9.72 8 41 10.75 10 23 10.80 10 15 28 15 20 15 11 15 02 14 93 9 55 9.02 10.02 9 68 9 4 9 1137 10.28 1173 12 09 10 17 1282 11.5 43 9.38 8.94 9.85 9.60 10.56 9.41 11.14 10.19 11.47 10.13 11.81 10.07 2.48 10.68 13.5 12 16.13 16.04 15.94 15.82 15.75 46 9.21 8.86 9.53 9.34 10.28 9.29 10.88 10.09 11.12 10.00 11.28 9.88 11.96 10.51 15.5 14 16.98 16.88 16.77 16.62 16.58 16 16.5 17.41 17.30 17.19 17.02 50 7.43 7.28 7.63 7.48 8.25 8.09 8.67 8.50 8.60 9.05 8.87 16.99 8.78 8.80 8.62

> B PJG000Z013

Model FDUM125VSAVF Indoor unit FDUM125VF Outdoor unit FDC125VSA Cooling mode (kW) Heating mode:HC (kW)

		°CDB 21 °CDB 23					Indo	oor air t	empera	ture							Γ	Outo	door		Indoor	air temp	erature	;
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27°	CDB	28 °	CDB	31 °	CDB	33 °	CDB		air te	emp.			°CDB		
un tomp.	12 °C	CWB	14 °C	CWB	16 °C	CWB	18 °C	CWB	19 °	CWB	20 °	CWB	22 °(	CWB	24 °(	CWB	Г	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	Ī	-19.8	-20	7.77	7.73	7.70	7.67	7.65
11					10.15	9.23	10.74	10.04	11.03	9.97	11.34	9.90	11.96	10.51	12.57	10.34	Ī	-17.7	-18	8.16	8.13	8.11	8.06	8.03
13					10.63	9.44	11.26	10.24	11.57	10.17	11.91	10.11	12.58	10.72	13.25	10.55	Ī	-15.7	-16	8.57	8.53	8.50	8.46	8.42
15					11.10	9.63	11.78	10.44	12.11	10.37	12.47	10.31	13.20	10.92	13.92	10.75	Ī	-13.5	-14	9.02	8.98	8.94	8.90	8.86
17					11.58	9.84	12.29	10.64	12.65	10.58	13.04	10.52	13.82	11.13	14.59	10.96	Ī	-11.5	-12	9.46	9.41	9.37	9.33	9.28
19					11.82	9.94	12.56	10.75	12.92	10.68	13.32	10.62	14.11	11.23	14.90	11.06	Ι	-9.5	-10	9.90	9.84	9.80	9.76	9.70
21					12.06	10.04	12.82	10.86	13.19	10.79	13.60	10.73	14.40	11.33	15.20	11.15	Ι	-7.5	-8	10.32	10.28	10.23	10.17	10.12
23					12.06	10.04	12.85	10.87	13.23	10.80	13.64	10.74	14.45	11.35	15.27	11.17	ı	-5.5	-6	10.50	10.45	10.39	10.33	10.28
25			11.16	10.20	12.06	10.04	12.89	10.88	13.27	10.82	13.68	10.76	14.51	11.37	15.34	11.20	ı	-3.0	-4	10.66	10.61	10.55	10.49	10.43
27			11.08	10.16	12.05	10.04	12.92	10.90	13.31	10.83	13.69	10.76	14.47	11.35			ı	-1.0	-2	10.82	10.77	10.71	10.65	10.58
29			11.00	10.12	11.87	9.96	12.71	10.81	13.11	10.76	13.51	10.69	14.31	11.30			Ι	1.0	0	10.99	10.93	10.87	10.80	10.73
31			10.92	10.09	11.69	9.88	12.49	10.72	12.90	10.67	13.32	10.62	14.15	11.24			Ι	2.0	1	11.07	11.01	10.94	10.88	10.81
33	10.27	9.37	10.72	9.99	11.51	9.81	12.27	10.64	12.70	10.60	13.13	10.55	13.99	11.19			ı	3.0	2	11.92	11.85	11.78	11.73	11.68
35	10.07	9.28	10.55	9.92	11.33	9.73	12.06	10.55	12.50	10.52	12.94	10.48	13.83	11.14			ı	5.0	4	12.76	12.69	12.61	12.60	12.58
37	9.90	9.19	10.38	9.84	11.13	9.65	11.83	10.46	12.24	10.42	12.66	10.38	13.50	11.02			ı	7.0	6	14.16	14.08	14.00	14.02	14.04
39	9.72	9.11	10.20	9.76	10.94	9.57	11.60	10.37	11.99	10.33	12.38	10.28	13.16	10.91			ı	9.0	8	14.72	14.64	14.56	14.52	14.49
41	9.55	9.02	10.02	9.68	10.75	9.49	11.37	10.28	11.73	10.23	12.09	10.17	12.82	10.80			Ι	11.5	10	15.28	15.20	15.11	15.02	14.93
43	9.38	8.94	9.85	9.60	10.56	9.41	11.14	10.19	11.47	10.13	11.81	10.07	12.48	10.68			ı	13.5	12	16.13	16.04	15.94	15.82	15.75
46	9.21	8.86	9.53	9.34	10.28	9.29	10.88	10.09	11.12	10.00	11.28	9.88	11.96	10.51				15.5	14	16.98	16.88	16.77	16.62	16.58
50	7.43	7.28	7.63	7.48	8.25	8.09	8.67	8.50	8.78	8.60	8.80	8.62	9.05	8.87			ľ	16.5	16	17.41	17.30	17.19	17.02	16.99

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed. (Cooling only) In the heating mode in which the outside air temperature is 0°C DB or less, the compressor operates at maximum frequency. (2) Capacities are based on the following conditions.

(2) Capacities are based on the following condition
Corresponding refrigerant piping length: 7.5m
Level difference of Zero.
(3) Symbols are as follows
TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

Model Cooling			۷NA۱	/F	Indooi	r unit	FDUI	M140\	/F	Outdo	oor un	it FD	C140	VNA		(kW)	Heati	ng mo	de:H0	0			(kW)
							Inde	oor air t	empera	ture						Ì		door			air temp	erature	,
Outdoor	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB		emp.			°CDB		
air temp.	12 °C	CWB	14 °	CWB	16 °C	CWB	18 °	CWB	19 °C	CWB	20 °C	CWB	22 °(	CWB	24 °	CWB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	7.94	7.91	7.88	7.85	7.82
11					11.05	9.86	11.68	10.75	12.00	10.63	12.34	10.50	13.01	11.15	13.68	10.85	-17.7	-18	8.44	8.41	8.37	8.34	8.30
13					11.56	10.03	12.25	10.93	12.59	10.79	12.95	10.66	13.69	11.31	14.42	11.00	-15.7	-16	8.94	8.90	8.86	8.82	8.79
15					12.07	10.21	12.81	11.10	13.18	10.97	13.57	10.83	14.36	11.47	15.14	11.15	-13.5	-14	9.50	9.46	9.41	9.37	9.33
17					12.59	10.38	13.38	11.27	13.77	11.14	14.19	11.00	15.04	11.64	15.87	11.31	-11.5	-12	10.07	10.02	9.98	9.93	9.88
19					12.86	10.48	13.66	11.36	14.07	11.23	14.49	11.09	15.35	11.71	16.20	11.38	-9.5	-10	10.64	10.59	10.54	10.49	10.44
21					13.12	10.57	13.95	11.45	14.36	11.31	14.79	11.17	15.66	11.79	16.53	11.45	-7.5	-8	11.21	11.15	11.10	11.04	10.99
23					13.12	10.57	13.99	11.47	14.40	11.33	14.84	11.19	15.73	11.81	16.61	11.47	-5.5	-6	11.51	11.45	11.39	11.33	11.27
25			12.14	10.90	13.11	10.57	14.02	11.48	14.44	11.34	14.89	11.20	15.79	11.82	16.69	11.49	-3.0	-4	11.80	11.74	11.68	11.62	11.55
27			12.06	10.86	13.11	10.57	14.06	11.49	14.48	11.35	14.90	11.20	15.74	11.81			-1.0	-2	12.11	12.05	11.98	11.91	11.84
29			11.97	10.83	12.91	10.50	13.82	11.41	14.26	11.29	14.70	11.15	15.56	11.77			1.0	0	12.42	12.35	12.28	12.20	12.13
31			11.88	10.80	12.72	10.43	13.59	11.34	14.04	11.22	14.49	11.09	15.40	11.73			2.0	1	12.58	12.50	12.43	12.35	12.28
33	11.18	10.02	11.67	10.71	12.52	10.36	13.36	11.27	13.82	11.15	14.29	11.03	15.22	11.68			3.0	2	13.35	13.27	13.20	13.13	13.08
35	10.96	9.93	11.48	10.64	12.32	10.29	13.11	11.19	13.60	11.09	14.09	10.97	15.05	11.64			5.0	4	14.12	14.05	13.96	13.95	13.93
37	10.76	9.85	11.29	10.57	12.11	10.22	12.87	11.12	13.32	11.01	13.77	10.89	14.69	11.55			7.0	6	15.68		15.50	15.52	15.55
39	10.58	9.77	11.10	10.50	11.91	10.15	12.62	11.04	13.05	10.93	13.46	10.80	14.32	11.46			9.0	8	16.30	16.21	16.11	16.07	16.03
41	10.39	9.70	10.91	10.43	11.70	10.08	12.37	10.96	12.76	10.85	13.16	10.72	13.95	11.37			11.5	10	16.91		16.73		
43	10.21	9.62	10.71	10.36	11.49	10.01	12.11	10.89	12.48	10.76	12.85	10.64	13.58	11.29			13.5	12	17.86		17.65		17.44
46	10.03	9.54	10.47	10.26	11.13	9.89	11.73	10.77	12.10	10.66	12.27	10.48	13.01	11.15			15.5	14	18.80	18.69		18.40	18.36
50	7.61	7.45	7.88	7.72	8.35	8.19	8.75	8.58	8.97	8.79	8.98	8.80	9.33	9.14			16.5	16	19.28	19.15	19.03	18.84	18.81

PJG000Z013 ∕₿

Model Cooling	ing mode (k													(kW)	Heatir	ng mo	de:H	С			(kW)		
_							Inde	oor air t	empera	iture							Outo	door		Indoor	air temp	perature	,
Outdoor air temp.	18 °CDB 21 °CDB 23 °CDB 26 °CDB 27 °CDB 28 °CDB 31 °CDB 33 °CDB												CDB	air te	emp.			°CDB					
dii tomp.	12 °	CWB	14 °	CWB	16 °	CWB	18 °	CWB	19 °	CWB	20 °	CWB	22 °	CWB	24 °	CWB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	7.94	7.91	7.88	7.85	7.82
11					11.05	9.86	11.68	10.75	12.00	10.63	12.34	10.50	13.01	11.15	13.68	10.85	-17.7	-18	8.44	8.41	8.37	8.34	8.30
13					11.56	10.03	12.25	10.93	12.59	10.79	12.95	10.66	13.69	11.31	14.42	11.00	-15.7	-16	8.94	8.90	8.86	8.82	8.79
15					12.07	10.21	12.81	11.10	13.18	10.97	13.57	10.83	14.36	11.47	15.14	11.15	-13.5	-14	9.50	9.46	9.41	9.37	9.33
17					12.59	10.38	13.38	11.27	13.77	11.14	14.19	11.00	15.04	11.64	15.87	11.31	-11.5	-12	10.07	10.02	9.98	9.93	9.88
19					12.86	10.48	13.66	11.36	14.07	11.23	14.49	11.09	15.35	11.71	16.20	11.38	-9.5	-10	10.64	10.59	10.54	10.49	10.44
21					13.12	10.57	13.95	11.45	14.36	11.31	14.79	11.17	15.66	11.79	16.53	11.45	-7.5	-8	11.21	11.15	11.10	11.04	10.99
23					13.12	10.57	13.99	11.47	14.40	11.33	14.84	11.19	15.73	11.81	16.61	11.47	-5.5	-6	11.51	11.45	11.39	11.33	11.27
25			12.14	10.90	13.11	10.57	14.02	11.48	14.44	11.34	14.89	11.20	15.79	11.82	16.69	11.49	-3.0	-4	11.80	11.74	11.68	11.62	11.55
27			12.06	10.86	13.11	10.57	14.06	11.49	14.48	11.35	14.90	11.20	15.74	11.81			-1.0	-2	12.11	12.05	11.98	11.91	11.84
29			11.97	10.83	12.91	10.50	13.82	11.41	14.26	11.29	14.70	11.15	15.56	11.77			1.0	0	12.42	12.35	12.28	12.20	12.13
31			11.88	10.80	12.72	10.43	13.59	11.34	14.04	11.22	14.49	11.09	15.40	11.73			2.0	1	12.58	12.50	12.43	12.35	12.28
33	11.18	10.02	11.67	10.71	12.52	10.36	13.36	11.27	13.82	11.15	14.29	11.03	15.22	11.68			3.0	2	13.35	13.27	13.20	13.13	13.08
35	10.96	9.93	11.48	10.64	12.32	10.29	13.11	11.19	13.60	11.09	14.09	10.97	15.05	11.64			5.0	4	14.12	14.05	13.96	13.95	13.93

11.01 13.77 10.89 14.69

13 46

10.80

14.32

10 93

8.79 8.98 8.80 9.33 11.55

11 46

11.15

9.14

7.0 6

9.0

11.5

13.5 12

15.5 14

16.5

8

10 16.91

16

Notes (1) These data show average status.

10.76 9.85

10.58 9 77

10.39 9.70

10.21 9.62

10.03 9.54

37

39

41

43

46

11.73 10.77 12.10 10.66 12.27 10.48 13.01

8.75 8.58 8.97

10.22 12.87

10 15 12 62

9.89

s (1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

In the heating mode in which the outside air temperature is 0°C DB or less, the compressor operates at maximum frequency.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

11.12 13.32

13 05

11 04

11.29 10.57

11.10 10.50

10.91 10.43 11.70 10.08 12.37 10.96 12.76 10.85 13.16 10.72 13.95 11.37

10.71 10.36

10.47 10.26 11.13

12.11

11 91

11.49 10.01 12.11 10.89 12.48 10.76 12.85 10.64 13.58 11.29

8.35 8.19

19.28 19.15 19.03 18.84 18.81 PJG000Z013

15.68 | 15.59 | 15.50 | 15.52 | 15.55

17.86 | 17.76 | 17.65 | 17.52 | 17.44

18.80 18.69 18.57 18.40 18.36

16.03

16.63 16.53

16.30 16.21 16.11 16.07

16.83 16.73

### (b) Twin type

Model FDUM100VNAPVF Indoor unit FDUM50VF (2 units) Outdoor unit FDC100VNA Cooling mode (kW) (kW) Heating mode:HC

0		Indoor air temperature													_		C	utdoor		Indoor	air temp	perature	;
Outdoor air temp.	18 °C	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	a	temp.			°CDB		
	12 °C	CWB	14 °C	CWB	16 °C	CWB	18 °C	CWB	19 °C	CWB	20 °C	CWB	22 °	CWB	24 °C	CWB	°CE	B °CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19	8 -20	6.82	6.79	6.77	6.75	6.72
11					8.12	6.73	8.59	7.25	8.82	7.20	9.07	7.15	9.56	7.54	10.06	7.41	-17.	7 -18	7.16	7.14	7.10	7.08	7.04
13					8.50	6.90	9.00	7.42	9.26	7.37	9.52	7.32	10.06	7.71	10.60	7.58	-15	7 -16	7.50	7.46	7.44	7.40	7.37
15					8.88	7.06	9.42	7.59	9.69	7.54	9.98	7.49	10.56	7.89	11.14	7.76	-13	5 -14	7.86	7.83	7.79	7.76	7.72
17					9.26	7.23	9.84	7.77	10.12	7.71	10.43	7.67	11.05	8.06	11.67	7.93	-11.	5 -12	8.23	8.19	8.15	8.12	8.08
19					9.46	7.32	10.05	7.85	10.34	7.80	10.65	7.75	11.29	8.15	11.92	8.01	-9.	-10	8.58	8.55	8.50	8.47	8.42
21					9.65	7.41	10.25	7.94	10.56	7.89	10.88	7.84	11.52	8.23	12.16	8.09	-7.	-8	8.93	8.89	8.85	8.80	8.75
23					9.65	7.41	10.28	7.95	10.59	7.90	10.91	7.85	11.56	8.24	12.21	8.11	-5.	-6	9.05	9.00	8.97	8.91	8.86
25			8.93	7.50	9.64	7.40	10.31	7.96	10.62	7.91	10.95	7.87	11.61	8.26	12.27	8.13	-3.0	-4	9.17	9.12	9.07	9.03	8.97
27			8.86	7.47	9.64	7.40	10.34	7.98	10.65	7.93	10.96	7.87	11.57	8.25			-1.0	-2	9.29	9.23	9.19	9.13	9.07
29			8.80	7.44	9.50	7.34	10.17	7.90	10.49	7.86	10.81	7.81	11.45	8.20			1.0	0	9.40	9.34	9.29	9.23	9.18
31			8.73	7.40	9.35	7.27	9.99	7.83	10.32	7.79	10.66	7.76	11.32	8.16			2.0	1	9.45	9.39	9.34	9.28	9.22
33	8.22	6.94	8.58	7.33	9.21	7.21	9.82	7.76	10.16	7.73	10.51	7.70	11.19	8.11			3.0	2	9.82	9.77	9.71	9.67	9.63
35	8.05	6.85	8.44	7.27	9.06	7.14	9.64	7.68	10.00	7.66	10.36	7.64	11.07	8.07			5.0	4	10.21	10.15	10.09	10.08	10.07
37	7.92	6.78	8.30	7.20	8.91	7.08	9.46	7.61	9.79	7.58	10.13	7.55	10.80	7.97			7.0	6	11.33	11.27	11.20	11.22	11.23
39	7.78	6.71	8.16	7.13	8.75	7.00	9.28	7.53	9.59	7.50	9.90	7.46	10.53	7.88			9.0	8	11.78	11.71	11.64	11.62	11.59
41	7.64	6.64	8.02	7.07	8.60	6.94	9.09	7.46	9.38	7.42	9.68	7.38	10.26	7.78			11.	5 10	12.23	12.16	12.09	12.02	11.94
43	7.50	6.57	7.88	7.00	8.45	6.87	8.91	7.38	9.18	7.34	9.45	7.29	9.99	7.69			13.	12	12.91	12.83	12.75	12.65	12.60
46	7.33	6.49	7.67	6.90	8.22	6.77	8.58	7.25	8.83	7.21	9.07	7.15	9.57	7.54			15.	14	13.59	13.50	13.42	13.29	13.26
50	7.09	6.37	7.39	6.77	7.91	6.64	8.19	7.09	8.35	7.02	8.51	6.95	8.83	7.29			16.	16	13.93	13.84	13.75	13.61	13.59

B PJG000Z013

Model FDUM100VSAPVF Indoor unit FDUM50VF (2 units) Outdoor unit FDC100VSA (kW) Heating mode:HC Cooling mode (kW)

000	,	_														(,			.9		_			()
_							Inde	oor air t	empera	ture							Γ	Outo	loor		Indoor	air temp	erature	,
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	ı	air te	mp.			°CDB		
all tomp.	12 °	CWB	14 °	CWB	16 °C	CWB	18 °	CWB	19 °	CWB	20 °	CWB	22 °(	CWB	24 °	CWB	٥	CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-	19.8	-20	6.82	6.79	6.77	6.75	6.72
11					8.12	6.73	8.59	7.25	8.82	7.20	9.07	7.15	9.56	7.54	10.06	7.41	F	17.7	-18	7.16	7.14	7.10	7.08	7.04
13					8.50	6.90	9.00	7.42	9.26	7.37	9.52	7.32	10.06	7.71	10.60	7.58	F	15.7	-16	7.50	7.46	7.44	7.40	7.37
15					8.88	7.06	9.42	7.59	9.69	7.54	9.98	7.49	10.56	7.89	11.14	7.76	F	13.5	-14	7.86	7.83	7.79	7.76	7.72
17					9.26	7.23	9.84	7.77	10.12	7.71	10.43	7.67	11.05	8.06	11.67	7.93	-	11.5	-12	8.23	8.19	8.15	8.12	8.08
19					9.46	7.32	10.05	7.85	10.34	7.80	10.65	7.75	11.29	8.15	11.92	8.01		-9.5	-10	8.58	8.55	8.50	8.47	8.42
21					9.65	7.41	10.25	7.94	10.56	7.89	10.88	7.84	11.52	8.23	12.16	8.09	Ŀ	-7.5	-8	8.93	8.89	8.85	8.80	8.75
23					9.65	7.41	10.28	7.95	10.59	7.90	10.91	7.85	11.56	8.24	12.21	8.11	Ŀ	-5.5	-6	9.05	9.00	8.97	8.91	8.86
25			8.93	7.50	9.64	7.40	10.31	7.96	10.62	7.91	10.95	7.87	11.61	8.26	12.27	8.13	Ŀ	-3.0	-4	9.17	9.12	9.07	9.03	8.97
27			8.86	7.47	9.64	7.40	10.34	7.98	10.65	7.93	10.96	7.87	11.57	8.25			Ŀ	-1.0	-2	9.29	9.23	9.19	9.13	9.07
29			8.80	7.44	9.50	7.34	10.17	7.90	10.49	7.86	10.81	7.81	11.45	8.20			L	1.0	0	9.40	9.34	9.29	9.23	9.18
31			8.73	7.40	9.35	7.27	9.99	7.83	10.32	7.79	10.66	7.76	11.32	8.16			L	2.0	1	9.45	9.39	9.34	9.28	9.22
33	8.22	6.94	8.58	7.33	9.21	7.21	9.82	7.76	10.16	7.73	10.51	7.70	11.19	8.11			L	3.0	2	9.82	9.77	9.71	9.67	9.63
35	8.05	6.85	8.44	7.27	9.06	7.14	9.64	7.68	10.00	7.66	10.36	7.64	11.07	8.07			L	5.0	4	10.21	10.15	10.09	10.08	10.07
37	7.92	6.78	8.30	7.20	8.91	7.08	9.46	7.61	9.79	7.58	10.13	7.55	10.80	7.97			L	7.0	6	11.33	11.27	11.20	11.22	11.23
39	7.78	6.71	8.16	7.13	8.75	7.00	9.28	7.53	9.59	7.50	9.90	7.46	10.53	7.88			L	9.0	8	11.78	11.71	11.64	11.62	11.59
41	7.64	6.64	8.02	7.07	8.60	6.94	9.09	7.46	9.38	7.42	9.68	7.38	10.26	7.78			1	11.5	10	12.23	12.16	12.09	12.02	11.94
43	7.50	6.57	7.88	7.00	8.45	6.87	8.91	7.38	9.18	7.34	9.45	7.29	9.99	7.69			L	13.5	12	12.91	12.83	12.75	12.65	12.60
46	7.33	6.49	7.67	6.90	8.22	6.77	8.58	7.25	8.83	7.21	9.07	7.15	9.57	7.54			L	15.5	14	13.59	13.50	13.42	13.29	13.26
50	7.09	6.37	7.39	6.77	7.91	6.64	8.19	7.09	8.35	7.02	8.51	6.95	8.83	7.29			1	16.5	16	13.93	13.84	13.75	13.61	13.59

Notes (1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

In the heating mode in which the outside air temperature is 0°C DB or less, the compressor operates at maximum frequency.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Model	FDUM125VNAPVF Indoor unit FDUM60VF (2 units) on mode												unit	FDC1	25VN					_			(1.1.4.1)
Cooling	mode	Э														(KVV)	Hea	ting mo	de:H	j			(kW)
Outdoor							Indo	oor air t	empera	ture							C	utdoor		Indoor	air temp	erature	;
air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	ai	temp.			°CDB		
	12 °C	CWB	14 °C	CWB	16 °0	CWB	18 °C	CWB	19 °	CWB	20 °C	CWB	22 °(	CWB	24 °(	CWB	°CE	B °CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19	3 -20	7.77	7.73	7.70	7.67	7.65
11					10.15	8.91	10.74	9.69	11.03	9.59	11.34	9.50	11.96	10.07	12.57	9.84	-17.	7 -18	8.16	8.13	8.11	8.06	8.03
13					10.63	9.09	11.26	9.87	11.57	9.77	11.91	9.68	12.58	10.25	13.25	10.02	-15.	7 -16	8.57	8.53	8.50	8.46	8.42
15					11.10	9.27	11.78	10.05	12.11	9.95	12.47	9.86	13.20	10.42	13.92	10.19	-13.	5 -14	9.02	8.98	8.94	8.90	8.86
17					11.58	9.46	12.29	10.23	12.65	10.13	13.04	10.04	13.82	10.60	14.59	10.36	-11.	5 -12	9.46	9.41	9.37	9.33	9.28
19					11.82	9.55	12.56	10.33	12.92	10.23	13.32	10.13	14.11	10.69	14.90	10.45	-9.	-10	9.90	9.84	9.80	9.76	9.70
21					12.06	9.65	12.82	10.42	13.19	10.32	13.60	10.22	14.40	10.77	15.20	10.52	-7.	-8	10.32	10.28	10.23	10.17	10.12
23					12.06	9.65	12.85	10.43	13.23	10.33	13.64	10.24	14.45	10.79	15.27	10.54	-5.	-6	10.50	10.45	10.39	10.33	10.28
25			11.16	9.87	12.06	9.65	12.89	10.44	13.27	10.35	13.68	10.25	14.51	10.81	15.34	10.56	-3.0	-4	10.66	10.61	10.55	10.49	10.43
27			11.08	9.84	12.05	9.64	12.92	10.46	13.31	10.36	13.69	10.25	14.47	10.80			-1.0	-2	10.82	10.77	10.71	10.65	10.58
29			11.00	9.80	11.87	9.57	12.71	10.38	13.11	10.29	13.51	10.19	14.31	10.75			1.0	0	10.99	10.93	10.87	10.80	10.73
31			10.92	9.77	11.69	9.50	12.49	10.30	12.90	10.22	13.32	10.13	14.15	10.70			2.0	1	11.07	11.01	10.94	10.88	10.81
33	10.27	9.09	10.72	9.68	11.51	9.43	12.27	10.22	12.70	10.15	13.13	10.07	13.99	10.65			3.0	2	11.92	11.85	11.78	11.73	11.68
35	10.07	9.00	10.55	9.61	11.33	9.36	12.06	10.15	12.50	10.08	12.94	10.01	13.83	10.61			5.0	4	12.76	12.69	12.61	12.60	12.58
37	9.90	8.92	10.38	9.54	11.13	9.29	11.83	10.07	12.24	9.99	12.66	9.92	13.50	10.51			7.0	6	14.16	14.08	14.00	14.02	14.04
39	9.72	8.84	10.20	9.47	10.94	9.21	11.60	9.99	11.99	9.91	12.38	9.83	13.16	10.41			9.0	8	14.72	14.64	14.56	14.52	14.49
41	9.55	8.76	10.02	9.39	10.75	9.14	11.37	9.91	11.73	9.82	12.09	9.74	12.82	10.31			11.	10	15.28	15.20	15.11	15.02	14.93
43	9.38	8.69	9.85	9.32	10.56	9.07	11.14	9.83	11.47	9.74	11.81	9.65	12.48	10.22			13.	12	16.13	16.04	15.94	15.82	15.75
46	9.21	8.61	9.53	9.19	10.28	8.96	10.88	9.74	11.12	9.62	11.28	9.48	11.96	10.07			15.	14	16.98	16.88	16.77	16.62	16.58
50	7.43	7.28	7.63	7.48	8.25	8.09	8.67	8.50	8.78	8.60	8.80	8.62	9.05	8.87			16.	16	17.41	17.30	17.19	17.02	16.99

PJG000Z013 ∕₿

Model Cooling	_		VSAF	VF	Indo	or unit	FDU	JM60\	/F (2 ι	units)	Οι	utdoor	unit	FDC1	25VS/	-	Heat	ing mo	de:H0	Э			(kW)
							Indo	oor air t	empera	ture						Ì		tdoor			air temp	erature	: 1
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °C	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB		temp.			°CDB		
all terrip.	12 °C	CWB	14 °C	CWB	16 °C	CWB	18 °C	CWB	19 °	CWB	20 °C	CWB	22 °	CWB	24 °C	CWB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	7.77	7.73	7.70	7.67	7.65
11					10.15	8.91	10.74	9.69	11.03	9.59	11.34	9.50	11.96	10.07	12.57	9.84	-17.7	-18	8.16	8.13	8.11	8.06	8.03
13					10.63	9.09	11.26	9.87	11.57	9.77	11.91	9.68	12.58	10.25	13.25	10.02	-15.7	-16	8.57	8.53	8.50	8.46	8.42
15					11.10	9.27	11.78	10.05	12.11	9.95	12.47	9.86	13.20	10.42	13.92	10.19	-13.5	-14	9.02	8.98	8.94	8.90	8.86
17					11.58	9.46	12.29	10.23	12.65	10.13	13.04	10.04	13.82	10.60	14.59	10.36	-11.5	-12	9.46	9.41	9.37	9.33	9.28
19					11.82	9.55	12.56	10.33	12.92	10.23	13.32	10.13	14.11	10.69	14.90	10.45	-9.5	-10	9.90	9.84	9.80	9.76	9.70
21					12.06	9.65	12.82	10.42	13.19	10.32	13.60	10.22	14.40	10.77	15.20	10.52	-7.5	-8	10.32	10.28	10.23	10.17	10.12
23					12.06	9.65	12.85	10.43	13.23	10.33	13.64	10.24	14.45	10.79	15.27	10.54	-5.5	-6	10.50	10.45	10.39	10.33	10.28
25			11.16	9.87	12.06	9.65	12.89	10.44	13.27	10.35	13.68	10.25	14.51	10.81	15.34	10.56	-3.0	-4	10.66	10.61	10.55	10.49	10.43
27			11.08	9.84	12.05	9.64	12.92	10.46	13.31	10.36	13.69	10.25	14.47	10.80			-1.0	-2	10.82	10.77	10.71	10.65	10.58
29			11.00	9.80	11.87	9.57	12.71	10.38	13.11	10.29	13.51	10.19	14.31	10.75			1.0	0	10.99	10.93	10.87	10.80	10.73
31			10.92	9.77	11.69	9.50	12.49	10.30	12.90	10.22	13.32	10.13	14.15	10.70			2.0	1	11.07	11.01	10.94	10.88	10.81
33	10.27	9.09	10.72	9.68	11.51	9.43	12.27	10.22	12.70	10.15	13.13	10.07	13.99	10.65			3.0	2	11.92	11.85	11.78	11.73	11.68
35	10.07	9.00	10.55	9.61	11.33	9.36	12.06	10.15	12.50	10.08	12.94	10.01	13.83	10.61			5.0	4	12.76	12.69	12.61	12.60	12.58
37	9.90	8.92	10.38	9.54	11.13	9.29	11.83	10.07	12.24	9.99	12.66	9.92	13.50	10.51			7.0	6	14.16	14.08	14.00	14.02	14.04
39	9.72	8.84	10.20	9.47	10.94	9.21	11.60	9.99	11.99	9.91	12.38	9.83	13.16	10.41			9.0	8	14.72	14.64	14.56	14.52	14.49
41	9.55	8.76	10.02	9.39	10.75	9.14	11.37	9.91	11.73	9.82	12.09	9.74	12.82	10.31			11.5	10	15.28	15.20	15.11	15.02	14.93
43	9.38	8.69	9.85	9.32	10.56	9.07	11.14	9.83	11.47	9.74	11.81	9.65	12.48	10.22			13.5	12	16.13	16.04	15.94	15.82	15.75
46	9.21	8.61	9.53	9.19	10.28	8.96	10.88	9.74	11.12	9.62	11.28	9.48	11.96	10.07			15.5	14	16.98	16.88	16.77	16.62	16.58
50	7.43	7.28	7.63	7.48	8.25	8.09	8.67	8.50	8.78	8.60	8.80	8.62	9.05	8.87			16.5	16	17.41	17.30	17.19	17.02	16.99

Notes (1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

In the heating mode in which the outside air temperature is 0°C DB or less, the compressor operates at maximum frequency.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

FDUM140VNAPVF1 Indoor unit FDUM71VF1 (2 units) Outdoor unit FDC140VNA Model (kW) (kW) Heating mode:HC Cooling mode Indoor air temperature Outdoor Indoor air temperature Outdoo 18 °CDB 23 °CDB 28 °CDB 31 °CDB 33 °CDB air temp 21 °CDB 26 °CDB 27 °CDB °CDB air temp 12 °CWB 14 °CWB 16 °CWB 18 °CWB 19 °CWB 20 °CWB 22 °CWB 24 °CWB CDB CWE 16 18 20 22 24 °CDB TC SHC TC SHC TC 19.8 -20 7.94 7.91 7.88 7.85 7.82 TC SHC TC SHC TC SHC SHC TC TC SHC SHC 11.05 11.08 12.34 10.86 3.01 3.68 11.29 8.44 8.41 8.37 8.34 8.30 10.16 11.68 12.00 10.97 11.55 -17.7 -18 13 11.56 10.34 12.25 11.27 12.59 11.16 12.95 11.04 13.69 11.73 14.42 11.46 -15.7 -16 8.94 8.90 8.86 8.82 8.79 15 12.07 10.53 12.81 11.46 13.18 11.34 13.57 11.23 14.36 11.91 15.14 11.64 -13.5 -14 9.50 9.46 9.41 9.37 9.33 17 12.59 10.72 11.65 13.77 11.53 15.04 12.10 15.87 11.81 -11.5 -12 10.07 10.02 9.98 9.93 9.88 13.38 14.19 12.86 11.63 10.54 10.49 10.44 19 10.82 13.66 11.74 14.07 14.49 11.51 15.35 12.18 6.20 11.89 -9.5 -10 10.64 10.59 21 13.12 10.92 13.95 11.84 14.36 11.72 14.79 11.60 15.66 12.27 6.53 11.97 -7.5 -8 11.21 11.15 11.10 11.04 10.99 23 13.12 10.92 13.99 11.85 14.40 11.73 14.84 11.62 15.73 12.29 6.61 11.99 -5.5 -6 11.51 11.45 11.39 11.33 11.27 25 -3.0 -4 11.80 11.74 11.68 11.62 11.55 12.14 11.20 13.11 10.91 14.02 11.86 14.44 11.75 14.89 11.63 15.79 12.30 16.69 12.01 27 12.06 11.16 13.11 10.91 14.06 11.88 14.48 11.76 14.90 11.64 15.74 12.29 -1.0 -2 12.11 12.05 11.98 11.91 11.84 29 11.97 11.13 12.91 10.84 13.82 11.80 14.26 11.69 14.70 11.57 15.56 12.24 1.0 0 12.42 | 12.35 | 12.28 | 12.20 12.13 31 11.88 11.09 12.72 10.76 13.59 11.72 14.04 11.62 14.49 11.51 15.40 12.19 2.0 12.58 12.50 12.43 12.35 12.28 1 10.69 11.64 13.82 11.55 13.20 13.08 33 11.18 11.67 11.01 12.52 14.29 11.45 12.15 3.0 13.35 13.27 13.13 4 35 10.96 10.19 11.48 10.93 12.32 10.62 13.11 11.56 13.60 11.48 14.09 11.39 15.05 12.10 5.0 14 12 14 05 13 96 13 95 13.93 37 10.10 11.29 10.85 12.11 10.54 12.87 11.48 13.32 11.39 13.77 11.29 12.00 7.0 6 15.68 15.59 15.50 15.52 15.55 10.76 14.69 39 10.58 10.02 11.10 10.78 11.91 10.47 12.62 11.39 13.05 11.30 13.46 11.20 14.32 11.90 9.0 8 16.30 16.21 16.11 16.07 16.03 41 11 21 11 80 10 16 91 16 63 16 53 10.39 9 94 10.91 10.69 1170 10.39 12 37 1131 12 76 13 16 11 11 13 95 11.5 16 83 16 73 43 10.21 9.86 10.71 10.50 11.49 10.32 12.11 11.23 12.48 11.12 12.85 11.02 3.58 11.70 13.5 12 7.86 17.76 17.65 17.52 17.44 46 10.03 9.78 10.47 10.26 11.13 10.19 11.73 11.10 12.10 11.01 12.27 10.84 13.01 11.55 15.5 14 18.80 18.69 18.57 18.40 18.36 16.5 16 19.28 19.15 19.03 18.84 50 7.61 7.45 7.88 7.72 8.35 8.19 8.75 8.58 8.97 8.79 8.98 8.80 9.14 18.81 9.33

> B PJG000Z013

Model	FDUM140VSAPVF1	Indoor unit	FDUM71VF1 (2 units	) Outdoor unit	FDC140VSA			
Cooling	g mode				(kW)	Heating mo	de:HC	(kW)
0.44		_	Indoor air temperature	_		Outdoor	Indoor air temperature	

							Indo	oor air t	empera	ture						Ì	Г	Outd	loor		Indoor	air temr	erature	
Outdoor	18 °	CDB	21 °	CDB	23 °	CDB		CDB		CDB	28 °	CDB	31 °	CDB	33 °	CDB	ı	air te				°CDB		
air temp.	12 °C	CWB	14 °C	CWB	16 °C	CWB	18 °C	CWB	19 °	CWB	20 °C	CWB	22 °(	CWB		CWB	٩	CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-	19.8	-20	7.94	7.91	7.88	7.85	7.82
11					11.05	10.16	11.68	11.08	12.00	10.97	12.34	10.86	13.01	11.55	13.68	11.29	-	17.7	-18	8.44	8.41	8.37	8.34	8.30
13					11.56	10.34	12.25	11.27	12.59	11.16	12.95	11.04	13.69	11.73	14.42	11.46	-	15.7	-16	8.94	8.90	8.86	8.82	8.79
15					12.07	10.53	12.81	11.46	13.18	11.34	13.57	11.23	14.36	11.91	15.14	11.64	-	13.5	-14	9.50	9.46	9.41	9.37	9.33
17					12.59	10.72	13.38	11.65	13.77	11.53	14.19	11.42	15.04	12.10	15.87	11.81	-	11.5	-12	10.07	10.02	9.98	9.93	9.88
19					12.86	10.82	13.66	11.74	14.07	11.63	14.49	11.51	15.35	12.18	16.20	11.89	Ŀ	-9.5	-10	10.64	10.59	10.54	10.49	10.44
21					13.12	10.92	13.95	11.84	14.36	11.72	14.79	11.60	15.66	12.27	16.53	11.97	-	-7.5	-8	11.21	11.15	11.10	11.04	10.99
23					13.12	10.92	13.99	11.85	14.40	11.73	14.84	11.62	15.73	12.29	16.61	11.99	Ŀ	-5.5	-6	11.51	11.45	11.39	11.33	11.27
25			12.14	11.20	13.11	10.91	14.02	11.86	14.44	11.75	14.89	11.63	15.79	12.30	16.69	12.01	Ŀ	-3.0	-4	11.80	11.74	11.68	11.62	11.55
27			12.06	11.16	13.11	10.91	14.06	11.88	14.48	11.76	14.90	11.64	15.74	12.29			Ŀ	-1.0	-2	12.11	12.05	11.98	11.91	11.84
29			11.97	11.13	12.91	10.84	13.82	11.80	14.26	11.69	14.70	11.57	15.56	12.24			L	1.0	0	12.42	12.35	12.28	12.20	12.13
31			11.88	11.09	12.72	10.76	13.59	11.72	14.04	11.62	14.49	11.51	15.40	12.19			L	2.0	1	12.58	12.50	12.43	12.35	12.28
33	11.18	10.28	11.67	11.01	12.52	10.69	13.36	11.64	13.82	11.55	14.29	11.45	15.22	12.15			L	3.0	2	13.35	13.27	13.20	13.13	13.08
35	10.96	10.19	11.48	10.93	12.32	10.62	13.11	11.56	13.60	11.48	14.09	11.39	15.05	12.10			L	5.0	4	14.12	14.05	13.96	13.95	13.93
37	10.76	10.10	11.29	10.85	12.11	10.54	12.87	11.48	13.32	11.39	13.77	11.29	14.69	12.00			L	7.0	6	15.68	15.59	15.50	15.52	15.55
39	10.58	10.02	11.10	10.78	11.91	10.47	12.62	11.39	13.05	11.30	13.46	11.20	14.32	11.90			Ŀ	9.0	8	16.30	16.21	16.11	16.07	16.03
41	10.39	9.94	10.91	10.69	11.70	10.39	12.37	11.31	12.76	11.21	13.16	11.11	13.95	11.80			1	11.5	10	16.91	16.83	16.73	16.63	16.53
43	10.21	9.86	10.71	10.50	11.49	10.32	12.11	11.23	12.48	11.12	12.85	11.02	13.58	11.70			1	13.5	12	17.86	17.76	17.65	17.52	17.44
46	10.03	9.78	10.47	10.26	11.13	10.19	11.73	11.10	12.10	11.01	12.27	10.84	13.01	11.55			1	15.5	14	18.80	18.69	18.57	18.40	18.36
50	7.61	7.45	7.88	7.72	8.35	8.19	8.75	8.58	8.97	8.79	8.98	8.80	9.33	9.14			1	16.5	16	19.28	19.15	19.03	18.84	18.81

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed. (Cooling only) In the heating mode in which the outside air temperature is 0°CDB or less, the compressor operates at maximum frequency. (2) Capacities are based on the following conditions.

(2) Capacities are based on the following condition
Corresponding refrigerant piping length: 7.5m
Level difference of Zero.
(3) Symbols are as follows
TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

Model FDUM200VSAPVF2 Indoor unit FDUM100VF2 (2 unit) Outdoor unit FDC200VSA Heating mode:HC (kW) Indoor air temperature Indoor air temperature Outdoor Outdoo air temp 18°CDB 21°CDB 23°CDB 26°CDB 28°CDB 31°CDB 33°CDB CDB 27°CDB air temp °CWB 12°CWB 14°CWB 16°CWB 18°CWB 20°CWB 22°CWB 24°CWB 16 20 24 18 °CDB TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC -19.8 -20 19.36 14.68 20.45 15.85 15.56 21.67 15.29 16.10 24.37 15.47 -17.7 11 20.99 23.02 -18 13 19.46 14.71 20.57 15.88 21.13 15.59 21.78 15.32 23.09 16.12 24.40 15.47 15 19 55 14.74 20.69 15 91 21.26 15.63 21.90 15.35 23.16 16.13 24.43 15.48 -13.5 -14 11.10 10.98 10.86 10.73 10.60 17 19.56 15.93 21.37 15.65 23.23 16.15 24.47 11.67 14.74 20.77 21.99 15.37 15.48 -12 11.93 11.80 11.40 -11.5 11.54 19 19.64 14.76 20.84 15.95 21.48 15.68 22.09 15.39 23.30 16.16 24.51 15.49 -9.5 -10 12.75 12.61 12.48 12.34 12.20 21 19 34 14.67 20.50 15.86 21.11 15.59 21.72 15.30 22.92 16.09 24.13 15.43 -7.5 -8 13.57 13.43 13.29 13.14 13.00 19.04 20.16 15.77 20.74 15.50 21.35 22.55 23.76 15.37 13.24 23 14.58 15.22 16.01 -5.5 -6 13.78 13.64 13.51 13.37 25 17.82 15.26 18.89 14.54 19.99 15.72 20.56 15.45 21.16 15.18 22.37 15.98 23.57 15.34 -3.0 -4 13.99 13.86 13.73 | 13.60 13.47 27 17.68 15 22 18 74 14 49 1982 15 68 20.38 15 41 21 25 15 20 22.13 15 93 -1 0 -2 14.20 14 08 13.95 13.83 13 71 29 17.40 18.43 14.40 19.49 15.59 20.03 15.32 20.93 15.12 21.83 15.88 13.94 15.12 1.0 0 14.41 14.29 14.18 14.06 31 17.11 15.02 18.11 14.30 19.15 15.51 19.69 15.24 20.60 15.05 21.52 15.82 2.0 14.51 14.40 14.29 14.17 14.06 15 67 33 15.84 13.86 16.58 14 85 17.80 14 21 18 82 15 42 19 34 15 16 20.28 14 98 21 21 15 76 3.0 2 16 19 16.05 15 91 15 79 35 15.73 13.82 16.37 14.78 17.49 14.12 18.49 15.33 19.00 15.08 19.95 14.91 20.91 15.71 5.0 19.35 19.15 19.02 18.89 19.54 37 15.52 13.74 16.13 14.70 17 14 14.02 18 05 15.22 18 57 14.98 19 48 14 80 20.39 15.61 7.0 6 22.89 22.64 22.40 22.25 22.11 16.78 13.91 14.88 15.52 23.58 23.25 15.31 13.66 15.89 14.62 17.61 15.11 18.13 19.00 14.70 19.87 23.99 23.78 23.42 39 9.0 8

> 18.84 15.34

18.06 15.21

13.28

14.35

B PJG000Z013

24.75 24.58 24.40

25.63 25.45 25.27

26.50 26.32 26.14

26.94 26.76 26.57

25.09 24.92

25.95 25.79

26.82

26.66

27.25 27.10

11.5 10

13.5 12

15.5

14

16

Model Cooling			VSAP	VF II	ndoor ι	unit	FDUM	125VF	(2 uni	t)	Outdo	or unit	FDC	250V	SA	
Outdoor							Indo	or air t	emper	ature						
air temp.	18°0	CDB	21°0	DB	23°C	DB	26℃	CDB	27°C	CDB	28°0	CDB	31°0	DB	33℃	DE
all tomp.	12°CWB 14°CV			WB	16℃	WB	18°C	CWB	19°C	WB	20°C	WB	22°C	WB	24℃	:WI
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	S

16.74 14.90

16.09 14.74

12.68

13.56

17.70 14.78 18.53 14.60 19.36 15.43

17.26 14.68 18.05 14.50

16.61 14.53 17.34

12.88 12.62

Outdoor							Indo	or air t	emper	ature							П
Outdoor air temp.	18°C	DB	21°0	DB	23°C	DB	26°0	CDB	27°C	DB	28°0	CDB	31°0	DB	33°C	DB	П
an temp.	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19°C	WB	20°C	WB	22°C	WB	24°C	WB	П
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	1 E
11					24.64	20.31	26.08	21.89	26.80	21.74	27.60	21.60	29.20	22.80	30.80	22.43	l L
13					24.67	20.32	26.11	21.90	26.83	21.75	27.63	21.61	29.23	22.81	30.83	22.44	l I-
15					24.69	20.33	26.14	21.91	26.86	21.76	27.66	21.62	29.26	22.82	30.86	22.45	1 F
17					24.70	20.34	26.23	21.95	26.99	21.81	27.78	21.67	29.34	22.84	30.91	22.47	I F
19					24.81	20.38	26.33	21.99	27.13	21.86	27.90	21.71	29.43	22.87	30.96	22.48	lΓ
21					24.43	20.22	25.90	21.81	26.67	21.68	27.43	21.54	28.96	22.71	30.48	22.33	lΓ
23					24.05	20.05	25.47	21.64	26.20	21.50	26.96	21.36	28.49	22.55	30.01	22.18	lΓ
25			22.51	20.48	23.86	19.97	25.25	21.55	25.97	21.41	26.73	21.28	28.25	22.47	29.77	22.11	lΓ
27			22.33	20.40	23.67	19.89	25.04	21.47	25.74	21.33	26.85	21.32	27.96	22.37			lΓ
29			21.97	20.23	23.27	19.72	24.61	21.30	25.30	21.16	26.44	21.17	27.57	22.24			lΓ
31			21.61	20.07	22.88	19.55	24.19	21.13	24.87	20.99	26.03	21.02	27.18	22.11			lΓ
33	20.01	18.49	20.94	19.76	22.49	19.39	23.77	20.97	24.44	20.83	25.62	20.87	26.80	21.98			lΓ
35	19.87	18.42	20.68	19.64	22.10	19.22	23.35	20.80	24.00	20.66	25.21	20.72	26.41	21.85			П
37	19.61	18.29	20.42	19.53	21.78	19.09	22.94	20.64	23.56	20.50	24.66	20.52	25.76	21.63			lΓ
39	19.51	18.24	20.33	19.48	21.65	19.03	22.72	20.56	23.30	20.40	24.30	20.39	25.30	21.48			lΓ
41	20.09	18.52	20.57	19.59	21.47	18.96	22.44	20.45	22.98	20.28	23.88	20.24	24.77	21.30			ΙF
43	19.02	18.01	19.85	19.27	21.05	18.78	21.92	20.24	22.41	20.07	23.19	19.99	23.96	21.04			1 [
46	17.16	16.81	17.71	17.36	18.29	17.64	18.93	18.56	19.55	19.02	20.41	19.01	21.26	20.16			Ħ
50	11.31	11.08	11.84	11.60	12.45	12.20	12.74	12.49	12.94	12.69	13.14	12.88	13.35	13.08			11

(kW)	Heatir	ng mo	de:HC				(kW)
	Out	door	In	door a	ir tem	oeratui	re
)B	air te	emp.			°CDB		
VB	℃DB	°CWB	16	18	20	22	24
SHC	-19.8	-20					
22.43	-17.7	-18					
22.44	-15.7	-16					
22.45	-13.5	-14	13.22	13.07	12.93	12.78	12.63
22.47	-11.5	-12	13.88	13.73	13.58	13.43	13.28
22.48	-9.5	-10	14.55	14.39	14.24	14.08	13.93
22.33	-7.5	-8	15.21	15.05	14.89	14.73	14.58
22.18	-5.5	-6	15.48	15.32	15.17	15.02	14.87
22.11	-3.0	-4	15.74	15.59	15.45	15.30	15.16
	-1.0	-2	16.00	15.87	15.73	15.59	15.45
	1.0	0	16.27	16.14	16.01	15.87	15.74
	2.0	1	16.40	16.27	16.14	16.01	15.88
	3.0	2	18.64	18.48	18.32	18.18	18.04
	5.0	4	23.11	22.89	22.66	22.50	22.34
	7.0	6	27.59	27.29	27.00	26.82	26.65
	9.0	8	28.92	28.67	28.42	28.22	28.03
	11.5	10	30.24	30.04	29.84	29.63	29.41
	13.5	12	31.28	31.09	30.89	30.68	30.46
	15.5	14	32.32	32.14	31.95	31.73	31.51
$\neg$	16.5	16	32.85	32.66	32.47	32.25	32.03

Notes (1) These data show average statuses.

41

43

46

50

15.10 13.58 15.65

14.89 13.51

14.58

11.25

13.39 15.05

11.02

14.54

14.35 15.54

15.41 14.46 16.07 13.71

16.43 13.81 17.18 15.01

12.39

Depending on the system control, there may be ranges where the operation is not conducted continuously These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

PJG000Z013 /B

### (c) Triple type

Model Cooling		<b>M140</b> e	VNAT	ΓVF	Indo	or unit	FDI	JM50\	/F (3 u	ınits)	Οι	ıtdoor	unit	FDC1	40VN/	A (kW)	Heati	ng mo	de:H0	0			(kW)
0.44		Indoor air temperature															Out	door		Indoor	air temp	erature	
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °C	CDB	28 °	CDB	31 °	CDB	33 °	CDB	air t	emp.			°CDB		
un tomp.	12 °C	CWB	14 °C	CWB	16 °C	CWB	18 °C	CWB	19 °C	CWB	20 °C	CWB	22 °(	CWB	24 °0	CWB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC SHC TC SHC TC SHC						TC	SHC	TC	SHC	TC	SHC	-19.8	-20	7.94	7.91	7.88	7.85	7.82

0.44.			_		_		Indo	oor air t	empera	ture			_					Outdoor			Indoor	air temp	oerature	•
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	8	ir temp				°CDB		
	12 °C	CWB	14 °C	CWB	16 °C	CWB	18 °C	CWB	19 °	CWB	20 °	CWB	22 °C	CWB	24 °C	CWB	°C	OB °CV	۷В	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19	.8 -2	0	7.94	7.91	7.88	7.85	7.82
11					11.05	9.61	11.68	10.40	12.00	10.33	12.34	10.26	13.01	10.86	13.68	10.68	-17	.7 -1	8	8.44	8.41	8.37	8.34	8.30
13					11.56	9.83	12.25	10.63	12.59	10.56	12.95	10.49	13.69	11.09	14.42	10.91	-15	.7 -1	6	8.94	8.90	8.86	8.82	8.79
15					12.07	10.05	12.81	10.85	13.18	10.78	13.57	10.71	14.36	11.32	15.14	11.14	-13	.5 -1	4	9.50	9.46	9.41	9.37	9.33
17					12.59	10.27	13.38	11.08	13.77	11.01	14.19	10.95	15.04	11.55	15.87	11.37	-11	.5 -1	2	10.07	10.02	9.98	9.93	9.88
19					12.86	10.39	13.66	11.19	14.07	11.13	14.49	11.06	15.35	11.66	16.20	11.47	-9	5 -1	0	10.64	10.59	10.54	10.49	10.44
21					13.12	10.51	13.95	11.31	14.36	11.24	14.79	11.17	15.66	11.77	16.53	11.58	-7	5 -8	3	11.21	11.15	11.10	11.04	10.99
23					13.12	10.51	13.99	11.33	14.40	11.26	14.84	11.19	15.73	11.79	16.61	11.60	-5	5 -6	6	11.51	11.45	11.39	11.33	11.27
25			12.14	10.65	13.11	10.50	14.02	11.34	14.44	11.27	14.89	11.21	15.79	11.81	16.69	11.63	-3	0 -4	ŀ	11.80	11.74	11.68	11.62	11.55
27			12.06	10.61	13.11	10.50	14.06	11.36	14.48	11.29	14.90	11.21	15.74	11.79			-1	0 -2	2	12.11	12.05	11.98	11.91	11.84
29			11.97	10.57	12.91	10.41	13.82	11.26	14.26	11.20	14.70	11.14	15.56	11.73			1.	0 0		12.42	12.35	12.28	12.20	12.13
31			11.88	10.53	12.72	10.33	13.59	11.17	14.04	11.12	14.49	11.06	15.40	11.67			2.	0 1		12.58	12.50	12.43	12.35	12.28
33	11.18	9.82	11.67	10.43	12.52	10.24	13.36	11.07	13.82	11.03	14.29	10.98	15.22	11.61			3.	0 2		13.35	13.27	13.20	13.13	13.08
35	10.96	9.71	11.48	10.35	12.32	10.15	13.11	10.97	13.60	10.95	14.09	10.91	15.05	11.55			5.	0 4		14.12	14.05	13.96	13.95	13.93
37	10.76	9.62	11.29	10.26	12.11	10.07	12.87	10.88	13.32	10.84	13.77	10.79	14.69	11.43			7.	0 6		15.68	15.59	15.50	15.52	15.55
39	10.58	9.53	11.10	10.17	11.91	9.98	12.62	10.78	13.05	10.73	13.46	10.68	14.32	11.30			9.	0 8		16.30	16.21	16.11	16.07	16.03
41	10.39	9.43	10.91	10.08	11.70	9.89	12.37	10.67	12.76	10.62	13.16	10.56	13.95	11.18			11	.5 10	)	16.91	16.83	16.73	16.63	16.53
43	10.21	9.34	10.71	9.99	11.49	9.80	12.11	10.57	12.48	10.52	12.85	10.45	13.58	11.05			13	.5 12	2	17.86	17.76	17.65	17.52	17.44
46	10.03	9.25	10.47	9.88	11.13	9.65	11.73	10.42	12.10	10.37	12.27	10.24	13.01	10.86			15	.5 14	1	18.80	18.69	18.57	18.40	18.36
50	7.61	7.45	7.88	7.72	8.35	8.19	8.75	8.58	8.97	8.79	8.98	8.80	9.33	9.14			16	.5 16	3	19.28	19.15	19.03	18.84	18.81

PJG000Z013

Model FDUM140VSATVF Indoor unit FDUM50VF (3 units) Outdoor unit FDC140VSA (kW) Heating mode:HC Cooling mode (kW)

000	,	•														(,			.9					()
_			Indoor air temperature														Γ	Outo	loor		Indoor	air temp	erature	,
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB		air te	mp.			°CDB		
all tomp.	12 °	CWB	14 °	CWB	16 °C	CWB	18 °	CWB	19 °	CWB	20 °C	CWB	22 °	CWB	24 °(	CWB	Г	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	Ī	-19.8	-20	7.94	7.91	7.88	7.85	7.82
11					11.05	9.61	11.68	10.40	12.00	10.33	12.34	10.26	13.01	10.86	13.68	10.68	Г	-17.7	-18	8.44	8.41	8.37	8.34	8.30
13					11.56	9.83	12.25	10.63	12.59	10.56	12.95	10.49	13.69	11.09	14.42	10.91		-15.7	-16	8.94	8.90	8.86	8.82	8.79
15					12.07	10.05	12.81	10.85	13.18	10.78	13.57	10.71	14.36	11.32	15.14	11.14		-13.5	-14	9.50	9.46	9.41	9.37	9.33
17					12.59	10.27	13.38	11.08	13.77	11.01	14.19	10.95	15.04	11.55	15.87	11.37		-11.5	-12	10.07	10.02	9.98	9.93	9.88
19					12.86	10.39	13.66	11.19	14.07	11.13	14.49	11.06	15.35	11.66	16.20	11.47		-9.5	-10	10.64	10.59	10.54	10.49	10.44
21					13.12	10.51	13.95	11.31	14.36	11.24	14.79	11.17	15.66	11.77	16.53	11.58		-7.5	-8	11.21	11.15	11.10	11.04	10.99
23					13.12	10.51	13.99	11.33	14.40	11.26	14.84	11.19	15.73	11.79	16.61	11.60		-5.5	-6	11.51	11.45	11.39	11.33	11.27
25			12.14	10.65	13.11	10.50	14.02	11.34	14.44	11.27	14.89	11.21	15.79	11.81	16.69	11.63		-3.0	-4	11.80	11.74	11.68	11.62	11.55
27			12.06	10.61	13.11	10.50	14.06	11.36	14.48	11.29	14.90	11.21	15.74	11.79				-1.0	-2	12.11	12.05	11.98	11.91	11.84
29			11.97	10.57	12.91	10.41	13.82	11.26	14.26	11.20	14.70	11.14	15.56	11.73			L	1.0	0	12.42	12.35	12.28	12.20	12.13
31			11.88	10.53	12.72	10.33	13.59	11.17	14.04	11.12	14.49	11.06	15.40	11.67			L	2.0	1	12.58	12.50	12.43	12.35	12.28
33	11.18	9.82	11.67	10.43	12.52	10.24	13.36	11.07	13.82	11.03	14.29	10.98	15.22	11.61			L	3.0	2	13.35	13.27	13.20	13.13	13.08
35	10.96	9.71	11.48	10.35	12.32	10.15	13.11	10.97	13.60	10.95	14.09	10.91	15.05	11.55			L	5.0	4	14.12	14.05	13.96	13.95	13.93
37	10.76	9.62	11.29	10.26	12.11	10.07	12.87	10.88	13.32	10.84	13.77	10.79	14.69	11.43			L	7.0	6	15.68	15.59	15.50	15.52	15.55
39	10.58	9.53	11.10	10.17	11.91	9.98	12.62	10.78	13.05	10.73	13.46	10.68	14.32	11.30			L	9.0	8	16.30	16.21	16.11	16.07	16.03
41	10.39	9.43	10.91	10.08	11.70	9.89	12.37	10.67	12.76	10.62	13.16	10.56	13.95	11.18			L	11.5	10	16.91	16.83	16.73	16.63	16.53
43	10.21	9.34	10.71	9.99	11.49	9.80	12.11	10.57	12.48	10.52	12.85	10.45	13.58	11.05			L	13.5	12	17.86	17.76	17.65	17.52	17.44
46	10.03	9.25	10.47	9.88	11.13	9.65	11.73	10.42	12.10	10.37	12.27	10.24	13.01	10.86			L	15.5	14	18.80	18.69	18.57	18.40	18.36
50	7.61	7.45	7.88	7.72	8.35	8.19	8.75	8.58	8.97	8.79	8.98	8.80	9.33	9.14			I	16.5	16	19.28	19.15	19.03	18.84	18.81

Notes (1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

In the heating mode in which the outside air temperature is 0°C DB or less, the compressor operates at maximum frequency.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)



Model			VSAT	VF1 Ir	าdoor เ	unit F	=DUM	71VF1	(3 uni	t)	Outdo	or unit	FDC	200V	SA								
Cooling	mode	)														(kW)	Hea	ting mo	de:H0				(kW
Outdoor							Indo	or air t	emper	ature							0	utdoor	In	door a	ir tem	peratur	е
air temp.	18℃	DB	21℃	DB	23°C	DB	26℃	DB	27°C	DB	28℃	DB	31℃	DB	33℃	DB	ai	temp.			°CDB		
an temp.	12°C	WB	14°C	:WB	16°C	WB	18℃	WB	19℃	:WB	20℃	WB	22°C	WB	24°C	:WB	°CD	B °CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.	3 -20					
11					19.36	16.25	20.45	17.60	20.99	17.40	21.67	17.24	23.02	18.27	24.37	17.85	-17.	7 -18					
13					19.46	16.29	20.57	17.64	21.13	17.45	21.78	17.28	23.09	18.29	24.40	17.86	-15.	7 -16					
15					19.55	16.32	20.69	17.68	21.26	17.49	21.90	17.31	23.16	18.31	24.43	17.87	-13.	5 -14	11.10	10.98	10.86	10.73	10.60
17					19.56	16.32	20.77	17.70	21.37	17.53	21.99	17.34	23.23	18.33	24.47	17.88	-11.	5 -12	11.93	11.80	11.67	11.54	11.40
19					19.64	16.35	20.84	17.73	21.48	17.56	22.09	17.37	23.30	18.35	24.51	17.89	-9.5	-10	12.75	12.61	12.48	12.34	12.20
21					19.34	16.24	20.50	17.61	21.11	17.44	21.72	17.26	22.92	18.24	24.13	17.80	-7.5	-8	13.57	13.43	13.29	13.14	13.00
23					19.04	16.13	20.16	17.50	20.74	17.32	21.35	17.14	22.55	18.14	23.76	17.70	-5.5	-6	13.78	13.64	13.51	13.37	13.24
25			17.82	16.64	18.89	16.08	19.99	17.44	20.56	17.27	21.16	17.09	22.37	18.09	23.57	17.66	-3.0	-4	13.99	13.86	13.73	13.60	13.47
27			17.68	16.58	18.74	16.02	19.82	17.38	20.38	17.21	21.25	17.11	22.13	18.03			-1.0	-2	14.20	14.08	13.95	13.83	13.71
29			17.40	16.47	18.43	15.91	19.49	17.27	20.03	17.10	20.93	17.02	21.83	17.94			1.0	0	14.41	14.29	14.18	14.06	13.94
31			17.11	16.35	18.11	15.79	19.15	17.16	19.69	16.99	20.60	16.92	21.52	17.86			2.0	1	14.51	14.40	14.29	14.17	14.06
33	15.84	15.02	16.58	16.14	17.80	15.68	18.82	17.05	19.34	16.88	20.28	16.82	21.21	17.78			3.0	2	16.19	16.05	15.91	15.79	15.67
35	15.73	14.97	16.37	16.05	17.49	15.57	18.49	16.94	19.00	16.77	19.95	16.72	20.91	17.70			5.0	4	19.54	19.35	19.15	19.02	18.89
37	15.52	14.88	16.13	15.81	17.14	15.44	18.05	16.80	18.57	16.64	19.48	16.58	20.39	17.56			7.0	6	22.89	22.64	22.40	22.25	22.11
39	15.31	14.79	15.89	15.57	16.78	15.31	17.61	16.66	18.13	16.50	19.00	16.44	19.87	17.42			9.0	8	23.99	23.78	23.58	23.42	23.25
41	15.10	14.70	15.65	15.34	16.43	15.18	17.18	16.52	17.70	16.37	18.53	16.30	19.36	17.29			11.5	10	25.09	24.92	24.75	24.58	24.40
43	14.89	14.59	15.41	15.10	16.07	15.06	16.74	16.38	17.26	16.23	18.05	16.16	18.84	17.15			13.5	12	25.95	25.79	25.63	25.45	25.27
46	14.58	14.29	15.05	14.75	15.54	14.87	16.09	15.76	16.61	16.04	17.34	15.96	18.06	16.95			15.5	14	26.82	26.66	26.50	26.32	26.14
50	11.25	11.02	11.78	11.54	12.39	12.14	12.68	12.42	12.88	12.62	13.08	12.82	13.28	13.01			16.5	16	27.25	27.10	26.94	26.76	26.57

PJG000Z013 🛕

### (3) Duct connected-High static pressure type (FDU)

Model FDU100VNAVF2 Indoor unit FDU100VF2 Outdoor unit FDC100VNA Cooling mode

0.11							Inde	oor air t	empera	ture						
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB
	12 °C	CWB	14 °	CWB	16 °	CWB	18 °	CWB	19 °C	CWB	20 °C	CWB	22 °C	CWB	24 °C	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.12	6.88	8.59	7.50	8.82	7.38	9.07	7.26	9.56	7.69	10.06	7.42
13					8.50	6.99	9.00	7.61	9.26	7.48	9.52	7.36	10.06	7.78	10.60	7.49
15					8.88	7.10	9.42	7.71	9.69	7.58	9.98	7.45	10.56	7.87	11.14	7.57
17					9.26	7.21	9.84	7.82	10.12	7.69	10.43	7.56	11.05	7.96	11.67	7.65
19					9.46	7.27	10.05	7.88	10.34	7.74	10.65	7.60	11.29	8.01	11.92	7.69
21					9.65	7.33	10.25	7.93	10.56	7.80	10.88	7.66	11.52	8.06	12.16	7.73
23					9.65	7.33	10.28	7.94	10.59	7.80	10.91	7.66	11.56	8.06	12.21	7.74
25			8.93	7.64	9.64	7.33	10.31	7.95	10.62	7.81	10.95	7.67	11.61	8.07	12.27	7.75
27			8.86	7.62	9.64	7.33	10.34	7.95	10.65	7.82	10.96	7.68	11.57	8.06		
29			8.80	7.59	9.50	7.29	10.17	7.91	10.49	7.78	10.81	7.64	11.45	8.04		
31			8.73	7.57	9.35	7.24	9.99	7.86	10.32	7.74	10.66	7.61	11.32	8.02		
33	8.22	7.04	8.58	7.52	9.21	7.20	9.82	7.82	10.16	7.70	10.51	7.57	11.19	7.99		
35	8.05	6.98	8.44	7.47	9.06	7.15	9.64	7.77	10.00	7.66	10.36	7.54	11.07	7.97		
37	7.92	6.93	8.30	7.43	8.91	7.11	9.46	7.72	9.79	7.61	10.13	7.49	10.80	7.92		
39	7.78	6.88	8.16	7.38	8.75	7.06	9.28	7.68	9.59	7.56	9.90	7.44	10.53	7.87		
41	7.64	6.83	8.02	7.33	8.60	7.02	9.09	7.63	9.38	7.51	9.68	7.39	10.26	7.82		
43	7.50	6.77	7.88	7.29	8.45	6.97	8.91	7.58	9.18	7.46	9.45	7.34	9.99	7.77		
46	7.33	6.71	7.67	7.22	8.22	6.91	8.58	7.50	8.83	7.38	9.07	7.26	9.57	7.70		
50	7.09	6.63	7.39	7.13	7.91	6.82	8.19	7.41	8.35	7.28	8.51	7.14	8.83	7.57		

(kW)	)	Heatii	ng mo	de:H0	0			(kW)
		Out	door		Indoor	air temp	erature	:
DB		air te	emp.			°CDB		
WB		°CDB	°CWB	16	18	20	22	24
SHC		-19.8	-20	6.82	6.79	6.77	6.75	6.72
7.42		-17.7	-18	7.16	7.14	7.10	7.08	7.04
7.49		-15.7	-16	7.50	7.46	7.44	7.40	7.37
7.57		-13.5	-14	7.86	7.83	7.79	7.76	7.72
7.65		-11.5	-12	8.23	8.19	8.15	8.12	8.08
7.69		-9.5	-10	8.58	8.55	8.50	8.47	8.42
7.73		-7.5	-8	8.93	8.89	8.85	8.80	8.75
7.74		-5.5	-6	9.05	9.00	8.97	8.91	8.86
7.75		-3.0	-4	9.17	9.12	9.07	9.03	8.97
		-1.0	-2	9.29	9.23	9.19	9.13	9.07
		1.0	0	9.40	9.34	9.29	9.23	9.18
		2.0	1	9.45	9.39	9.34	9.28	9.22
		3.0	2	9.82	9.77	9.71	9.67	9.63
		5.0	4	10.21	10.15	10.09	10.08	10.07
		7.0	6	11.33	11.27	11.20	11.22	11.23
Ţ		9.0	8	11.78	11.71	11.64	11.62	11.59
		11.5	10	12.23	12.16	12.09	12.02	11.94
		13.5	12	12.91	12.83	12.75	12.65	12.60
		15.5	14	13.59	13.50	13.42	13.29	13.26
ď		16.5	16	13.93	13.84	13.75	13.61	13.59

PJG000Z046 ∕े

Indoor air temperature °CDB

Model FDU100VSAVF2 Indoor unit FDU100VF2 Outdoor unit FDC100VSA Cooling mode

(kW) Heating mode:HC

(kW)

							Inde	oor air t	empera	ture							ı	Outo	door	
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB		air te	emp.	
un tomp.	12 °	CWB	14 °(	CWB	16 °	CWB	18 °	CWB	19 °	CWB	20 °	CWB	22 °	CWB	24 °	CWB	٩	CDB	°CWB	16
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-	19.8	-20	6.82
11					8.12	6.88	8.59	7.50	8.82	7.38	9.07	7.26	9.56	7.69	10.06	7.42	F	17.7	-18	7.16
13					8.50	6.99	9.00	7.61	9.26	7.48	9.52	7.36	10.06	7.78	10.60	7.49	F	15.7	-16	7.50
15					8.88	7.10	9.42	7.71	9.69	7.58	9.98	7.45	10.56	7.87	11.14	7.57	F	13.5	-14	7.86
17					9.26	7.21	9.84	7.82	10.12	7.69	10.43	7.56	11.05	7.96	11.67	7.65	-	11.5	-12	8.23
19					9.46	7.27	10.05	7.88	10.34	7.74	10.65	7.60	11.29	8.01	11.92	7.69	Γ.	-9.5	-10	8.58
21					9.65	7.33	10.25	7.93	10.56	7.80	10.88	7.66	11.52	8.06	12.16	7.73	-	-7.5	-8	8.93
23					9.65	7.33	10.28	7.94	10.59	7.80	10.91	7.66	11.56	8.06	12.21	7.74	Г	-5.5	-6	9.05
25			8.93	7.64	9.64	7.33	10.31	7.95	10.62	7.81	10.95	7.67	11.61	8.07	12.27	7.75	Г	-3.0	-4	9.17
27			8.86	7.62	9.64	7.33	10.34	7.95	10.65	7.82	10.96	7.68	11.57	8.06			Г	-1.0	-2	9.29
29			8.80	7.59	9.50	7.29	10.17	7.91	10.49	7.78	10.81	7.64	11.45	8.04			Г	1.0	0	9.40
31			8.73	7.57	9.35	7.24	9.99	7.86	10.32	7.74	10.66	7.61	11.32	8.02			Г	2.0	1	9.45
33	8.22	7.04	8.58	7.52	9.21	7.20	9.82	7.82	10.16	7.70	10.51	7.57	11.19	7.99			Г	3.0	2	9.82
35	8.05	6.98	8.44	7.47	9.06	7.15	9.64	7.77	10.00	7.66	10.36	7.54	11.07	7.97				5.0	4	10.21
37	7.92	6.93	8.30	7.43	8.91	7.11	9.46	7.72	9.79	7.61	10.13	7.49	10.80	7.92			Г	7.0	6	11.33
39	7.78	6.88	8.16	7.38	8.75	7.06	9.28	7.68	9.59	7.56	9.90	7.44	10.53	7.87				9.0	8	11.78
41	7.64	6.83	8.02	7.33	8.60	7.02	9.09	7.63	9.38	7.51	9.68	7.39	10.26	7.82			1	11.5	10	12.23
43	7.50	6.77	7.88	7.29	8.45	6.97	8.91	7.58	9.18	7.46	9.45	7.34	9.99	7.77			1	13.5	12	12.91
46	7.33	6.71	7.67	7.22	8.22	6.91	8.58	7.50	8.83	7.38	9.07	7.26	9.57	7.70			1	15.5	14	13.59
50	7.09	6.63	7.39	7.13	7.91	6.82	8.19	7.41	8.35	7.28	8.51	7.14	8.83	7.57			1	16.5	16	13.93

ı	°CDB	°CWB	16	18	20	22	24
ı	-19.8	-20	6.82	6.79	6.77	6.75	6.72
ı	-17.7	-18	7.16	7.14	7.10	7.08	7.04
ı	-15.7	-16	7.50	7.46	7.44	7.40	7.37
ı	-13.5	-14	7.86	7.83	7.79	7.76	7.72
ı	-11.5	-12	8.23	8.19	8.15	8.12	8.08
ı	-9.5	-10	8.58	8.55	8.50	8.47	8.42
ı	-7.5	-8	8.93	8.89	8.85	8.80	8.75
ı	-5.5	-6	9.05	9.00	8.97	8.91	8.86
ı	-3.0	-4	9.17	9.12	9.07	9.03	8.97
ı	-1.0	-2	9.29	9.23	9.19	9.13	9.07
ı	1.0	0	9.40	9.34	9.29	9.23	9.18
ı	2.0	1	9.45	9.39	9.34	9.28	9.22
ı	3.0	2	9.82	9.77	9.71	9.67	9.63
ı	5.0	4	10.21	10.15	10.09	10.08	10.07
ı	7.0	6	11.33	11.27	11.20	11.22	11.23
ı	9.0	8	11.78	11.71	11.64	11.62	11.59
ı	11.5	10	12.23	12.16	12.09	12.02	11.94
Į	13.5	12	12.91	12.83	12.75	12.65	12.60
ı	15.5	14	13.59	13.50	13.42	13.29	13.26
ı	16.5	16	13.93	13.84	13.75	13.61	13.59
•			_				

Notes (1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

In the heating mode in which the outside air temperature is 0°C DB or less, the compressor operates at maximum frequency.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Model Cooling			NAVF	: In	door u	ınit F	DU12	5VF	Ou	tdoor	unit	FDC12	25VNA	٨		(kW)	Hea	ing mo	de:H0	0			(kW)
0.11							Inde	oor air t	empera	ture							O	tdoor		Indoor	air temp	erature	;
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	air	temp.			°CDB		
	12 °C	CWB	14 °	CWB	16 °	CWB	18 °	CWB	19 °	CWB	20 °	CWB	22 °C	CWB	24 °C	CWB	°CDI	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	7.77	7.73	7.70	7.67	7.65
11					10.15	9.23	10.74	10.04	11.03	9.97	11.34	9.90	11.96	10.51	12.57	10.34	-17.7	-18	8.16	8.13	8.11	8.06	8.03
13					10.63	9.44	11.26	10.24	11.57	10.17	11.91	10.11	12.58	10.72	13.25	10.55	-15.7	-16	8.57	8.53	8.50	8.46	8.42
15					11.10	9.63	11.78	10.44	12.11	10.37	12.47	10.31	13.20	10.92	13.92	10.75	-13.5	-14	9.02	8.98	8.94	8.90	8.86
17					11.58	9.84	12.29	10.64	12.65	10.58	13.04	10.52	13.82	11.13	14.59	10.96	-11.5	-12	9.46	9.41	9.37	9.33	9.28
19					11.82	9.94	12.56	10.75	12.92	10.68	13.32	10.62	14.11	11.23	14.90	11.06	-9.5	-10	9.90	9.84	9.80	9.76	9.70
21					12.06	10.04	12.82	10.86	13.19	10.79	13.60	10.73	14.40	11.33	15.20	11.15	-7.5	-8	10.32	10.28	10.23	10.17	10.12
23					12.06	10.04	12.85	10.87	13.23	10.80	13.64	10.74	14.45	11.35	15.27	11.17	-5.5	-6	10.50	10.45	10.39	10.33	10.28
25			11.16	10.20	12.06	10.04	12.89	10.88	13.27	10.82	13.68	10.76	14.51	11.37	15.34	11.20	-3.0	-4	10.66	10.61	10.55	10.49	10.43
27			11.08	10.16	12.05	10.04	12.92	10.90	13.31	10.83	13.69	10.76	14.47	11.35			-1.0	-2	10.82	10.77	10.71	10.65	10.58
29			11.00	10.12	11.87	9.96	12.71	10.81	13.11	10.76	13.51	10.69	14.31	11.30			1.0	0	10.99	10.93	10.87	10.80	10.73
31			10.92	10.09	11.69	9.88	12.49	10.72	12.90	10.67	13.32	10.62	14.15	11.24			2.0	1	11.07	11.01	10.94	10.88	10.81
33	10.27	9.37	10.72	9.99	11.51	9.81	12.27	10.64	12.70	10.60	13.13	10.55	13.99	11.19			3.0	2	11.92	11.85	11.78	11.73	11.68
35	10.07	9.28	10.55	9.92	11.33	9.73	12.06	10.55	12.50	10.52	12.94	10.48	13.83	11.14			5.0	4	12.76	12.69	12.61	12.60	12.58
37	9.90	9.19	10.38	9.84	11.13	9.65	11.83	10.46	12.24	10.42	12.66	10.38	13.50	11.02			7.0	6	14.16	14.08	14.00	14.02	14.04
39	9.72	9.11	10.20	9.76	10.94	9.57	11.60	10.37	11.99	10.33	12.38	10.28	13.16	10.91			9.0	8	14.72	14.64	14.56	14.52	14.49
41	9.55	9.02	10.02	9.68	10.75	9.49	11.37	10.28	11.73	10.23	12.09	10.17	12.82	10.80			11.5	10	15.28	15.20	15.11	15.02	14.93
43	9.38	8.94	9.85	9.60	10.56	9.41	11.14	10.19	11.47	10.13	11.81	10.07	12.48	10.68			13.5	12	16.13	16.04	15.94	15.82	15.75
46	9.21	8.86	9.53	9.34	10.28	9.29	10.88	10.09	11.12	10.00	11.28	9.88	11.96	10.51			15.5	14	16.98	16.88	16.77	16.62	16.58
50	7.43	7.28	7.63	7.48	8.25	8.09	8.67	8.50	8.78	8.60	8.80	8.62	9.05	8.87			16.5	16	17.41	17.30	17.19	17.02	16.99

PJG000Z046 ∕€

<b>Model</b> Cooling	_		SAVF	ln.	door u	ınit F	DU12	5VF	Ou	tdoor	unit	FDC12	25VSA			(kW)	Heati	ng mo	de:H0	С			(kW)
							Inde	oor air t	empera	iture							Out	door		Indoor	air temp	erature	•
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	air te	emp.			°CDB		
an temp.	12 °C	CWB	14 °	CWB	16 °0	CWB	18 °	CWB	19 °	CWB	20 °	CWB	22 °C	CWB	24 °	CWB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	7.77	7.73	7.70	7.67	7.65
11					10.15	9.23	10.74	10.04	11.03	9.97	11.34	9.90	11.96	10.51	12.57	10.34	-17.7	-18	8.16	8.13	8.11	8.06	8.03
13					10.63	9.44	11.26	10.24	11.57	10.17	11.91	10.11	12.58	10.72	13.25	10.55	-15.7	-16	8.57	8.53	8.50	8.46	8.42
15					11.10	9.63	11.78	10.44	12.11	10.37	12.47	10.31	13.20	10.92	13.92	10.75	-13.5	-14	9.02	8.98	8.94	8.90	8.86
17					11.58	9.84	12.29	10.64	12.65	10.58	13.04	10.52	13.82	11.13	14.59	10.96	-11.5	-12	9.46	9.41	9.37	9.33	9.28
19					11.82	9.94	12.56	10.75	12.92	10.68	13.32	10.62	14.11	11.23	14.90	11.06	-9.5	-10	9.90	9.84	9.80	9.76	9.70
21					12.06	10.04	12.82	10.86	13.19	10.79	13.60	10.73	14.40	11.33	15.20	11.15	-7.5	-8	10.32	10.28	10.23	10.17	10.12
23					12.06	10.04	12.85	10.87	13.23	10.80	13.64	10.74	14.45	11.35	15.27	11.17	-5.5	-6	10.50	10.45	10.39	10.33	10.28
25			11.16	10.20	12.06	10.04	12.89	10.88	13.27	10.82	13.68	10.76	14.51	11.37	15.34	11.20	-3.0	-4	10.66	10.61	10.55	10.49	10.43
27			11.08	10.16	12.05	10.04	12.92	10.90	13.31	10.83	13.69	10.76	14.47	11.35			-1.0	-2	10.82	10.77	10.71	10.65	10.58
29			11.00	10.12	11.87	9.96	12.71	10.81	13.11	10.76	13.51	10.69	14.31	11.30			1.0	0	10.99	10.93	10.87	10.80	10.73
31			10.92	10.09	11.69	9.88	12.49	10.72	12.90	10.67	13.32	10.62	14.15	11.24			2.0	1	11.07	11.01	10.94	10.88	10.81
33	10.27	9.37	10.72	9.99	11.51	9.81	12.27	10.64	12.70	10.60	13.13	10.55	13.99	11.19			3.0	2	11.92	11.85	11.78	11.73	11.68
35	10.07	9.28	10.55	9.92	11.33	9.73	12.06	10.55	12.50	10.52	12.94	10.48	13.83	11.14			5.0	4	12.76	12.69	12.61	12.60	12.58

10.38 13.50 11.02

11.96 10.51

10.28 13.16 10.91

7.0 6

9.0

11.5 10

13.5 12

15.5 14

16.5

8

16

Notes (1) These data show average status.

37

39

41

43

46

9.90 9.19

9 72 9 1 1

9.55 9.02

9.38 8.94 9.85 9.60 10.56 9.41 11.14 10.19 11.47 10.13 11.81 10.07 12.48 10.68

9.21 8.86

8.67

11.60

9.49 11.37

s (1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

In the heating mode in which the outside air temperature is 0°C DB or less, the compressor operates at maximum frequency.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

8.50 8.78

10.46 12.24

11.99

10.37

10.28 11.73 10.23 12.09 10.17 12.82 10.80

10.42 12.66

10 33 12 38

8.60 8.80 8.62 9.05 8.87

10.38 9.84

10.20 9.76

10.02 9.68 10.75

9.53 9.34 11.13 9.65 11.83

10 94 9 57

10.28 9.29 10.88 10.09 11.12 10.00 11.28 9.88

8.25 8.09

17.41 17.30 17.19 17.02 16.99 PJG000Z046

14.16 | 14.08 | 14.00 | 14.02 | 14.04

14.72 14.64 14.56 14.52 14.49

15.28 15.20 15.11 15.02 14.93

16.13 | 16.04 | 15.94 | 15.82 | 15.75 16.98 16.88 16.77 16.62 16.58

Model Cooling			NAVF	· In	door u	ınit F	DU14	0VF	Ou	tdoor	unit l	-DC14	10VNA	١		(kW)	Heati	na ma	de:H0	0			(kW)
							Inde	oor air t	empera	ture						Ť		door			air temp	erature	
Outdoor	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27°	CDB	28 °	CDB	31 °	CDB	33 °	CDB		emp.			°CDB		
air temp.	12 °C	CWB	14 °C	CWB	16 °0	CWB	18 °	CWB	19 °	CWB	20 °C	CWB	22 °(	CWB	24 °	CWB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	7.94	7.91	7.88	7.85	7.82
11					11.05	9.86	11.68	10.75	12.00	10.63	12.34	10.50	13.01	11.15	13.68	10.85	-17.7	-18	8.44	8.41	8.37	8.34	8.30
13					11.56	10.03	12.25	10.93	12.59	10.79	12.95	10.66	13.69	11.31	14.42	11.00	-15.7	-16	8.94	8.90	8.86	8.82	8.79
15					12.07	10.21	12.81	11.10	13.18	10.97	13.57	10.83	14.36	11.47	15.14	11.15	-13.5	-14	9.50	9.46	9.41	9.37	9.33
17					12.59	10.38	13.38	11.27	13.77	11.14	14.19	11.00	15.04	11.64	15.87	11.31	-11.5	-12	10.07	10.02	9.98	9.93	9.88
19					12.86	10.48	13.66	11.36	14.07	11.23	14.49	11.09	15.35	11.71	16.20	11.38	-9.5	-10	10.64	10.59	10.54	10.49	10.44
21					13.12	10.57	13.95	11.45	14.36	11.31	14.79	11.17	15.66	11.79	16.53	11.45	-7.5	-8	11.21	11.15	11.10	11.04	10.99
23					13.12	10.57	13.99	11.47	14.40	11.33	14.84	11.19	15.73	11.81	16.61	11.47	-5.5	-6	11.51	11.45	11.39	11.33	11.27
25			12.14	10.90	13.11	10.57	14.02	11.48	14.44	11.34	14.89	11.20	15.79	11.82	16.69	11.49	-3.0	-4	11.80	11.74	11.68	11.62	11.55
27			12.06	10.86	13.11	10.57	14.06	11.49	14.48	11.35	14.90	11.20	15.74	11.81			-1.0	-2	12.11	12.05	11.98	11.91	11.84
29			11.97	10.83	12.91	10.50	13.82	11.41	14.26	11.29	14.70	11.15	15.56	11.77			1.0	0	12.42	12.35	12.28	12.20	12.13
31			11.88	10.80	12.72	10.43	13.59	11.34	14.04	11.22	14.49	11.09	15.40	11.73			2.0	1	12.58	12.50	12.43	12.35	12.28
33	11.18	10.02	11.67	10.71	12.52	10.36	13.36	11.27	13.82	11.15	14.29	11.03	15.22	11.68			3.0	2	13.35	13.27	13.20	13.13	13.08
35	10.96	9.93	11.48	10.64	12.32	10.29	13.11	11.19	13.60	11.09	14.09	10.97	15.05	11.64			5.0	4	14.12	14.05	13.96	13.95	13.93
37	10.76	9.85	11.29	10.57	12.11	10.22	12.87	11.12	13.32	11.01	13.77	10.89	14.69	11.55			7.0	6	15.68	15.59	15.50	15.52	15.55
39	10.58	9.77	11.10	10.50	11.91	10.15	12.62	11.04	13.05	10.93	13.46	10.80	14.32	11.46			9.0	8	16.30	16.21	16.11	16.07	16.03
41	10.39	9.70	10.91	10.43	11.70	10.08	12.37	10.96	12.76	10.85	13.16	10.72	13.95	11.37			11.5	10	16.91	16.83	16.73	16.63	16.53
43	10.21	9.62	10.71	10.36	11.49	10.01	12.11	10.89	12.48	10.76	12.85	10.64	13.58	11.29			13.5	12	17.86	17.76	17.65		17.44
46	10.03	9.54	10.47	10.26	11.13	9.89	11.73	10.77	12.10	10.66	12.27	10.48	13.01	11.15			15.5	14	18.80	18.69	18.57	18.40	18.36
50	7.61	7.45	7.88	7.72	8.35	8.19	8.75	8.58	8.97	8.79	8.98	8.80	9.33	9.14			16.5	16	19.28	19.15	19.03	18.84	18.81

PJG000Z046 ∕€

<b>Model</b> Cooling			SAVF	III	door u	IIIIL F	DU14	UVF	Ou	tdoor	urnt 1	FDC 12	10VSA			(kW)	Heatii	ng mo	de:H	С			(kW
_							Indo	oor air t	empera	ture							Out	door		Indoor	air temp	erature	,
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28 °	CDB	31 °	CDB	33 °	CDB	air te	emp.			°CDB		
an temp.	12 °C	CWB	14 °0	CWB	16 °	CWB	18 °C	CWB	19 °	CWB	20 °	CWB	22 °C	CWB	24 °	CWB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	7.94	7.91	7.88	7.85	7.82
11					11.05	9.86	11.68	10.75	12.00	10.63	12.34	10.50	13.01	11.15	13.68	10.85	-17.7	-18	8.44	8.41	8.37	8.34	8.30
13					11.56	10.03	12.25	10.93	12.59	10.79	12.95	10.66	13.69	11.31	14.42	11.00	-15.7	-16	8.94	8.90	8.86	8.82	8.79
15					12.07	10.21	12.81	11.10	13.18	10.97	13.57	10.83	14.36	11.47	15.14	11.15	-13.5	-14	9.50	9.46	9.41	9.37	9.33
17					12.59	10.38	13.38	11.27	13.77	11.14	14.19	11.00	15.04	11.64	15.87	11.31	-11.5	-12	10.07	10.02	9.98	9.93	9.88
19					12.86	10.48	13.66	11.36	14.07	11.23	14.49	11.09	15.35	11.71	16.20	11.38	-9.5	-10	10.64	10.59	10.54	10.49	10.44
21					13.12	10.57	13.95	11.45	14.36	11.31	14.79	11.17	15.66	11.79	16.53	11.45	-7.5	-8	11.21	11.15	11.10	11.04	10.99
23					13.12	10.57	13.99	11.47	14.40	11.33	14.84	11.19	15.73	11.81	16.61	11.47	-5.5	-6	11.51	11.45	11.39	11.33	11.27
25			12.14	10.90	13.11	10.57	14.02	11.48	14.44	11.34	14.89	11.20	15.79	11.82	16.69	11.49	-3.0	-4	11.80	11.74	11.68	11.62	11.55
27			12.06	10.86	13.11	10.57	14.06	11.49	14.48	11.35	14.90	11.20	15.74	11.81			-1.0	-2	12.11	12.05	11.98	11.91	11.84
29			11.97	10.83	12.91	10.50	13.82	11.41	14.26	11.29	14.70	11.15	15.56	11.77			1.0	0	12.42	12.35	12.28	12.20	12.13
31			11.88	10.80	12.72	10.43	13.59	11.34	14.04	11.22	14.49	11.09	15.40	11.73			2.0	1	12.58	12.50	12.43	12.35	12.28
33	11.18	10.02	11.67	10.71	12.52	10.36	13.36	11.27	13.82	11.15	14.29	11.03	15.22	11.68			3.0	2	13.35	13.27	13.20	13.13	13.08
35	10.96	9.93	11.48	10.64	12.32	10.29	13.11	11.19	13.60	11.09	14.09	10.97	15.05	11.64			5.0	4	14.12	14.05	13.96	13.95	13.93

10.89 14.69 11.55

14 32

11 46

11.15

10.80

7.0 6

9.0

11.5 10

13.5 12

15.5 14

16.5 16

8

16.91

Notes (1) These data show average status

10.76 9.85

10.58

10.39

10.21 9.62

10.03

9 77

9.70

9.54

37

39

41

43

46

Madal EDIII 10V/NAVE

Indoor unit EDI I1 10 / E

10.22 12.87

9.89

8.19 8.75

8.35

12 62

11.73 10.77 12.10 10.66 12.27 10.48 13.01

s (1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

In the heating mode in which the outside air temperature is 0°C DB or less, the compressor operates at maximum frequency.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

8.58 8.97

11.12 13.32

13 05

11 04

10.96 12.76 10.85 13.16 10.72 13.95 11.37

11.01 13.77

13 46

10.93

8.79 8.98 8.80 9.33 9.14

11.29 10.57 12.11

10.50 11 91 10 15

11 10

10.91 10.43 11.70 10.08 12.37

10.71 10.36 11.49 10.01 12.11 10.89 12.48 10.76 12.85 10.64 13.58 11.29

10.47 10.26 11.13

19.28 19.15 19.03 18.84 18.81 PJG000Z046

15.68 | 15.59 | 15.50 | 15.52 | 15.55

17.86 | 17.76 | 17.65 | 17.52 | 17.44

18.80 18.69 18.57 18.40 18.36

16.03

16.63 16.53

16.30 16.21 16.11 16.07

16.83 16.73

Model	FDU	200VS	SAVG	Ind	loor ur	it FC	)U200	VG	Outo	door ur	nit F	C200	VSA			
Cooling	mode	)														(kW)
Outdoor							Indo	or air t	emper	ature						
air temp.	18℃	DB	21℃	DB	23℃	DB	26°0	DB	27℃	DB	28℃	DB	31℃	DB	33°C	DB
	12°C	WB	14°C	WB	16°C	WB	18℃	WB	19℃	WB	20℃	WB	22℃	WB	24°C	:WB
℃DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					19.36	14.17	20.45	15.09	20.99	14.93	21.67	14.81	23.02	15.51	24.37	15.18
13					19.46	14.21	20.57	15.14	21.13	14.98	21.78	14.85	23.09	15.54	24.40	15.19
15					19.55	14.25	20.69	15.19	21.26	15.04	21.90	14.90	23.16	15.56	24.43	15.20
17					19.56	14.25	20.77	15.22	21.37	15.08	21.99	14.93	23.23	15.59	24.47	15.21
19					19.64	14.29	20.84	15.25	21.48	15.12	22.09	14.97	23.30	15.61	24.51	15.22
21					19.34	14.16	20.50	15.11	21.11	14.98	21.72	14.83	22.92	15.48	24.13	15.11
23					19.04	14.03	20.16	14.98	20.74	14.84	21.35	14.69	22.55	15.36	23.76	14.99
25			17.82	14.37	18.89	13.96	19.99	14.91	20.56	14.77	21.16	14.63	22.37	15.30	23.57	14.94
27			17.68	14.31	18.74	13.90	19.82	14.84	20.38	14.70	21.25	14.66	22.13	15.22		
29			17.40	14.18	18.43	13.76	19.49	14.71	20.03	14.57	20.93	14.54	21.83	15.12		
31			17.11	14.04	18.11	13.63	19.15	14.58	19.69	14.44	20.60	14.42	21.52	15.02		
33	15.84	13.05	16.58	13.80	17.80	13.50	18.82	14.45	19.34	14.31	20.28	14.31	21.21	14.92		
35	15.73	12.99	16.37	13.71	17.49	13.37	18.49	14.32	19.00	14.18	19.95	14.19	20.91	14.82		
37	15.52	12.89	16.13	13.60	17.14	13.22	18.05	14.15	18.57	14.02	19.48	14.02	20.39	14.65		
39	15.31	12.79	15.89	13.49	16.78	13.07	17.61	13.98	18.13	13.86	19.00	13.85	19.87	14.49		
41	15.10	12.69	15.65	13.38	16.43	12.93	17.18	13.82	17.70	13.71	18.53	13.69	19.36	14.32		
43	14.89	12.59	15.41	13.28	16.07	12.78	16.74	13.65	17.26	13.55	18.05	13.52	18.84	14.16		
46	14.58	12.44	15.05	13.12	15.54	12.56	16.09	13.41	16.61	13.32	17.34	13.28	18.06	13.92		
50	11.25	10.89	11.78	11.54	12.39	11.32	12.68	12.19	12.88	12.04	13.08	11.88	13.28	12.50		

Heatin	ng mo	de:HC				(kW)
Out	door	ln	door a	ir tem	oeratui	re .
air te	emp.			°CDB		
°CDB	℃WB	16	18	20	22	24
-19.8	-20					
-17.7	-18					
-15.7	-16					
-13.5	-14	11.10	10.98	10.86	10.73	10.60
-11.5	-12	11.93	11.80	11.67	11.54	11.40
-9.5	-10	12.75	12.61	12.48	12.34	12.20
-7.5	-8	13.57	13.43	13.29	13.14	13.00
-5.5	-6	13.78	13.64	13.51	13.37	13.24
-3.0	-4	13.99	13.86	13.73	13.60	13.47
-1.0	-2	14.20	14.08	13.95	13.83	13.71
1.0	0	14.41	14.29	14.18	14.06	13.94
2.0	1	14.51	14.40	14.29	14.17	14.06
3.0	2	16.19	16.05	15.91	15.79	15.67
5.0	4	19.54	19.35	19.15	19.02	18.89
7.0	6	22.89	22.64	22.40	22.25	22.11
9.0	8	23.99	23.78	23.58	23.42	23.25
11.5	10	25.09	24.92	24.75	24.58	24.40
13.5	12	25.95	25.79	25.63	25.45	25.27
15.5	14	26.82	26.66	26.50	26.32	26.14
16.5	16	27.25	27.10	26.94	26.76	26.57

PJG000Z046 🛕

(kW)

Model FDU250VSAVG Indoor unit FDU250VG Outdoor unit FDC250VSA Cooling mode

0.44							Indo	or air t	emper	ature						
Outdoor air temp.	18℃	DB	21℃	DB	23℃	DB	26°C	DB	27°C	DB	28℃	DB	31℃	DB	33°C	DB
uii tomp.	12°C	WB	14°C	WB	16°C	WB	18°C	:WB	19°C	WB	20°C	WB	22°C	WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					24.64	19.66	26.08	21.18	26.80	20.97	27.60	20.77	29.20	21.89	30.80	21.40
13					24.67	19.67	26.11	21.19	26.83	20.98	27.63	20.78	29.23	21.90	30.83	21.41
15					24.69	19.68	26.14	21.20	26.86	20.99	27.66	20.79	29.26	21.91	30.86	21.42
17					24.70	19.68	26.23	21.23	26.99	21.04	27.78	20.83	29.34	21.93	30.91	21.43
19					24.81	19.73	26.33	21.27	27.13	21.09	27.90	20.87	29.43	21.96	30.96	21.44
21					24.43	19.57	25.90	21.11	26.67	20.92	27.43	20.72	28.96	21.81	30.48	21.31
23					24.05	19.42	25.47	20.95	26.20	20.76	26.96	20.56	28.49	21.67	30.01	21.18
25			22.51	19.96	23.86	19.35	25.25	20.87	25.97	20.68	26.73	20.48	28.25	21.60	29.77	21.12
27			22.33	19.88	23.67	19.27	25.04	20.79	25.74	20.60	26.85	20.52	27.96	21.51		
29			21.97	19.73	23.27	19.11	24.61	20.64	25.30	20.45	26.44	20.39	27.57	21.40		
31			21.61	19.57	22.88	18.96	24.19	20.49	24.87	20.30	26.03	20.25	27.18	21.28		
33	20.01	18.05	20.94	19.29	22.49	18.81	23.77	20.34	24.44	20.15	25.62	20.12	26.80	21.17		
35	19.87	17.99	20.68	19.18	22.10	18.65	23.35	20.19	24.00	20.00	25.21	19.98	26.41	21.05		
37	19.61	17.87	20.42	19.07	21.78	18.53	22.94	20.04	23.56	19.85	24.66	19.80	25.76	20.86		
39	19.51	17.82	20.33	19.03	21.65	18.48	22.72	19.96	23.30	19.76	24.30	19.69	25.30	20.73		
41	20.09	18.09	20.57	19.13	21.47	18.41	22.44	19.87	22.98	19.65	23.88	19.55	24.77	20.57		
43	19.02	17.60	19.85	18.83	21.05	18.25	21.92	19.68	22.41	19.46	23.19	19.33	23.96	20.34		
46	17.16	16.77	17.71	17.36	18.29	17.21	18.93	18.56	19.55	18.52	20.41	18.46	21.26	19.57		
50	11.31	11.08	11.84	11.60	12.45	12.20	12.74	12.49	12.94	12.69	13.14	12.88	13.35	13.08		

						_
Heatir	ng mo	de:HC	)			(kW)
Out	door	ln	door a	ir tem	peratu	re
air te	emp.			°CDB		
℃DB	℃WB	16	18	20	22	24
-19.8	-20					
-17.7	-18					
-15.7	-16					
-13.5	-14	13.22	13.07	12.93	12.78	12.63
-11.5	-12	13.88	13.73	13.58	13.43	13.28
-9.5	-10	14.55	14.39	14.24	14.08	13.93
-7.5	-8	15.21	15.05	14.89	14.73	14.58
-5.5	-6	15.48	15.32	15.17	15.02	14.87
-3.0	-4	15.74	15.59	15.45	15.30	15.16
-1.0	-2	16.00	15.87	15.73	15.59	15.45
1.0	0	16.27	16.14	16.01	15.87	15.74
2.0	1	16.40	16.27	16.14	16.01	15.88
3.0	2	18.64	18.48	18.32	18.18	18.04
5.0	4	23.11	22.89	22.66	22.50	22.34
7.0	6	27.59	27.29	27.00	26.82	26.65
9.0	8	28.92	28.67	28.42	28.22	28.03
11.5	10	30.24	30.04	29.84	29.63	29.41
13.5	12	31.28	31.09	30.89	30.68	30.46
15.5	14	32.32	32.14	31.95	31.73	31.51
16.5	16	32.85	32.66	32.47	32.25	32.03

Notes (1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

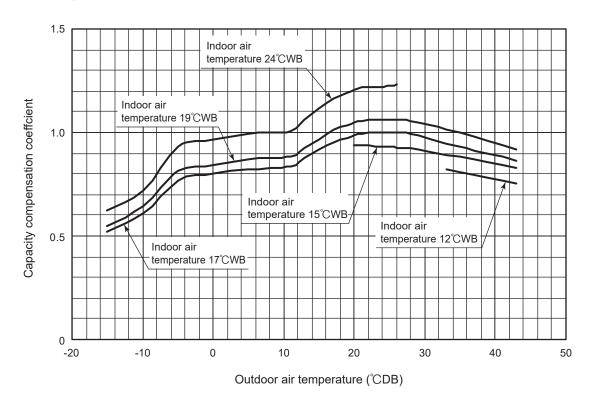
PJG000Z046 🙆

### [References data]

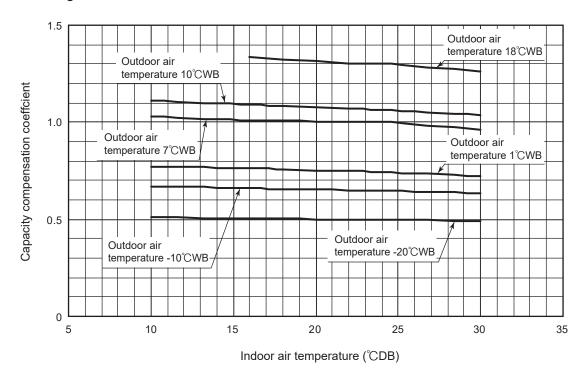
Capacity variation against outdoor and indoor temperature at rated capacity condition.

### (I) Models FDC100, 125, 140VNA, 100, 125, 140VSA

### 1 Cooling

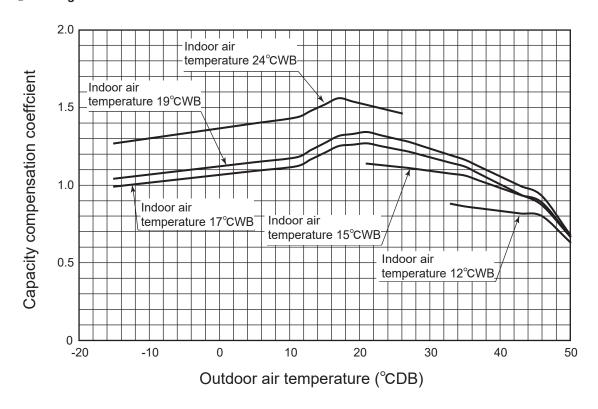


### 2 Heating

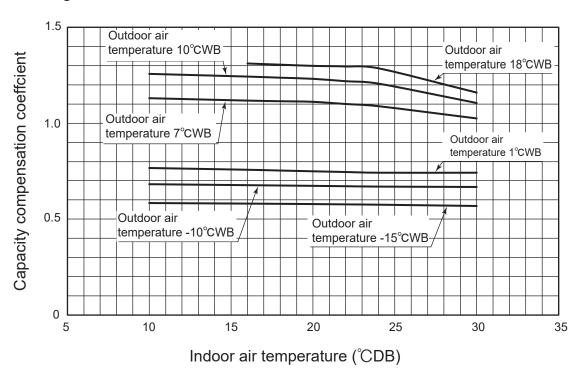


### (II) Model FDC200VSA

### 1 Cooling

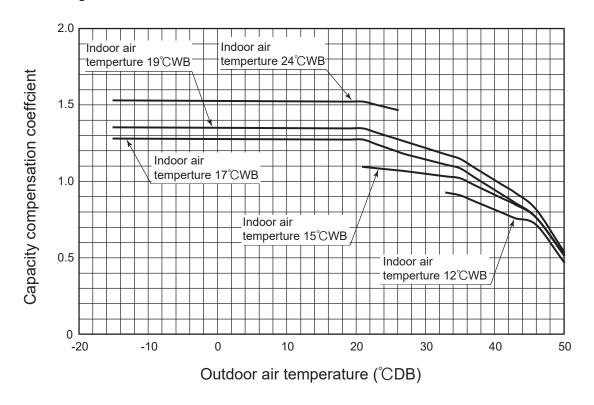


### 2 Heating

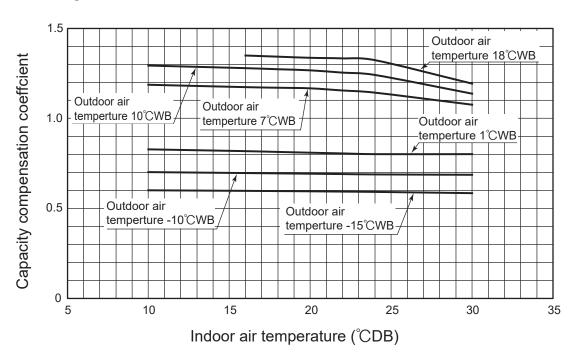


### (III) Model FDC250VSA

### 1 Cooling



### 2 Heating



### 2.9.2 Correction of cooling and heating capacity in relation to air flow rate control (fan speed)

Fan speed	P-Hi or Hi	Me	Lo
Coefficient	1.00	0.97	0.95

### 2.9.3 Correction of cooling and heating capacity in relation to one way length of refrigerant piping

It is necessary to correct the cooling and heating capacity in relation to the one way equivalent piping length between the indoor and outdoor units.

### (1) Models FDC100 - 140

Equivale	nt piping length <sup>(1)</sup> (n	n)	7.5	10	15	20	25	30	35	40	45	50	55
Heating			1	1	1	1	1	0.998	0.998	0.993	0.993	0.988	0.988
	FDC100 model		1	0.991	0.978	0.964	0.951	0.937	0.924	0.910	0.897	0.883	0.870
	FDC125 model	φ 15.88	1	0.986	0.968	0.950	0.932	0.914	0.896	0.878	0.860	0.842	0.824
Cooling	FDC140 model		1	0.985	0.966	0.946	0.927	0.907	0.888	0.868	0.849	0.829	0.810
Cooming	FDC100 model		1.016	1.013	1.007	1.002	0.996	0.991	0.985	0.980	0.974	0.969	0.963
	FDC125 model	φ 19.05	1.022	1.018	1.009	1.001	0.992	0.984	0.975	0.967	0.958	0.950	0.941
	FDC140 model		1.026	1.021	1.011	1.002	0.992	0.983	0.973	0.964	0.954	0.945	0.935

Note (1) Calculate the equivalent length using the following formula.

However, install the piping so that the piping length is within +5 m of the limit length (actual length) for the respective types.

### (2) Models FDC200, 250

Equivale	ent piping length	<sup>I)</sup> (m)	7.5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
Heating			1	0.998	0.995	0.991	0.988	0.984	0.981	0.977	0.974	0.970	0.967	0.963	0.960	0.956	0.953
	FDC200 model	φ 22.22	1	0.997	0.991	0.984	0.978	0.971	0.965	_	_	-	_	_	_	ı	_
	FDC250 model	$\varphi$ 22.22	1	0.995	0.985	0.975	0.965	0.954	0.944	_	_	_	_	_	_	_	_
Cooling	FDC200 model	4 25 1	_	_	_	_	_	_	0.988	0.984	0.981	0.977	0.974	0.970	0.967	0.963	0.960
Cooling	FDC250 model	$\phi$ 25.4	-	_	_	_	_	-	0.978	0.972	0.966	0.960	0.953	0.947	0.941	0.935	0.929
	FDC200 model	φ 28.58	_	_	_	_	_	_	0.999	0.997	0.995	0.993	0.991	0.989	0.987	0.985	0.983
	FDC250 model	$\psi 28.38$	-	_	_	_	_	_	0.997	0.994	0.990	0.987	0.983	0.980	0.976	0.973	0.969

Note (1) Calculate the equivalent length using the following formula.

However, install the piping so that the piping length is within +5 m of the limit length (actual length) for the respective types.

<sup>•</sup> Equivalent Length =Actual Length + (Equivalent bend length x number of bends in the piping.) Equivalent length per bend.

Gas pipe diameter (mm)	φ 12.7	φ 15.88	φ 19.05	φ 22.22	φ 25.4	φ 28.58
Equivalent bend length	0.20	0.25	0.30	0.35	0.40	0.45

### 2.9.4 Height difference between the indoor unit and outdoor unit

When the outdoor unit is located below indoor units in cooling mode, or when the outdoor unit is located above indoor units in heating mode, the correction coefficient mentioned in the below table should be subtracted from the value in the above table.

Height difference between the indoor unit and outdoor unit in the vertical height difference	5m	10m	15m	20m	25m	30m
Adjustment coefficient	0.99	0.98	0.97	0.96	0.95	0.94

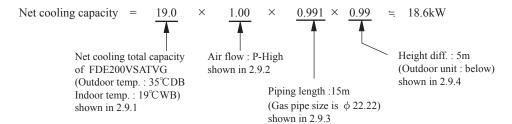
### Piping length limitations

Model	FDC100 - 140	FDC200, 250
Max. one way piping length	50m	70m
Max. vertical height difference		is higher 30m is lower 15m

Note (1) Values in the table indicate the one way piping length between the indoor and outdoor units.

### How to obtain the cooling and heating capacity

Example : The net cooling capacity of the model FDE200VSATVG with the air flow "P-High", the piping length of 15m, the outdoor unit located 5m lower than the indoor unit, indoor wet-bulbtemperature at  $19.0^{\circ}$ C and outdoor dry-bulb temperature  $35^{\circ}$ C is



ø

A

0

0

Ø

PJG012D017 /s

### 2.10 APPLICATION DATA

0

0

0

0

ø

ø

0

0

0

0

0

0

### FDU200VG. 250VG

- •This manual is for the installation of an indoor unit and an outdoor air processing unit (FDU-F). •For electrical wiring work (Indoor), refer to page 348. For remote control installation, refer to page 348. For wireless kit installation, refer to page 562. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to page 357.
- The case of FDU-F •The total connection capacity of the other air conditioning units and the outdoor air processing
- units must be from 50% to 100% (the total includes the outdoor air processing unit The connection capacity of the outdoor air processing unit must not exceed 30% of the capacity of the outdoor unit.
- •Single outdoor air processing unit can be used alone. The connection capacity of the outdoor air processing unit must be from 50% to 100% of the total capacity of the outdoor unit. Maximum number of outdoor air processing units that can be connected to the outdoor unit is 2units
- Capacities of the suction air processing units can be calculated with the forllowing formulas.
   FDU1800FKXZE1 = 224, FDU2400FKXZE1 = 280

### **SAFETY PRECAUTIONS**

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, [AWARNING] and [ACAUTION]. AWARNING: Wrong installation would cause serious consequences such as injuries or death. ACAUTION : Wrong installation might cause serious consequences depending on circumstances
- Both mentions the important items to protect your health and safety so strictly follow them by any means. The meanings of "Marks" used here are as shown on the right:
- Never do it under any circumstances. Always do it according to the instruction.
- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit. Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed

### **⚠ WARNING**

### •Installation should be performed by the specialist.

If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of

### Install the system correctly according to these installation manuals.

- Improper installation may cause explosion, injury, water leakage, electric shock, and fire
- ●Check the density refered by the foumula (accordance with ISO5149). If the density exceeds the limit density, please consult the dealer and installate the ventilation system
- Ouse the genuine accessories and the specified parts for installation.
- If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit
- Ventilate the working area well in case the refrigerant leaks during installation. If the refrigerant contacts the fire, toxic gas is produced.
- Install the unit in a location that can hold heavy weight er installation may cause the unit to fall leading to
- Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes. Improper installation may cause the unit to fall leading to accidents
- Do not mix air in to the cooling cycle on installation or removal of the air conditioner. If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and inju
- Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit. Power source with insufficient capacity and improper work can cause electric shock and fire.
- 0 • Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal. 0
- Loose connections or hold could result in abnormal heat generation or fire
- Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services nproper fitting may cause abnormal heat and fire
- ●Check for refrigerant gas leakage after installation is completed.
- If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced
- Use the specified pipe, flare nut, and tools for R410A. Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle
- Tighten the flare nut according to the specified method by with torque wrench.
- If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can
- Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also
- cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak. • Connect the pipes for refrigeration circuit securely in installation work before compressor is operated.
- If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system.
- Stop the compressor before removing the pipe after shutting the service valve on pump down work. If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.
- Only use prescribed option parts. The installation must be carried out by the qualified installer. 0 If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire ●Do not repair by yourself. And consult with the dealer about repair.
- Improper repair may cause water leakage, electric shock or fire. Consult the dealer or a specialist about removal of the air conditioner. 0
- proper installation may cause water leakage, electric shock or fire
- ●Turn off the power source during servicing or inspection work. If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan
- Do not run the unit when the panel or protection guard are taken off.
- Touching the intelling equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock.
- •Shut off the power before electrical wiring work.
- It could cause electric shock, unit failure and improp

### **⚠ CAUTION**

Perform earth wiring surely.

Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock or fire due to a short circuit.

Earth leakage breaker must be installed.

If the earth leakage breaker is not installed, it could cause electric shocks or fire

 Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.

Ising the incorrect one could cause the system failure and fire.

 Do not use any materials other than a fuse of correct capacity where a fuse should be used. Connecting the circuit by wire or copper wire could cause unit failure and fire

 Do not install the indoor unit near the location where there is possibility of flammable gas If the gas leaks and gathers around the unit, it could cause fire.

Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such
as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled.

It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire. Secure a space for installation, inspection and maintenance specified in the manual.

Insufficient space can result in accident such as personal injury due to falling from the installation place Do not use the indoor unit at the place where water splashes such as laundry.

Indoor unit is not waterproof. It could cause electric shock and fire. Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art.

It could cause the damage of the items. Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics.

Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air conditioner and cause a malfunction and breakdown. Or the air conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming.

Do not install the remote control at the direct sunlight. ıld cause breakdown or deforr

### • No not install the indoor unit at the place listed below.

- Places where flammable gas could leak
- Places where carbon fiber, metal powder or any powder is floated. Place where the substances which affect the air conditioner are generated such as suffile gas, choride gas, acid, lakali or ammonic atmospheres. Places exposed to oil mist or steam directly.
- On vehicles and ships
- Places where machinery which generates high harmonics is used.
- Places where cosmetics or special sprays are frequently used.
- Highly salted area such as beach
- Heavy snow area Places where the system is affected by
- smoke from a chimn Altitude over 1000m imney.
- Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit

  - according to the installation manual for each model because each indoor unit has each limitation)

    Locations with any obstades which can prevent inlet and outlet air of the unit

    Locations with evitation can be amplified due to insufficient strength of structure.

    Locations where vitarion can be amplified due to insufficient strength of structure.

    Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the
- infrared specification unit) Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)
- Locations where drainage cannot run off safely It can affect performance or function and etc..
- Do not put any valuables which will break down by getting wet under the air conditioner. Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belongings.
- Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use.
- t could cause the unit falling down and injury.
- Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water.

  To avoid damaging, keep the indoor unit packed or cover the indoor unit.
- Install the drain pipe to drain the water surely according to the installation manual.
- Improper connection of the drain pipe may cause dropping water into room and damaging user's belonging Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit. Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) to
- user's health and safety. Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work.
- If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents. 0
- For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps and not to make air-bleeding.
  - Check if the drainage is correctly done during commissioning and ensure the space for inspection and main
- Ensure the insulation on the pipes for refrigeration circuit so as not to condense water. Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valual
- Do not install the outdoor unit where is likely to be a nest for insects and small animals. Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to
- keep the surroundings clean. Pay extra attention, carrying the unit by hand.
- Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin.
- Make sure to dispose of the packaging material. Leaving the materials may cause injury as metals like nail and woods are used in the package
- Do not operate the system without the air filter.
- It may cause the breakdown of the system due to clogging of the heat exchanger. Do not touch any button with wet hands.
- It could cause electric shock
- Do not touch the refrigerant piping with bare hands when in operation. The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or fro
- Do not clean up the air conditioner with water.

It could cause electric shock

- Do not turn off the power source immediately after stopping the operation.
- Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.
- Do not control the operation with the circuit breaker.
- It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury

### **-** 343 **-**

OThis model is middle static ducted type air conditioning unit. Therefore, do not use this model for direct blow type air conditioning unit.

### ● Install correctly according to the installation manual. ● Confirm the following points: OUnit type/Power source specification OPipes/Wires/Small parts OAccessory items Accessory item For drain pipe For thanging For FDU.4 FDU.4 FDU.5 FDU.4 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6 FDU.6

### 2) Selection of installation location for the indoor unit

- ① Select the suitable areas to install the unit under approval of the user.
  - Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use
    a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
  - · Areas where there is enough space to install and service.
  - Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
  - · Areas where there is no obstruction of airflow on both air return grille and air supply port.
  - · Areas where fire alarm will not be accidentally activated by the air conditioner.
  - · Areas where the supply air does not short-circuit.
  - Areas where it is not influenced by draft air.
  - · Areas not exposed to direct sunlight.

For unit hanging

- Areas where dew point is lower than around 28°C and relative humidity is lower than 80%. This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air conditioner is operated under the severer condition than mentioned above. If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.
- · Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
- Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
- · Areas where there is no influence by the heat which cookware generates.
- ${\boldsymbol{\cdot}}$  Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.

(A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air conditioner might not work properly.)

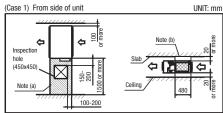
② Check if the place where the air conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

### Space for installation and service

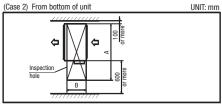
Make installation altitude over 2.5m.

(Indoor Unit)

Select either of two cases to keep space for installation and services.



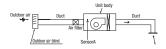
Notes (a) There must not be obstacle to draw out fan motor. ( ) arked area)
(b) Install refrigerant pipe, drain pipe, and wiring so as not to cross marked area



(Size of inspection hole	e) UNIT: mm
Single type	200-250
Multi type	224-280
FDU-F	1800-2400
A	1900
R	880

### 3 Cautions for the handling and installation place of outdoor air processing unit

①This unit monitors the outdoor air temperature at the position of sensor A in the figure, and controls the start and stop with the thermostat based on the value of sensor A and the setting temperature by the remote control.



Remote control's setting temperature indicates the outdoor air temperature that controls the start and stop of operation by the thermostat.

When the thermostat is turned off, the operation is changed to the fan mode so that the outdoor air is blown out directly into the room. For example if the remote control is set to 22°C in cooling operation, and if the outdoor air temperature is 22°C or lower at that time, the unit will go into fan operation.

- When there is a difference between the air conditioning temperature in the room during cooling operation and the temperature of air blown out from the outdoor air processing unit, deving water may drip from the unit. To prevent the deving, provide a sufficient heat insulation means at the air blow outlet.
- ③ Since the air blow outlet on the outdoor air processing unit may blow out the outdoor air directly, orient the outlet in such a way that it will not blow air directly to persons in the room.
- 4 Since the unit controls the thermostat start and stop by monitoring the outdoor air temperature, it is prohibited to monitor the room temperature by means of the room temperature monitoring by changing the thermostat setting at the remote control side and the optional remote thermistor. Otherwise, dewing water may drip from the unit at lower outdoor air temperatures during cooling operation.
- Optional retinue treatmistic. Our was, uswing water may unjurior the unit at lower outdoor all emiperatures uning occurring operation.

  Sinstall the remote control of the outdoor air processing unit at a place closer to the administrator to avoid the end user from using the remote control.

When handing over the unit to the end user, make sure to explain sufficiently about the foregoing cautions, the installation place of the remote control for the outdoor air processing unit and the position of air blow outlet.

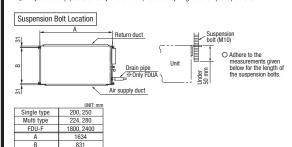
### **4** Preparation before installation

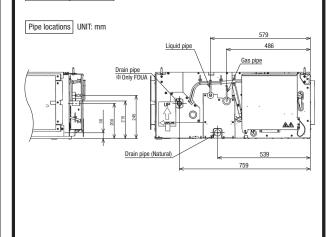
• If suspension bolt becomes longer, do reinforcement of earthquake resistant.

OFor grid ceiling

When the suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.

- Oln case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.
- When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt.
- Prepare four (4) sets of suspension bolt, nut and spring washer (M10) on site.





### **5**Installation of indoor unit

Installation

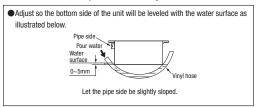
[Hanging]



If the measurements between the unit and the ceiling hole do not match upon installation, it may be adjusted with the long holed installation tool.

### Adjustment for horizontality

OEither use a level vial, or adjust the level according to the method below.



Olf the unit is not leveled, it may cause malfunctions or inoperation of the float switch.

### **6 Duct Work**

- ① A corrugated board (for preventing sputtering) is attached to the main body of the air conditioner (on the outlet port). Do not remove it until connecting the duct.
  - An air filter can be provided on the main body of the air conditioner (on the inlet port). Remove it when connecting the duct on the inlet port.

2 Blowout duct

- Use rectangular duct to connect with unit.
- Duct size for each unit is as shown below.

	UNII: mm	
Single type	200, 250	
Multi type	224, 280	
FDU-F	1800, 2400	
A	1450	
В	250	
B	A	9

- Duct should be at their minimum length
- •We recommend to use sound and heat insulated duct to prevent it from condensation.
- Connect duct to unit before ceiling attachment.

### 3 Inlet port

- When connecting the duct to the inlet port, remove the air filter if it is fitted to the inlet port.
- •Inlet port size for each unit is as shown below.

	UNIT: mm	
Single type	200, 250	
Multi type	224, 280	
FDU-F	1800, 2400	
A	1450	
В	250	
		1
+ 17-1		

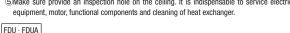
- Make sure to insulate the duct to prevent dewing on it.

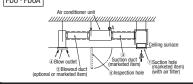
   Anstall the specific blowout duct in a location where the air will
- circulate to the entire room.

  Conduct the installation of the specific blowout hole and the
- connection of the duct before attaching them to the ceiling.

  Insulate the area where the duct is secured by a band for dew
- condensation prevention.

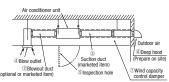
  ⑤Make sure provide an inspection hole on the ceiling. It is indispensable to service electric





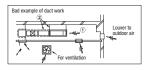
### ⑥Duct Work (continued)

FDU-F



### Bad example of duct work

- ①If a duct is not provided at the suction side but it is substituted with the space over the ceiling, humidity in the space will increase by the influence of capacity of ventilation fan, strength of wind blowing against the out door air louver, weather (rainy day) and others.
- a)Moisture in air is likely to condense over the external plates of the unit and to drip on the ceiling. Unit should be operated under the conditions as listed in the above table and within the limitation of wind volume. When the building is a concrete structure, especially immediately after the construction, humidity tends to rise even if the space over the ceiling is not substituted in place of a duct. In such occasion, it is necessary to insulate the entire unit with glass wool (25mm). (Use a wire net or equivalent to hold the glass wool in place.)
- b)It may run out the allowable limit of unit operation (Example: When outdoor air temperature is 35°C DB, suction air temperature is 27°C WB) and it could result in such troubles as compressor overload, etc..
- c)There is a possibility that the blow air volume may exceed the allowable range of operation due to the capacity of ventilation fan or strength of wind blowing against external air louver so that drainage from be heat exchanger may fall to reach the drain pan but leak outside (Example: drip on to the ceiling) with consequential water leakage in the room.
- ②If vibration damping is not conducted between the unit and the duct, and between the unit and the slab, vibration will be transmitted to the duct and vibration noise may occur. Also, vibration may be transmitted from the unit to the slab. Vibration damping must be performed.



### **7Refrigerant pipe**

### Caution

- •Use the new refrigerant pipe.
- When re-using the existing pipe system for R22 or R407C, pay attention to the following items.
- Change the flare nuts with the attached ones (JIS category 2), and reprocess the flare parts.
- Do not use thin-walled pipes.
- Use phosphorus deoxidized copper alloy seamless pipe (C1220T specified in JIS H3300) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
- Do not use any refrigerant other than R410A.
- Using other refrigerant except R410A (R22 etc.) may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.
- Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.
- ●Use special tools for R410 refrigerant.
- The indoor unit pipes allow the maintenance panel to be removed. Therefore, regardless of the piping direction, there should be a straight section of 400 mm or more.

### Work procedure

- When brazing work, perform it while cool down around the brazing port with wet towels to prevent the overheating.
- After check the gas leak test, install the heat insulation (prepare on site) to the brazing port of the indoor unit.
- Be sure to perform the heat insulation both of gas side piping with liquid side piping.
  %If heat insulation does not install to the pipes, dew condensation may occurs and it may cause the water leakage.
  - The thickness of the heat insulation should be more than 20mm.
- 3. Refrigerant is charged in the outdoor unit.
  - As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.
  - OThe brazing port size of the indoor unit

Single unit	Liquid/Gas	Size	Multi unit	Liquid/Gas	Size
Type 200	Liquid piping	φ 9.52	Type 224	Liquid piping	φ 9.52
Type 200	Gas piping	ф 25.4	Type 224	Gas piping	φ 19.05
Type 250	Liquid piping	ф 12.7	Type 280	Liquid piping	φ 9.52
Type 250	Gas piping	ф 25.4	1ype 200	Gas piping	ф 22.22

 $\ensuremath{\ensuremath{\mathbb{X}}}$  Please refer to the installation sheet of outdoor units for details.

Secure with a band, etc.

Detailed view of part A

### **®Drain pipe**

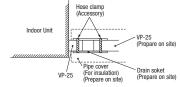
### Caution

- Install the drain pipe according to the installation manual in order to drain properly.
- Imperfection in draining may cause flood indoors and wetting the household goods, etc.

  Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- Connect the pipe securely to avoid water leakage from the joint.
- Insulate the pipe properly to avoid condensation drop.
- Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

### Work procedure

- 1. Insert the supplied drain hose (the end made of soft PVC) to the step of the drain socket on the indoor unit and fix it securely with the clamp.
  - Do not apply adhesives on this end.

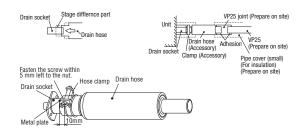


OThe cases of FDUA and mouting a Drain-up KIT (option parts)

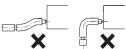
Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part of drain socket.

Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw within 5mm left to the nut.

- Do not apply adhesives on this end.
- Do not use acetone-based adhesives to connect to the drain socket.

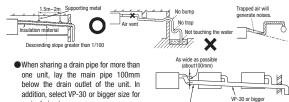


- 2. Prepare a joint for connecting VP-25 pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP-25 pipe (prepare on site). \*\*As for drain pipe, apply VP-25 made of rigid PVC which is on the market.
  - Make sure that the adhesive will not get into the supplied drain hose. It may cause the flexible part broken after the adhesive is dried up and gets rigid.
  - The flexible drain hose is intended to absorb a small difference at installation of the unit or drain pipes. Intentional bending, expanding may cause the flexible hose broken and water



- 3. Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway.
  - Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe.
  - Do not set up air vent.

main drain pipe.



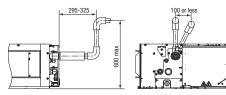
### ®Drain pipe (continued)

- 4. Insulate the drain pipe
- Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.

### Drain up

OThe cases of FDUA and mounting a drain-up KIT (option parts)

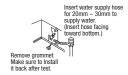
 The position for drain pipe outlet can be raised up to 600mm above the ceiling. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan on the indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure below.



Otherwise, the construction point makes it same as drain pipe construction

- 1. Conduct a drain test after completion of the electrical work.
- 2. During the trail, make sure that drain flows properly through the piping and that no water leaks from connections.
- 3. In case of a new building, conduct the test before it is furnished with the ceiling.
- 4. Be sure to conduct this test even when the unit is installed in the heating season.

- 1. Supply about 2000 cc of water to the unit through the air outlet by using a feed water
- Check the drain while cooling operation.

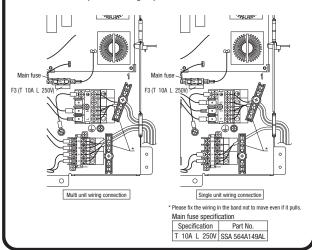


### **9Wiring-out position and wiring connection**

 Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country.

Be sure to use an exclusive circuit.

- Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
- Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction
- For the details of electrical wiring work, see attached instruction manual for electrical wiring
- 1. Remove a lid of the control box (2 screws).
- 2. Hold each wiring inside the unit and fasten them to terminal block securely.
- 3. Fix the wiring with clamps
- 4. Install the removed parts back to original place.



### **®External static pressure setting**

If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 - 200 Pa (E.S.P. setting No. 1 – 19). This should not be used when actual E.S.P. cannot be confirmed, because the risk above becomes higher.

Setting	No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
E.S.P. (	Pa)	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	200

💥 If 20 is selected for the setting No. on the remote control, the setting No. shows No. 19.

### (1) Check list after installation

Check the following items after all installation work completed.

Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Power source voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
No mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	
Is setting of E.S.P finished?	Excessive air flow, water drop blow out	

### **(1)** External static pressure setting

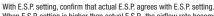
You can set External Static Pressure (E.S.P.) by method of MANUAL SETTING on remote control. Indoor unit will control fan-speed to keep rated air flow volume at each fan speed setting (Lo-Uhi) You can set required E.S.P. by wired remote control that calculated with the set air flow rate and pressure loss of the duct connected.

- How to set E.S.P. by wired remote control
- Push "◆" marked button(E.S.P. button).
   Select indoor unit No. by using ◆ button.
- ③ Select setting No. by using ♦ button and set E.S.P. by O button.

See detailed procedure in technical manual.

### Notice

You can NOT set E.S.P. by wireless remote control.



When E.S.P. setting is higher than actual E.S.P., the airflow rate becomes excessively higher. This will cause water leakage if water splashes.

When E.S.P. setting is lower than actual E.S.P., the airflow rate becomes excessively lower and the cooling or heating may become ineffective.

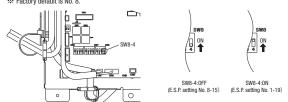
In order to reduce the risk above the factory E.S.P. setting is set within the range of 80 - 150 Pa (E.S.P. setting No. 8 - 15). Be sure to use within the range of 80 - 150 Pa in actual operations. If actual E.S.P. is lower than 80 Pa, it may cause water leakage.

Setting No. 8 9 10 11 12 13 14 15 E.S.P (Pa) 80 90 100 110 120 130 140 150

※ If 1 − 7 is selected for the setting No. on the remote control, the setting No. shows No. 8. If 16 – 20 is selected for the setting No. on the remote control, the setting No. shows No. 15. Factory default is No. 8.

The Case of FDU-F

ı	1110 0400 1	יטווט	0 1											
	Setting No.	1	2	3	4	5	6	7	8	9	10	11	12	
	FSP (Pa)	10	20	20	40	50	60	70	00	ΩΩ	100	110	120	



2.10.2 Electric wiring work installation	See page 137.
2.10.3 Installation of wired remote control (Option parts)	
2.10.4 Installation of outdoor unit	

(1) Models FDC100-140VNA, 100-140VSA

PSC012D106

100VNA-140VNA,100VSA-140VSA Designed for R410A refrigerant Inverter driven split PAC

©This installation manual deals with outdoor units and general installation specifications only. For indoor units, refer to the respective installation manual supplied with the units.

○When install the unit, be sure to check whether the selection of installation place, power source specifications, usage limitation (piping length, height differences between indoor and outdoor units, power source voltage and etc.) and installation spaces.

### Check before installation work

Model name and power sourceRefrigerant piping length

● We recommend you to read this "SAFETY PRECAUTIONS" carefully before the installation work in order to gain full advantage of the functions of the unit and to avoid malfunction due to mishandling. SAFETY PRECAUTIONS

- scellaneous small parts

<ul><li>The pr</li></ul>	recautions described below are divided into	o <b>△WARN</b>	• The precautions described below are divided into $\triangle WARNING$ and $\triangle CAUTION$ . The matters with possibilities leading to serious consequences such as	Diving Chick String Cond
death	or serious personal injury due to erroneou	s handling a	death or serious personal injury due to erroneous handling are listed in the 🔼 WARNING and the matters with possibilities leading to personal injury or	Fibing, wifing and misc
damaç	damage of the unit due to erroneous handling including probability leading to serious or	ncluding prot	damage of the unit due to enroneous handling including probability leading to serious consequences in some cases are listed in <u>A CAUTION</u> . These are	<ul><li>Indoor unit installation</li></ul>
• The m	• The meaning of "Marks" used here are as shown below.	n below.	כ מו סן חסון אווסתר נמון	
0	Never do it under any circumstance.	00	Never do it under any circumstance.	
● For 3 ● 3 phas	phase power source outdoor unit, EN61000-se power source unit, both indoor and outc	3-2 is not ap foor, is suitat	● For 3 phase power source outdoor unit, EN61000-3-2 is not applicable if consent by the utility company or nortification to the utility company is given before usage. ● 3 phase power source unit, both indoor and outdoor, is suitable for installation in a commercial and light industrial environment, if installed as a house-hold	
applia • 5 and	appliance it could cause electromagnetic interference.  ● 5 and 6 HP units of single phase power source are equipment complying with IEC 61000-3-12.	rence. are equipme	int complying with IEC 61000-3-12.	
<ul><li>Be sur metho</li></ul>	Describe to confirm no anomaly on the equipment by commissioning after methods of this equipment to the user according to the owner's manual.	a to the own	<ul> <li>Be sure to confirm no anomaly on the equipment by commissioning after completed installation and explain the operating methods as well as the maintenance methods of this equipment to the user according to the owner's manual.</li> </ul>	
• Keep t	the installation manual together with owner:	s manual at	• Keep the installation manual together with owner's manual at a place where any user can read at any time. Moreover if necessary, ask to hand them to a new user.	

	WAL	WAKNING
<ul> <li>installation must be carried out by the qualified installer.</li> <li>if you had all the system by yourself, it may cause sentious trouble such as water leaks, electric shocks, fire and personal injury as a result of a system malfurction.</li> </ul>	•	■ Tighten the flare nut by using double spanners and torque wrench according to prescribed method. Be sure not to tighten the flare nut boo much.  Loose flare connection or damage on the flare part by tightening with excess torque can cause burst or refrigerant leaks which
<ul> <li>Install the system in full accordance with the instruction manual.</li> <li>Incorrect installation may cause bursts, personal injury water leads, electric shocks and fire.</li> </ul>		may result in lack of oxygen.  • Do not open the service valves for Itouid line and as line until completed refriberant piping work, air tightness test
<ul> <li>Use the original accessories and the specified components for installation.</li> <li>If parts offer than those secorbled by us are used. It may cause fall of the unit, water leats, electric shocks, fire, retrigerant leat, substandard performance, control failure and personal injury;</li> </ul>		and evacuation.  If the compressor is operated in state of opening service valves before completed connection of refrigerant piping work, you may near first bite or injury from an abrupt refrigerant outflow and air can be sucked online or fingerant circuit, which can cause may near first bite or injury from an abrupt refrigerant outflow and air can be sucked online or fingerant circuit, which can cause
<ul> <li>When installing is small rooms, take prevention measures not to acceed the density limit of refrigerant in the event of balkage accordance with RSDS148.</li> <li>Constitute recent about prevention measures. If the density of refrigerant accessis the limit in the event of testlege, lack of oxygen can occur, which can cause serious accidents.</li> </ul>		bust or personal injust but to anomatously high pressure in the refingement.  • Only use prescribed option parts. The installation must be carried out by the qualified installer if you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.
<ul> <li>Ventlade the working area well in the event of refrigerant leakage during installation.</li> <li>If the refrigerant comes into contact with naked flames, poisonous gas is produced.</li> </ul>		<ul> <li>Do not perform any change of protective device itself or its setup condition.</li> <li>The forced operation by short-circulain protective device of pressure switch and temperature control or the use of non sner-filed commonent are given fire or things to the use of non sner-filed commonent are file or the use.</li> </ul>
<ul> <li>After completed installation, check that no refrigerant leaks from the system.</li> <li>If refrigerant leaks into the room and comes into contact with an over or other hot surface, poisonous gas is produced.</li> </ul>		Because component and the power more management of installation, inspection or servicing.      Because control of the power more in the event of installation, inspection or servicing.
<ul> <li>Hang up the unit at the specified points with ropes which can support the weight in lifting for portage. And to avoid joiting out of alignment, be sure for hang up the unit at 4-point support.</li> <li>An improper manner of portage such as door support can cause death or serious personal injury due to failing of the unit</li> </ul>		In the prince source is invariant on, there is any treature source), that name or proceduring your to the inneppeudos and on the Consult the dealer or an expert regarding removal of the unit.  Consult the dealer or an expert regarding removal of the unit.  Incorrect installation can cause we have leads, electric shocks or fire.
<ul> <li>Install the unit in a location with good support.</li> <li>Unsuitable installation locations can cause the unit to fall and cause material damage and personal injury.</li> </ul>		<ul> <li>Stop the compressor before closing valve and disconnecting refrigerant pipes in case of pump down operation.</li> <li>If disconnecting refrigerant pipes in state of opening service valves before compressor stopping, you may incur frost bite or</li> </ul>
<ul> <li>Ensure the unit is stable when installed, so that it can withstand earthquakes and strong winds.</li> <li>Unsultable installation locations can cause the unit to fall and cause material damage and personal injury.</li> </ul>		injury from an abrupt refrigerant outflow and air can be sucked, which can cause burst or personal injury due to anomalously high pressure in the refrigerant circuit.
The electrical installation must be carried out by the qualified electrician in accordance with "the norm for electrical work" and "national	I	Be sure to wear protective goggles and gloves while at work.
wiring regulation", and the system must be connected to the dedicated circuit. Power source with insufficient capacity and incorrect function done by improper work can cause electric shocks and fire,	0	Ensure that no air enters in the refrigerant circuit when the unit is installed and removed.  If air enters in the refriderant circuit, the pressure in the refriderant circuit becomes too high, which can cause burst and
<ul> <li>Be sure to shut off the power before starting electrical work.</li> <li>Falure to shut off the power can cause electric shocks, unit falure or incorrect function of equipment.</li> </ul>	)	personal injury.
<ul> <li>Be sure to use the cables conformed to safety standard and cable ampacity for power distribution work.</li> <li>Unconformable cables can cause electric leak, anomalous heat production or fire.</li> </ul>		<ul> <li>Do not run the unit with removed pariets of profeduors.</li> <li>Touching rotating equipments, hot surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric shocks.</li> </ul>
<ul> <li>Use the prescribed cabbes for electrical connection, fighten the cables securely in terminal block and relieve the cables correctly to prevent overloading the terminal bodos.</li> <li>Losse connections or caple mountains can cause anomalous heat production or fire.</li> </ul>		<ul> <li>Be sure to fix up the service panels.</li> <li>Incorrect fixing can cause electric shocks or fire due to intrusion of dust or water.</li> </ul>
<ul> <li>Arrange the wiring in the control most of the tit control for the title of the title for the title for the title of the title for</li></ul>		<ul> <li>Do not perform any repairs or modifications by yourself. Consult the dealer if the unit requires repair.</li> <li>If you repair or modify the unit, it can cause water leaks, electric shocks or fire.</li> </ul>
Do not perform brazing work in the airtight room It can cause lack of oxygen.		<ul> <li>Do not process or splice the power cord, or share the socket with other power plugs.</li> <li>This may cause fire or electric shock due to defecting contact, defecting insulation and over-current etc.</li> </ul>
<ul> <li>Use the prescribed pipes, flare nuts and tools for R410A.</li> <li>Using existing parts (for R22 or R407C) can cause the unit failure and serious accidents due to burst of the refrigerant circuit.</li> </ul>		<ul> <li>Do not bundle or wind or process the power cord. Do not deform the power cord by treading it.</li> <li>This may cause fire or heating.</li> </ul>
Using existing parts (for R22 or R407C) can cause the unit failure and serious accidents due to burst of the refrigerant circuit.		This may cause fire or heating.

	<b>o</b>	CAUTION
	Carry out the electrical work for ground beat with care.      Du chounge by gound lead the gas fine, withing concludor or telephone line's ground lead, fromed grounding can cause unit faults such as both concerning by gounding can cause unit faults such as electric stocks are for some chounging, lever concerning lever concerning the grounding were to a gas pipe because if gas leaded, could cause explosion or gritton.	Do not instalt the unit in the locations listed below.      Locations where carbon filterial powder or any provider is fluating.  Locations where any sustances that can affect he unit such as supplied gas, chloride gas, add and alkaline can occur.  Locations where any sustances that can affect he unit such as supplied gas, chloride gas, add and alkaline can occur.
	<ul> <li>Use the circuit breaker for all pole with correct capacity.</li> <li>Using the incorrect circuit breaker, it can cause the unit maflunction and fire.</li> </ul>	-Vehicles and ships -Locations where cosmetic or special sprays are often used.
•	<ul> <li>Install isolator or discomect switch on the power source wiring in accordance with the local codes and regulations.</li> <li>The isolator should be locked in accordanced with ENG0204-1.</li> </ul>	<ul> <li>Locations with direct deputs if of on first and searn such as witchen and in admine plant.</li> <li>Locations where any machines which general eight frequency harmonics are used.</li> <li>Incentives with solve antimerisenes cut has madelines.</li> </ul>
	<ul> <li>Tele care when carrying the unit by hand,</li> <li>If the university incur beta 1967, firmst be carried by two or more persons. Do not carry by the pissits straips, always use the carry handle when carrying the unit by hand. Use gives to minimize the risk of custs by the adminimizinfres.</li> </ul>	<ul> <li>Localizers with heavy strow (if installed, be sure to provide base flame and strow hood mentioned in the manual)         <ul> <li>Localizers with heavy strow (if installed, be sure to provide based but drinkey stroke)</li> <li>Localizers at high alture formore than (100m) in high</li> <li>Localizers at high alture formore than (100m) in high</li> </ul> </li> </ul>
	<ul> <li>Dispose of any packing materials correctly.</li> <li>Any remaining packing materials correctly.</li> <li>Any remaining packing materials correctly.</li> <li>Any remaining packing materials correctly.</li> <li>Any remaining packing materials correctly.</li> <li>Any remaining packing materials and to dispose after treat fut,</li> </ul>	-Loadbrow that ammons a throspheres (e.g. organic feetilizer)Loadbrow with calcium chindre, dec. so now metting against chindreLoadbrow when theat relation from other theat source earn affect the unit -Loadbrow when theat relation from other theat source earn affect the unit
	<ul> <li>Pay attention not to damage the drain pan by weld spatter when welding work is done near the indoor unit.</li> <li>If well spatter entered into the indoor unit during welding work, it can cause pin-hole in dain pan and result in water belage, To green its on damage, less the indoor unit in its packing or coverif.</li> </ul>	Locations with out good air or cutation.  *Locations with my observed which can prevent inlet and outlet air of the unit.  *Locations have given an air and an air one one of money for control and the can be controlled.
	<ul> <li>Be sure to insulate the refrigerant plose so as not to condense the ambient air moisture on them.</li> <li>Insufficient insulation can cause condensation, which can lead to moisture damage on the ceiling, floor, furniture and any other valuables.</li> </ul>	- Ducatura where short uchout an ican occur in integer this instruction)  - Locations where strong actives against their cubier of outdoor unit  - Locations where strong actives against their outlet of outdoor unit  - Locations where strong actives against their outlet out of outdoor unit
	<ul> <li>Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work.</li> <li>If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents.</li> </ul>	It can cause remarkable oberease in performance, corrosion and damage of components, mailtrinction and fire.  • To not include the control to the confidence lated below.
	<ul> <li>Perform installation work properly according to this installation manual.</li> <li>Improper installation can cause abnormal vibrations or increased roise generation.</li> </ul>	<ul> <li>Usation is where destanged that air or operating sound of the outdoor unit can bother neighborhood.</li> <li>Locations where destanged that air or operating sound of the outdoor unit can bother neighborhood.</li> <li>Locations where outlets and the outdoor unit blows directly bean airmail or obtains. The outlet air can affect adversely to the olam etc.</li> </ul>
	After maintenance, all wining, wiring ties and the like, should be returned to their original state and wining route, and the necessary dearance from all metal parts should be secured.	<ul> <li>Locations where ubration can be amplified and transmitted due to insufficient strength of structure.</li> <li>Locations where whation and operation sound generated by the outdoor unit can affect seriously, (on the wall or at the place near bed room)</li> </ul>
0	■ Earth leakage breaker must be installed. If the earth leakage breaker is not installed, it can cause fire or electric shocks.	· Lorations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m) - Lorations where dariange cannot not not see Sely. If you have not not not not not see Sely.
<u>)                                    </u>	<ul> <li>Do not use any materials other than a fuse with the correct rating in the location where tusse are to be used.</li> <li>Connecting the circuit with copper wire or other metal thread can cause unit failure and fine.</li> </ul>	The are inconcerned in the present and are a storing todes, cooling precision instruments and preservation of animals, plants or art.  It can cause the united granted the plants are storing todes, cooling precision instruments and preservation of animals, plants or art.  It can cause the demand of their law preservations.
	<ul> <li>Do not install the unit may the location where televage of combustible gasses can occur.</li> <li>If leaded ages accountains around the unit, fact cause for it, fact cause for the combustible may formed any abstractions are constructed.</li> </ul>	Los naturalisments of the control of the contr
	<ul> <li>— ou nin, meat us man where valore by a shadin as summon actury development using a summer and personeming seasy can accommiss or conflict, or where voilable combustible pages, shading or manufactures are handled.</li> <li>Corresive gas can cause corresion of heat exchanger, breakage of plastic parts and etc. And combustible gas can cause or mostion of heat exchanger, breakage of plastic parts and etc. And combustible gas can cause inte.</li> </ul>	<ul> <li>Do not touch any refrigerant pipes with your hands when the system is in operation.</li> <li>During operation the refrigerant pipes become externey hor or externely roold depending the operation and it can cause burn in jury or frost injury.</li> </ul>
	<ul> <li>Secure a space for installation, inspection and maintenance specified in the manual.</li> <li>Insufficient space can result in accident such as personal injury due to failing from the installation place.</li> </ul>	Do not clean up the unit with water. It can clause electric shocks.
	<ul> <li>When the outdoor unit is installed on a roof or a high place, provide permanent ladders and handrails along the access route and fences and handrails around the outdoor unit.</li> <li>If safety facilities are not provided, it can cause personal injury due to failing from the installation place.</li> </ul>	Do not operate the outdoor unit with any article placed on it.  Variety inversion or necessal in its from a fell of the article.
	<ul> <li>Do not install nor use the system close to the equipment that generates electromagnetic fields or high frequency harmonics can be a first the system and a first the system and classe full printed is a first the system and additional that the system is and lecture that the system, and cause malfurchos and breakdowns. The system can addited that the experiment and the equipment and obtained is not classe primming.</li> </ul>	Do not stop onto the experience of the property of the pr
	<ul> <li>Do not install the outdoor unit in a location where insects and small animats can inhabit.</li> <li>Insects and small animats can enter the electric parts and cause damage or fire. Instruct the user to keep the surroundings clean.</li> </ul>	<ul> <li>Do not touch the suction or aluminum fin on the outdoor unit.</li> <li>This may cause rigury.</li> </ul>
_	<ul> <li>Do not use the base flame for outdoor unit which is corroded or damaged due to long periods of operation.</li> <li>Using an old and damage base flame can cause the unit falling down and cause personal nijury.</li> </ul>	<ul> <li>Do not put anything on the outdoor unit and operating unit.</li> <li>This may cause damage the objects or injury due to failing to the object.</li> </ul>

		Dedicated R410A tools
	a)	Gauge manifold
+ hy michlyo Tho	(q	Charge hose
arrange dedicated	(Э	Electronic scale for refrigerant charging
200	(р	Torque wrench
	(e)	Flare tool
	t)	Protrusion control copper pipe gauge
system operation)	(b	Vacuum pump adapter
	(h	Gas leak detector

_
8
Ξ
84
ē
Ξ
ne
.0
SS
ŏ
Ħ
Ξ
=
۵
as
<u>a</u>
≡
岩
픙
ž

● Do not use any refrigerant other than R410A. R410A will rise to pressure about 1.6 times higher than that of a conventional refrigerant.

A cylinder containing R410A has a pink indication mark on the top.

● A unit designed for AHOA has adopted a different size indoor unit operation valve charge port and a different size check joint provided in the unit to prevent the charging of a wrong refrigerant to processed demension of the flared part of a refrigerant pipe and a flare nut's parallel side measurement have also been altered to raise strength against pressure. Accordingly, you are required to an processed chimers in the table on the right before installing or servicing this unit.

● On not use of antigered cylinder if uses the refrigerant composition to change, which results in performance degradation.

● In changing refrigerant, always take it out from a cylinder in the liquid phase.

● All indoor units must be models designed exclusively for R410A. Check connectable indoor unit models in a catalog, etc. (A wrong indoor unit, if connected into the system, will impair proper sy

# 1. HAULAGE AND INSTALLATION (Take particular care in carrying in or moving the unit, and always perform such an operation with two or more persons.)

⚠ CAUTION When a unit is hoisted with slings for haulage, take into consideration the offset of its gravity center position.

If not properly balanced, the unit can be thrown off-balance and fall.

### 1) Delivery

Deliver the unit as close as possible to the installation site before removing if from the packaging,
 When some compelling reason recestitates the urpacking of the unit before it is carried in, use
 Myton sings or protective wood please so as not to damage the unit by ropes lifting it.

• The right hand side of the unit as viewed from the front (diffuser side) is heavier. A person carnying the right hand side must take heed of this fact. A person carnying the left hand side must hold with his right hand the handle provided on the front panel of the unit and with his left hand the conner column section.

Portage ล 5) Installation space

# 3) Selection of installation location for the outdoor unit

- Be sure to select a suitable installation place in consideration of hollowing conditions.

  A place where it is not recorded and another the another the unit.

  A place where it is not exposed to lot states and the another the unit.

  A place where it is not exposed to lot states.

  A place where the unit is not exposed to lot states.

  A place where the unit will not be adjassed without any touche.

  A place where drain where can be disposed without any touche.

  A place where of any there can be disposed without any touche.

  A place where the unit will not accumulate.

  A place where the unit will not accumulate.

  A place where the unit will not accumulate again or any and or add on the another the addition of the secure.

  A place where the unit will not accumulate.

  A place where the unit will not be affected by electromagnetic waves and for high-lammon waves generate by other equipment.

  A place where the unit will not be affected by electromagnetic waves and for high-lammon waves generated by other equipment.

  A place where the unit will not be affected by electromagnetic waves and for high-lammon waves generated by other equipment.

  A place where the unit will not be affected by electromagnetic waves and or high-lammon waves generated by other equipment.

  A place where the unit will not be affected by electromagnetic waves and or high-lammon substances and some or according an area) or calcium chloride (e.g. snow meiting agent), exposed to ammonia substance (e.g. organic realized).

# 4) Caution about selection of installation location

(1) If the unit is installed in the area where the snow will accumulate, following measures are required. The bottom plate of unit and intake, outlet may be blocked by snow.

1.Install the unit on the base so that the bottom is higher than snow cover surface.

3.Install the unit under eaves or providen the roof on site. Regarding outline of a snow hood, refer to our technical manual. 2.Provide a snow hood to the outdoor unit on site.









Since drain water generated by defrost control may freeze, following measures are required.

— Both itseached claim piging work by using a drain blow and drain growmes (poptional jards), Refer to Drain piging work.)

— Recommend setting blosts control (SW3-1) and Stown Guard Fan Control (SW3-2), Refer to Setting SW3-1, SW3-2.)

— Attach heaster on a base plate on site, if there is possibility to freeze drain water.

In case that the product has a corrective drainage system, the drainage paths should have suitable measure against freching but be sure into the nether the material of drainage paths with heat.

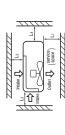
(3) If the unit can be affected by strong wind, following measures are required. Strong wind can cause tendency of the unit can be famile of the familiar for motion, or can cause performance degradation, or can trigger anomalous stop of the unit due to familiar pressure.

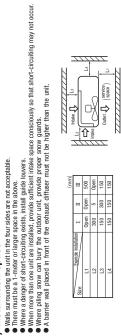
In Install the outlet air blow side of the 2 Install the outlet air blow side of 3. The unit should be installed on unit to face a wall of building, or the unit in a position perendicular the stable and level fundation, provide a feroze or a windhosek screen. Or the direction of wind.

If the foundation is not feet to an experiment of the counted on the counted 3.The unit should be installed on the stable and level foundation. If the foundation is not level, tie down the unit with wires.

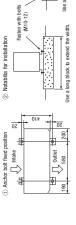
Wind direction

Over 500 mm.





### 6) Installation



- In installing the unit, fix the unit's legs with bolts specified on the left.

The profusion of an anchor both on the frost side must be kept within 15 mm.

Securely install the units of their tidose for fall lower during early quales or strong winds, etc.

Refer to the left illustrations for information regarding concrete foundations.

Refer to the left illustrations for information regarding concrete foundations.

Introduce in a feet area. With a gradient of 2 mm or less).

Improper installation ran result in a compressor failure, broken piping within the unit and abnormal noise generation.

## 7) To run the unit for a cooling operation, when the outdoor temperature is -5°C or lower.

When the outdoor air temperature is -5°C or lower, provide a snow hood to the outdoor unit on site.
 So hat storp wind will not blow against the outdoor heat exchanger directly. Regarding outline of a snow hood, refer to our technical mental.

# 2. REFRIGERANT PIPING WORK

# 1) Restrictions on unit installation and use

Check the following points in light of the indoor unit specifications and the installation site.
 Observe the following restrictions on unit installation and use. Improper installation can result in a compressor failure or performance degradation.

						Marks appearing in the drawing	
Deelifections	One-way pipe lengt	One-way pipe length difference from the first branching point to the indoor unit	ant to the indoor	nıţ		<3m	≥ 3m
STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO STORING TO	Mod	Model for outdoor units	Dimensional restrictions	Single type	Twin type	Triple type A	Triple type B
And the second s	100VNA,125WNA,100VSA,125VSA	00VSA, 125VSA	;				
one-way piperengin or renigerant piping	140VNA, 140VSA		WDG VI	_	141142	L+L1+L2+L3	L+U+I2+I3
4	100VNA,125VNA,100VSA,125VSA	00VSA,125VSA	-			-	-
Main pipe lengin	140VNA, 140VSA		EDG /I	ı	_	7	7
One-way pipe length between the first branching point from to the second branching point	Triple type	140 VMA, 140 VSA	WS VII	_	1	1	e2
	Twin type	All Models	1		11,12	ı	ı
one-way piperlengin and the litst prancing point	Triple type	140VMA, 140VSA	30m N	1	1	L1, L2, L3	LT(t)
One-way pipe length from the first branching point to indoor units firrough the second branching point	Triple type	140VNA, 140VSA.	≥ 27m	-	1	I	La+L2, La+L3 o>
	Twin type	All Models	≥ 10m		11-12	1	
Une-way pipe length difference from the first pranching noting to the indoor unit	World Store	VOLUME A STREET	™S ≥	1	_	111421,112431,1134111	
The second secon	iripie type	I 40 WW. I 40 VS.A.	≥ 10m		1	-	L1-(La+L2),L1-(La+L3) (1)
One way pipe length difference from the second branching point to the indoor unit	Triple type	140VMA, 140VSA	≥ 10m	1	1	1	112-131
Eleantion difference to hotswoon in door on discharge units	When the outdoor u	When the outdoor unit is positioned higher,	≤ 50m(2)	3	3	3	3
Elevation directive between in book and outpool directions	When the outdoor u	When the outdoor unit is positioned lower,	M2 15m	E		-	=
Elevation difference hetween indoor units			™2.0 ≥l	_	4	N 1/2 N3	Maria

◆ The ser excitodre appearing in the table above are applicable to the standard pipe stars combinations shown in in the table below. Where an existing pipe system is utilized different one-way pipe length excitors should apply depending on its pipe size. For more information, see "6 UTILIZATION OF EXSTING PPMG: With the tiple pipe connection, the way of does to idented when the directors of one-way pipe length after the first branching point is 5 in to 1 on. For details, refer when to have been performed in different when the directors are different with the connection. The counse the longest one-way pipe.

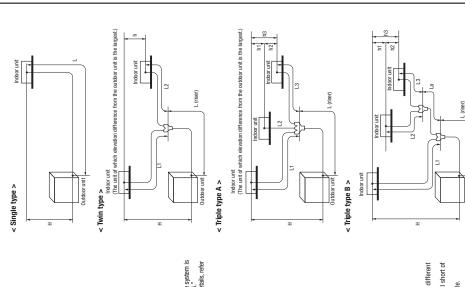
Nation 1 is standard different one-bench in a first branching point is 5 in to 1 on. For details, refer when the pipe bench different are bench in a first branching point is 5 in to 1 on. For details, refer when the pipe bench different are bench on the pipe bench different are bench on the pipe bench different are bench on the standard or the pipe size.

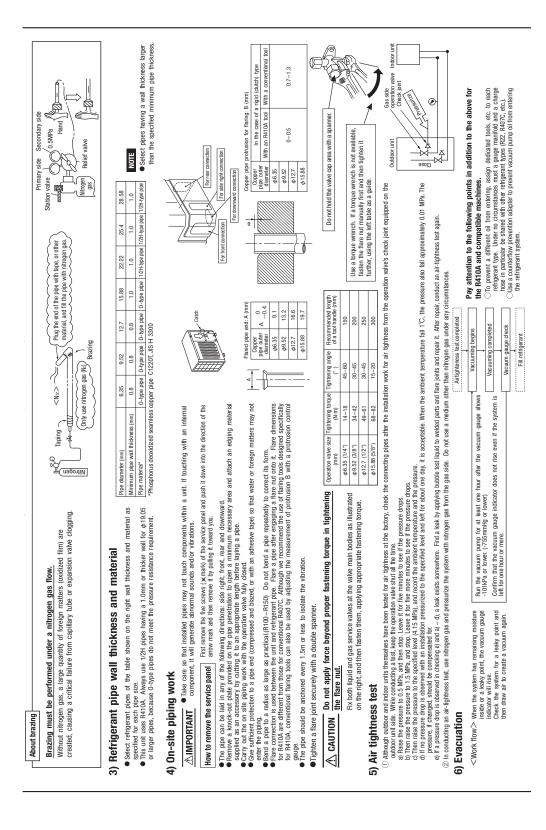
2) Determination of pipe size

• Determine refrigerant pipe size pursuant to the following guidelines based on the indoor unit specifications.

		MODE INON	MODE	Model 125V	V62.1	MODE	Model 140V	
		adid seg	Diquid pipe	Gas pipe	Liquid pipe	Gas pipe	Liquidpipe	
		φ15.88	φ9.52	φ15.88	φ9.52	φ15.88	φ9.52	
Onldc	Outdoor unit comected	Flare	Flare	Flare	Rare	Flare	Rare	
Refrigerant	Refrigerant piping (Main pipe L.)	φ15.88	φ9.52	φ15.88	φ9.52	φ15.88	φ9.52	
	Indoor unit connected	φ15.88	φ9.52	ф15.88	φ9.52	φ15.88	φ9.52	
in the case of a single type	Capacity of indoor unit	Model	Model 100V	Model	Model 125V	Model 140V	140V	
	Branching pipe set	DIS-WA1G	M1G	-SIQ	DIS-WA1G	DIS-WA1G	M1G	
	Refrigerant piping (branch pipe L1,L2)	φ12.7	Φ9.52	φ12.7	φ9.52	φ15.88	φ9.52	
In the case of a twin type	Indoor unit commedied	412.7	φ6.35	φ12.7	φ6.35	φ15.88	φ9.52	
	Capacity of indoor unit	Model	Model 50V×2	Model 60V×2	0V×2	Model 71V×2	V×2	
	Branching pipe set					DIS-TA1G	416	
	Refrigerant piping (branch pipe L1,L2,L3)					φ12.7	Φ9.52	
In the case of a triple type A	Indoor unit connected			l		φ12.7	ø6.35	
	Capacity of indoor unit					Model 500x3	DWG	
	Branching pipe set					DIS-WA1G	A1G	
	Refrigerant piping (branch pipe La)					φ15.88	φ9.52	
	Refrigerant piping (branch pipe L1)					φ12.7	φ9.52	
In the case of a triple type B	Branching pipe set (After branch pipe La)		1	1		DIS-WA16	A1G	
	Refrigerant piping (branch pipe L2,L3)					φ12.7	Φ9.52	
	Indoor unit connected					φ12.7	ф6.35	
_	Capacity of indoor unit					Model 50V×3	50V×3	

▲CAUTION
 When the 50V or 60V model is connected as an indoor unit, always use a 49.52 liquid pipe for the branch (pranching pipe — indoor unit) and a different distribution alloader in the liquid pipe side.
 If a 46.35 pipe is used for connection with a branching pipe, a refrigerant distribution disorder may occur, causing one off the indoor units to fall short of the rated capacity.
 ◆ Rise pipe must be a part of the main. A branching pipe set should be installed horizontally at a point as close to an indoor unit as possible.
 A branching part must be dressed with a heat-instaltion material supplied as an accessory.
 ◆ For the details of installation work required at and near a branching area, see the installation manual supplied with your branching pipe set





### 7) Additional refrigerant charge

(1) Calculate a required refrigerant charge volume from the following table

Installation's pipe length (m) covered without additional refrigerant charge	30
Refrigerant volume charged for shipment at the factory (kg)	3.8
Additional charge volume (kg) per meter of refrigerant piping (liquid pipe)	0.06
Pipe length for standard refrigerant charge volume (m)	0
Standard refrigerant charge volume (kg)	2.0
Item Capacity	100VNA-140VNA 100VSA-140VSA

Installation's pipe length (m) covered without additional refrigerant charge 30

Refrigerant volume charged for shipment at the factory (kg) 3.8

Additional charge volume (kg) per meter of refrigerant piping (liquid pipe) Main pipe Branch pipe

Pipe length for standard refrigerant charge volume (m)

Standard refrigerant charge volume (kg) 2.0

> 100WIA-140VNA 100VSA-140VSA Capacity

<Twin, triple type>

Item

90.0

A standard refrigerant charge volume means a refrigerant charge volume for an installation with Om long refrigerant piping.
 This unit contains factory charged for refrigerant charge and refrigerant charge on the installation site is not required for an installation with up to 30m refrigerant piping exceeds 30m, additionally charge an amount calculated from the pipe length and the above table for the portion in excess of 30m.
 When refrigerant piping exceeds 30m, additionally charge an amount calculated from the factory charged volume and adulate to 284g.
 When refrigerant piping is shorter than 3m, reduce enfigerant charge volume will vary depending on the liquid pipe size. For further information, see "6. UTILIZATION OF EXISTING PIPING."

Formula to calculate the volume of additional refrigerant required

"When an additional charge volume calculation result is negative, it is not necessary to charge refrigerant additionally Additional charge volume (kg) = { Main pipe length (m) - Length covered without additional charge 30 (m) } x 0.06 (kg/m) + Total length of tranch pipes (m) x 0.06 (kg/m)

● To charge refrigerant again, recover refrigerant from the system first and then charge the volume calculated from the above table (Standard refrigerant charge volume + additional charge volume for total pipe length.)

(2) Charging refrigerant

● Since R410A refrigerant must be charged in the liquid phase, you should charge it, keeping the container cylinder upside down or using a refrigerant cylinder equipped with a siphon tube.

Solvage refrigerant always must be that the peration where shut. When the your find in the your find the peration where shut. When you find it difficult to charge are required amount, fully open the culton that was not be service port, while running the until in the coloring mode. In dring as, care must be taken so that refrigerant may be discharged from the cylinder beas all the time. When the cylinder valve is throttled down or a dedicated conversion to be charged propert the compressor, however, adjust charge conditions so that refrigerant will gasify upon entering the unit.

In charging refrigerant, always charge a calculated them by using a scale to messure the charge volume.

In the peration when refrigerant is charged with the unit being run, complete a charge operation within 30 minutes. Running the unit with an insufficient quantity of refrigerant for a long time can cause a compressor failure.

NOTE Put down the refrigerant volume calculated from the pipe length onto the caution label attached on the back side of the service panel.

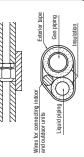
## 8) Heating and condensation prevention

(1) Dress refrigerant pipes (both gas and liquid pipes) for heat insulation and prevention of dew condensation.

(2) Use a heat insulating material that can withstand 120°C or a higher temperature. Poor heat insulating capacity can cause heat insulation problems or cable deterioration.
 Improper heat insulation/anti-dev dressing can result in a water least or dripping water that connect from the confersation formed on them during a cooling operation or personal injury from burns because this rather can reach quite a high temperature due to discharged gas flowing inside during a hearing operation.
 Was indoor units' flare joints with heat insulating parts (pipe cover) for heat insulation poor to obth gas and liquid side pipes. Bundle a heat insulating material and a pipe tightly together so that no gaps may be left between them and wrap them together with a connecting cable by a dressing aper.

Although it is verified in a test that this air-conditioner unit shows satisfactory performance under JIS condensation test conditions, both gas and liquid pipes need to be dressed with 20 mm or thicker heat insulation materials above the ceiling where relative humidity exceeds 70%.

xterior tape Gas piping IIIIIII Band (accessory) Wires for connecting indoor and outdoor units



### 3. DRAIN PIPING WORK

-Drain hose (Grommet, Drain elbow and Drain hose are procured on the installer's part)

•When condensed water needs to be led to a drain, etc., install the unit on a flat base (supplied separately as an optional part) or concrete blocks.
Then, please secure space for the drain elbow and the drain hose.

П

mmm,

• Execute drain piping by using a drain elbow and drain grommets supplied separately as optional parts. Where water drained from the outdoor units a problem.

• Water may drip where there is a larger amount of drain water. Sea reducing the above and drain grommets with putty or adequate calking material.

• Condensed water may flow out from vicinity of operation valve or connected pipes.

• Where you are likely to have several days of sub-zero temperatures in a row, do not use a drain elbow and drain grommets. (There is a risk of drain water freezing inside and blooking the drain.)

• Do not use drain elbow and grommet made of plastic for drain piping when base hear for outdoor unit is used. Plastic grommet and elbow will be damaged and on burnt in worst case.

• Prepare another drain tray made of metallic material for collecting drain when base hears is seed.

Grommet-

# 4. ELECTRICAL WIRING WORK For details of electrical cabling, refer to the indoor unit installation manual

Electrical installation work must be performed by an electrical installation service provider qualified by a power provider of the country.

• Defect the installation work must be executed according to the technical standards and other regulations applicable to electrical installations in the country.

• Do not use any supply cord lighter than one specified in parentheses for each type below.

• Do not use any supply cord lighter than one specified in parentheses for each type below.

• That won installation (Good essignation 60245 EC 5)

• Int won installation code designation 60227 EC 41);

Do not use anything lighter than polychloroprene sheather flexible cord (code designation 60245 EC57) for supply cords of parts of appliances for unitdox use.

•Ground the unit. Do not connect the grounding wire to a gas pipe, water pipe, lightning rod or telephone grounding wire.

If impropery grounded, an electric shock or malfunction may result.

\*A grounding wire must be connected before connecting the power cable. Provide a grounding wire intige than the power cable.

\*The installation of an impulse withstanding type earth leakage breaker is necessary. A failure to install an earth leakage breaker are result in an accoldent such as an electric shock or at fire.

Power source, and ground terminal block Signal line terminal block

Outdoor unit • Do not turn on the power until the electrical work is completered.
• Do not turn on the power until the electrical work is completered.
• Do not turn as condessive appellor for power factor improvement under any circumstances. (It dose not improve power factor, while it can cause an abnormal overhead acided,).
• For power source eables, so conduits.
• Do not lay electronic obsets, use conduits.
• Do not lay electronic ordisciple in more control and signaling wires) and other cables together outside the unit. Laying them beginner can result in the maintening or a failure of the unit due to electric noises.
• Reten cables so that may not butch the point, also components within the electrical component box are free of loose connected, make sure that all electrical components within the electrical component tox are free of loose connected coupling or terminal connection and then afters he cover securely. (Improper cover attachment can result in maturationing or a failure of the unit, if weir persentates into the loos.) Indoor unit Switchgear or Circuit breaker X Y Remote control Earth leakage breaker (Harmonic resistant type) Always use a fivee-core cable for an indoor-outdoor connecting cable. Never use a shield cable.
 Bonned a part bearing a common terminal number with an indoor-outdoor connecting wire.
 In cabling, festen cables securely with cable clamps so that no external force may work on terminal connections.
 © councing terminals are provided in the control box. 100VSA - 140VSA L1 L2 L3 N 1 2/N 3 ± 1 |2/N | 3 | ± Outdoor unit Indoor unit X Y Remote control Switchgear or Circuit breaker Model 100VNA -140VNA Earth leakage breaker (Harmonic resistant type) 1 2/N 3 🛨 1 2/N 3 ± -†- N -†-Shield cable PCA006A092 Always use an earth leakage circuit breakerd designed for inverter circuits to prevent a faulty operation. Always perform grounding system installation work with the power cord unplugged. Part No. Power cable, indoor-outdoor connecting wires 250V 30A VCT calityre cable VVF flat cable Main fuse specification 100VNA~140VNA 100VSA~140VSA , 0

, 0..

Grounding terminal

On ord connect to the grounding wire from another—
unit, but install a dedicated wire up to the grounding
wire from the distribution board.

rrd unplugged. Always use an earth leakage circu breaker designed for inverter circui to prevent a faulty operation. with the duct type indoor unit.	Power cable thickness(n	u u		ec tu	0.0
with the power cord unplugged.  Aways use an earth leakage Aways use an earth leakage breaker designed for inverter to prevent a faulty operation.  **At the connection with the duct type indoor unit	Power source	Single phase 3 wire	220V 60Hz	3 phase 4 wire	300*413V 30H2
with the pov	Model	100 WA,125 WA	14 OWA	100VS,125VSA	140004
1 71					
Model 100VSA	Power source Power cable thickness/mm/? MAX, over current (A) Cable length (m) Grounding wire thickness Indoor-outdoor wire thickness × number		41.6mm×3	-	
	Grounding wire frickness			<b>.</b>	
e, it can be let c side right, front	Cable length (m)	8	77	94	40
Outgoing cable direction As like the refrigerant pipe, it can be let out in any of the following directions: side right, front, rear and downward.	MAX. over current (A)	24	4.7	ţ	2
Outgo As II of th	Power cable thickness(mm)	LC LC	200	5	0.0
Model 100WAA -140WAA	Power source	Single phase 3 wire	4	3 phase 4 wire	
Model 100	Model	VMA14 PANA		ACA SAMON	HONO - HONO

It is attached on the back side of the service panel.

Wiring diagram Wiring guide

MAX. over current (A) Cable length (m) Grounding wire thickness

20 9

φ1.6mm

The experiences often in the above table are for units without heaters. For units with heaters, refer to the installation instructions or the construction instructions of the intour interaction of the intour interactions of the intour interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the interaction of the internal cabing regulations. Adapt it to the regulation in effect in each output.

### 5. TEST RUN

A WARNING

Before conduct a test run, make sure that the operation valves are open.
 Turn on power 6 hours prior to a test run to energize the candizase header.
 In case of the first operation after turning on power, even if the unit does not move for 30 minutes, it is not a breakdown.
 Always give a 3-minute or longer interval before you start the unit again whenever it is stopped.
 Pernoving the service panel will expose high-voltage like parts and high-temperature parts, which are quite dangerous.
 Take ulmost care not to incur an electric stork or burns. Do not leave the unit with the service panel open.

A CAUTION

When you operate switches (SWG, SW6) for on-site setting, be careful not to buch a live part.
 \* You cannot check discharge pressure from the fluid operation valve charge port.
 \* The 4-way valve (202) is seraptized buting a heating operation.
 \* When power source is cut off to reset the unit, give 3 or more minutes before you turn on power again after power is cut off it to reset the unit, give 3 or more minutes before you turn on power again after power is cut off it to reset the unit, give 3 or more minutes before you turn on power again after power is cut off to operate again. "Communication error between outdoor and indoor unit" may occur.

### 1) Test run method

(1) A test run can be initiated from an outdoor unit by using SW3-3 and SW3-4 for on-site

Cooling during a test run Heating during a test run Normal or after the test operation SW-3-3 SW-3-4 0FF

; ≥ OFF NO (2) Switching SW6-3 to ON will start the compressor. (6) The unit wister a confing operation, when SW6-4 is OFF, or a heating operation, when SW6-4 is ON, (4) Do not fail to switch SW8-3 to OFF when a test run is completed.

Cooling operation Heating Use check joints provided on the piping before and after the four-way valve installed inside the outdoor unit for checking discharge pressure and suchion pressure. As indicated in the table stown on the right, pressure detected at each point will vary depending on whether a cooling or heading operation has been selected. Checking the state of the unit in operation

Charge port of the gas operation valve Suction pressure (Low pressure)

Check joint of the pipe

# Setting SW3-1, SW3-2, SW5-2, SW7-3, on-site

3

Discharge pressure (High pressure) Suction pressure (Low pressure)

(2) Show guard fan control (SW3-2)

When this switch is turned Oil, the outdoor unit fan will run for 10 seconds in every 10 minutes, when outdoor temperature fails to 3°C or lower and the compressor is not funding.

When the unit is used in a every smoot youtdry, set this switch to ON.

Set this switch to ON when outdoor unit is installed at a position higher than indoor unit by 30m or more.

(4) Lower notes silent mode (SW7-3)

-Upper limit of compressor speed and fan speed becomes lower in silent mode (1) Defrost control switching SWR3-1)

When this switch is turned OM, the unit will run in the defrost mode more frequently.

Set this switch is turned OM, when installed in a region where outdoor temperature falls below zero during the season the unit is run for a heating.

### 4) Failure diagnosis in a test run

			Taylor at the same	THE PERSON NAMED IN
remote control unit	Red LED	Green LED		
E34	Blinking once	Blinking continuously	Open phase	Check power cables for loose contact or discor
E40	Blinking once	Blinking continuously	63H1 actuation or operation with operation valves shut (occurs mainly during a heating operation)	Check whether the operation valves are oper     Chan error has been canceled when 3 minutes had
E57	Blinking once	Blinking continuously	Short of refrigerant error or operation with operation valves shut (occurs mainly during a cooling operation)	since a compressor stop, you can restart the uni effecting Check Reset from the remote control u

nnection.

If an error code other than those listed above is indicated, refer to the wiring diagram of the outdoor unit and the indoor unit.

# 5) The state of the electronic expansion valve.

When the unit comes to a normal stop When the unit come cooling operation During a heating operation During a cooling operation are shut position Full open position Full open position The following table illustrates the steady states of the electronic expansion valve. When power is turned on During a cooling operation rowmers shut position Valve for a cooling operation

### 6) Heed the following on the first operation after turning on the circuit breaker. Complete shut position Full open position

Full open position

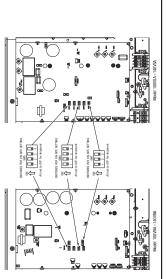
Full open position

This outdoor unit may start in the standby mode (waiting for a compressor startup), which can continue up to 30 minutes, to prevent the oil level in the compressor from lowering on the first operation after turning on the circuit breaker. If that is the case, do not suspect a unit failure.

A failure to observe these instructions can result in a compressor breakdown.

Items to ched	Items to check before a test run	• When you leave the outdoor unit with power supplied to it, be sure to close the panel.	10 11,
Item No.used in the installation manual	Item	Check item C	Check
		If brazed, was it brazed under a nitrogen gas flow?	
	Refrinerant	Were air-tightness test and vacuum extraction surely performed?	
2	plumbing	Are heat insulation materials installed on both liquid and gas pipes?	
		Are operation valves surely opened for both liquid and gas systems?	
		Have you recorded the additional refrigerant charge volume and refrigerant pipe length on the panel's label?	
		Is the unit free of cabling errors such as uncompleted connection, an absent or reversed phase?	
		Are properly rated electrical equipments used for circuit breakers and cables?	
		Doesn't cabling cross-connect between units, where more than one unit are installed?	
		Aren't indoor-outdoor signal wires connected to remote control wires?	
4	Electric	Do indoor-outdoor connecting cables connect between the same terminal numbers?	
-	wiring	Are either VCT cabtyre cables or WF flat cables used for indoor-outdoor connecting cables?	
		Does grounding satisfy the D type grounding (type III grounding) requirements?	
		Is the unit grounded with a dedicated grounding wire not connected to another unit's grounding wire?	
		Are cables free of loose screws at their connection points?	
		Are cables held down with cable clamps so that no external force works onto terminal connections?	
	tion of the same	Is indoor unit installation work completed?	
1	magor unit	Where a face cover should be attached onto an indoor unit, is the face cover attached to the indoor unit?	

lest	Test run procedure  ■ Always carry out a test run and check the following in order as listed.	ed.
Turn	The contents of operation	Check
Θ	Open the gas side operation valve fully.	
0	Open the liquid side operation valve fully.	
(m)	Close the panel.	
9	Where a remote control unit is used for unit setup on the installation site, follow instructions for unit setup on the installation site with a remote control unit.	
(	SW3-3 OW / SW3-4 OFF: the unit will start a cooling operation.	
9	SW3-3 ON / SW3-4 ON: the unit will start a heating operation.	
9	When the unit starts operation, press the wind direction button provided on the remote control unit to check its operation.	
Œ)	Place your hand before the indoor unit's diffuser to check whether cold (warm) winds come out in a cooling (heating) operation.	
<b>⊚</b>	Make sure that a red LED is not blinking.	
6	When you complete the test run, do not forget to turn SW3-3 to the OFF position.	
9	Where options are used, check their operation according to the respective instruction manuals.	



# 6. UTILIZATION OF EXISTING PIPING

<table of="" pipe="" restrictions="" size=""></table>	©:Standard pipe size O:Applicable △:Restricted to shorter pipe length limits X:Not applicable	Additional charging amount of refrigerant per 1 m 0.06 kg/m 0.08 kg/m	Liquid pipe	Pype size Gas pipe   4/15.88   4/19.05   4/15.88   4/19.05	Usability © 0%1 $\triangle$ 0%1	100V Maximum one-way pipe length 50 50 25 25	Length overed without additional charge 30 30 15 15 15	Usability ©	125V Maximum one-way pipe length 50 50 25 25	vered without additional charge 30 30 15	Usability © 0%1 △ △	50 50 25	Length covered without additional charge 30 30 15 15	<pipe after="" branching="" pipe="" system="" the=""></pipe>	After 1st branch **4 After	Authorist charging amount for registant per IIII UDOKQM U,UDKQM U,UDKQM U,UDKQM U,UDKQM AC E2 AC E2	φ12.7 φ15.88 φ19.05 %1 φ12.7	Combination type Combination of capacity	100V Twn 50+50 © X	Twin 71+71 × ©	140V Triple A 50+50+50	$\frac{1}{2}$ 1 Because of its insufficient pressure resistance. <b>Lum the dia switch SW5-1</b> provided on the outdoor unit board to the ON position for $\phi$ 19.05 $\times$ 11.0.	(in the case of a twin-triple-double-twin model, this also applies to the case where $\phi$ 19.05 $\times$ 11.01s used in a pipe system after the first branching point.)	However, you need not turn the dip switch YMS-1 to the ON Dosbinn, IT-211 pipes or pipes having 1.0 or thicker was also are used.  **O When the major into loothe average Ann a similar consorter drow must be averaged to the receiver lose in the limit hims endom Ties at 12.7 for	**C. When the titlan exceeds 40.11, a significant capacity undy high be experienced use to pressure ross in the righting page 5/stem; use \(\phi\) 1.2.7 for the lighting main.	%3 Keep the total pipe length, not one-way pipe length, below the specified maximum pipe length. %4 Piping size after branch should be equal or smaller than main pipe size.	※5 Plying size from first branch to indoor unit should be φ 9.52 (Liquid) /φ 12.7 (Gas). ■Whom oritionary repines is obtain than 3 m, replace oritionary by 10x from southern characteristics.	■ Virtual roll goals is solver user only above to right and by the properties of pipe sizes not listed in the table or marked with X in the table are not usable.	<the are="" branching="" existing="" model="" of="" pipes="" reusable.="" types="" units="" which=""></the>	Models later than Type 8. ●FDC * * * 8 □ □	●FDCP * * * 8 □ □	The branching pipes used with models other than those listed above are not reusable because of their insufficient processes assets one our nequine branching pipes for 8410.	• * * * are numbers representing horsepower.	Formula to calculate additional charge volume	Additional charge volume (kg) = {Main pipe length (m) - Length covered without additional charge shown in the table (m) × Additional charge volume ner meter of pipe shown in the table (kg/m) +	Total length of branch pipes (m) X Additional charge volume per meter of pipe shown in the table (kg/m)	※ If you obtain a negative figure as a result of calculation, no additional retrigerant needs to be charged. Example) When an 140V (signe installation) is installed in a 20m in ong estiting liber spitem (lind of 12.7, gas φ 19.05), the quantity of refrigerant to charge additionally should be (20m-15m) x 0.088cm = 0.4 kg.	and detailed of learning as asserted formation of the control of t
Check whether an existing pipe system is reusable or not by using the following flow chart.	START	Are an outdoor unit and an infoor unit connected to the	Jacquin III asks add flanson	Which of the following refrigeration gils	NO	for reusability.	Can Ise		Jobs the example pipe system to recognise salesy and mire blowning?	(c) the gibt Size doubling to the table of the size of	conforms to the following restrictions. Where the outdoor unit is above: 30m or less	Where the outdoor unit is below: 15m or less an an axis in pile system is reused for a case where	YES twin-triple clothel-win model published as a transferring Laten Area as a	is the unit to install in the existing pipe system a RES Change the branching pipe to a specified type.	Olange and One of the Olange in Industrial I	( d)	Is the existing pipe system to reuse free of corrosion, flaws or dents?	NO Regair		air tightness on the site.	Air fightness is OK	Are there any branch pipes with no indoor unit connected?	MO Remove		reuse free of peel-offs or deterrations or the things and finite hiews free of peel-offs or deterration's management of the damagement of	NO A Repair	Aren't Bere any lose piles surents?	Some loose pipe sup	The existing pipe system is applicable.		MARNING < Where the existing unit can be run for a cooling operation.>	Carry out the following steps with the existing unit (in the order of (1), (2), (3) and (4)) (1) Run the unit for 30 minutes for a cooling operation.		<ul> <li>(4) Blow with nitrogen gas.</li></ul>	wash the pipe system or install a new pipe system.  Pror the flare nut, do not use the old one, but use the one supplied with the outdoor unit.	Process a flare to the dimensions specified for R410A.  Trues an aits actifies quistal RME 4 to the OM position. Although the and plan is 410 0B.	-Unit present security security services and the current of the control of the	<ul> <li>If you choose to wash the pipe system, contact our distributor in the area.</li> </ul>

### Models FDC200, 250VSA

### 

FDCA160VSA, 200VSA (A160V, A200V) FDC200VSA, 250VSA (200V, 250V) Designed for R410A refrigerant Inverter driven split PAC

> OWhen install the unit, be sure to check whether the selection of installation place, power source specifications, usage limitation (piping length, height ○This installation manual deals with outdoor units and general installation specifications only. For indoor units, refer to page 343. differences between indoor and outdoor units, power source voltage and etc.) and installation spaces

### SAFETY PRECAUTIONS

● We recommend you to read this "SAFETY PRECAUTIONS" carefully before the installation work in order to gain full advantage of the functions of the unit and to

■ The precautions described below are divided into <u>AWARNING</u> and <u>ACAUTION</u>. The matters with possibilities leading to serious consequences such as death or serious personal injury due to erroneous handling are listed in the [AWARNING] and the matters with possibilities leading to personal injury or damage of the unit due to erroneous handling including probability leading to serious consequences in some cases are listed in [ACAUTION]. These are very important precautions for safety. Be sure to observe all of them without fail.

The meaning of "Marks" used here are as shown below

Never do it under any circumstance.

Always do it according to the instruction

● For 3 phase power source outdoor unit, EM61000-3-2 is not applicable if consent by the utility company or nortification to the utility company is given before usage. 
② sphase power source unit, both indoor and outdoor, is suitable for installation in a commercial and light industrial environment. If installed as a house-hold appliance it could cause electromagnetic interference.
② Be sure to confirm no anomaly on the equipment by commissioning after completed installation and explain the operating methods as well as the maintenance methods of this equipment to the user according to the owner's manual.

Keep the installation manual together with owner's manual at a place where any user can read at any time. Moreover if necessary, ask to hand them to a new user.

sessory pipe B P-11

 Piping, wiring and miscellaneous small parts Indoor unit installation manual

## Check before installation work

[ Accessory ]

1 piece 1 piece 1 piece 1 piece 1 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piece 2 piec		Edging	Accessory pipe	ry pipe
Accessory pipe A	1 piece		1 piece	1 piece
Accessory pipe A			1022.22	1022.22
	1	knock-out hole protection	Accessory pipe A	Acc

Refrigerant piping length

Model name and power source

WARNING 

 $\leq$ 

Installation must be carried out by the qualified installer.
 If you restall the system by yourself, if may cause serious trouble such as water leaks, electric shocks, fire and personal injury, as a result of a system maturation.

**-** 357 **-**

 Use the original accessories and the specified components for installation.
 If parts only than those procesoried by us are used, it may cause fail of the unit, water leaks, electric shocks, fire, refrigerant leak, substandard performance, control failure and personal njury. When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage accordance with ISOST48.
 Consult the event of testage is and country of refrigerant exceeds the limit in the event of testage, lack of congen can occur, which consult the event of testages.

Install the system in full accordance with the instruction manual.
 Incorrect installation may cause bursts, personal injury, water leaks, electric shocks and fire.

Hang up the unit at the specified points with ropes which can support the weight in lifting for portage. And to avoid joiting out of alignment, be sure to hang up the unit at 4-point support.

After completed installation, check that no retrigerant leaks from the system.
 If refrigerant leaks into the room and comes into contact with an oven or other hot surface, poisonous gas is produced.

• Ventitate the working area well in the event of refrigerant leakage during installation. If the refrigerant comes into contact with naked flames, poisonous gas is produced.

can cause serious accidents.

of portage such as 3-point support can cause death or serious personal injury due to falling of the unit

 Install the unit in a location with good support.
 Unsuitable installation locations can cause the unit to fall and cause material damage and personal injury. Ensure the unit is stable when installed, so that it can withstand earthquakes and strong winds.
 Unsuitable installation locations can cause the unit to fall and cause material damage and personal injury.

The electrical installation must be carried out by the qualified electrician in accordance with "the norm for electrical work" and "national

wiring regulation", and the system must be connected to the dedicated circuit.
Power source with insufficient capacity and incorrect function done by improper work can cause electric shocks and fire,

Use the prescribed cables for electrical connection, tighten the cables securely in terminal block and relieve the cables correctly to prevent

overloading the terminal blocks.

Loose connections or cable mountings can cause anomalous heat production or fire.

Be sure to use the cables conformed to safety standard and cable ampacity for power distribution work
Unconformable cables can cause electric leak, anomatous heat production or fire.

Be sure to shut off the power before starting electrical work.
 Failure to shut off the power can cause electric shocks, unit failure or incorrect function of equipment.

• Arrange the wiring in the control box so that it cannot be pushed up further into the box, Install the service panel correctly, incorrect installation may result in overheating and fire.

 Use the prescribed pipes, flare nuts and tools for R410A.
 Using existing parts (for R22 or R407C) can cause the unit failure and serious accidents due to burst of the refrigerant circuit. Do not perform brazing work in the airtight room it can cause lack of oxygen.

 Ingitien the flare nut by using double spanners and torque wrench according to prescribed method. Be sure not to
dighten the flare nut too much.
Lose flare connection or damage on the flare part by tightening with excess torque can cause burst or refrigerant leaks which
may result in lack of oxygen. Do not open the service valves for liquid line and gas line until completed refrigerant piping work, air tightness test

If the compressor is operated in state of opening service walves before competed connection of refrigerant piping work, you may incur frost blue or injury from an abrupt refrigerant cutflow and air can be sucked into refrigerant circuit, which can cause busts or personal nijury due to amonalously high pressure in the refrigerant.

 Do not perform any change of protective device itself or its setup condition.
 The force operation by stort-circuling protective device of pressure switch and temperature controller or the use of non specified component can cause free or brust. Only use prescribed option parts. The installation must be carried out by the qualified installer.
 If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire

Be sure to switch off the power source in the event of installation, inspection or servicing.
 If the power source is not shut off, there is a risk of electric shocks, unit failure or personal injury due to the unexpected start of fan.

Consult the dealer or an expert regarding removal of the unit.
 Incorrect installation can cause water leaks, electric shocks or fire.

Stop the compressor before closing valve and disconnecting refrigerant pipes in case of pump down operation. If disconnecting refrigerant pipes in state of opening service valves before compressor stopping, you may incur frost bite or injury from an abrupt refrigerant outflow and air can be sucked, which can cause burst or personal injury due to anomalously high pressue in the refrigerant circuit.

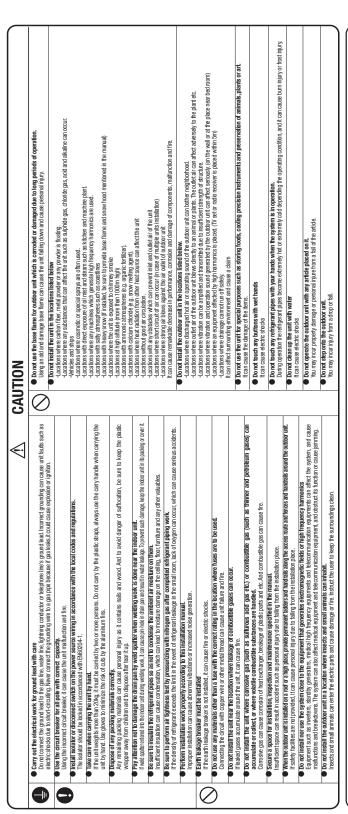
Ensure that no air enters in the refrigerant circuit when the unit is installed and removed.
 If air enters in the refrigerant circuit, the pressure in the refrigerant circuit becomes too high, which can cause burst and

Do not run the unit with removed panels or protections Touching rotating equipments, not surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric shocks.

Be sure to fix up the service panels.

Incorrect fixing can cause electric shocks or fire due to intrusion of dust or water.

Do not perform any repairs or modifications by yourself. Consult the dealer if the unit requires repair.
 If you repair or modify the unit, it can cause water leaks, electric shocks or fine.



	Dedicated R410A tools
a)	Gauge manifold
Q	Charge hose
()	Electronic scale for refrigerant charging
ਰ	Torque wrench
(e)	Flare tool
_	Protrusion control copper pipe gauge
g)	Vacuum pump adapter
٦	Gas leak detector

Notabilia as a unit desirmed for R410A	Dedicated R410A tools
	a) Gauge manifold
• Do not use any retrigerant other than R410A, will rise to pressure about 1.6 times higher than that of a conventional retrigerant.	b) Charge hose
A cylinder containing R410A has a pink indication mark on the top.	c)   Electronic scale for refrigerant charging
	d) Torque wrench
processed untersion or the trade part or a terrificial rapid and are fully status store measurement have also been attered to raise strength against pressure. Accordingly, you are required to arrange deducated but not seen that are the part of the present of the part of	e)   Flare tool
In the wood in the date of the property of the	f) Protrusion control copper pipe gauge
<ul> <li>In charqing refrigerant, always take it out from a cylinder in the liquid phase.</li> </ul>	g)   Vacuum pump adapter
ctable indoor unit models in a catalog, etc. (A wrong indoor unit, if connected into the system, will impair proper system operation)	h) Gas leak detector

# . HAULAGE AND INSTALLATION (Take particular care in carrying in or moving the unit, and always perform such an operation with two or more persons.)

ACAUTION When a unit is hoisted with slings for haulage, take into consideration the offset of its gravity center position.



• The right hand side of the unit as viewed from the front (diffuser side) is heavier. A person carrying the right hand side must take heed of this fact. A person carrying the left hand side must hold with his right hand the handle provided on the front panel of the unit and with his left hand the connect column section.

Wooden nallet-

Deliver the unit as close as possible to the installation site before removing it from the packaging.
 When some compelling reason necessitates the unit mappeding of the unit before it is carried in, use mythin sillings or protective wood pleces so as not to damage the unit by ropes iffining it.

If not properly balanced, the unit can be thrown off-balance and fall.

1) Delivery

hich elevation difference from the outdoor unit is the largest.

< Triple type >

which elevation difference from the outdoor unit is the largest.)

< Twin type > Indoor unit The unit of W

Outdoor unit

< Single type >

# Selection of installation location for the outdoor unit

Be sure to select a suitable installation place in consideration of following conditions.

A place where it is horizontal, stable and can endure the unit weight and will not allow vibration transmittance of the unit.

A place where it is no promise, it stable and can endure the unit weight and will not allow vibration transmittance of the unit.

A place where the unit is not exposed to oil spasshes.

A place where the unit will not be affected by the attraction of the manager of the place where the unit will not be affected by heat radiation from other heat source.

A place where show will not be affected by heat radiation from other the another to accomplish to the committee.

A place where the unit will not be affected by heat radiation from other the another and service it and the stable where the unit will not be affected by heat radiation from other to avoid any radio or TV interference.

A place where the unit will not be affected by heat radiation from the the unit will not be affected by heat radion from the place and the affected by electromagnetic wates and/or high-harmonic waves generated by other equipment.

A place where strong wind will not blow against the outlet at low of the unit.

On the install the unit in places which expressed to sea threase (e.g. cossial area) or calcium choricle (e.g. snow melting agent), exposed to ammonda substance (e.g. organic fertilizer).

# 4) Caution about selection of installation location

If the unit is installed in the area where the snow will accumulate, following measures are required.
 The bottom plate of unit and intake, outlet may be blocked by snow.

1.Install the unit on the base so that the bottom is higher than snow cover surface.

2.Provide a snow hood to the outdoor unit on site. Regarding outline of a snow hood, refer to our technical manual.

3.Install the unit under eaves or providen the roof on site.

generated by defrost control may freeze, following measures are required Since drain water

Dort recent drain pujng work to skrigh a darie blow and drain grommets (polificin parts). [Refer to Drain piping work.]
 Recommend eating perfect Control (SW2-1) and Stown Gand Fan Control (SW3-2). [Refer to Setting SW3-1, SW3-2.]
 Attach heater on a base place on site. If there is possibility to Treaze drain water.
 In case their the product has a converted refamilise system, the Unitage paths should have suitable measure against reaching but be sure not to melt the material of drainage paths with heat.

3. The unit should be installed on the stable and level foundation. If the foundation is not level, tie down the unit with wires. (2) If the unit can be directed by strong wind, following measures are required. Strong wind can case damage of fan (fan moton), or can cause performance degradation, or can trigger anomatious stop of the unit due to islain of high pressure. Install the outlet air blow side of the 2.install the outlet air blow side of unit to face a wall of building, or the unit in a position perpendicular provide a fence or a windbreak screen. To the direction of wind.

7) To run the unit for a cooling operation, when the outdoor temperature is -5°C or lower.

### 5) Installation space

- Walls surrounding the unit in the four sides are not acceptable.
   There must be a 1-meter or larger space in the above.

Where a danger of short-circuiting exists, install guide louvers.
 When more than one unit are installed, provide sufficient intake space consciously so that short-circuiting may not occur.
 Where piling snow can bury be outdoor unit, provide proper snow guards.
 A barrier wall placed in front of the exhaust diffuser must not be higher than the unit.

I II III Open Open 500 300 5 Open 150 300 150

Outlet ( space 

\*\* I In case of 200V model \*\* 2 In case of 250VA 760V/ A60VV A00V model. If unit is installed in L4 space with ( ) 's condition, secure space of 750mm in lateral (L4) by unit movement at the time of exchange work of compressor.

(M10-12) ② Notabilia for installation

50

Intake

(1) Anchor bolt fixed position

6) Installation

Use a long block to extend the

•

In installing the unit, fix the unit's legs with boths specified on the left
 Per produsion of an anchor both on the fortis side units be kept whith 15 mm.
 Securely install the unit is other than one of an invertible of the control of

When the outdoor air temperature is -5°C or lower, provide a snow hood to the outdoor unit on site.
 So that strong wind will not blow against the outdoor heat exchanger directly. Regarding outline of a snow hood, refer to our technical manual.

# 2. REFRIGERANT PIPING WORK

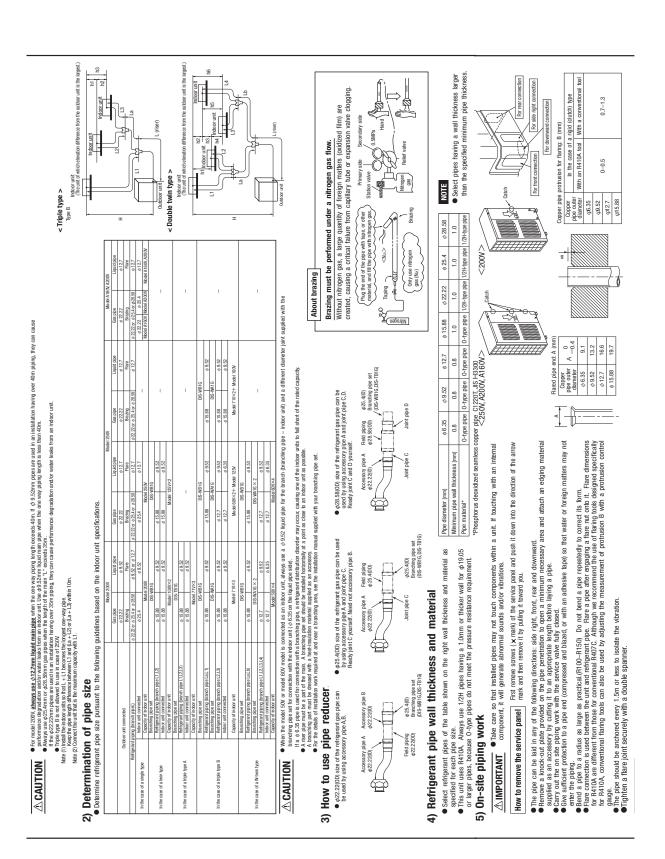
Over 500 mm

# 1) Restrictions on unit installation and use

Check the following points in light of the indoor unit specifications and the installation site.
 Observe the following restrictions on unit installation and use. Improper installation can result in a compressor failure or performance degradation.

One-way pipe length difference from the first branching point to the indoor unit Restrictions

	Model for outdoor units			Dimensional restrictions	Single type	Twin type	Triple type A	Triple type B	W-twin type
	1000		φ 9.52	= 40m					
		Diguid	φ 12.7	40 - 70m		:			
One-way pipe length of refrigerant piping	250V, A160V, A200V	2	¢ 12.7		_	33	2007:14L1, 4L2, L+L3	25 (M-Prohibitation of the use	L+L3+L1,L+L3+L2
	200V	One Dieles	¢ 22.22	≥ 35m		į	A DO KALTELL LETTERSTERRENGE TERRETERO OF 19 POST	and the second s	CTEST CONTRACT
		Coas Piping	φ 25.4 or φ 28.58	35 - 70m					
	Moor		φ 9.52	≥ 40m					
		Diguid	φ 12.7	40 - 70m				***	
Main pipe length	250V	200	¢ 12.7	 ≥ 70m	ı	_	250W:L	25 Ok Prohibitation of the use	7
	200V	One Dieles	\$ 22.22	≥ 35m			to collect the PODD	and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s	
		cas Piping	φ 25.4 or φ 28.58	35 - 70m					
One-way pipe length between the first branching	2007			- Em			I	La	
point from to the second branching point	250V			1			Laure	Prohibitation of the use	ı
One-way pipe length after the first branching	200V			30m V	ı	2111	L1,2,13	L10)	La+L1,La+L2 La+L3,La+L4
ninot	250V						L1,La+L2,La+L3 or type 8)	Prohibitation of the use	
One-way pipe length from the first branching point to indoor units through the second branching point	200V			m72≥	ı	ı	1	La+L2,La+L3 0)	1
	Twin type			≥ 10m			1		
		1000		≥3m			111-121,112-131,113-111	ı	
One-way pipe length difference from the first	Triple type	Annz		≥ 10m	ı	113	1	L1-(La+L2),L1-(La+L3) (1)	I
branching point to the indoor unit		250V		≥ 3m			L1-(La+L2)   , LL1-(La+L3)   , LL2-L3	Prohibitation of the use	
	W-twin type	200V, 250V		m01 ≥			1	1	(L1+La) - (L3+Lb)   ,   (L1+La) - (L4+Lb)   (L2+La) - (L3+Lb)   ,   (L2+La) - (L4+Lb)
One way pipe length difference from the second branching point to the indoor unit	200V, 250V			m01≥	ı	ı	1	।हनदा।	111121,113-141
Total pipe length after the second branching point				≥ 15m	1	1		_	L1+L2,L3+L4
Bevation difference between indoor and outdoor	When the outdoor unit is positioned higher,	is positioned	higher,	≥ 30m	2	3	2	3	3
units	When the outdoor unit is positioned lower,	is positioned	lower,	\ 15m		c	=	-	-



### Name 1410A traingeant must be charged in the liquid phase, you should charge it, keeping the container cylinder upside down or using a refrigerant cylinder equipped with a siphon tube. Since 1410A refrigerant must be charged in the liquid stoke service port with the service port with the service port with the service port with the service port with the service port with the service port with the service port with the service port with the service port with the service port with the service port with the service port with the service port with the service port with the confined service port with the service Gas piping Installation's pipe length (m) covered without additional refrigerant charge 8 Or prevent a different oil from entering, assign dedicated bools, etc. to each refrigerant upper. Under no concurstance must a gauge manifold and charge hase in particular be shared with other refrigerant lypes (RZ, R407, etc.). Clea accuminative prevention adapter to prevent vacuum pump oil from entering the reingerant system. Pay attention to the following points in addition to the above for the R410A and compatible machines. Ø Refrigerant volume charged for shipment at the factory (kg) Do not hold the valve cap area with a spanner. Wires for connecting indoor and outdoor units "When an additional charge volume calculation result is negative, Use a torque wrench. If a torque wrench is not available, fasten the flare nut manually first and then tighten it further, using the left table as a guide. Liquid piping 5.6 7.2 it is not necessary to charge refrigerant additionally ① Although outdoor and indoor units themselves have been tested for air tightness at the factory, check the connecting pipes after the installation work for air tightness from the service valve's check joint equipped on the outdoor unit safe. When the conducting at the first line there was the first after the pressure divided and then stop, Leave if for five minutes to see if the pressure divided and then stop, Leave if for from one minutes to see if the pressure divided and then stop, Leave if for from one minutes to see if the pressure divided and the stop of the specified leave if the stop of the specified leave if the specified leave if and the pressure and the pressure. The stop of the pressure divided is not stop of the specified leave if and the specified level and left for about one day, it is acceptable. When the ambient Temperature fall if "C, the pressure also fall approximately 0.01 MPa. The pressure. If it changed should be compensated for installation pressurized to the specified level and left for about one day, it is acceptable. When the ambient Temperature and repair it. After repair, conduct an air-tightness test again. • This unit contains factory charged refrigerant covering 30m of refrigerant piping and additional refrigerant charge on the installation site is not required for an installation with up to 30m refrigerant piping. When refrigerant piping exceeds 30m, additionally charge an amount calculated from the pipe length and the above table for the portion in excess of 30m. When refrigerant piping is shorter than 3m, reduce refrigerant by 14g from the factory charged volume and adjust to 4.64g or 22g. If an existing pipe system is used, a required refrigerant charge volume will vary depending on the liquid pipe size. Por further information, see "6. UTILIZATION OF EXISTING PIPING." Branch pipe Additional charge volume (kg) per meter of refrigerant piping (liquid pipe) (1) Dress refrigerant pipes (both gas and liquid pipes) for heat insulation and prevention of dew condensation. (2) Bee a heat insulating material that can withstand 120°C or a higher temperature. Poor heat insulating page to the state of 90.0 90.0 To charge refrigerant again, recover refrigerant from the system first and then charge the volume calculated from the above table (Standard refrigerant charge volume + additional charge volume for total pipe length.) 0.06 (Liquid piping $\varphi 9.52$ ) 0.145 (Liquid piping \$12.7) Main pipe 0.12 In case of 200V and using .gr2.7 at main liquid piping, calculate the amount as follows Total charge volume(kg) = Refrigerant volume charged for shipment at the factory + (Main piping length(m)-30(m))x0.145(kg/m) + Total length of branch pipes (m) x 0.06 (kg/m) ② In conducting an air-tightness test, use nitrogen gas and pressurize the system with nitrogen gas from the gas side. Do not use a medium other than nitrogen gas under any circumstances. Pipe length for standard refrigerant charge volume (m) cable by a dressing tape. Both gas and liquid pipes need to be dressed with 20 mm or thicker heat insulation materials above the ceiling where relative humidity exceeds 70%. Recommended length of a tool handle (mm) In the case of 49.52mm main liquid piping Additional charge volume (4g) = ( Main pipe length (m) - 30 (m) 1 x 0.06 (kg/m) + Total length of branch pipes (m) x 0.06 (kg/m) | In the case of 4912/mm main liquid piping Additional charge volume (4g) = ( Main pipe length (m) - 30 (m) 1 x 0.145 (kg/m) + Total length of branch pipes (m) x 0.06 (kg/m) 200 250 300 450 Airtighteness test completed Additional charge volume (kg) = { Main pipe length (m) -30 (m) } $\times 0.12$ (kg/m) + Total length of branch pipes (m) $\times 0.06$ (kg/m) Vacuuming completed Vacuum gauge check Vacuuming begins Fill refrigerant Standard refrigerant charge volume (kg) 3.8 3.6 45-60 30-45 <Twin, triple type> Put down the refrigerant volume calculated from the pipe length onto the label attached on the back side of the service panel. 250V A160V, A200V Item Run the vacuum pump for at least one hour after the vacuum gauge shows -101 kPa or lower. (-755mmHg or lower) Confirm that the vacuum gauge indicator does not rise even if the system is left for one hour or more. Capacity 2007 68-82 volume means a refrigerant charge volume for an installation with 0m long refrigerant Item Standard refrigerant Proe length for Additional change volume (kg) Refrigerant volume Indeallation's piece length (m) standard entrigerant plant get in the change of the ship of the change volume (kg) interest volu Service valve size \$ 15.88 (5/8") \$\phi \ 9.52 (3/8") 39 Do not apply force beyond proper fastening torque in tightening Fix both liquid and gas service valves at the valve main bodies as illustrated on the right, and then fasten them, applying appropriate fastening torque. 7.2 5.6 (1) Calculate a required refrigerant charge volume from the following table. 0.06 (Liquid piping 49.52) 0.145 (Liquid piping $\varphi$ 12.7) Formula to calculate the volume of additional refrigerant required 0.12 9) Heating and condensation prevention <Work flow > When the system has remaining moisture inside or a leaky point, the vacuum gauge indicator will rise. Check the system for a leaky point and then draw air to create a vacuum again. 8) Additional refrigerant charge 0 Model 250V, A160V, A200V the flare nut A standard refrigerant charge 6) Air tightness tes' (2) Charging refrigerant 3.6 <Single type> Model 200V A160V, A200V 2007 250V Sapacity

## 3. DRAIN PIPING WORK

- Execute drain plping by using a drain elbow and drain grommets supplied separately as option parts. where water drained from the outdoor units a problem.

   Application and output and a larger amount of drain waters.

   Sonders may drip where there is a larger amount of drain waters.

   Sonders water may flow out from vicinity of service valve or connected pipes.

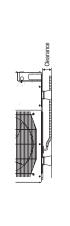
   Condersed water may flow out from vicinity of service valve or connected pipes.

   And in elbey to have several days of sub-zero reimperatures in a row, do not use a drain growment of the properties of the properties of the properties. blocking the drain.)
  - Do not use drain elbow and grommet made of plastic for drain piping when base heater for outdoor unit is used. Plastic grommet and elbow will be damaged and burnt in worst

•Prepare another drain tray made of metallic material for collecting drain when base heater is used.

When condensed water needs to be led to a drain, etc., install the unit on a flat base (supplied separately as an option part) or concrete blocks.
 Then, please secure space for the drain elbow and the drain hose.

D



-Drain hose (To be procured on the installer's part)

# **ELECTRICAL WIRING WORK** For details of electrical cabling, refer to the indoor unit installation manual

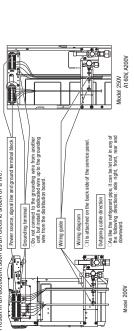
Bectrical installation work must be performed by an electrical installation service provider qualified by a power provider of the country. Earthrai installation work must be executed according to the technical standards and other regulations applicable to electrical installations in the country.

- Do not use any supply cord lighter than one specified in parentheses for each type below.
   braided cord (code designation 60245 IEC 51),

  - ordinary tough rubber sheathed cord (code designation 60245 IEC 53) flat twin tinsel cord (code designation 60227 IEC 41);
- Do not use anything lighter than polychloroprene sheathed flexible cord (code designation 60245 IEC57) for supply cords of parts
  - of appliances for outdoor use.

    •Ground the unit. Do not connect the grounding wire to a gas pipe, water pipe, lightning rod or telephone grounding wire.
- If impropery grounded, an electric shock or malfunction may result.

 A grounding wire must be connected before connecting the power cable. Provide a grounding wire longer than the power cable.
 The installation of an impulse withstanding type earth leakage breaker is necessary. A failure to install an earth leakage breaker can result in an acccident such as an electric shock or a fire.



kness			ion d a
Indoor-outdoor wire thid X number	C is seemed box	φι:milia.iφ	s or the construct ntry. d in a conduit an tion in effect in ea
Cable length (m) Grounding wire fhickness	of Green		istallation instructions gulations in each cour three cables containe Adapt it to the regula
	54	51	eaters, refer to the in thosen along the red with no more than cabling regulations.
MAX. over current (A)	20	21	ers. For units with he ver current should be blastic conduit is used ns, follow the internal ns, follow the internal ns.
Power cable thickness (mm²)	u	0,	for units without heats alculated from MAX. o ption that a metal or p tside of these conditio
Power source	3 phase 4 wire	380V 60Hz	the above table are it.  or capacity which is call to assum it based on the assum installation falling out
Model	2007	250V, A160V, A200V	<ul> <li>The specifications shown in the above table are for units without heaters. For units with heaters, refer to the installation instructions of the construction instanctions of the indoor unit.</li> <li>Switchtoger or Circuit breater capectly which is calculated from IMAX ore current should be chosen along the regulations in each country.</li> <li>If the cable specifications are based on the assumption that a metal or péstic conduit is used with no more than three cables contained in a conduit and a workjet drop is 2%. For an installation talling outside of these conditions, follow the internal cabing regulations. Adapt it to the regulation in effect in each country.</li> </ul>

Ø1.6mm x 3 φ1.6mm x 3 Grounding wire thickness Grounding wire thickness φ1.6mm Cable length (m) Cable length (m) MAX. over current (A) MAX. over current (A) cable thickness (mm²) 5.5 5.5 Power source wire 50Hz 60Hz Power source wire 50Hz 60Hz 380-415V 5380V 6 3 phase 4 v 380-415V 380V \*At the connection with FDUM indoor unit. 200V 250V, A160V, A200V 200V 250V, A160V, A200V Model Model

hile it can cause an abnormal overheat accident)	opinipo
t can cause an abnorm	diubago con coldos corrido romos ve
hile it can	o action at

- Do not turn on the power until the electrical work is completeled.
   Do not use a condensive capacitor for power factor improvement under any circumstances. (It dose not improve power factor, while it can cause an abnormal overheat accident)
- For power source cables, use conduits.

   For power source cables, use conduits.

   For power source cables, use conduits.

   For power source cables, use conduits.

   For power source cables (membe control and signaling wires) and other cables together outside the unit. Laying them together can result in the mafunctioning or a failure of a fluer of the unit due to electric noises.

   Fasten cables so that may not buch the piping, etc.

   Fasten cables so that may not buch the piping, etc.

   Fasten cables so that may not buch the piping, etc.

   Fasten cables so that may not buch the piping, etc.

   Fasten cables so that may not buch the piping, etc.

   Fasten cables so that may not buch the piping and the piping and the piping and the piping and the piping and the cover attachment can result in malfunctioning or a failure of the unit, if water penetrates into the box.)

   Mayes use a fine-cap cable for an indoor-outdoor connecting wise.

   Outdoor connecting wire.
  - Connect a pair bearing a common terminal number with an indoor-outdoor connecting wire.
     In cabling, fasten cables securely with cable clamps so that no external force may work on terminal connections.
    - Grounding terminals are provided in the control box. Power cable, indoor-outdoor connecting wires

Always perform grounding system installation work with the power cord unplugged.

Aways use an earth leakage circuit breaker designed for inverter circuits

ant type) ult breaker	Outdoor unit	Remote control	>
Earth leakage breaker (Harmonic resistant type) Switchgear or Circuit breaker	X X X X X X X X X X X X X X X X X X X	-×	Model 200V, 250V A160V, A200V
rol box.	± ø		

Indoor-outdoor wire thickness × number	C or served box	ψι.αIIIII x 3	
Grounding wire thickness	of Green		
Cable length (m)	54	51	
MAX. over current (A)	20	21	
Power cable thickness (mm²)	u	0.0	
Power source	3 phase 4 wire	380V 60Hz	
Model	2007	250V, A160V, A200V	

_	362	_

### 5. TEST RUN

A WARNING

A failure to observe these instructions can result in a compressor breakdown

Before conduct a test run, make sure that the service valves are opened.

If un on power fo hous prior oa lest run fo aregize the critik case header.

In case of the first operation after furning on power, even if the unit does not move for 30 minutes, it is not a breakdown. Anyang yet a 2-minute on longer internal before you start the unit again wherever it is stopped.

Anyang yet a 2-minute on longer internal before you start the unit again wherever it is stopped.

Permoving the service panel will expose all-pi-vollaged live parts and high-temperature parts, which are quite dangerous. Take utmost care not to incur an electric shock or burns. Do not leave the unit with the service panel open.

When you operate switches (SW3, SW5) for on-site setting, be careful not to touch a live part.
 You cannot check discharge pressure from the liquid service valve charge port.
 The 4-way valve (20S) as energized during a heating operate and a heating operate by a service of the prower source is cut of to reset the unit, give 3 or more minutes before you turn on power again after power is cut off. If this procedure is not observed in turning on power again, "Communication error between outdoor and indoor unit"

### 1) Test run method

 
 ON
 OFF
 Cooling during a test run

 ON
 Heating during a test run

 OFF
 Normal or After the test operation
 SW-3-3 SW-3-4 0N OFF (1) A test run can be initiated from an outdoor unit by using SW3-3 and SW3-4 for on-site

(2) Switching SW3-3 to ON will start the compressor. (3) The unit will start a coloning ordering, when SW3-4 is OFF, or a heating operation, when SW3-4 is OFF, or a peating operation, when SW3-4 is OFF, or a peating operation, when SW3-2 is OFF, when a test run is completed,

Use check joints provided on the piping before and after the four-way valve installed inside the outdoor unit for checking discharge pressure and suchon pressure. As indicated in the table shown on the right, pressure detected at each point will vary As indicated in the table shown on the right, pressure detected at each point will vary in the detection of whether a cooling or heating operation has been selected. 2) Checking the state of the unit in operation

Check joint of the pipe

Cooling

## Setting SW3-1, SW3-2, on-site

(1) Defrest control switching (SWB-3.1)
When this switch is turned ONL the unit will run in the defrest mode more frequently.
When this switch is Out, when installed in a region where outdoor temperature falls below zero during the season the unit is nun for a heating operation.
(2) Snow guard fan control (SWB-2)
When this switch is brune on, the outdoor unit fan will run for 10 seconds in every 10 minutes, when outdoor temperature falls to 3°C or lower and the compressor is not running.
When the unit is used in a very snowy country, set this switch to ON.

## Failure diagnosis in a test run

acito A	Action	ut 1. Check whether the service valves are open. 2. If an error has been canceled when 3 minutes ha	since a compressor stop, you can restart the unit effecting Check Reset from the remote control ur	
trous confied	nana.	63H1 actuation or operation with service valves shut (occurs mainly during a heating operation)	Low pressure error or operation with service valves shut (occurs mainly during a cooling operation)	
he cycles of 5 seconds) Green LED		Blinking confinuously	Blinking confinuously	
Printed circuit board LED(The Red LED		Blinking once	Blinking once	
Error indicated on the	remote control unit	E40	E49	

If an error code other than those listed above is indicated, refer to the wiring diagram of the outdoor unit and the indoor unit.

## 5) The state of the electronic expansion valve.

The following table illustrates the steady states of the electronic expansion valve.

	boom to to some	When the unit com	ies to a normal stop	When the unit comes	s to an abnormal stop
	when power is turned on	During a cooling operation	During a heating operation	During a cooling operation	During a heating oper
Valve for a cooling operation	Complete shut position	Complete shut position	Full open position	Full open position	Full open position
Valve for a heating operation	Full open position	Full open position	Complete shut position	Full open position	Full open position

eration on on

## 6) Heed the following on the first operation after turning on the circuit breaker.

This outdoor unit may start in the standby mode (waiting for a compressor startup), which can confinue up to 30 minutes, to prevent the oil level in the compressor from lowering on the first operation after turning on the circuit breaker. If that is the case, do not suspect a unit failure. At the first operation of heating mode after turning on the circuit breaker, the outdoor unit may start in cooling mode a while to prevent from liquid refigerant back to compressor, if that is the case, for ont suspect a unit failure.

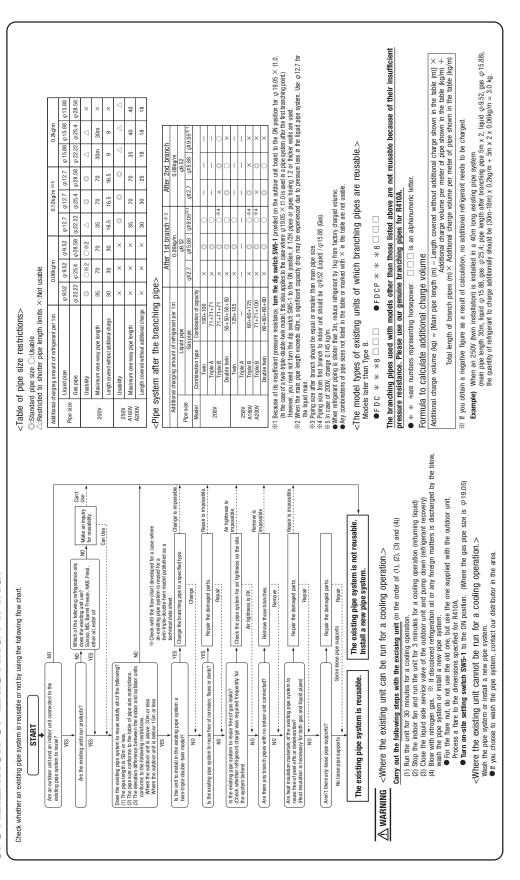
Items to chec	Items to check before a test run	• Trun be sure to close the outdoor unit with power supplied to it, be sure to close the panel.	10 T
Item No.used in the installation manual	ltem	Check item	Check
		If brazed, was it brazed under a nitrogen gas flow?	
	Refrinerant	Were air-tightness test and vacuum extraction surely performed?	
2	plumbing	Are heat insulation materials installed on both liquid and gas pipes?	
	0	Are service valves surely opened for both liquid and gas systems?	
		Have you recorded the additional refrigerant charge volume and refrigerant pipe length on the panel's label?	
		Is the unit free of cabling errors such as uncompleted connection, an absent or reversed phase?	
		Are properly rated electrical equipments used for circuit breakers and cables?	
		Doesn't cabling cross-connect between units, where more than one unit are installed?	
		Aren't indoor-outdoor signal wires connected to remote control wires?	
4	Electric	Do indoor-outdoor connecting cables connect between the same terminal numbers?	
	wiring	Are either VCT cabbyre cables or WF flat cables used for indoor-outdoor connecting cables?	
		Does grounding satisfy the D type grounding (type III grounding) requirements?	
		Is the unit grounded with a dedicated grounding wire not connected to another unit's grounding wire?	
		Are cables free of loose screws at their connection points?	
		Are cables held down with cable clamps so that no external force works onto terminal connections?	
	time and and	Is indoor unit installation work completed?	
	magor unit	Where a face cover should be attached onto an indoor unit, is the face cover attached to the indoor unit?	

Turn	The contents of operation	Check
Θ	Open the gas side service valve fully.	
@	Open the Irquid side service valve fully.	
®	Close the panel.	
4	Where a remote control unit is used for unit setup on the installation site, follow instructions for unit setup on the installation site with a remote control unit.	
(	SW3-3 ON / SW3-4 OFF: the unit will start a cooling operation.	
9	SW3-3 ON / SW3-4 ON: the unit will start a heafing operation.	
9	When the unit starts operation, press the wind direction button provided on the remote control unit to check its operation.	
(A)	Place your hand before the indoor unit's diffuser to check whether cold (warm) winds come out in a cooling (heating) operation.	
8	Make sure that a red LED is not blinking.	
6	When you complete the test run, do not forget to turn SW3-3 to the OFF position.	
(10)	Where options are used, check their operation according to the respective instruction manuals.	
	<250V, A160V, A200V>	

Test run procedure ● Always carry out a test run and check the following in order as listed.

						_
	SWITCHES FOR ON-SITE SETTING SW3	ON	All set to OFF for shipment			
			Ä	28 D		
<250V, A160V, A200V>	SWITCHES FOR ON-SITE SETTING SW5	ON 00 00 00 00 00 00 00 00 00 00 00 00 00	All set to OFF for shipment *1 Do not operate	SW5-2, SW5-3, SW5-4.	<200V>	

## 6. UTILIZATION OF EXISTING PIPING.



### 2.10.5 Method for connecting the accessory pipe

### (1) Model FDC200VSA

PSC012D028A

- Be sure to use the accessory pipe to connect the service valve on the gas side with the field pipe.
- Be sure to use the straight pipe (Procured at the field) shown in the table 1 applicable.
- When tightening the flare, connect the pipe securely by pressing the flared face of pipe against the service valve.
- When brazing between the pipe in place and the attached pipe, confirm that no excessive force is applied to the flare joint.

  Otherwise gas could leak from the flare joint.
- Connect the attached pipe according to the following steps ① ⑤.
  - ① Referring to Table 2 and Table 3, prepare the straight pipe and the elbow in the field, which are used in the construction examples (a) (b) applicable to the connecting direction.
  - ② Firstly, use the accessory pipe to assemble the connecting pipe assembly outside the outdoor unit. (As shown in the figure of connecting examples (A) (D).)
  - ③ After assembling the connecting pipe, connect it to the service valve on the gas side <u>inside the outdoor unit</u>. Tighten the flare nut with appropriate torque.

Pro	oper torque
$\phi$ 19.05	100 – 120N · m

- After connection of the connecting pipe assembly to the service valve on the gas side, braze the connecting pipe assembly and the field pipe.
- ⑤ When connecting pipe contacts wiring, attach heat insulating material to the pipe in order to prevent from contacting of the pipe and wiring. ( If the wiring is rubbed with the pipe and the cover of wiring is teared, there is a risk of a short circuit or an electric shock.)

About brazing

• Be sure to braze while supplying nitrogen gas.

If no nitrogen gas is supplied, a large amount of impurity

(oxidized film) will be generated, which may clog the capillary tube and the expansion valve, resulting in fatal malfunction.

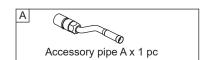
### Table 1 Pipe specification

Refrigerant	line (one way) length (m)
≤35(m)	φ22.22 x T1.0
≦70(m)	φ 25.4 x T1.0 or φ 28.58 x T1.0

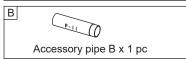
 Be sure to use pipes of 1/2H material, and wall thickness above 1mm. (Pressure resistance of O-type pipe is not enough)

Table 2 Parts used for the connecting pipe assembly

No.	Name	Quantity	Remark		
1	Accessory pipe A 1		Accessory		
2	Straight pipe ①	1	Procured at the field		
3	Straight pipe ②	1 or 0	Procured at the field (Not required for downward direction)		
4	Elbow	1 or 0	Procured at the field (Not required for downward direction)		



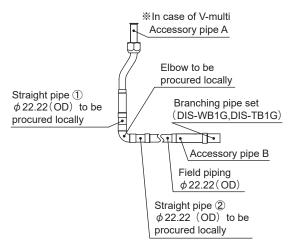
Heat insulating material is attached to the accessory pipe with band. When installing the heat insulating material, cut the band and retrieve it.



 Branching pipe set can be used by using the accessory pipe B.
 When φ 22.22(OD) size of the indoor unit gas pipe is used, the accessory pipe B is unnecessary.

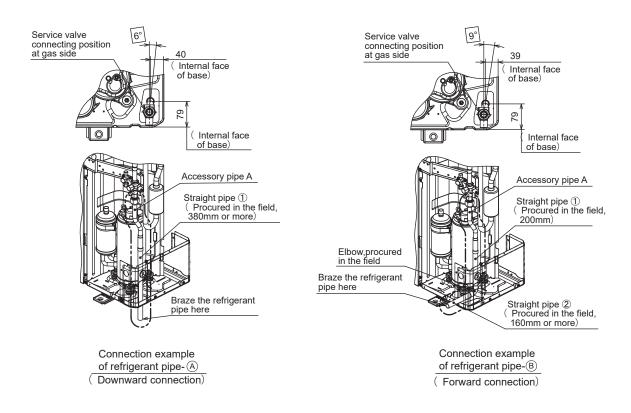
Table 3 Length and specification of straight pipe (Procured in the field)

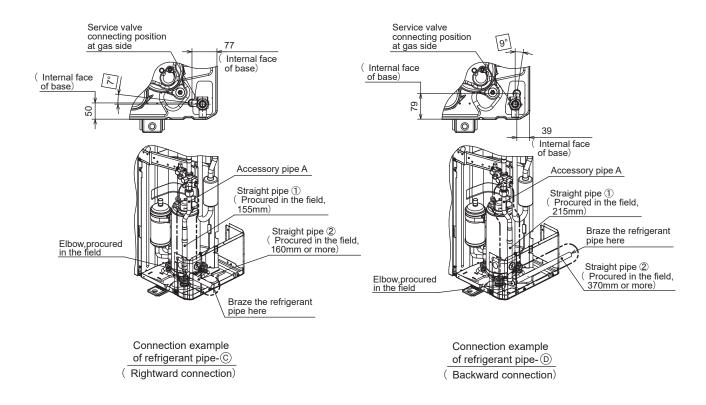
		O= .	0.51.1.1	O
		®Forward	©Rightward	
Straight pipe 1	380mm or more	200mm	155mm	215mm
Straight pipe (2)	_	160mm or more	160mm or more	370mm or more



### [ Connection example A - D applicable to the connecting direction.]

The piping angle shown below is an example in case of 15mm of heat insulating material.
 Adjust an angle, according to the thickness of heat insulating material.
 Pass the connecting pipe in a hole after angle adjustment.





(2) Model FDC250VSA PSC012D028C

- Be sure to use the accessory pipe to connect the service valve on the gas side with the field pipe.
- Be sure to use the straight pipe (Procured at the field) shown in the table 1 applicable to the model of outdoor unit.
- When tightening the flare, connect the pipe securely by pressing the flared face of pipe against the service valve.
- When brazing between the pipe in place and the attached pipe, confirm that no excessive force is applied to the flare joint.

  Otherwise gas could leak from the flare joint.
- Connect the attached pipe according to the following steps ① − ⑤.
  - ① Referring to Table 2 and Table 3, prepare the straight pipe and the elbow in the field, which are used in the construction examples (a) (b) applicable to the connecting direction.
  - ② Firstly, use the accessory pipe to assemble the connecting pipe assembly outside the outdoor unit. (As shown in the figure of connecting examples  $\triangle$   $\triangle$  .)
  - 3 After assembling the connecting pipe, connect it to the service valve on the gas side inside the outdoor unit. Tighten the flare nut with appropriate torque.

Proper torque						
φ 19.05	100 – 120N • m					

- After connection of the connecting pipe assembly to the service valve on the gas side, braze the connecting pipe assembly and the field pipe.
- (5) When connecting pipe contacts wiring, attach heat insulating material to the pipe in order to prevent from contacting of the pipe and wiring. (If the wiring is rubbed with the pipe and the cover of wiring is teared, there is a risk of a short circuit or an electric shock.)

About brazing

Be sure to braze while supplying nitrogen gas.

If no nitrogen gas is supplied, a large amount of impurity (oxidized film) will be generated, which may clog the capillary tube and the expansion valve, resulting in fatal malfunction.

Table 1 Pipe specification

		Refrigera	nt line (one way) length (m)
Single type	EDC250V	≦35 (m)	φ 22.22 x T1.0
	FDC230V	≦70 (m)	φ 25.4 x T1.0 or φ 28.58 x T1.0
	FDC224KXZPE1	≦90 (m)	φ 19.05 x T1.0
Multi tupo	FDG224KAZPET	≦120 (m)	φ 22.22 x T1.0
Multi type		≦90 (m)	φ 22.22 x T1.0
	FDG200KAZPET	≦120 (m)	φ 25.4 x T1.0 or φ 28.58 x T1.0

 Be sure to use pipes of 1/2H material, and wall thickness above 1mm. (Pressure resistance of O-type pipe is not enough)

Table 2 Parts used for the connecting pipe assembly

No.	Name	Quantity	Remark		
1	Accessory pipe A 1		Accessory		
2	Straight pipe ①	1	Procured at the field		
3			Procured at the field (Not required for downward direction)		
4	Elbow	1 or 0	Procured at the field (Not required for downward direction)		

※In case of V-multi (In case of FDC250V) Accessory pipe A Straight pipe 1  $\phi_{22.22}$  (OD) to be procured locally Elbow to be procured locally Branching pipe set (DIS-WB1G,DIS-TB1G) रानाडना • Accessory pipe B Field piping  $\phi$  22.22 (OD) Straight pipe 2  $\phi$  22.22 (OD) to be procured locally

Table 3 Length and specification of straight pipe (Procured in the field)

		®Forward	©Rightward	Backward
Straight pipe ①	400mm or more	192.5 - 202.5mm	192.5 - 202.5mm	210mm
Straight pipe 2	_	105mm or more	155mm or more	370mm or more

Accessory pipe A x 1 pc
(Except FDC224KXZPE1)

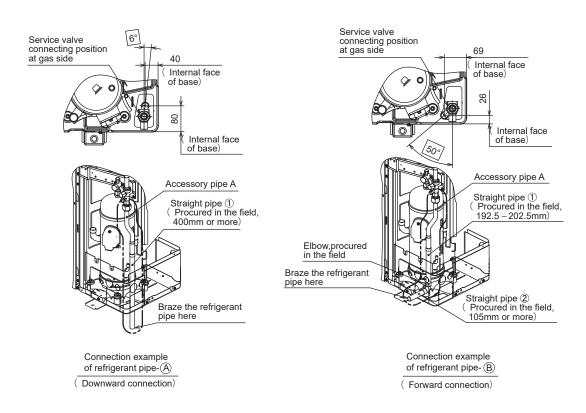
Heat insulating material is attached to the accessory pipe with band. When installing the heat insulating material, cut the band and retrieve it.

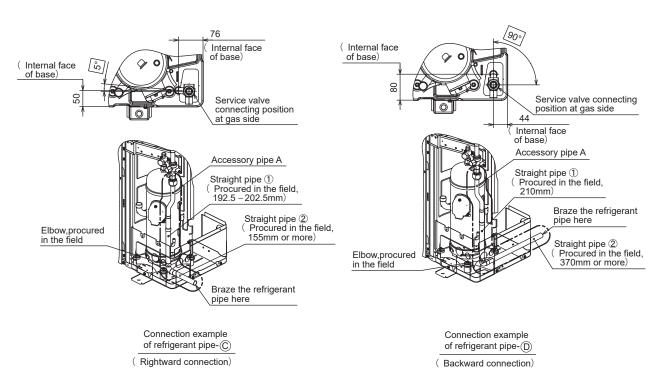


 Branching pipe set can be used by using the accessory pipe B.
 When φ 22.22 (OD) size of the indoor unit gas pipe is used, the accessory pipe B is unnecessary.

### [ Connection example $\triangle$ – $\bigcirc$ applicable to the connecting direction.]

The piping angle shown below is an example in case of 15mm of heat insulating material.
 Adjust an angle, according to the thickness of heat insulating material.
 Pass the connecting pipe in a hole after angle adjustment.





2.10.6 Instructions for branching pipe set (DIS-WA1, WB1, TA1, TB1) See page 173.

### 2.11 TECHNICAL INFORMATION

### (1) Ceiling suspended type (FDE)

### FDE100VNAVG

ndoor unit model name Dutdoor unit model name Function(indicate if present) cooling heating		00VG	relates to:	If function includes heating: Indicate information relates to. Indicated value			
cooling	FDC1	00VNA		heating season at a time. Include at I			verage'.
				Average(mandatory)	Yes		
heating	Yes			Warmer(if designated)	No		
nouning	Yes			Colder(if designated)	No		
tem	symbol	value	unit	Item	symbol	value	class
Design load	D	40.0	7	Seasonal efficiency and energy effici			
cooling	Pdesigno		kW kW	cooling heating / Average	SEER SCOP/A	6.35 4.31	A++ A+
heating / Average heating / Warmer	Pdesignh Pdesignh		kW	heating / Average	SCOP/W	4.31	A+ -
heating / Colder	Pdesignh		kW	heating / Walfriel	SCOP/C		_
ricating / Colder	i designi	'1	IKVV	Ticating / Golder	000170	1	unit
Declared capacity at outdoor t	emperature Tdesigr	nh		Back up heating capacity at outdoor	temperature Tde	esignh	
heating / Average (-10°C)	Pdh	8.5	kW	heating / Average (-10°C)	elbu	0	kW
heating / Warmer (2°C)	Pdh	_	kW	heating / Warmer (2°C)	elbu	_	kW
heating / Colder (-22°C)	Pdh	_	kW	heating / Colder (-22°C)	elbu	_	kW
Declared capacity for cooling,	at indoor temperatu	re 27(19)°	C and	Declared energy efficiency ratio, at in	door temperatu	re 27(19)°C	c and
outdoor temperature Tj	at illusor tomporata		o aa	outdoor temperature Tj	.aoo. tomporata		
Tj=35°C	Pdc	10.00	kW	Tj=35°C	EERd	3.51	-
Tj=30°C	Pdc	7.37	kW	Tj=30°C	EERd	5.00	-
Tj=25°C	Pdc	4.74	kW	Tj=25°C	EERd	7.80	
Tj=20°C	Pdc	3.48	kW	Tj=20°C	EERd	12.40	-
Declared capacity for heating	/ Average season a	nt indoor		Declared coefficient of performance /	/ Average seaso	n at indoo	r
emperature 20°C and outdoo				temperature 20°C and outdoor temperature		, at made	•
Tj=-7°C	Pdh	7.52	kW	Tj=-7°C	COPd	3.22	]-
Tj=2°C	Pdh	4.58	kW	Tj=2°C	COPd	4.04	
Tj=7°C	Pdh	2.94	kW	Tj=7°C	COPd	5.58	
Tj=12°C	Pdh	2.78	kW	Tj=12°C	COPd	6.46	
Tj=bivalent temperature	Pdh Pdh	6.77	kW	Tj=bivalent temperature	COPd COPd	2.42	
Tj=operating limit	Pdh	8.50	kW	Tj=operating limit	COPa	2.75	1-
Declared capacity for heating	/ Warmer season, a	t indoor		Declared coefficient of performance /	Warmer seaso	n, at indoo	r
emperature 20°C and outdoo			_	temperature 20°C and outdoor tempe	erature Tj		_
Tj=2°C	Pdh	_	kW	Tj=2°C	COPd	_	-
Tj=7°C	Pdh	_	kW	Tj=7°C	COPd	_	-
Tj=12℃	Pdh	_	kW	Tj=12°C	COPd		<u>-</u>
Tj=bivalent temperature Tj=operating limit	Pdh Pdh		kW kW	Tj=bivalent temperature Tj=operating limit	COPd COPd		-
rj-operating limit	1 011	1	IVAA	1)-operating limit	COLU	l	<u> </u>
Declared capacity for heating	/ Colder season, at	indoor		Declared coefficient of performance /	Colder season,	at indoor	
emperature 20°C and outdoo			_	temperature 20°C and outdoor temperature			_
Tj=-7°C	Pdh		kW	Tj=-7°C	COPd	_	-
Tj=2°C	Pdh	_	kW	Tj=2°C	COPd		
Tj=7°C	Pdh		kW	Tj=7°C	COPd		-
Tj=12°C	Pdh Pdh		kW kW	Tj=12°C Tj=bivalent temperature	COPd COPd		- -
Tj=bivalent temperature Tj=operating limit	Pdh	<del>-</del>	kW	Tj=blvalent temperature Tj=operating limit	COPd		-[
Tj=-15°C	Pdh		kW	Tj=-05erating illinit	COPd		-[.
			1	.,			
Bivalent temperature			٦.	Operating limit temperature			٦.
heating / Average	Tbiv	-10	°C	heating / Average	Tol	-20	°C
heating / Warmer	Tbiv		°C	heating / Warmer	Tol		°C
heating / Colder	Tbiv	_	°C	heating / Colder	Tol	_	°C
Cycling interval capacity				Cycling interval efficiency			
for cooling	Pcycc	_	kW	for cooling	EERcyc	_	]-
for heating	Pcych	_	kW	for heating	COPcyc	_	-
Cogradation as afficiant				Dogradation acofficient			
Degradation coefficient cooling	Cdc	0.25	7-	Degradation coefficient heating	Cdh	0.25	7-
Electric power input in power off mode				Annual electricity consumption	000	EEO	TkWh/a
off mode standby mode	Poff Psb	8	W	cooling heating / Average	Qce Qhe	552 2,762	kWh/a
thermostat-off mode	Pto	30	W	heating / Average	Qhe		kWh/a
	Pck	8	W	heating / volder	Qhe	_	kWh/a
crankcase heater mode			·				
crankcase heater mode	of three options)			Other items			
crankcase heater mode				Sound power level(indoor)	Lwa	64	dB(A)
crankcase heater mode				Sound power level(outdoor)	Lwa	70	dB(A)
crankcase heater mode  Capacity control(indicate one				Global warming potential	GWP	1,975	kgCO <sub>2</sub> e
crankcase heater mode  Capacity control(indicate one fixed	No			Rated air flow(indoor)	-	1,920	m <sup>3</sup> /h
crankcase heater mode  Capacity control(indicate one fixed staged	No			· · · · · ·			- ^
crankcase heater mode  Capacity control(indicate one fixed				Rated air flow(outdoor)	-	4,500	m <sup>3</sup> /h
crankcase heater mode  Capacity control(indicate one fixed staged variable	No Yes	d oddress	of the man	Rated air flow(outdoor)		4,500	m <sup>3</sup> /h
crankcase heater mode  Capacity control(indicate one fixed staged	No Yes Name an Mitsubishi Heav	y Industrie	s Air-Cond	· · · · · ·		4,500	m <sup>3</sup> /h
crankcase heater mode capacity control(indicate one fixed staged variable contact details for obtaining	No Yes Name an Mitsubishi Heav	y Industrie Stockley Pa	s Air-Cond	Rated air flow(outdoor)  nufacturer or of its authorised represent itioning Europe, Ltd.		4,500	m <sup>3</sup> /h

FDE100VSAVG

FDE100VSAVG					
Information to identify the model(s) to		If function includes heating: Indicate the			
Indoor unit model name	FDE100VG	information relates to. Indicated values s			
Outdoor unit model name	FDC100VSA	heating season at a time. Include at leas	t the neating	g season A	werage.
Function/indicate if present)		Average (mandatory)	Yes		
Function(indicate if present) cooling	Yes	Average(mandatory) Warmer(if designated)	No		
heating	Yes	Colder(if designated)	No		
rieating	163	Colder(II designated)	NO		
Item	symbol value unit	Item	symbol	value	class
Design load	Symbol value unit	Seasonal efficiency and energy efficiency		valuo	Oldoo
cooling	Pdesignc 10.0 kW	cooling	SEER	6.35	A++
heating / Average	Pdesignh 8.5 kW	heating / Average	SCOP/A	4.31	A+
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W		_
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C	_	_
Ü	•	<u> </u>			unit
Declared capacity at outdoor tempera	ture Tdesignh	Back up heating capacity at outdoor tem	perature Td	esignh	
heating / Average (-10°C)	Pdh 8.5 kW	heating / Average (-10°C)	elbu	0	kW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu	_	kW
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu	_	kW
Declared capacity for cooling, at indoo	or temperature 27(19)°C and	Declared energy efficiency ratio, at indoo	r temperatu	re 27(19)°C	and
outdoor temperature Tj		outdoor temperature Tj			_
Tj=35°C	Pdc <b>10.0</b> kW	Tj=35°C	EERd	3.51	-
Tj=30°C	Pdc <b>7.37</b> kW	Tj=30°C	EERd	5.00	-
Tj=25°C	Pdc <b>4.74</b> kW	Tj=25°C	EERd	7.80	<u> </u> -
Tj=20°C	Pdc <b>3.48</b> kW	Tj=20°C	EERd	12.40	-
De clared can a strict on the Co. 1.5	and an annual section of the state of	Declared coefficient of the			
Declared capacity for heating / Average		Declared coefficient of performance / Ave		n, at indoo	Γ
temperature 20°C and outdoor tempe		temperature 20°C and outdoor temperatu	ure I j COPd	2 22	7
Tj=-7°C	Pdh <b>7.52</b> kW Pdh <b>4.58</b> kW	Tj=-7°C	COPa	3.22 4.04	-[
Tj=2°C Tj=7°C	Pdh <b>4.58</b> kW	Tj=2°C Ti=7°C	COPa	5.58	-[
Ti=12°C	Pdh <b>2.78</b> kW	Tj=7 C Tj=12°C	COPd	6.46	-
Tj=12 C Tj=bivalent temperature	Pdh <b>6.77</b> kW	Tj=12 C Tj=bivalent temperature	COPd	2.42	
Tj=operating limit	Pdh <b>8.50</b> kW	Tj=blvalent temperature Tj=operating limit	COPd	2.75	-
rj-operating limit	Pull <b>6.50</b> KVV	rj-operating limit	COPu	2.75	<u> </u>
Declared capacity for heating / Warm	er season, at indoor	Declared coefficient of performance / Wa	rmer seaso	n at indoor	r
temperature 20°C and outdoor tempe		temperature 20°C and outdoor temperature		ii, at iiidooi	
Tj=2°C	Pdh - kW	Tj=2°C	COPd	_	7-
Ti=7°C	Pdh – kW	Ti=7°C	COPd	_	1_
Tj=12℃	Pdh – kW	Ti=12°C	COPd	_	_
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd	_	1_
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd	_	1_
, , ,		, , ,		1	1
Declared capacity for heating / Colder	r season, at indoor	Declared coefficient of performance / Col	lder season	, at indoor	
temperature 20°C and outdoor tempe		temperature 20°C and outdoor temperatu			
Tj=-7°C	Pdh – kW	Tj=-7°C	COPd	_	]-
Tj=2°C	Pdh – kW	Tj=2°C	COPd	_	7-
Tj=7°C	Pdh – kW	Tj=7°C	COPd	_	]-
Tj=12°C	Pdh – kW	Tj=12°C	COPd	_	-
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd	_	-
Tj=operating limit	PdhkW	Tj=operating limit	COPd	_	
Tj=-15°C	Pdh – kW	Tj=-15℃	COPd	_	-
Bivalent temperature	· · · · · · · · · · · · · · · · · ·	Operating limit temperature			70-
heating / Average	Tbiv -10 °C	heating / Average	Tol	-20	°C
heating / Warmer	Tbiv — °C	heating / Warmer	Tol		°C
heating / Colder	Tbiv – °C	heating / Colder	Tol	_	°C
Cycling interval capacity		Cycling interval officionay			
for cooling	Pcycc - kW	Cycling interval efficiency for cooling	EERcyc		7_
for heating	Pcych – kW	for heating	COPcyc	$\vdash \overline{-}$	1
101 Hodding	. Oyon KVV	lor nearing	JOI Cyc		1
Degradation coefficient		Degradation coefficient			
cooling	Cdc <b>0.25</b> -	heating	Cdh	0.25	7-
-9		I I			1
Electric power input in power modes	other than 'active mode'	Annual electricity consumption			
off mode	Poff 8 W	cooling	Qce	552	kWh/a
standby mode	Psb 8 W	heating / Average	Qhe	2,762	kWh/a
thermostat-off mode	Pto <b>30</b> W	heating / Warmer	Qhe		kWh/a
crankcase heater mode	Pck 8 W	heating / colder	Qhe	_	kWh/a
Capacity control(indicate one of three	options)	Other items			
		Sound power level(indoor)	Lwa	64	dB(A)
		Sound power level(outdoor)	Lwa	70	dB(A)
fixed	No	Global warming potential	GWP	1,975	kgCO₂eq
staged	No	Rated air flow(indoor)	-	1,920	m <sup>3</sup> /h
variable	Yes	Rated air flow(outdoor)	_	4,500	m³/h
variable	100	rated all how(outdool)	_	7,500	J111 /11
Contact details for obtaining	Name and address of the man	nufacturer or of its authorised representative	e.		
	subishi Heavy Industries Air-Cond				
	ne Square, Stockley Park, Uxbridg				
	ted Kingdom	- '			
				55.400	47080 A

### FDE100VNAPVG

FDE100VNAPVG		I learning and a second a second and a second and a second and a second and a second and a second and a second and a second and a second and a second and a second and a second and a second and a second and a second a second and a second and a second and a second and a second and a second and a second a second and a second and a second and a			
Information to identify the model(s) to		If function includes heating: Indicate the			
Indoor unit model name	FDE50VG (2 units)	information relates to. Indicated values			
Outdoor unit model name	FDC100VNA	heating season at a time. Include at lea	st the neating	season A	werage.
[		1			
Function(indicate if present)	Vac	Average(mandatory)	Yes No		
cooling	Yes	Warmer(if designated)   Colder(if designated)			
heating	Yes	Colder(ii designated)	No		
Itama	average at the constant	lt a ma	as made al	velue	alaaa
Item Design load	symbol value unit	Item Seasonal efficiency and energy efficiency	symbol	value	class
cooling	Pdesignc 10.0 kW	cooling	SEER	5.71	A+
heating / Average	Pdesignh 8.5 kW	heating / Average	SCOP/A	4.10	A+
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W		A+
heating / Colder	Pdesignh - kW	heating / Waimer	SCOP/W		+
rieating / Colder	Fdesignin — KVV	rieating / Colder	3COF/C		unit
Declared capacity at outdoor temper	aturo Tdosianh	Back up heating capacity at outdoor ten	aparatura Td	ocianh	unit
heating / Average (-10°C)	Pdh 8.5 kW	heating / Average (-10°C)	elbu	0	kW
heating / Warmer (2°C)	Pdh - kW		elbu		kW
		heating / Warmer (2°C)		<u> </u>	
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu		kW
Declared conscitutor cooling at inde	27/10\°C and	Declared anamy officians, vatic at inde		== 07/40\°C	2 ===
Declared capacity for cooling, at indo	oor temperature 27 (19) C and	Declared energy efficiency ratio, at indo	or temperatu	ie 27 (19) C	, and
outdoor temperature Tj	D-I- 400 IAW	outdoor temperature Tj	EED4	0.04	7
Tj=35°C	Pdc <b>10.0</b> kW	Tj=35°C	EERd	3.21	<u> </u>
Tj=30°C	Pdc <b>7.37</b> kW	Tj=30°C	EERd	4.49	<b></b> -
Tj=25°C	Pdc <b>4.74</b> kW	Tj=25°C	EERd	6.63	_ -
Tj=20°C	Pdc <b>3.30</b> kW	Tj=20°C	EERd	11.69	-
		1 1			
Declared capacity for heating / Avera		Declared coefficient of performance / A		n, at indoo	r
temperature 20°C and outdoor temperature		temperature 20°C and outdoor tempera			7
Tj=-7°C	Pdh <b>7.52</b> kW	Tj=-7°C	COPd	3.01	-
Tj=2°C	Pdh <b>4.58</b> kW	Tj=2°C	COPd	3.84	
Tj=7°C	Pdh <b>2.94</b> kW	Tj=7°C	COPd	5.29	]-
Tj=12°C	Pdh <b>2.70</b> kW	Tj=12°C	COPd	6.48	7-
Tj=bivalent temperature	Pdh <b>6.77</b> kW	Tj=bivalent temperature	COPd	2.28	7-
Tj=operating limit	Pdh <b>8.50</b> kW	Tj=operating limit	COPd	2.62	<b>1</b> -
, i	1 1				
Declared capacity for heating / Warn	ner season, at indoor	Declared coefficient of performance / W	armer seaso	n, at indoor	r
temperature 20°C and outdoor temperature	erature Tj	temperature 20°C and outdoor tempera	ture Tj		
Tj=2°C	Pdh – kW	Tj=2°C	CÓPd	_	7-
Tj=7°C	Pdh – kW	Tj=7°C	COPd	_	<b>1</b> -
Tj=12°C	Pdh – kW	Tj=12°C	COPd	_	վ_
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd	_	վ_
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd		վ_
Ty operating innit	1 311	If operating innit	00. 4		
Declared capacity for heating / Colde	er season, at indoor	Declared coefficient of performance / Co	older season	at indoor	
temperature 20°C and outdoor temperature		temperature 20°C and outdoor tempera		at inacoi	
Ti=-7°C	Pdh - kW	Tj=-7°C	COPd	_	٦.
Tj=2°C	Pdh – kW	Ti=2°C	COPd		┥_
Ti=7°C	Pdh – kW	Ti=7°C	COPd		┥_
Tj=12°C	Pdh – kW	Tj=12°C	COPd	_	-[
	Pdh – kW	11 ,	COPd		- ⁻
Tj=bivalent temperature		Tj=bivalent temperature			-  <sup>-</sup>
Tj=operating limit	i dii	Tj=operating limit	COPd		- ⁻
Tj=-15°C	Pdh – kW	Tj=-15°C	COPd	_	<u> -</u>
Divelent terror and tree		O			
Bivalent temperature	This: 40 00	Operating limit temperature	Tal	- 20	<b>7</b> ∘∽
heating / Average	Tbiv -10 °C	heating / Average	Tol	-20	_°C
heating / Warmer	TDIV	heating / Warmer	Tol		°C
heating / Colder	Tbiv – °C	heating / Colder	Tol	_	°C
Overling internal as "		Overline with the second off			
Cycling interval capacity	Davies Law	Cycling interval efficiency	EED		7
for cooling	Pcycc – kW	for cooling	EERcyc		<sup>1⁻</sup>
for heating	Pcych – kW	for heating	COPcyc		<u> -</u>
Dogradation coefficient		Degradation coefficient			
Degradation coefficient	Cdo 0.25	Degradation coefficient	Cab	0.25	٦
cooling	Cdc <b>0.25</b> -	heating	Cdh	0.25	<u> 1</u> -
Electric power input in power modes	other than 'active mode'	Annual electricity consumption			
off mode	Poff 8 W	cooling	Qce	613	kWh/a
standby mode	Psb 8 W	heating / Average	Qhe	2,904	kWh/a
thermostat-off mode				2,504	
	Pto 30 W	heating / Warmer	Qhe	<u> </u>	kWh/a
crankcase heater mode	Pck 8 W	heating / colder	Qhe	_	kWh/a
Canacity control(indicate and of the	o ontions)	Other items			
Capacity control(indicate one of three	e opuons)	T	Luca		Jab(v)
		Sound power level(indoor)	Lwa	60	dB(A)
		Sound power level(outdoor)	Lwa	70	dB(A)
fixed	No	Global warming potential	GWP	1,975	kgCO₂eq
atamad .		Rated air flow(indoor)	-	780	m <sup>3</sup> /h
staged	No				
9		<b>1</b>   ' '	_	4 500	lm°/h
variable	No Yes	Rated air flow(outdoor)	-	4,500	m <sup>3</sup> /h
variable	Yes	Rated air flow(outdoor)		4,500	m°/h
variable  Contact details for obtaining	Yes  Name and address of the mai	Rated air flow(outdoor) nufacturer or of its authorised representati		4,500	lm°/h
variable  Contact details for obtaining more information Mit	Yes  Name and address of the mai subishi Heavy Industries Air-Cond	Rated air flow(outdoor) nufacturer or of its authorised representatilitioning Europe, Ltd.		4,500	m°/h
variable  Contact details for obtaining more information  Mit 5 T	Yes  Name and address of the mai	Rated air flow(outdoor) nufacturer or of its authorised representatilitioning Europe, Ltd.		4,500	m°/h
variable  Contact details for obtaining more information  Mit 5 T	Yes  Name and address of the mai subishi Heavy Industries Air-Cond The Square, Stockley Park, Uxbrid	Rated air flow(outdoor) nufacturer or of its authorised representatilitioning Europe, Ltd.		4,500	m°/h

### FDE100VSAPVG

Information to identify the model(s) to v	hich the in	formation rela	ates to:	If function includes heating: Indicate the he	eating seas	son the	
Indoor unit model name		0VG (2 units)		information relates to. Indicated values she			
Outdoor unit model name	FDC10	00VSA		heating season at a time. Include at least	the heating	season 'A	verage'.
Function(indicate if present)	Vaa			Average(mandatory)	Yes No		
cooling heating	Yes			Warmer(if designated) Colder(if designated)	No		
rieating	162			Colder (II designated)	NO		
Item	symbol	value ur	nit	Item	symbol	value	class
Design load				Seasonal efficiency and energy efficiency			
cooling	Pdesigno	10.0 kV	V	cooling	SEER	5.71	A+
heating / Average	Pdesignh			heating / Average	SCOP/A	4.10	A+
heating / Warmer	Pdesignh			heating / Warmer	SCOP/W	_	_
heating / Colder	Pdesignh	_ kV	٧	heating / Colder	SCOP/C	_	
De desert de servicione de la contraction de la	T.d	I-		Destruction to the second state of settless to second	t T.I	l l-	unit
Declared capacity at outdoor temperature heating / Average (-10°C)	ire i design Pdh		۸/	Back up heating capacity at outdoor temper heating / Average (-10°C)			TI-VA/
heating / Average (-10 C) heating / Warmer (2°C)	Pan Pdh	8.5 kV - kV		heating / Average (-10 C) heating / Warmer (2°C)	elbu elbu	<u> </u>	kW kW
heating / Warmer (2 C)	Pdh	- KV		heating / Colder (-22°C)	elbu		kW
rieating / Golder (-22 G)	i uii	KV	<u>v</u>	Treating / Colder (-22 C)	CIDU		KVV
Declared capacity for cooling, at indoor	temperatu	re 27(19)°C a	nd	Declared energy efficiency ratio, at indoor	temperatu	re 27(19)°C	and
outdoor temperature Tj	tomporata	.0 2. (.0) 0 4		outdoor temperature Tj	toporata	.0 2. (.0)	· arra
Tj=35°C '	Pdc	10.0 kV	V	Tj=35°C ′	EERd	3.21	7-
Tj=30°C	Pdc	7.37 kV	V	Tj=30°C	EERd	4.49	1-
Tj=25°C	Pdc	4.74 kV	V	Tj=25°C	EERd	6.63	1-
Tj=20°C	Pdc	3.30 kV	٧	Tj=20°C	EERd	11.69	1-
Declared capacity for heating / Average		t indoor		Declared coefficient of performance / Aver		n, at indoo	r
temperature 20°C and outdoor tempera		7.50	.,	temperature 20°C and outdoor temperatur		2.5.	ا ا
Tj=-7°C	Pdh	7.52 kV		Tj=-7°C	COPd	3.01	<b>-</b>
Tj=2°C	Pdh	4.58 kV		Tj=2°C	COPd	3.84	<b>-</b>
Tj=7°C	Pdh	2.94 kV		Tj=7°C	COPd	5.29	<b>-</b>  -
Tj=12°C	Pdh	2.70 kV		Tj=12°C	COPd	6.48	<b>-</b>  -
Tj=bivalent temperature	Pdh	6.77 kV		Tj=bivalent temperature	COPd	2.28	- I
Tj=operating limit	Pdh	<b>8.50</b> kV	V	Tj=operating limit	COPd	2.62	-
Declared capacity for heating / Warmer	ceacon at	t indoor		Declared coefficient of performance / War	mer cease	n at indoor	
temperature 20°C and outdoor tempera		rindoor		temperature 20°C and outdoor temperatur		ii, at iiidooi	
Ti=2°C	Pdh	— kv	V	Tj=2°C	COPd	_	7-
Ti=7°C	Pdh	— kv		, Ti=7°C	COPd		1_
Tj=12℃	Pdh	— kv		Ti=12°C	COPd		1_
Tj=bivalent temperature	Pdh	— kv		Tj=bivalent temperature	COPd		1_
Tj=operating limit	Pdh	— kv		Tj=operating limit	COPd	_	1-
temperature 20°C and outdoor tempera Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C	ture Tj Pdh Pdh Pdh Pdh Pdh Pdh	- kv - kv - kv - kv - kv	V V V V	Declared coefficient of performance / Cold temperature 20°C and outdoor temperatur Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Ti=-15°C		- - - -	- - - - - - - - -
1j=-15 C	Pun	_ KV	V	IJ=-15 C	COPa		-
Bivalent temperature				Operating limit temperature			
heating / Average	Tbiv	-10 °C	:	heating / Average	Tol	-20	°c
heating / Warmer	Tbiv	°c		heating / Warmer	Tol	_	°C
heating / Colder	Tbiv	_ °c		heating / Colder	Tol	_	°C
		•					
Cycling interval capacity	_			Cycling interval efficiency			,
for cooling	Pcycc	_ kV		for cooling	EERcyc		<b>-</b>
for heating	Pcych	- kV	V	for heating	COPcyc		-
Degradation coefficient				Degradation coefficient			
cooling	Cdc	0.25 -		heating	Cdh	0.25	7-
						1	
Electric power input in power modes ot				Annual electricity consumption			,
off mode	Poff	8 W		cooling	Qce	613	kWh/a
standby mode	Psb	8 W		heating / Average	Qhe	2,904	kWh/a
thermostat-off mode	Pto	30 W		heating / Warmer	Qhe		kWh/a
crankcase heater mode	Pck	8 W		heating / colder	Qhe	_	kWh/a
Capacity control(indicate one of three of	ntions\			Other items			
Capacity control(indicate one of three c	puoris)			Sound power level(indoor)	Lwa	60	dB(A)
				Sound power level(indoor) Sound power level(outdoor)	Lwa	70	dB(A)
fixed	No			Global warming potential	GWP	1,975	-1 ` ′
				• • • • • • • • • • • • • • • • • • • •		<u> </u>	kgCO <sub>2</sub> eq.
staged	No			Rated air flow(indoor)	-	780	m <sup>3</sup> /h
variable	Yes			Rated air flow(outdoor)	-	4,500	m <sup>3</sup> /h
Contact details for obtaining				nufacturer or of its authorised representative.			
				itioning Europe, Ltd.			
	: Square, S d Kingdom		Οχαιιαί	ge, Middlesex, UB11 1ET,			
Office	a ranguoili						
						PFA00	4Z080A

### FDE125VNAVG

Model(s): FDC125VNA /	FDE125V	G					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space co	oling energy		
	Prated,c	12.5	kW	efficiency ηs,c		238.1	%
Declared cooling capacity for part load at g	iven outdoor	temperatui	es	Declared energy ef	ficiency ratio or gas utilization efficier	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fac	tor for part load at given outdoor tem	peratures <sup>-</sup>	Гј
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or		]
			1	1,1-1000	GUEc,bin / AEFc,bin	281.0	%
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	EERd or		
			1	1]=130 0	GUEc,bin / AEFc,bin	448.0	%
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or		
			1	17-120 0	GUEc,bin / AEFc,bin	735.0	%
Tj=+20°C	Pdc	3.4	kW	Tj=+20°C	EERd or		
			,	1,1-120 0	GUEc,bin / AEFc,bin	1,097.0	%
Degradation			1		GUEC,DITT / AEFC,DITT		J
coefficient for	Cdc	0.25					
air conditioners**	Cuc						
an conditioners			·				
Power consumpiton in other than 'active me	nde'						
Power consumption in other than active inc	oue						
Off mode	P <sub>OFF</sub>	0.008	kW	Crankcase heater r	mode P <sub>CK</sub>	0.008	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	Standby mode	P <sub>SB</sub>	0.008	kW
	10		]		35		]
Other items							
				For air-to-air air cor	nditioner:	4.500	3
Capacity control		variable	]	air flow-rate,outdoo	or measured	4,500	m <sup>3</sup> /h
			'	,			
Sound power level,			]				
outdoor	$L_{WA}$	71.0	dB				
			'				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
			,				
GWP of the		2.000	kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
,			nal systems,L		shall be 0.25		
** If Cdc is not determined by measuremen	t trieri the de	riauit degra	ualion coeffic	Sient all conditioners	Silali De U,ZO.		
*** from 26 September 2018							
Where information relates to multi-spilt air			-		•	:	
of the outdoor unit, with a combination of in	door unit(s)	recommend	ded by the ma	anufacturer or import	er.		
						PFA004	1Z080 🛦

Information to identify the model(s) to which	the informa	ation relates	:	FDC125VNA /	FDE125VG		
Outdoor side heat exchanger of heat pump		air		·			
Indoor side heat exchanger of heat pump :		air					
Indication if the heater is equipped with a si	upplementa			No			
if applicable : electric motor							
Parameters shall be declared for the average	ge heating s	eason , para	ameters for t	he warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heatin	g energy efficiency ηs,h		
	Prated,h	14.0	kW			169.1	%
Declared heating capacity for part load at ir	door tempe	rature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor	temperatures	: Tj
			1				1
T <sub>j</sub> =-7°C	Pdh	8.7	kW	T <sub>j</sub> =-7°C	COPd or	298.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	5.3	kW	T <sub>j</sub> =+2°C	COPd or	412.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	3.4	kW	T <sub>j</sub> =+7°C	COPd or	567.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	2.7	kW	T <sub>j</sub> =+12°C	COPd or	639.0	%
			1	_	GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	9.8	kW	T <sub>biv</sub> =bivalent temperature	COPd or	247.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>OL</sub> =operation limit	Pdh	7.7	kW	T <sub>OL</sub> =operation limit		214.0	%
			1		GUEh,bin / AEFh,bin	-	
For air-to-water heat pumps :	Pdh		kW	For air-to-water hea		_	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		j
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
<b>5</b>	_	-10.0	1	For water-to-air hea	•		1
Bivalent temperature	T <sub>biv</sub>	-10.0	°C			_	°C
Degradation			1	pumps:Operation lin  T <sub>ol</sub> temperature	iiit		
coefficient	0	0.25		1 of temperature			1
heat pumps**	$C_{dh}$	0.20	-				
nout pumpo			J				
Power consumpiton in modes other than 'ac	rtivo modo!			Supplementany heat	tor		1
Power consumption in modes other than ac	live mode			Supplementary heat back-up heating cap	eibu	_	kW
Off mode	Poff	0.008	kW	back-up neating cap	bacity	<u> </u>	ı
Thermostat-off mode	P <sub>TO</sub>	0.043	kW	Type of energy inpu	+		1
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	P <sub>SB</sub>	0.008	kW
			1	Staridby mode		1	1
Other items							
				For air-to-air heat pu	umps:		] ,
Capacity control		variable	1	air flow-rate,outdoor	·	4,380	m³/h
Capacity control			_	an new rate, satassi	modourou		
Sound power level,		74.0	J.D.	For water-/brine-to-a	air heat pumps :		]
outdoor measured	$L_{WA}$	71.0	dB	Rated brine or water		_	m³/h
			-	outdoor side heat ex			
Emissions of nitrogen			mg/kWh		· ·		•
oxides(if applicable)	NOx ***	-	fuel input				
•			GCV				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		_,000	(100years)				
•			nal systems,l				
** If Cdh is not determined by measuremen	t then the de	efault degrad	dation coeffic	cient air conditioners shall	I be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air of	conditioners	the test res,	ult and perfo	rmance data be obtained	on the basis of the performar	ice	
of the outdoor unit, with a combination of in	door unit(s)	recommend	led by the ma	anufacturer or importer.			
						DEAGO	

### FDE125VSAVG

Model(s): FDC125VSA /	FDE125V	3					
Outdoor side heat exchanger of air condit	ioner :	air					
Indoor side heat exchanger of air conditio	ner:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space co	poling energy		
	Prated,c	12.5	kW	efficiency ηs,c		238.1	%
Declared cooling capacity for part load at	given outdoor	temperatu	res	Declared energy e	fficiency ratio or gas utilization efficie	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fa	ctor for part load at given outdoor ten	nperatures <sup>*</sup>	Тј
		r	,				1
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or	281.0	%
			,		GUEc,bin / AEFc,bin		
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	EERd or	448.0	%
			,		GUEc,bin / AEFc,bin		
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or	735.0	%
			,		GUEc,bin / AEFc,bin		
Tj=+20°C	Pdc	3.4	kW	Tj=+20°C	EERd or	1,097.0	%
			,		GUEc,bin / AEFc,bin		J
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**			J				
Power consumpiton in other than 'active r	node'						
0.5	_		ı				1
Off mode	P <sub>OFF</sub>	0.008	kW	Crankcase heater		0.008	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	Standby mode	$P_{SB}$	800.0	kW
Other items							1
Capacity control		variable	1	For air-to-air air co		4,500	m³/h
Capacity control		variable	_	air flow-rate,outdoo	or measured		ļ
			1				
Sound power level,	$L_{WA}$	71.0	dB				
outdoor			_				
If anging drivers			ma er /le\ A / la				
If engine driven:	NOx	_	mg/kWh fuel input				
Emissions of nitrogen oxides	***		GCV				
Oxides			Jecv				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
		1	-				
Contact details Mitsubis	shi heavy indu	stries thern	nal systems,L	.TD			
** If Cdc is not determined by measureme					shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners.	the test res	sult and perfo	rmance data be obta	ained on the basis of the performance	Э	
of the outdoor unit, with a combination of					·		
, = ==	(0)		, ····				
						PFA004	4Z080 🛝

Information to identify the model(s) to whi	ch the informa	ation relates	:	FDC125VSA /	FDE125VG		
Outdoor side heat exchanger of heat pur		air		<u> </u>			
Indoor side heat exchanger of heat pump	:	air					
Indication if the heater is equipped with a	supplementar			No			
if applicable : electric motor		-					
Parameters shall be declared for the aver	age heating s	eason , para	ameters for t	he warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	·			Seasonal space heatin	g energy efficiency ηs,h		
	Prated,h	14.0	kW			169.1	%
Declared heating capacity for part load at	indoor tempe	rature 20°C			performance or gas utilizatio	,	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor	temperatures	s Tj
T = 7°C	Pdh	8.7	kW	T = 7°C	COPd or		1
T <sub>j</sub> =-7°C	ruii	0.1	Jr.vv	T <sub>j</sub> =-7°C		298.0	%
T <sub>i</sub> =+2°C	Pdh	5.3	kW	T <sub>i</sub> =+2°C	GUEh,bin / AEFh,bin COPd or		1
1,-+2 0	ruii	0.0	Jr.vv	1,-+2 0		412.0	%
T <sub>i</sub> =+7°C	Pdh	3.4	kW	T <sub>i</sub> =+7°C	GUEh,bin / AEFh,bin COPd or		1
1,=+7 0	ruii	<u> </u>	Jr.vv	1,-+7 6		567.0	%
T <sub>i</sub> =+12°C	Pdh	2.7	kW	T <sub>i</sub> =+12°C	GUEh,bin / AEFh,bin COPd or		1
1, 120	T GIT		]	1, 1120	GUEh,bin / AEFh,bin	639.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	9.8	kW	T <sub>biv</sub> =bivalent	COPd or		1
JIV 2 temperature			1	temperature	GUEh,bin / AEFh,bin	247.0	%
T <sub>OL</sub> =operation limit	Pdh	7.7	kW	T <sub>OL</sub> =operation limit			1
OL -P			1	OL -porador milit	GUEh,bin / AEFh,bin	214.0	%
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water hea			1
T <sub>i</sub> =-15°C	T GIT		1///	pumps:T <sub>i</sub> =-15°C	GUEh,bin / AEFh,bin	-	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)	, , , ,		1
( GE : 7				( GE )			
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air hea	t		1
•				pumps:Operation lir	nit	-	°C
Degradation			]	T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				
heat pumps**							
Power consumpiton in modes other than	active mode'			Supplementary hear	ter elbu		kW
				back-up heating cap		-	KVV
Off mode	P <sub>OFF</sub>	0.008	kW				=
Thermostat-off mode	P <sub>TO</sub>	0.043	kW	Type of energy inpu	t P <sub>SB</sub>	0.008	kW
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	' SB	0.000	KVV
		•				•	
Other items							,
				For air-to-air heat po	umps:	4,380	m³/h
Capacity control		variable		air flow-rate,outdoor	measured	.,,,,,	]''' /''
			_				-
Sound power level,	$L_{WA}$	71.0	dB	For water-/brine-to-a	air heat pumps :		
outdoor measured	-WA			Rated brine or wate	r fiow-rate,	-	m³/h
			1	outdoor side heat ex	changer		]
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	1NUX ***	-	fuel input				
			GCV				
			1				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		<u></u>	(100years)				
l I				Ш			
•	shi heavy indu				l ho 0.25		
** If Cdh is not determined by measureme	ent then the de	aun degrad	uation coeffic	cient air conditioners shal	I DE U,20.		
*** from 26 September 2018							
Where information relates to multi-spilt ai					on the basis of the performa	nce	
of the outdoor unit, with a combination of	indoor unit(s)	recommend	ed by the ma	anufacturer or importer.			
						DEAGO	

### FDE140VNAVG

Model(s): FDC140VNA /	FDE140V	G					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air conditioned	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cod	oling energy		
	Prated,c	13.6	kW	efficiency ηs,c		227.6	%
Declared cooling capacity for part load at gi	ven outdooi	r temperatur	es		ficiency ratio or gas utilization efficier	-	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fac	tor for part load at given outdoor tem	peratures <sup>-</sup>	Тј
T:- 125°C	Pdc	12.6	1,,,,,				1
Tj=+35°C	Puc	13.6	kW	Tj=+35°C	EERd or	261.0	%
Tj=+30°C	Pdc	10.0	kW	T: . 00°0	GUEc,bin / AEFc,bin		
1,1-100 0	1 40	10.0	],,,,	Tj=+30°C	EERd or	435.0	%
Tj=+25°C	Pdc	6.4	kW	Tj=+25°C	GUEc,bin / AEFc,bin EERd or		
, 200			,	1]=+23 0	GUEc,bin / AEFc,bin	635.0	%
Tj=+20°C	Pdc	3.4	kW	Tj=+20°C	EERd or		
			,	1]=+20 0	GUEc,bin / AEFc,bin	1,230.0	%
Degradation			1		GOLO,BITT ALT O,BIT		1
coefficient for	Cdc	0.25	-				
air conditioners**							
			·				
Power consumpiton in other than 'active mo	de'						
			_				_
Off mode	$P_{OFF}$	0.008	kW	Crankcase heater n	node P <sub>CK</sub>	0.008	kW
Thermostat-off mode	$P_{TO}$	0.030	kW	Standby mode	$P_{SB}$	0.008	kW
Other items					ı		1
			,	For air-to-air air con	ditioner:	4,500	m <sup>3</sup> /h
Capacity control		variable	]	air flow-rate,outdoo	r measured		
			1				
Sound power level,	$L_{WA}$	73.0	dB				
outdoor			]				
			1				
If engine driven:	NOx	_	mg/kWh				
Emissions of nitrogen	***		fuel input				
oxides			GCV				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
			'				
Contact details Mitsubish	i heavy indu	stries therm	nal systems,L	.TD			
** If Cdc is not determined by measuremen	then the de	efault degra	dation coeffic	cient air conditioners	shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o	onditioners	the test res	ult and perfo	rmance data be obtai	ned on the basis of the performance		
of the outdoor unit, with a combination of in	door unit(s)	recommend	ded by the ma	anufacturer or importe	er.		
					<u> </u>	PFΔΩΩ	4Z080 🛦

Information to identify the model(s) to which	the informa	ation relates	:	FDC140VNA /	FDE140VG		
Outdoor side heat exchanger of heat pump		air		·			
Indoor side heat exchanger of heat pump :		air					
Indication if the heater is equipped with a su	ıpplementar			No			
if applicable : electric motor							
Parameters shall be declared for the average	ge heating s	eason , para	ameters for t	he warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heatin	g energy efficiency ηs,h		
	Prated,h	15.5	kW			162.8	%
Declared heating capacity for part load at in	door tempe	rature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor to	emperatures	s Tj
T 700	D. II	9.3	1	T 790	000.1		1
T <sub>j</sub> =-7°C	Pdh	9.3	kW	T <sub>j</sub> =-7°C	COPd or	290.0	%
T=12°C	Ddb	5.7	kW	T <sub>i</sub> =+2°C	GUEh,bin / AEFh,bin		1
T <sub>j</sub> =+2°C	Pdh	5.7	KVV	1 <sub>j</sub> =+2 C	COPd or	390.0	%
T <sub>i</sub> =+7°C	Pdh	3.7	kW	T <sub>i</sub> =+7°C	GUEh,bin / AEFh,bin COPd or		1
١٫=٠٧٥	i uii		Ivvv	1,-170		550.0	%
T <sub>i</sub> =+12°C	Pdh	2.8	kW	T <sub>i</sub> =+12°C	GUEh,bin / AEFh,bin COPd or		1
,			1	', '	GUEh,bin / AEFh,bin	650.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	10.5	kW	T <sub>biv</sub> =bivalent	COPd or		1
			1	temperature	GUEh,bin / AEFh,bin	250.0	%
T <sub>OL</sub> =operation limit	Pdh	7.9	kW	T <sub>OL</sub> =operation limit		222.0	0/
			•		GUEh,bin / AEFh,bin	220.0	%
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water hea	t COPd or	_	%
T <sub>j</sub> =-15°C			_	pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		]"
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
			1				1
Bivalent temperature	$T_{biv}$	-10.0	°C	For water-to-air hea			
			1	pumps:Operation lin	nit	_	°C
Degradation				T <sub>ol</sub> temperature			]
coefficient	$C_{dh}$	0.25	-				
heat pumps**							
Power consumpiton in modes other than 'ac	tivo modo!			Supplementary heat	tor		1
Fower consumption in modes other than ac	live mode			back-up heating cap	eibu	_	kW
Off mode	Poff	0.008	kW	baok up neating out	Juony		1
Thermostat-off mode	P <sub>TO</sub>	0.045	kW	Type of energy inpu	t n	0.000	1
Crankcase heater mode	$P_{CK}$	0.008	kW	Standby mode	P <sub>SB</sub>	0.008	kW
			-	,			-
Other items							-
				For air-to-air heat pu	umps:	4,380	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outdoor	r measured	1,000	],
			1				1
Sound power level,	$L_{WA}$	73.0	dB	For water-/brine-to-a	air heat pumps :		
outdoor measured				Rated brine or water	r fiow-rate,	-	m <sup>3</sup> /h
			1	outdoor side heat ex	xchanger		]
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	_	fuel input				
			GCV				
GWP of the			kg CO <sub>2eq</sub>				
		2,088	(100years)				
refrigerant							
Contact details Mitsubish	i heavy indu	stries therm	nal systems,l	_TD			
** If Cdh is not determined by measurement					I be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o	onditioners	the test res	ult and perfo	rmance data be obtained	on the basis of the performand	ce	
of the outdoor unit, with a combination of inc							
						DEAGO	

### FDE140VSAVG

Model(s): FDC140VSA /	FDE140V	G					
Outdoor side heat exchanger of air conditi	oner:	air					
Indoor side heat exchanger of air condition	ner:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space of	cooling energy		
	Prated,c	13.6	kW	efficiency ηs,c		227.6	%
Declared cooling capacity for part load at	given outdoor	temperatur	res	Declared energy	efficiency ratio or gas utilization efficie	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fa	actor for part load at given outdoor ten	nperatures <sup>-</sup>	Тј
Tj=+35°C	Pdc	13.6	kW	Tj=+35°C	EERd or		]
			1	1,7 100 0	GUEc,bin / AEFc,bin	261.0	%
Tj=+30°C	Pdc	10.0	kW	Tj=+30°C	EERd or		
			1	1, 100 0	GUEc,bin / AEFc,bin	435.0	%
Tj=+25°C	Pdc	6.4	kW	Tj=+25°C	EERd or		
		Į	1	., 200	GUEc,bin / AEFc,bin	635.0	%
Tj=+20°C	Pdc	3.4	kW	Tj=+20°C	EERd or		
			1	., .200	GUEc,bin / AEFc,bin	1,230.0	%
Degradation			]		OCCODIII / ALI CIDIII		1
coefficient for	Cdc	0.25	_				
air conditioners**	040						
			1				
Power consumpiton in other than 'active n	node'						
Tower concumption in other than delive in	1040						
Off mode	P <sub>OFF</sub>	0.008	kW	Crankcase heater	r mode P <sub>CK</sub>	0.008	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	Standby mode	P <sub>SB</sub>	0.008	kW
			1				1
Other items							
			_	For air-to-air air co	onditioner:	4,500	m³/h
Capacity control		variable	]	air flow-rate,outdo	oor measured	4,500	1111 /111
			_				
Sound power level,	1	73.0	dB				
outdoor	$L_{WA}$	75.0	ub				
			-				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
			-				
			,				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		_,000	(100years)				
Contact details Mitsubis	hi heavy indu	stries therm	nal systems,L	.TD			
** If Cdc is not determined by measureme	nt then the de	fault degra	dation coeffic	cient air conditioners	s shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners	the test res	ult and perfo	rmance data be obt	ained on the basis of the performance	•	
of the outdoor unit, with a combination of i			•		•		
	. ,		-	·			
•						PFA004	4Z080 🛦

Information to identify the model(s) to wh	ich the informa	ation relates	::	FDC140VSA /	FDE140VG		
Outdoor side heat exchanger of heat pun	ıp :	air					
Indoor side heat exchanger of heat pump	:	air					
Indication if the heater is equipped with a	supplementa			No			
if applicable : electric motor							
Parameters shall be declared for the ave	rage heating s	season , par	ameters for t	he warmer and colder h	eating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	·			Seasonal space heati	ng energy efficiency ηs,h		
	Prated,h	15.5	kW			162.8	%
Declared heating capacity for part load a	t indoor tempe	erature 20°C		Declared coefficient o	f performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	r for part load at given outdoor te	emperatures	: Tj
			-				,
T <sub>j</sub> =-7°C	Pdh	9.3	kW	T <sub>j</sub> =-7°C	COPd or	290.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	5.7	kW	T <sub>j</sub> =+2°C	COPd or	390.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	3.7	kW	T <sub>j</sub> =+7°C	COPd or	550.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	2.8	kW	T <sub>j</sub> =+12°C	COPd or	650.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	10.5	kW	T <sub>biv</sub> =bivalent	COPd or	250.0	%
	_		1	temperature	GUEh,bin / AEFh,bin	ļ	
T <sub>OL</sub> =operation limit	Pdh	7.9	kW	T <sub>OL</sub> =operation limit	t COPd or	220.0	%
			1		GUEh,bin / AEFh,bin		
For air-to-water heat pumps :	Pdh		kW	For air-to-water he		_	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
5: 1 11	-	-10.0	] <sub>00</sub>	For water-to-air he	at		1
Bivalent temperature	T <sub>biv</sub>	-10.0	℃	pumps:Operation li		_	℃
Degradation			1	T <sub>ol</sub> temperature	IIIIIL		C
coefficient	0	0.25		1 ol temperature			J
heat pumps**	$C_{dh}$	0.20	-				
neat pamps			]				
Power consumpiton in modes other than	'active mode'			Supplementary hea	ater		1
l ower consumption in modes other than	active mode			back-up heating ca	eibu	_	kW
Off mode	Poff	0.008	kW	back-up fleating ca	ipacity		J
Thermostat-off mode	P <sub>TO</sub>	0.045	kW	Type of energy inp	ut _		1
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	ut P <sub>SB</sub>	0.008	kW
			4	otanaby mode			J
Other items							
				For air-to-air heat p	oumps:	4,380	3.0
Capacity control		variable		air flow-rate,outdoo	or measured	4,360	m <sup>3</sup> /h
			-	ĺ			•
Sound power level,		73.0	dB	For water-/brine-to	-air heat pumps :		
outdoor measured	$L_{WA}$	73.0	uБ	Rated brine or wat		_	m³/h
			_	outdoor side heat e	exchanger		
Emissions of nitrogen			mg/kWh				
oxides(if applicable)	NOx ***	_	fuel input				
			GCV				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		_,,,,,	(100years)				
	ishi heavy indu						
** If Cdh is not determined by measurem	ent then the de	efault degra	dation coeffic	cient air conditioners sha	all be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt a	ir conditioners	the test res	ult and perfo	rmance data be obtaine	d on the basis of the performanc	e	
of the outdoor unit, with a combination of	indoor unit(s)	recommend	led by the ma	anufacturer or importer.			
						DEAGO	IZ080 A
						1 1 1 1 1 1 1 1 1	

### FDE125VNAPVG

Model(s): FDC125VNA /	FDE60VG	(2 units)					
Outdoor side heat exchanger of air condition	oner:	air					
Indoor side heat exchanger of air condition	ner:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cod	oling energy		
	Prated,c	12.5	kW	efficiency ηs,c		294.7	%
Declared cooling capacity for part load at g	jiven outdoor	temperatui	res	Declared energy eff	ficiency ratio or gas utilization efficier	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fac	tor for part load at given outdoor tem	peratures <sup>-</sup>	Гј
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or		]
			1	1,7 100 0	GUEc,bin / AEFc,bin	308.0	%
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	EERd or		
			1	1, 100 0	GUEc,bin / AEFc,bin	532.0	%
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or		
		-	•	, =3.5	GUEc,bin / AEFc,bin	846.0	%
Tj=+20°C	Pdc	3.7	kW	Tj=+20°C	EERd or	. = - : :	
			1	., .200	GUEc,bin / AEFc,bin	1,762.0	%
Degradation			]		OGEO,DIII / AEI O,DIII		ı
coefficient for	Cdc	0.25	_				
air conditioners**	Odo						
			1				
Power consumpiton in other than 'active m	ode'						
Tower deficamplier in other than delive in	ouo						
Off mode	P <sub>OFF</sub>	0.008	kW	Crankcase heater n	node P <sub>CK</sub>	0.008	kW
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	P <sub>SB</sub>	0.008	kW
			1				ı
Other items							
				For air-to-air air cor	nditioner:	4,500	m³/h
Capacity control		variable	1	air flow-rate,outdoo	r measured	4,500	m <sup>-</sup> /n
			1				•
Sound power level,		=4.0	]				
outdoor	$L_{WA}$	71.0	dB				
			1				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
			]				
			_				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		2,000	(100years)				
Contact details Mitsubisl	ni heavy indu	etries therm	nal eveteme l	TD			
** If Cdc is not determined by measuremen					shall be 0,25.		
*** from 26 September 2018	30		200.110		-, -		
	conditions	the test re-	ult and norfa	rmanco data ba abta:	inad on the basis of the performance		
Where information relates to multi-spilt air			•		•		
of the outdoor unit, with a combination of ir	idoor unit(S)	recommend	aeu by ine m	anunaciurer of importe	ਹ।.		
						PFA004	1Z080 🛦

Information to identify the model(s) to which	n the informa	ation relates	::	FDC125VNA /	FDE60VG (2 units)		
Outdoor side heat exchanger of heat pump	:	air					
Indoor side heat exchanger of heat pump :		air					
Indication if the heater is equipped with a si	upplementa			No			
if applicable : electric motor							
Parameters shall be declared for the average	ge heating s	eason , para	ameters for t	he warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heatin	g energy efficiency ηs,h		
	Prated,h	14.0	kW			198.8	%
Declared heating capacity for part load at ir	ndoor tempe	rature 20°C		Declared coefficient of	performance or gas utilization	n efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor	temperatures	s Tj
		_	7			_	1
T <sub>j</sub> =-7°C	Pdh	8.7	kW	T <sub>j</sub> =-7°C	COPd or	343.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	5.3	kW	T <sub>j</sub> =+2°C	COPd or	467.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	3.4	kW	T <sub>j</sub> =+7°C	COPd or	692.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	2.7	kW	T <sub>j</sub> =+12°C	COPd or	871.0	%
			1		GUEh,bin / AEFh,bin		1
T <sub>biv</sub> =bivalent temperature	Pdh	9.8	kW	T <sub>biv</sub> =bivalent	COPd or	275.0	%
			1	temperature	GUEh,bin / AEFh,bin		1
T <sub>OL</sub> =operation limit	Pdh	7.7	kW	T <sub>OL</sub> =operation limit		248.0	%
			1		GUEh,bin / AEFh,bin		1
For air-to-water heat pumps :	Pdh		kW	For air-to-water hea		-	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		]
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
Diselect to an in	_	-10.0	] <sub>00</sub>	For water-to-air hea	t		1
Bivalent temperature	T <sub>biv</sub>	-10.0	℃	pumps:Operation lin		_	°C
Degradation			1		IIIL		
coefficient	0	0.25		T <sub>ol</sub> temperature			J
heat pumps**	$C_{dh}$	0.25	-				
neat pumps							
Power consumpiton in modes other than 'ac	ativo modo!			Supplementary heat	tor		1
rower consumption in modes other than ac	ctive mode				eibu	_	kW
Off mode	Poff	0.008	kW	back-up heating cap	bacity		1
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy inpu	+		1
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	P <sub>SB</sub>	0.008	kW
	O.C		1	Standby mode			J
Other items							
				For air-to-air heat pu	umps:		] ,
Capacity control		variable		air flow-rate,outdoor	·	4,380	m³/h
Capacity contact			_	an new rate, satassi	modourou		
Sound power level,		74.0	-ID	For water-/brine-to-a	air heat pumps :		
outdoor measured	$L_{WA}$	71.0	dB	Rated brine or water		_	m³/h
			_	outdoor side heat ex			
Emissions of nitrogen			mg/kWh		-		-
oxides(if applicable)	NOx ***	-	fuel input				
•			GCV				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		_,000	(100years)				
		_					
·							
Contact details Mitsubish	i heavy indu	ustries therm	nal systems,l	_TD			
** If Cdh is not determined by measuremen	t then the de	efault degrad	dation coeffic	cient air conditioners shall	I be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners	the test res,	ult and perfo	rmance data be obtained	on the basis of the performan	nce	
of the outdoor unit, with a combination of in	door unit(s)	recommend	led by the ma	anufacturer or importer.			
						DEAGO	

### FDE125VSAPVG

Model(s): FDC125VSA /	FDE60VG	(2 units)					
Outdoor side heat exchanger of air condit	oner:	air					
Indoor side heat exchanger of air conditio	ner:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space of	cooling energy		
	Prated,c	12.5	kW	efficiency ηs,c		294.7	%
Declared cooling capacity for part load at	given outdoor	temperatur	es	Declared energy	efficiency ratio or gas utilization efficie	ency /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fa	actor for part load at given outdoor ter	nperatures <sup>-</sup>	Тј
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or		]
			'	., 55 5	GUEc,bin / AEFc,bin	308.0	%
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	EERd or		
			'	1, 100 0	GUEc,bin / AEFc,bin	532.0	%
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or		
		Į	'	,, 25 5	GUEc,bin / AEFc,bin	846.0	%
Tj=+20°C	Pdc	3.7	kW	Tj=+20°C	EERd or		
			1	., .200	GUEc,bin / AEFc,bin	1,762.0	%
Degradation			]		JOEO,DIII / ALI O,DIII		1
coefficient for	Cdc	0.25	_				
air conditioners**	Out						
an containencie		<u> </u>	1				
Power consumpiton in other than 'active n	node'						
Tower consumption in other than active in	lode						
Off mode	P <sub>OFF</sub>	0.008	kW	Crankcase heater	r mode P <sub>CK</sub>	0.008	kW
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	P <sub>SB</sub>	0.008	kW
	10		·	,	OD .		J
Other items							
				For air-to-air air c	onditioner:	4.500	3,,
Capacity control		variable	]	air flow-rate,outdo	oor measured	4,500	m <sup>3</sup> /h
			•				•
Sound power level,		=4.0					
outdoor	$L_{WA}$	71.0	dB				
			'				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
			_				
GWP of the		2.000	kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
			•				
Contact details Mitsubis	hi heavy indu	stries therm	nal systems,L	TD			
** If Cdc is not determined by measureme	nt then the de	efault degra	dation coeffic	cient air conditioner	s shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners,	the test res	ult and perfo	rmance data be obt	tained on the basis of the performanc	е	
of the outdoor unit, with a combination of	ndoor unit(s)	recommend	ded by the ma	anufacturer or impo	orter.		
							47000 Å
						I PFA004	4Z080 🛦

Information to identify the model(s) to which	the informa	ation relates	:	FDC125VSA /	FDE60VG (2 units)		
Outdoor side heat exchanger of heat pump		air		·			
Indoor side heat exchanger of heat pump :		air					
Indication if the heater is equipped with a su	ıpplementaı			No			
if applicable : electric motor							
Parameters shall be declared for the average	ge heating s	eason , para	ameters for t	he warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heatin	g energy efficiency ηs,h		
	Prated,h	14.0	kW			198.8	%
Declared heating capacity for part load at in	door tempe	rature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor to	emperatures	s Tj
		0.7	1				1
T <sub>j</sub> =-7°C	Pdh	8.7	kW	T <sub>j</sub> =-7°C	COPd or	343.0	%
T . 10%0	D. II	5.3	1	T .0%	GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	5.5	kW	T <sub>j</sub> =+2°C	COPd or	467.0	%
T=17°C	Pdh	3.4	kW	T=17°C	GUEh,bin / AEFh,bin COPd or		
T <sub>j</sub> =+7°C	Pull	0.4	IKVV	T <sub>j</sub> =+7°C		692.0	%
T <sub>i</sub> =+12°C	Pdh	2.7	kW	T <sub>i</sub> =+12°C	GUEh,bin / AEFh,bin COPd or		1
1]-1120	i uii		IKVV	1,-1120	GUEh,bin / AEFh,bin	871.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	9.8	kW	T <sub>biv</sub> =bivalent	COPd or		
. by Straight temperature			1	temperature	GUEh,bin / AEFh,bin	275.0	%
T <sub>OI</sub> =operation limit	Pdh	7.7	kW	T <sub>OL</sub> =operation limit			1
SE 1			1	0E 1	GUEh,bin / AEFh,bin	248.0	%
For air-to-water heat pumps :	Pdh	-	kW	For air-to-water hea			
T <sub>i</sub> =-15℃			•	pumps:T <sub>i</sub> =-15°C	GUEh,bin / AEFh,bin	-	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			•
			_				_
Bivalent temperature	$T_{biv}$	-10.0	°C	For water-to-air hea	t		
			,	pumps:Operation lin	nit	-	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				
heat pumps**			]				
							1
Power consumpiton in modes other than 'ac	tive mode'			Supplementary heat	eibu	-	kW
Off mode	P <sub>OFF</sub>	0.008	kW	back-up heating cap	pacity		l
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	T of			1
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Type of energy inpu Standby mode	P <sub>SB</sub>	0.008	kW
	O.C		J	Standby mode			1
Other items							
				For air-to-air heat pu	umps:	4,380	3.0
Capacity control		variable	1	air flow-rate,outdoor	r measured	4,300	m <sup>3</sup> /h
			_				_
Sound power level,	$L_{WA}$	71.0	dB	For water-/brine-to-a	air heat pumps :		
outdoor measured	-WA			Rated brine or water	r fiow-rate,	-	m³/h
			,	outdoor side heat ex	xchanger		
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	_	fuel input				
			GCV				
			1				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			(100)04.0)				
Contact details Mitsubish	i heavy ind	etripe thor~	nal systems,l	TD			
** If Cdh is not determined by measurement					I be 0,25.		
*** from 26 September 2018		Ü					
Where information relates to multi-spilt air of	onditioners	the test res	ult and nerfo	rmance data he obtained	on the basis of the performant	ce	
of the outdoor unit, with a combination of inc			•				
,	(-/		,				
						DEAGO	

### FDE140VNAPVG

Model(s): FDC140VNA	/ FDE71VG	(2 units)					
Outdoor side heat exchanger of air co	onditioner :	air					
Indoor side heat exchanger of air con	ditioner:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space	cooling energy		
	Prated,c	13.6	kW	efficiency ηs,c	0 0,	268.9	%
Declared cooling capacity for part loa	d at given outdoor	temperatu	ires	Declared energy	y efficiency ratio or gas utilization e	fficiency /	
Tj and indoor 27°C/19°C(dry/wet bulb	)			auxiliary energy	factor for part load at given outdoo	r temperatures	Тј
Tj=+35°C	Pdc	13.6	kW	Tj=+35°C	EERd or	293.0	%
					GUEc,bin / AEFc,bin	293.0	70
Tj=+30°C	Pdc	10.0	kW	Tj=+30°C	EERd or	468.0	%
					GUEc,bin / AEFc,bin	400.0	70
Tj=+25°C	Pdc	6.4	kW	Tj=+25°C	EERd or	740.0	%
		•			GUEc,bin / AEFc,bin	740.0	70
Tj=+20°C	Pdc	3.7	kW	Tj=+20°C	EERd or	4 762 0	0/
			_		GUEc,bin / AEFc,bin	1,762.0	%
Degradation			]		•		-
coefficient for	Cdc	0.25	-				
air conditioners**							
			_				
Power consumpiton in other than 'act	ive mode'						
·							
Off mode	P <sub>OFF</sub>	0.008	kW	Crankcase heat	ter mode P <sub>CK</sub>	0.008	kW
Thermostat-off mode	$P_{TO}$	0.000	kW	Standby mode	$P_{SB}$	0.008	kW
			_				1
Other items							
				For air-to-air air	conditioner:	4,500	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,out	door measured	4,500	m /n
			_			<u>-</u>	•
Sound power level,		72.0	4D				
outdoor	$L_{WA}$	73.0	dB				
			_				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
			_				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		2,000	(100years)				
•	subishi heavy indu						
** If Cdc is not determined by measur	rement then the de	fault degra	adation coeffic	cient air conditione	ers shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-sp	ilt air conditioners,	the test res	sult and perfo	rmance data be o	btained on the basis of the perform	ance	
of the outdoor unit, with a combination	n of indoor unit(s)	recommen	ded by the ma	anufacturer or imp	porter.		
						PFA004	4Z080 🛝

Information to identify the model(s) to w	hich the informa	ation relates	:	FDC140VNA /	FDE71VG (2 units)		
Outdoor side heat exchanger of heat pu	mp :	air					
Indoor side heat exchanger of heat pum	p :	air					
Indication if the heater is equipped with	a supplementar			No			
if applicable : electric motor							
Parameters shall be declared for the av	erage heating s	eason , para	ameters for t	he warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heatin	g energy efficiency ηs,h		
	Prated,h	15.5	kW			188.8	%
Declared heating capacity for part load	at indoor tempe	rature 20°C		Declared coefficient of	performance or gas utilization	on efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoo	r temperatures	s Tj
							,
T <sub>j</sub> =-7°C	Pdh	9.3	kW	T <sub>j</sub> =-7°C	COPd or	316.0	%
			,		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	5.7	kW	T <sub>j</sub> =+2°C	COPd or	447.0	%
			,		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	3.7	kW	T <sub>j</sub> =+7°C	COPd or	652.0	%
			,		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	2.8	kW	T <sub>j</sub> =+12°C	COPd or	875.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	10.5	kW	T <sub>biv</sub> =bivalent	COPd or	258.0	%
			1	temperature	GUEh,bin / AEFh,bin		
T <sub>OL</sub> =operation limit	Pdh	8.3	kW	T <sub>OL</sub> =operation limit	COPd or	236.0	%
			1		GUEh,bin / AEFh,bin		
For air-to-water heat pumps :	Pdh		kW	For air-to-water hea	t COPd or	_	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		]
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
			1				1
Bivalent temperature	$T_biv$	-10.0	°C	For water-to-air hea			
			1	pumps:Operation lir	nit	_	°C
Degradation				T <sub>ol</sub> temperature			J
coefficient	$C_{dh}$	0.25	-				
heat pumps**							
							1
Power consumpiton in modes other than	n 'active mode'			Supplementary hear	eibt	. –	kW
Off mode	Poff	0.008	kW	back-up heating cap	pacity		J
Thermostat-off mode	P <sub>TO</sub>	0.008	kW				1
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Type of energy inpu	P <sub>SB</sub>	0.008	kW
Grankease fleater fliode	· CK	0.000	IKVV	Standby mode			J
Other: items							
Other items				Ear air ta air beat n	umma		1
Composite control		variable	1	For air-to-air heat p	·	4,380	m <sup>3</sup> /h
Capacity control		14114510	J	air flow-rate,outdoor	r measured		J
Sound nower level			1	For water /bring to	air heat numns :		1
Sound power level, outdoor measured	$L_{WA}$	73.0	dB	For water-/brine-to-a		_	m³/h
oataooi measurea			J	Rated brine or wate outdoor side heat ex			
Emissions of nitrogen			mg/kWh	outdoor side fieat ex	nonanger		J
oxides(if applicable)	NOx ***	_	fuel input				
ολιασσία αρμισαρίο)	***		GCV				
		L	1~~,				
GWP of the		_	kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
Contact details Mitsul	bishi heavy indu	stries therm	nal systems I	LTD			
** If Cdh is not determined by measurer					I be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt	air conditioners	the test res	ult and nerfo	rmance data be obtained	on the basis of the perform:	ance	
of the outdoor unit, with a combination of					2.5.0 0. 210 ponomi		
, 3 557757741017 6	-: -:(5)		,	persel.			
						DEAGO	

### FDE140VSAPVG

Model(s): FDC140VSA / FDE71VG (2 units)									
Outdoor side heat exchanger of air conditioner : air									
Indoor side heat exchanger of air condition	ner:	air							
Type : vapour compression									
if applicable : electric motor									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated cooling capacity				Seasonal space of	cooling energy				
	Prated,c	13.6	kW	efficiency ηs,c		268.9	%		
Declared cooling capacity for part load at	given outdoor	r temperatui	es		efficiency ratio or gas utilization efficien	-			
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fa	actor for part load at given outdoor tem	peratures	Тј		
T:- 125°C	Pdc	12.6	1,,,,,				1		
Tj=+35°C	Puc	13.6	kW	Tj=+35°C	EERd or	293.0	%		
Tj=+30°C	Pdc	10.0	kW	T:00°0	GUEc,bin / AEFc,bin				
17-130 0	i do	10.0	]^~~	Tj=+30°C	EERd or	468.0	%		
Tj=+25°C	Pdc	6.4	kW	Ti-+25°C	GUEc,bin / AEFc,bin				
1, 120 0	. 45		]	Tj=+25°C	EERd or	740.0	%		
Tj=+20°C	Pdc	3.7	kW	Tj=+20°C	GUEc,bin / AEFc,bin EERd or				
			,	1]=+20 C	GUEc,bin / AEFc,bin	1,762.0	%		
Degradation			1		GOLC, DITT ALT C, DIT		J		
coefficient for	Cdc	0.25	_						
air conditioners**									
		L	'						
Power consumpiton in other than 'active m	ode'								
			_				_		
Off mode	$P_{OFF}$	0.008	kW	Crankcase heater	mode P <sub>CK</sub>	0.008	kW		
Thermostat-off mode	$P_{TO}$	0.000	kW	Standby mode	$P_{SB}$	0.008	kW		
Other items							1		
			,	For air-to-air air co	onditioner:	4,500	m³/h		
Capacity control		variable	]	air flow-rate,outdo	oor measured				
			,						
Sound power level,	$L_{WA}$	73.0	dB						
outdoor			]						
			,						
If engine driven:	NOx		mg/kWh						
Emissions of nitrogen	***	_	fuel input						
oxides			GCV						
GWP of the			kg CO <sub>2eq</sub>						
		2,088	(100years)						
refrigerant			'						
Contact details Mitsubis	hi heavy indu	stries therm	nal systems.L	TD					
** If Cdc is not determined by measureme	•		-		s shall be 0,25.				
*** from 26 September 2018									
Where information relates to multi-spilt air	conditioners	the test res	ult and perfo	rmance data be obt	ained on the basis of the performance	<b>;</b>			
of the outdoor unit, with a combination of i			-		·				
,	(-)		,	,					
						PFA004	4Z080 🛦		

Information to identify the model(s) to whi	ch the informa	ation relates	::	FDC140VSA /	FDE71VG (2 units)				
Outdoor side heat exchanger of heat pum	p :	air							
Indoor side heat exchanger of heat pump		air							
Indication if the heater is equipped with a supplementary heater : No									
if applicable : electric motor		-							
Parameters shall be declared for the aver	age heating s	season , par	ameters for t	he warmer and colder he	eating seasons are optional.				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated heating capacity	0,	Tuiuo		l I	ng energy efficiency ηs,h	7 4.40	0		
Traced realing capacity	Prated,h	15.5	kW	Codomai space neath	ng chargy amoratoy 1p.,11	188.8	%		
Declared heating capacity for part load at	indoor tempe	rature 20°C	1	Declared coefficient o	f performance or gas utilization	efficiency /			
and outdoor temperature Tj	maoor tompe				for part load at given outdoor to	•	Ti		
and outdoor temperature 1,				l advantary onlongy ruston	To partious at given outsoor to	oporataroc	.,		
T <sub>i</sub> =-7°C	Pdh	9.3	kW	T <sub>i</sub> =-7°C	COPd or		1		
			4		GUEh,bin / AEFh,bin	316.0	%		
T <sub>i</sub> =+2°C	Pdh	5.7	kW	T <sub>i</sub> =+2°C	COPd or				
,			4	,	GUEh,bin / AEFh,bin	447.0	%		
T <sub>i</sub> =+7°C	Pdh	3.7	kW	T <sub>i</sub> =+7°C	COPd or				
,, ,, ,,			1	.,		652.0	%		
T <sub>i</sub> =+12°C	Pdh	2.8	kW	T <sub>i</sub> =+12°C	GUEh,bin / AEFh,bin COPd or				
1, 1120	i dii		7	1, 1,20		875.0	%		
T =hivalent temperature	Pdh	10.5	kW	T =hivolont	GUEh,bin / AEFh,bin COPd or				
T <sub>biv</sub> =bivalent temperature	Full	10.0	Trvv	T <sub>biv</sub> =bivalent temperature		258.0	%		
	Б. II	8.3	1		GUEh,bin / AEFh,bin				
T <sub>OL</sub> =operation limit	Pdh	0.3	kW	T <sub>OL</sub> =operation limit		236.0	%		
			1		GUEh,bin / AEFh,bin				
For air-to-water heat pumps :	Pdh		kW	For air-to-water he		_	%		
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		J		
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)					
			1	II			1		
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air he					
			1	pumps:Operation li	imit	_	°C		
Degradation				T <sub>ol</sub> temperature					
coefficient	$C_{dh}$	0.25	-						
heat pumps**									
							1		
Power consumpiton in modes other than '	active mode'			Supplementary hea	ater elbu	_	kW		
			-	back-up heating ca					
Off mode	Poff	0.008	kW				_		
Thermostat-off mode	$P_{TO}$	0.015	kW	Type of energy inp	ut P <sub>SB</sub>	0.008	kW		
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	, SB	0.000	KVV		
Other items									
			-	For air-to-air heat p	oumps:	4,380	m³/h		
Capacity control		variable		air flow-rate,outdoo	or measured	.,000	/		
Sound power level,	$L_{WA}$	73.0	dB	For water-/brine-to-	-air heat pumps :				
outdoor measured	►WA	7 3.0	35	Rated brine or water		-	m³/h		
				outdoor side heat e		L			
Emissions of nitrogen			mg/kWh		-		-		
oxides(if applicable)	NOx ***	_	fuel input						
, , ,			GCV						
			-						
GWP of the			kg CO <sub>2eq</sub>						
refrigerant		2,088	(100years)						
. Singorani		L							
Contact details Mitsubis	shi heavy indu	istrice thorm	nal sveteme !	TD					
** If Cdh is not determined by measureme					all be 0,25.				
	alo u	abgra							
*** from 26 September 2018									
Where information relates to multi-spilt air					d on the basis of the performand	ce			
of the outdoor unit, with a combination of	ndoor unit(s)	recommend	led by the ma	anufacturer or importer.					
L						PFA004	17080 A		

### FDE200VSAPVG

Model(s): FDC200VSA /	FDE100V	G (2 units)							
Outdoor side heat exchanger of air conditioner : air									
Indoor side heat exchanger of air condition	oner:	air							
Type : vapour compression									
if applicable : electric motor									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated cooling capacity				Seasonal space	cooling energy				
	Prated,c	19.0	kW	efficiency ηs,c		296.4	%		
Declared cooling capacity for part load a	t given outdoor	r temperatu	res	Declared energy	efficiency ratio or gas utilization efficience	ency /			
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy f	factor for part load at given outdoor te	mperatures '	Tj		
			ا ا				1		
Tj=+35°C	Pdc	19.0	kW	Tj=+35°C	EERd or	311.0	%		
			ı		GUEc,bin / AEFc,bin		-		
Tj=+30°C	Pdc	14.0	kW	Tj=+30°C	EERd or	531.0	%		
	5.		<sub>1</sub>		GUEc,bin / AEFc,bin		-		
Tj=+25°C	Pdc	9.0	kW	Tj=+25°C	EERd or	981.0	%		
T: .00%	D.1	4.0	ا ۱		GUEc,bin / AEFc,bin		-		
Tj=+20°C	Pdc	4.3	kW	Tj=+20°C	EERd or	1,204.0	%		
			, l		GUEc,bin / AEFc,bin		]		
Degradation		0.25							
coefficient for	Cdc	0.25	-						
air conditioners**			_						
Power consumpiton in other than 'active	mode								
Off mode	P <sub>OFF</sub>	0.010	kW	Crankcase heate	er mode P <sub>CK</sub>	0.010	kW		
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	P <sub>SB</sub>	0.010	kW		
	10		_		35		1		
Other items									
				For air-to-air air o	conditioner:		] ,		
Capacity control		variable	1	air flow-rate,outd		8,100	m <sup>3</sup> /h		
			<b>-</b>	,					
Sound power level,		72.0	40						
outdoor	$L_{WA}$	72.0	dB						
			_						
If engine driven:			mg/kWh						
Emissions of nitrogen	NOx ***	-	fuel input						
oxides			GCV						
			_						
GWP of the		2,088	kg CO <sub>2eq</sub>						
refrigerant			(100years)						
	ishi heavy indu								
** If Cdc is not determined by measurem	ent then the de	etault degra	dation coeffic	cient air conditione	ers shall be 0,25.				
*** from 26 September 2018									
Where information relates to multi-spilt a	ir conditioners,	the test res	sult and perfo	rmance data be ob	otained on the basis of the performance	e			
of the outdoor unit, with a combination of	f indoor unit(s)	recommen	ded by the ma	anufacturer or impo	orter.				
						PFA004	4Z080 🛦		

Information to identify the model(s) to which	ch the informa	ation relates	s:	FDC200VSA /	FDE100VG (2 units)		
Outdoor side heat exchanger of heat pump	p :	air					
Indoor side heat exchanger of heat pump	:	air					
Indication if the heater is equipped with a	supplementa	ry heater :		No			
if applicable : electric motor							
Parameters shall be declared for the average	age heating s	season , par	ameters for t	he warmer and colder h	eating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heati	ng energy efficiency ηs,h		
	Prated,h	22.4	kW			184.9	%
Declared heating capacity for part load at	indoor tempe	erature 20°C		Declared coefficient of	of performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	r for part load at given outdoor to	emperatures	: Tj
			7				1
T <sub>j</sub> =-7°C	Pdh	11.1	kW	T <sub>j</sub> =-7°C	COPd or	280.0	%
_			7	_	GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	6.7	kW	T <sub>j</sub> =+2°C	COPd or	498.0	%
		4.0	1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	4.3	kW	T <sub>j</sub> =+7°C	COPd or	546.0	%
T : 10%	D. II	3.5	1	T . 1090	GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	3.5	kW	T <sub>j</sub> =+12°C	COPd or	722.0	%
T =bivalent temperature	Pdh	12.5	kW	T =hivelent	GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pull	12.0	_Kvv	T <sub>biv</sub> =bivalent temperature	COPd or	275.0	%
T <sub>OL</sub> =operation limit	Pdh	10.5	kW	T <sub>OL</sub> =operation limit	GUEh,bin / AEFh,bin		
T <sub>OL</sub> -operation innit	i dii		T <sub>K</sub> ,	10L-operation limit		244.0	%
For air to water heat number	Pdh	_	kW	For air to water he	GUEh,bin / AEFh,bin		
For air-to-water heat pumps :  T <sub>i</sub> =-15°C	Pull		_Kvv	For air-to-water he pumps:T <sub>i</sub> =-15°C	GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)	GOETI, BILLY MENTI, BILL		J
( 101 < 25 5)				( 101 ( 25 5)			
Bivalent temperature	T <sub>biv</sub>	-10.0	l₀c	For water-to-air he	at		]
·	511		_	pumps:Operation I	imit	_	°C
Degradation			1	T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				'
heat pumps**							
			-				
Power consumpiton in modes other than 'a	active mode'			Supplementary hea	ater elbu		kW
			_	back-up heating ca			KVV
Off mode	P <sub>OFF</sub>	0.010	kW				
Thermostat-off mode	P <sub>TO</sub>	0.010	kW	Type of energy inp	out P <sub>SB</sub>	0.010	kW
Crankcase heater mode	P <sub>CK</sub>	0.015	kW	Standby mode	35		
Other items							1
			1	For air-to-air heat p	pumps:	8,100	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outdoo	or measured		]
			1				,
Sound power level,	$L_{WA}$	74.0	dB	For water-/brine-to	-air heat pumps :		3.,
outdoor measured			_	Rated brine or wat	er fiow-rate,	_	m <sup>3</sup> /h
			1 .	outdoor side heat e	exchanger		]
Emissions of nitrogen	NOx	l _	mg/kWh				
oxides(if applicable)	***	_	fuel input				
			GCV				
GWP of the			] <sub>ka</sub> co				
		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			], , ,				
Contact details	hi heavy in -	setrice there	nal eveteme !	II.			
Contact details Mitsubis  ** If Cdh is not determined by measureme	shi heavy indu				all be 0,25.		
*** from 26 September 2018		g.u	200111		-, -		
	conditions	the tost	ult and nort-	rmance data ha abta:	d on the basis of the performance		
Where information relates to multi-spilt air of the outdoor unit, with a combination of i					a on the basis of the performant	,	
or the outdoor unit, with a complimation of t	naoor unii(S)	, accomment	aca by tile iTi	анаваситет от ппроцег.			
						PFA004	Z080 A

### FDE250VSAPVG

Model(s): FDC250VSA / FDE125VG (2 units)									
Outdoor side heat exchanger of air conditioner : air									
Indoor side heat exchanger of air conditioned	er:	air							
Type : vapour compression									
if applicable : electric motor									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated cooling capacity				Seasonal space co	oling energy				
	Prated,c	24.0	kW	efficiency ηs,c		229.7	%		
Declared cooling capacity for part load at gi	iven outdoor	r temperatur	es		ficiency ratio or gas utilization efficier	•			
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fac	tor for part load at given outdoor tem	peratures <sup>-</sup>	Tj		
T:- 125°C	Pdc	24.0	LAA				1		
Tj=+35°C	Puc	24.0	kW	Tj=+35°C	EERd or	290.0	%		
Tj=+30°C	Pdc	17.7	kW	T: . 00°0	GUEc,bin / AEFc,bin		-		
1,1-100 0	1 40		lvvv	Tj=+30°C	EERd or	426.0	%		
Tj=+25°C	Pdc	11.4	kW	Tj=+25°C	GUEc,bin / AEFc,bin EERd or		1		
, 200			1	1]=+23 0	GUEc,bin / AEFc,bin	730.0	%		
Tj=+20°C	Pdc	6.5	kW	Tj=+20°C	EERd or				
			1	1]=+20 C	GUEc,bin / AEFc,bin	862.0	%		
Degradation			1		GOLO,BITT ALT O,BIT		1		
coefficient for	Cdc	0.25	_						
air conditioners**									
			•						
Power consumpiton in other than 'active mo	ode'								
			_				_		
Off mode	$P_{OFF}$	0.010	kW	Crankcase heater r	mode P <sub>CK</sub>	0.010	kW		
Thermostat-off mode	$P_{TO}$	0.000	kW	Standby mode	$P_{SB}$	0.010	kW		
Other items							7		
			,	For air-to-air air cor	nditioner:	8,580	m³/h		
Capacity control		variable	]	air flow-rate,outdoo	r measured		]		
			1						
Sound power level,	$L_WA$	73.0	dB						
outdoor									
			1						
If engine driven:	NOx	_	mg/kWh						
Emissions of nitrogen	***		fuel input						
oxides			GCV						
GWP of the			kg CO <sub>2eq</sub>						
refrigerant		2,088	(100years)						
i singerant		L	'						
Contact details Mitsubish	i heavy indu	stries therm	ıal systems,L	.TD					
** If Cdc is not determined by measuremen	t then the de	efault degra	dation coeffic	cient air conditioners	shall be 0,25.				
*** from 26 September 2018									
Where information relates to multi-spilt air o	conditioners	the test res	ult and perfo	rmance data be obtai	ined on the basis of the performance				
of the outdoor unit, with a combination of in	door unit(s)	recommend	led by the ma	anufacturer or import	er.				
						PFΔΩΩ	4Z080 🛦		

Information to identify the model(s) to which	the informa	ation relates	:	FDC250VSA /	FDE125VG (2 units)		
Outdoor side heat exchanger of heat pump	:	air					
Indoor side heat exchanger of heat pump :		air					
Indication if the heater is equipped with a su	upplementa			No			
if applicable : electric motor							
Parameters shall be declared for the average	ge heating s	eason , para	ameters for t	he warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heatin	g energy efficiency ηs,h		
	Prated,h	27.0	kW			174.8	%
Declared heating capacity for part load at ir	door tempe	rature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor	temperatures	s Tj
		_	7			_	1
T <sub>j</sub> =-7°C	Pdh	12.6	kW	T <sub>j</sub> =-7°C	COPd or	298.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	7.7	kW	T <sub>j</sub> =+2°C	COPd or	450.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	5.6	kW	T <sub>j</sub> =+7°C	COPd or	551.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	6.0	kW	T <sub>j</sub> =+12°C	COPd or	676.0	%
			1		GUEh,bin / AEFh,bin		1
T <sub>biv</sub> =bivalent temperature	Pdh	14.2	kW	T <sub>biv</sub> =bivalent temperature	COPd or	266.0	%
			1		GUEh,bin / AEFh,bin		1
T <sub>OL</sub> =operation limit	Pdh	12.5	kW	T <sub>OL</sub> =operation limit	COPd or	270.0	%
			1		GUEh,bin / AEFh,bin		1
For air-to-water heat pumps :	Pdh		kW	For air-to-water hea		-	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		]
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
Birelentter	_	-10.0	1	For water-to-air hea	t		1
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	pumps:Operation lir		_	°C
Degradation			1		IIIL		
coefficient	0	0.25		T <sub>ol</sub> temperature			]
heat pumps**	$C_{dh}$	0.25	-				
near pumps			]				
Power consumpiton in modes other than 'ac	rtivo modo!			Supplementary hea	tor		1
Power consumption in modes other than ac	live mode			11	eibu	_	kW
Off mode	Poff	0.010	kW	back-up heating cap	Dacity		1
Thermostat-off mode	P <sub>TO</sub>	0.010	kW	Type of energy inpu	. <del>.</del>		1
Crankcase heater mode	P <sub>CK</sub>	0.015	kW	Standby mode	P <sub>SB</sub>	0.010	kW
			1	Otandby mode			1
Other items							
				For air-to-air heat p	umps:		] ,
Capacity control		variable	1	air flow-rate,outdoor	·	9,060	m <sup>3</sup> /h
Capacity control			_	an non rato, satassi	· modeli od		
Sound power level,		75.0	dB	For water-/brine-to-a	air heat pumps :		1
outdoor measured	$L_{WA}$	75.0	dB	Rated brine or wate	•	-	m³/h
			-	outdoor side heat ex			
Emissions of nitrogen			mg/kWh		-		-
oxides(if applicable)	NOx ***	-	fuel input				
			GCV				
	-						
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		_,000	(100years)				
			nal systems,l				
** If Cdh is not determined by measurement	t then the de	efault degrad	dation coeffic	cient air conditioners shal	I be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o	conditioners	the test res,	ult and perfo	rmance data be obtained	on the basis of the performar	nce	
of the outdoor unit, with a combination of in	door unit(s)	recommend	led by the ma	anufacturer or importer.			
						DEAGO	

### FDE140VNATVG

Model(s): FDC140VNA / FDE50VG (3 units)									
Outdoor side heat exchanger of air conditioner : air									
Indoor side heat exchanger of air condition	ner:	air							
Type : vapour compression									
if applicable : electric motor									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated cooling capacity				Seasonal space of	cooling energy				
	Prated,c	13.6	kW	efficiency ηs,c		268.9	%		
Declared cooling capacity for part load at o	given outdoor	r temperatui	es	Declared energy	efficiency ratio or gas utilization efficie	ncy /			
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fa	actor for part load at given outdoor tem	peratures <sup>-</sup>	Тј		
			,				1		
Tj=+35°C	Pdc	13.6	kW	Tj=+35°C	EERd or	293.0	%		
			,		GUEc,bin / AEFc,bin				
Tj=+30°C	Pdc	10.0	kW	Tj=+30°C	EERd or	468.0	%		
			,		GUEc,bin / AEFc,bin				
Tj=+25°C	Pdc	6.4	kW	Tj=+25°C	EERd or	740.0	%		
			,		GUEc,bin / AEFc,bin				
Tj=+20°C	Pdc	3.7	kW	Tj=+20°C	EERd or	1,762.0	%		
			,		GUEc,bin / AEFc,bin				
Degradation									
coefficient for	Cdc	0.25	-						
air conditioners**			]						
Power consumpiton in other than 'active m	iode'								
	_		1		_		1		
Off mode	P <sub>OFF</sub>	0.008	kW	Crankcase heater	<del></del>	0.008	kW		
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	$P_{SB}$	0.008	kW		
Other items							1		
Capacity control		variable	ı l	For air-to-air air co		4,500	m³/h		
Capacity Control		Variable	<u> </u>	air flow-rate,outdo	oor measured		l		
			1						
Sound power level,	$L_WA$	73.0	dB						
outdoor			<u> </u>						
			1 ",,,,						
If engine driven:	NOx	_	mg/kWh						
Emissions of nitrogen	***		fuel input						
oxides			GCV						
GWP of the			kg CO <sub>2eq</sub>						
refrigerant		2,088	(100years)						
reingerant			1						
Contact details Mitsubis	hi heavy indu	stries therm	nal systems,L	.TD					
** If Cdc is not determined by measurement	-		-		s shall be 0,25.				
*** from 26 September 2018									
Where information relates to multi-spilt air	conditioners	the test res	ult and perfo	rmance data be obt	tained on the basis of the performance	<b>;</b>			
of the outdoor unit, with a combination of i			-		·				
2 22222 233, 112. 2 331131141311 01 11	(5)		,						
-						PFA004	4Z080 🛦		

Information to identify the model(s) to which	h the informa	ation relates	s:	FDC140VNA /	FDE50VG (3 units)		
Outdoor side heat exchanger of heat pump	) :	air					
Indoor side heat exchanger of heat pump :		air					
Indication if the heater is equipped with a s	supplementa	ry heater :		No			
if applicable : electric motor							
Parameters shall be declared for the avera	age heating s	season , par	ameters for t	he warmer and colder h	neating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heat	ing energy efficiency ηs,h		
	Prated,h	15.5	kW			188.8	%
Declared heating capacity for part load at	indoor tempe	erature 20°C		Declared coefficient of	of performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy facto	or for part load at given outdoor to	emperatures	s Tj
			7				1
T <sub>j</sub> =-7°C	Pdh	9.3	kW	T <sub>j</sub> =-7°C	COPd or	316.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	5.7	kW	T <sub>j</sub> =+2°C	COPd or	447.0	%
			7		GUEh,bin / AEFh,bin	-	
T <sub>j</sub> =+7°C	Pdh	3.7	kW	T <sub>j</sub> =+7°C	COPd or	652.0	%
			7	_	GUEh,bin / AEFh,bin	-	
T <sub>j</sub> =+12℃	Pdh	2.8	kW	T <sub>j</sub> =+12°C	COPd or	875.0	%
		40.5	7		GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	10.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or	258.0	%
	Б. II	8.3	1		GUEh,bin / AEFh,bin		
T <sub>OL</sub> =operation limit	Pdh	0.3	kW	T <sub>OL</sub> =operation limi		236.0	%
			1	II	GUEh,bin / AEFh,bin		-
For air-to-water heat pumps :  T <sub>i</sub> =-15°C	Pdh		kW	For air-to-water he	eat COPd or GUEh,bin / AEFh,bin	-	%
,				pumps:T <sub>j</sub> =-15°C	GUEN,DIN / AEFN,DIN		1
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
Bivalent temperature	T <sub>biv</sub>	-10.0	°c	For water-to-air he	eat		1
Divalent temperature	I DIV		] <sub>~</sub>	pumps:Operation		_	°C
Degradation			1	T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	_	OI I			1
heat pumps**	-uii						
			_				
Power consumpiton in modes other than 'a	active mode'			Supplementary he	ater		1
·				back-up heating ca	eibu	_	kW
Off mode	P <sub>OFF</sub>	0.008	kW				1
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy inp	out p	0.000	
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	P <sub>SB</sub>	0.008	kW
Other items							
			_	For air-to-air heat	pumps:	4,380	m³/h
Capacity control		variable		air flow-rate,outdo	or measured	.,	] /
			-				,
Sound power level,	$L_{WA}$	73.0	dB	For water-/brine-to	o-air heat pumps :		
outdoor measured	****			Rated brine or wat	ter fiow-rate,	_	m³/h
			7	outdoor side heat	exchanger		
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	-	fuel input				
			GCV				
			1				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			(100years)				
I.				<u> </u>			
Contact details Mitsubis  ** If Cdh is not determined by measurement			nal systems,l		all he 0.25		
	iir nien the di	oraurt degra	uauon coem	oon an conditioners sh	an 50 U,2J.		
*** from 26 September 2018							
Where information relates to multi-spilt air						e	
of the outdoor unit, with a combination of it	ndoor unit(s)	recommend	aed by the ma	anutacturer or importer.			
						PFA004	1Z080 A

### FDE140VSATVG

Model(s): FDC140VSA / FDE50VG (3 units)									
Outdoor side heat exchanger of air conditioner : air									
Indoor side heat exchanger of air conditi	ioner:	air							
Type: vapour compression									
if applicable : electric motor									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated cooling capacity				Seasonal space	cooling energy				
	Prated,c	13.6	kW	efficiency ηs,c		268.9	%		
Declared cooling capacity for part load a	ıt given outdoor	r temperatu	ires	Declared energy	efficiency ratio or gas utilization effici	ency /			
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy	factor for part load at given outdoor te	mperatures <sup>*</sup>	Tj		
			٦				1		
Tj=+35°C	Pdc	13.6	kW	Tj=+35°C	EERd or	293.0	%		
			ا		GUEc,bin / AEFc,bin		-		
Tj=+30°C	Pdc	10.0	kW	Tj=+30°C	EERd or	468.0	%		
			ا		GUEc,bin / AEFc,bin		-		
Tj=+25°C	Pdc	6.4	kW	Tj=+25°C	EERd or	740.0	%		
T: .00%	D.1	0.7	ا		GUEc,bin / AEFc,bin		-		
Tj=+20°C	Pdc	3.7	kW	Tj=+20°C	EERd or	1,762.0	%		
			7		GUEc,bin / AEFc,bin		]		
Degradation		0.25							
coefficient for	Cdc	0.25	-						
air conditioners**			_						
Davier canciumnitan in other than lastice	man da!								
Power consumpiton in other than 'active	mode								
Off mode	P <sub>OFF</sub>	0.008	kW	Crankcase heate	er mode P <sub>CK</sub>	0.008	kW		
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	P <sub>SB</sub>	0.008	kW		
			_				1		
Other items									
				For air-to-air air	conditioner:	4.500	3,,		
Capacity control		variable		air flow-rate,outd	door measured	4,500	m <sup>3</sup> /h		
			-				•		
Sound power level,		73.0	dB						
outdoor	$L_{WA}$	73.0	uБ						
If engine driven:			mg/kWh						
Emissions of nitrogen	NOx ***	-	fuel input						
oxides			GCV						
			-						
GWP of the		2,088	kg CO <sub>2eq</sub>						
refrigerant			(100years)						
				1					
	oishi heavy indu				are shall be 0.05				
** If Cdc is not determined by measurem	ient then the de	eraurt degra	uation coeffic	ient air conditione	ers shall de u,25.				
*** from 26 September 2018									
Where information relates to multi-spilt a			-		·	ce			
of the outdoor unit, with a combination o	t indoor unit(s)	recommen	ded by the m	anufacturer or imp	orter.				
<u>L</u>						PFA004	4Z080 🛦		

Information to identify the model(s) to which	h the informa	ation relates	:	FDC140VSA /	FDE50VG (3 units)		
Outdoor side heat exchanger of heat pump		air		·			
Indoor side heat exchanger of heat pump :		air					
Indication if the heater is equipped with a s	upplementar			No			
if applicable : electric motor							
Parameters shall be declared for the avera	ge heating s	eason , para	ameters for t	he warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heatin	g energy efficiency ηs,h		
	Prated,h	15.5	kW			188.8	%
Declared heating capacity for part load at i	ndoor tempe	rature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor t	emperatures	s Tj
			1				1
T <sub>j</sub> =-7°C	Pdh	9.3	kW	T <sub>j</sub> =-7°C	COPd or	316.0	%
			1		GUEh,bin / AEFh,bin		-
T <sub>j</sub> =+2°C	Pdh	5.7	kW	T <sub>j</sub> =+2°C	COPd or	447.0	%
T : 7%	D. II	3.7	1	T : 7%	GUEh,bin / AEFh,bin		1
T <sub>j</sub> =+7°C	Pdh	3.7	kW	T <sub>j</sub> =+7°C	COPd or	652.0	%
T=142°C	Ddb	2.8	kW	T=142°C	GUEh,bin / AEFh,bin		1
T <sub>j</sub> =+12°C	Pdh	2.0	IKVV	T <sub>j</sub> =+12°C	COPd or	875.0	%
T =bivalent temperature	Pdh	10.5	kW	T <sub>biv</sub> =bivalent	GUEh,bin / AEFh,bin COPd or		1
T <sub>biv</sub> =bivalent temperature	Pull	10.5	KVV	temperature		258.0	%
T <sub>OI</sub> =operation limit	Pdh	8.3	kW	'	GUEh,bin / AEFh,bin		1
1 <sub>OL</sub> -operation innit	Full	0.0	Iv.	T <sub>OL</sub> =operation limit		236.0	%
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water hea	GUEh,bin / AEFh,bin		1
T <sub>i</sub> =-15°C	Pull		JKVV	pumps:T <sub>i</sub> =-15°C	GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			1
(··· OL 1 = 1 - /				(			
Bivalent temperature	T <sub>biv</sub>	-10.0	°c	For water-to-air hea	t		1
·			1	pumps:Operation lin	mit	_	°C
Degradation			]	T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				•
heat pumps**							
			•				
							_
Power consumpiton in modes other than 'a	ctive mode'			Supplementary heat	ter elbu	_	kW
				back-up heating cap			
Off mode	P <sub>OFF</sub>	0.008	kW				,
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy inpu	rt P <sub>SB</sub>	0.008	kW
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode			]
Other items							1
			1	For air-to-air heat pu	umps:	4,380	m³/h
Capacity control		variable	j	air flow-rate,outdoor	r measured		]
			1				1
Sound power level,	$L_{WA}$	73.0	dB	For water-/brine-to-a	• •	_	m <sup>3</sup> /h
outdoor measured			J	Rated brine or water			m /n
			1	outdoor side heat ex	xchanger		1
Emissions of nitrogen	NOx	l _	mg/kWh				
oxides(if applicable)	***		fuel input				
			GCV				
GWP of the			kg CO <sub>2eq</sub>				
		2,088	(100years)				
refrigerant			J				
Contact details Mitsubish	ni heavy indu	stries therm	nal systems,l	_TD			
** If Cdh is not determined by measuremen					I be 0,25.		
*** from 26 September 2018		-					
Where information relates to multi-spilt air	conditioners	the test res	ult and nerfo	rmance data be obtained	on the basis of the performan	ce	
of the outdoor unit, with a combination of in					or and portornian	-	
,	(2)		,	·			
						DEAGO	

## FDE200VSATVG

Model(s): FDC200VSA	/ FDE71VG	(3 units)					
Outdoor side heat exchanger of air con	nditioner :	air					
Indoor side heat exchanger of air cond	litioner :	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space	e cooling energy		
	Prated,c	19.0	kW	efficiency ηs,c		296.4	%
Declared cooling capacity for part load	l at given outdoor	temperatu	ires	Declared energy	y efficiency ratio or gas utilization effici	ency /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy	factor for part load at given outdoor te	mperatures	Tj
		r	,				7
Tj=+35°C	Pdc	19.0	kW	Tj=+35°C	EERd or	311.0	%
			, l		GUEc,bin / AEFc,bin		
Tj=+30°C	Pdc	14.0	kW	Tj=+30°C	EERd or	531.0	%
			, l		GUEc,bin / AEFc,bin		
Tj=+25°C	Pdc	9.0	kW	Tj=+25°C	EERd or	981.0	%
			, l		GUEc,bin / AEFc,bin		
Tj=+20°C	Pdc	4.3	kW	Tj=+20°C	EERd or	1,204.0	%
			,		GUEc,bin / AEFc,bin		]
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**			<u> </u>				
Power consumpiton in other than 'activ	/e mode'						
			- I				1
Off mode	P <sub>OFF</sub>	0.010	kW	Crankcase heat		0.010	kW
Thermostat-off mode	$P_{TO}$	0.000	kW	Standby mode	$P_SB$	0.010	kW
Other items				L			1
Capacity control		variable	ا ٦	For air-to-air air		8,100	m³/h
Capacity control		variable	_	air flow-rate,out	door measured		]
			7				
Sound power level,	$L_{WA}$	72.0	dB				
outdoor			_				
If angine driven.			ma er /ls\A/la				
If engine driven: Emissions of nitrogen	NOx ***	_	mg/kWh fuel input				
oxides	***		GCV				
Oxides							
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
romgorant			-				
Contact details Mitsu	ubishi heavy indu	stries therr	nal systems,L	.TD			
** If Cdc is not determined by measure					ers shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spil	t air conditioners,	the test res	sult and perfo	rmance data be o	btained on the basis of the performance	ce	
of the outdoor unit, with a combination			•		•		
	. ,		=	•			
						PFA004	4Z080 🛝

Information to identify the model(s) to whi	ch the informa	ation relates	::	FDC200VSA /	FDE71VG (3 units)		
Outdoor side heat exchanger of heat pum	p :	air					
Indoor side heat exchanger of heat pump	:	air					
Indication if the heater is equipped with a	supplementa	ry heater :		No			
if applicable : electric motor							
Parameters shall be declared for the aver	age heating s	eason , par	ameters for t	he warmer and colder h	neating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heat	ing energy efficiency ηs,h		
	Prated,h	22.4	kW			184.9	%
Declared heating capacity for part load at	indoor tempe	rature 20°C		Declared coefficient of	of performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy facto	or for part load at given outdoor to	emperatures	: Tj
			1				1
T <sub>j</sub> =-7°C	Pdh	11.1	kW	T <sub>j</sub> =-7°C	COPd or	280.0	%
		6.7	1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	6.7	kW	T <sub>j</sub> =+2°C	COPd or	498.0	%
		42	1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	4.3	kW	T <sub>j</sub> =+7°C	COPd or	546.0	%
T :40%	Б. II	3.5	1	T : 10%	GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	3.5	kW	T <sub>j</sub> =+12°C	COPd or	722.0	%
T. =hivalent temporature	Pdh	12.5	kW	T. =biyalant	GUEh,bin / AEFh,bin	-	
T <sub>blv</sub> =bivalent temperature	run	12.0	7,,,	T <sub>biv</sub> =bivalent temperature	COPd or	275.0	%
T <sub>OL</sub> =operation limit	Pdh	10.5	kW	T <sub>OL</sub> =operation limi	GUEh,bin / AEFh,bin		
T <sub>OL</sub> -operation limit	i dii		7,44	10L-operation initia		244.0	%
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water he	GUEh,bin / AEFh,bin		
T <sub>i</sub> =-15°C	Full		Tr.	pumps:T <sub>i</sub> =-15°C	GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			ı
, of				02 , ,			
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air he	eat		
·			_	pumps:Operation	limit	_	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				•
heat pumps**							
			-				
Power consumpiton in modes other than '	active mode'			Supplementary he	eater elbu	_	kW
			-	back-up heating ca			
Off mode	P <sub>OFF</sub>	0.010	kW				
Thermostat-off mode	P <sub>TO</sub>	0.010	kW	Type of energy inp	out P <sub>SB</sub>	0.010	kW
Crankcase heater mode	P <sub>CK</sub>	0.015	kW	Standby mode			
Other items							1
			1	For air-to-air heat	pumps:	8,100	m³/h
Capacity control		variable		air flow-rate,outdo	or measured		
			1				1
Sound power level,	$L_{WA}$	74.0	dB	For water-/brine-to		l _	m³/h
outdoor measured				Rated brine or wat			m /n
			1	outdoor side heat	exchanger		]
Emissions of nitrogen	NOx	_	mg/kWh				
oxides(if applicable)	***		fuel input				
			GCV				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
reingerant			1				
Contact details Mitsubis	shi heavy indu	ıstries them	nal systems l	LTD			
** If Cdh is not determined by measureme					all be 0,25.		
*** from 26 September 2018		-					
Where information relates to multi-spilt ai	r conditioners	the test res	ult and nerfo	rmance data be obtaine	ed on the basis of the performan	ce	
of the outdoor unit, with a combination of							
, 2 55711571141571 01	(3)		,	portor.			
						PFA004	Z080 A

## FDE200VSADVG

Model(s): FDC200VSA /	FDE50VG	(4 units)					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air conditioned	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	ling energy		
	Prated,c	19.0	kW	efficiency ηs,c		296.4	%
Declared cooling capacity for part load at gi	ven outdooi	r temperatur	es		ciency ratio or gas utilization efficier	-	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fact	or for part load at given outdoor tem	peratures <sup>-</sup>	Тј
T:- 125°C	Pdc	10.0	LAA				1
Tj=+35°C	Puc	19.0	kW	Tj=+35°C	EERd or	311.0	%
Tj=+30°C	Pdc	14.0	kW	T: . 00°0	GUEc,bin / AEFc,bin		
1,1-100 0	1 40	14.0	lvvv	Tj=+30°C	EERd or	531.0	%
Tj=+25°C	Pdc	9.0	kW	Tj=+25°C	GUEc,bin / AEFc,bin EERd or		
, 200			,	1]-+25 C	GUEc,bin / AEFc,bin	981.0	%
Tj=+20°C	Pdc	4.3	kW	Tj=+20°C	EERd or		
			,	1]=+20 C	GUEc,bin / AEFc,bin	1,204.0	%
Degradation			1		GOEG,BIII / AET G,BIII		1
coefficient for	Cdc	0.25	_				
air conditioners**							
			<b>'</b>				
Power consumpiton in other than 'active mo	ode'						
			_				_
Off mode	$P_{OFF}$	0.010	kW	Crankcase heater m	ode P <sub>CK</sub>	0.010	kW
Thermostat-off mode	$P_{TO}$	0.000	kW	Standby mode	$P_{SB}$	0.010	kW
Other items					i		1
			,	For air-to-air air cond	ditioner:	8,100	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outdoor	measured		
			1				
Sound power level,	$L_{WA}$	72.0	dB				
outdoor							
			1				
If engine driven:	NOx	_	mg/kWh				
Emissions of nitrogen	***		fuel input				
oxides			GCV				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
- Singerant		L	'				
Contact details Mitsubish	i heavy indu	stries therm	ıal systems,L	TD			
** If Cdc is not determined by measuremen	t then the de	efault degra	dation coeffic	cient air conditioners s	hall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o	conditioners	the test res	ult and perfo	rmance data be obtair	ned on the basis of the performance		
of the outdoor unit, with a combination of in	door unit(s)	recommend	led by the ma	anufacturer or importe	r.		
						PFΔΩΩ	4Z080 🛦

Information to identify the model(s) to which	h the informa	ation relates	:	FDC200VSA /	FDE50VG (4 units)		
Outdoor side heat exchanger of heat pump		air		·	, ,		
Indoor side heat exchanger of heat pump :		air					
Indication if the heater is equipped with a s	upplementar			No			
if applicable : electric motor							
Parameters shall be declared for the avera	ge heating s	eason , par	ameters for t	he warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heatin	g energy efficiency ηs,h		
	Prated,h	22.4	kW			184.9	%
Declared heating capacity for part load at i	ndoor tempe	rature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor t	temperatures	s Tj
		44.4	1				1
T <sub>j</sub> =-7°C	Pdh	11.1	kW	T <sub>j</sub> =-7°C	COPd or	280.0	%
T : 0%0	D. II	6.7	1	T .0%	GUEh,bin / AEFh,bin		-
T <sub>j</sub> =+2°C	Pdh	0.7	kW	T <sub>j</sub> =+2°C	COPd or	498.0	%
T-17°C	Pdh	4.3	kW	T=17°C	GUEh,bin / AEFh,bin COPd or		-
T <sub>j</sub> =+7°C	Pull	4.0	IKVV	T <sub>j</sub> =+7°C		546.0	%
T <sub>i</sub> =+12°C	Pdh	3.5	kW	T <sub>i</sub> =+12°C	GUEh,bin / AEFh,bin COPd or		-
1, 120	i dii		1	1, 120	GUEh,bin / AEFh,bin	722.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	12.5	kW	T <sub>biv</sub> =bivalent	COPd or		1
. Biv Bivaroni tomporataro			1	temperature	GUEh,bin / AEFh,bin	275.0	%
T <sub>OI</sub> =operation limit	Pdh	10.5	kW	T <sub>OL</sub> =operation limit			
GE 1			1	0E 1	GUEh,bin / AEFh,bin	244.0	%
For air-to-water heat pumps :	Pdh	-	kW	For air-to-water hea			.,
T <sub>i</sub> =-15°C			•	pumps:T <sub>i</sub> =-15°C	GUEh,bin / AEFh,bin	-	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			_
			_				_
Bivalent temperature	$T_biv$	-10.0	°C	For water-to-air hea	t		
			,	pumps:Operation lin	nit	-	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				
heat pumps**			]				
							1
Power consumpiton in modes other than 'a	ctive mode'			Supplementary heat	eibu	-	kW
Off mode	Poff	0.010	kW	back-up heating cap	pacity		
Thermostat-off mode	P <sub>TO</sub>	0.010	kW				1
Crankcase heater mode	P <sub>CK</sub>	0.015	kW	Type of energy inpu	P <sub>SB</sub>	0.010	kW
Craimouse ribate, meas	· UK	0.0.0	1	Standby mode		<u></u>	J
Other items							
outer nome				For air-to-air heat pu	umps:		2
Capacity control		variable	1	air flow-rate,outdoor	·	8,100	m <sup>3</sup> /h
Capasity control			_	an non rate, satassi	madarda		_
Sound power level,		74.0	dB	For water-/brine-to-a	air heat pumps :		
outdoor measured	$L_{WA}$	74.0	uБ	Rated brine or water		-	m³/h
			_	outdoor side heat ex	xchanger		
Emissions of nitrogen	NO		mg/kWh				="
oxides(if applicable)	NOx ***	_	fuel input				
			GCV				
			1				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			(Tooyears)				
			1	II.			
Contact details Mitsubish  ** If Cdh is not determined by measuremer			nal systems,l		I be 0.25		
•	a lon ale de	aun ucyidi	addon ootill	o.o.n un conuncionore silai	. 20 0,20.		
*** from 26 September 2018	oonditi-	the +	ult or -! · · ·	rmanaa d-t- b- 1111	on the heatf # "		
Where information relates to multi-spilt air of the outdoor unit, with a combination of in			•		on the basis of the performan	ce	
or and outdoor utill, with a combination of in	idooi uilli(S)	reconnenc	iou by the ma	аниволитет от ппротлег.			
·						DEAGO	

## FDE250VSADVG

Model(s): FDC250VSA /	FDE60VG	(4 units)					
Outdoor side heat exchanger of air condition	oner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space of	ooling energy		
	Prated,c	24.0	kW	efficiency ηs,c		229.7	%
Declared cooling capacity for part load at g	iven outdoor	temperatui	es	Declared energy e	efficiency ratio or gas utilization efficier	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fa	ctor for part load at given outdoor tem	nperatures <sup>·</sup>	Tj
Tj=+35°C	Pdc	24.0	kW	Tj=+35°C	EERd or		1
			,	1]=133 0	GUEc,bin / AEFc,bin	290.0	%
Tj=+30°C	Pdc	17.7	kW	Tj=+30°C	EERd or		1
			1	1]=130 0	GUEc,bin / AEFc,bin	426.0	%
Tj=+25°C	Pdc	11.4	kW	Tj=+25°C	EERd or		1
			1	1] 20 0	GUEc,bin / AEFc,bin	730.0	%
Tj=+20°C	Pdc	6.5	kW	Tj=+20°C	EERd or		1
			,	1]-+20 C		862.0	%
Degradation			]		GUEc,bin / AEFc,bin		1
coefficient for	Cdc	0.25					
air conditioners**	Odc						
an conditioners			·				
Power consumpiton in other than 'active m	ode'						
Power consumption in other than active in	ode						
Off mode	P <sub>OFF</sub>	0.010	kW	Crankcase heater	mode P <sub>CK</sub>	0.010	kW
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	P <sub>SB</sub>	0.010	kW
	10		]	,	36		]
Other items							
				For air-to-air air co	onditioner:	0.500	3
Capacity control		variable	]	air flow-rate,outdo	or measured	8,580	m³/h
			'	,			
Sound power level,			]				
outdoor	$L_{WA}$	73.0	dB				
			'				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
			]				
GWP of the		2.000	kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
O-man at distable		-4		TD			
Contact details  ** If Cdc is not determined by measuremen			nal systems,L dation coeffic		s shall be 0.25		
		aogia		conditioners			
*** from 26 September 2018	a a m al : 4: -	the total	ult ac di C		ained on the basis of the		
Where information relates to multi-spilt air			-			;	
of the outdoor unit, with a combination of ir	iaoor unit(s)	recommend	ied by the m	anutacturer or impor	пег.		
<u> </u>						PFA004	4Z080 🛦

Information to identify the model(s) to wh	nich the informa	ation relates	::	FDC250VSA /	FDE60VG (4 units)		
Outdoor side heat exchanger of heat pur	np :	air					
Indoor side heat exchanger of heat pump	) :	air					
Indication if the heater is equipped with a	a supplementa	ry heater :		No			
if applicable : electric motor							
Parameters shall be declared for the ave	erage heating s	eason , par	ameters for t	he warmer and colder	heating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space hea	ating energy efficiency ηs,h		
	Prated,h	27.0	kW			174.8	%
Declared heating capacity for part load a	t indoor tempe	rature 20°C		Declared coefficient	of performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy fact	tor for part load at given outdoor t	emperatures	: Tj
			7				1
T <sub>j</sub> =-7°C	Pdh	12.6	kW	T <sub>j</sub> =-7°C	COPd or	298.0	%
		_	7		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	7.7	kW	T <sub>j</sub> =+2°C	COPd or	450.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	5.6	kW	T <sub>j</sub> =+7°C	COPd or	551.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	6.0	kW	T <sub>j</sub> =+12°C	COPd or	676.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	14.2	kW	T <sub>biv</sub> =bivalent	COPd or	266.0	%
		45.7	1	temperature	GUEh,bin / AEFh,bin	<u> </u>	
T <sub>OL</sub> =operation limit	Pdh	12.5	kW	T <sub>OL</sub> =operation lin	nit COPd or	270.0	%
			1		GUEh,bin / AEFh,bin		
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water h		-	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		]
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
	_	-10.0	T <sub>0-</sub>	For water-to-air h	anat .		1
Bivalent temperature	$T_biv$	-10.0	℃	pumps:Operation		_	°C
Degradation			1	T <sub>ol</sub> temperature	i iii iiit		
coefficient	0	0.25		1 ol temperature			]
heat pumps**	$C_{dh}$	0.20	-				
neat pamps			]				
Power consumpiton in modes other than	'active mode'			Supplementary h	eater		1
ower consumption in modes other than	active mode			back-up heating	eibu	-	kW
Off mode	Poff	0.010	kW	back-up neating	сараску		J
Thermostat-off mode	P <sub>TO</sub>	0.010	kW	Type of energy in	nnut –		1
Crankcase heater mode	P <sub>CK</sub>	0.015	kW	Standby mode	P <sub>SB</sub>	0.010	kW
			4	Otanaby mode		ļ	
Other items							
				For air-to-air hea	t pumps:	0.060	3.0
Capacity control		variable		air flow-rate,outd		9,060	m³/h
			-				•
Sound power level,		75.0	dB	For water-/brine-	to-air heat pumps :		
outdoor measured	$L_{WA}$	75.0	uБ	Rated brine or w		_	m³/h
			_	outdoor side hea	t exchanger		
Emissions of nitrogen			mg/kWh				•
oxides(if applicable)	NOx ***	_	fuel input				
			GCV				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		2,000	(100years)				
		_					
	ishi heavy indu						
** If Cdh is not determined by measurem	ent then the de	efault degra	dation coeffic	cient air conditioners s	hall be 0,25.	_	
*** from 26 September 2018							
Where information relates to multi-spilt a	ir conditioners	the test res,	ult and perfo	rmance data be obtair	ned on the basis of the performan	ce	
of the outdoor unit, with a combination of	f indoor unit(s)	recommend	led by the ma	anufacturer or importe	г.		
						DEAGG	17000 Å
						PFAUU4	1Z080 🕭

# Models FDE50VG, 60VG, 71VG, 100VG, 125VG, 140VG

Model(s): FDE50VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	3.8	kW	Total electric power input	$P_{elec}$	0.050	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	1.2	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	60.0	dB
Heating capacity	$P_{rated,h}$	5.4	kW				
Contact details	Mitsubishi h	eavy indu	ustries thern	nal systems,LTD			

Model(s): FDE60VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	5.0	kW	Total electric power input	$P_{elec}$	0.080	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	0.6	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	60.0	dB
Heating capacity	$P_{rated,h}$	6.7	kW				
Contact details	Mitsubishi I	neavy indu	ustries the	rmal systems,LTD			

Model(s): FDE71VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	5.6	kW	Total electric power input	$P_{elec}$	0.080	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	1.5	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	60.0	dB
Heating capacity	$P_{rated,h}$	8.0	kW				
Contact details	Mitsubishi h	eavy indu	ustries thern	nal systems,LTD			

Model(s): FDE100VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	8.4	kW	Total electric power input	$P_{elec}$	0.130	kW
Cooling capacity (latent)	$P_{rated,c}$	1.6	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	64.0	dB
Heating capacity	$P_{rated,h}$	11.2	kW				
Contact details	Mitsubishi I	neavy indu	ustries ther	mal systems,LTD			

Model(s): FDE125VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	9.3	kW	Total electric power input	$P_{elec}$	0.130	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	3.2	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	64.0	dB
Heating capacity	$P_{rated,h}$	14.0	kW				
Contact details	Mitsubishi h	neavy indu	ustries therm	nal systems,LTD			

Model(s): FDE140VG								
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit	
Cooling capacity (sensible)	$P_{rated,c}$	10.2	kW	Total electric power input	$P_{elec}$	0.140	kW	
Cooling capacity (latent)	P <sub>rated,c</sub>	3.8	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	65.0	dB	
Heating capacity	$P_{rated,h}$	16.0	kW					
Contact details	Mitsubishi h	litsubishi heavy industries thermal systems,LTD						

PFA004Z080A

## (2) Duct connected-Low/Middle static pressure type (FDUM)

## FDUM100VNAVF2

Tj=30°C	
Pronction(indicate if present)   Cooling   Yes	
Function(indicate if present) cooling Yes	
Declared capacity for heating / Average season, at indoor temperature 20°C and outdoor temperature 11°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C Part 12°C	season Average.
Declared capacity for cooling at indoor temperature 27(19)°s and outdoor temperature 17   25°C   P4c   474   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W   17°C   P4c   824   W	
No   No   No   No   No   No   No   No	
Item	
Design load cooling	
Design baid cooling Pdesign   10.0 kW heating / Average Pdesign   15.5 kW heating / Average   Pdesign   15.5 kW heating / Warmer   Pdesign   10.0 kW Pdesign   10.0 kW heating / Warmer   10.0 kW Pdesign   10.0 kW Pdesign   10.0 kW heating / Warmer   10.0 kW Pdesign	ralisa alaaa
Declared capacity for heating / Average season, at indoor temperature 27(19) Capaciting initial temperature 20°C and outdoor temperature 1   Pack	/alue class
heating / Average Pdesignh   \$.5   KW   heating / Average   SCOP/A   \$.7   heating / Colder   Pdesignh   KW	C 4 4   A
heating / Warmer Pidesignh   New placing / Warmer SCOP/N   Declared capacity at outdoor temperature Tdesignh   New placing / Warmer (2°C)   Poh   8.50   NV   heating / Warmer (2°C)   Poh   8.50   NV   heating / Warmer (2°C)   Poh   NV   heating /	
Declared capacity of vertices   Pole	
Back up heating capacity at outdoor temperature Tdesignh heating / Average (-10°C)	
heating / Average (-10°C)	
heating / Average (-10°C)	unit
heating / Warmer (2°C)   Pdh   — kW   heating / Colder (2°C)   ebu   meating / Colder (2°C)   Pdh   — kW   heating / Colder (2°C)   ebu   meating / Colde	ignh
Declared capacity for cooling, at indoor temperature 27(19)°C and outdoor temperature 17   17=5°C	<b>0</b> kW
Declared capacity for cooling, at indoor temperature 27(19)°C and outdoor temperature 7]  173-50°C  Pdc  173-50°C  Pdc  173-51°C  Pdc  173-52°C  Pdc  173-52°C  Pdc  173-54°W  173-20°C  Pdc  173-54°W  173-20°C  Pdc  173-54°W  173-20°C  Pdc  173-54°W  173-20°C  Pdc  173-54°W  173-20°C  Pdc  173-54°W  173-20°C  Pdc  173-54°W  173-20°C  Pdc  173-54°W  173-20°C  Pdc  173-54°W  173-20°C  Pdc  Pdc  173-54°W  173-20°C  Pdc  Pdc  173-54°W  173-20°C  Pdc  Pdc  173-54°W  173-20°C  Pdc  Pdc  173-54°W  173-20°C  Pdc  Pdc  173-54°W  173-20°C  Pdc  Pdc  173-54°W  173-20°C  Pdc  173-20°C  Pdc  Pdc  173-20°C  Pdc  Pdc  173-20°C  Pdc  173-20°C  Pdc  Pdc  173-20°C  Pdc  173-20	- kW
Declared capacity for cooling, at indoor temperature 27(19)°C and outdoor temperature 7]  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-30°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20°C  Pdc  173-20	<del>-</del> kW
Outdoor temperature T    1-36°C   Pdc   10.00   kW   T-30°C   Pdc   4.74   kW   T-20°C   Pdc   4.74   kW   T-20°C   EERd   4.75   kW   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   T-20°C   T-20°C   EERd   7.7   T-20°C   T-20°C   T-20°C   EERd   7.7   T-20°C   T-20°C   EERd   7.7   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-2	
Outdoor temperature T    1-36°C   Pdc   10.00   kW   T-30°C   Pdc   4.74   kW   T-20°C   Pdc   4.74   kW   T-20°C   EERd   4.75   kW   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   EERd   7.7   T-20°C   T-20°C   T-20°C   EERd   7.7   T-20°C   T-20°C   T-20°C   EERd   7.7   T-20°C   T-20°C   EERd   7.7   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-20°C   T-2	27(19)°C and
Tj=35°C	/
Tj=20°C	3.52 -
Tj=26°C   Pdc   3.54   WW   Tj=20°C   EERd   T7.	4.83
Declared capacity for heating / Average season, at indoor temperature 20°C and outdoor temperature 71	7.73
Declared capacity for heating / Average season, at indoor temperature 20°C and outdoor temperature T1   T1=-7°C   Pdh   4.58   kW   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   3.9   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   COP4   T1=7°C   C	11.60 -
temperature 20°C and outdoor temperature Tj Tj=-7°C Peh T,52 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-10°C COP4 T,5 kW Tj=-10°C COP4 T,5 kW Tj=-10°C COP4 T,5 kW Tj=-10°C COP4 T,5 kW Tj=-10°C COP4 T,5 kW Tj=-10°C COP4 T,5 kW Tj=-10°C COP4 T,5 kW Tj=-10°C Peh T,	11.00 -
temperature 20°C and outdoor temperature Tj Tj=-7°C Peh T,52 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-7°C Peh T,55 kW Tj=-10°C COP4 T,5 kW Tj=-10°C COP4 T,5 kW Tj=-10°C COP4 T,5 kW Tj=-10°C COP4 T,5 kW Tj=-10°C COP4 T,5 kW Tj=-10°C COP4 T,5 kW Tj=-10°C COP4 T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,5 kW Tj=-10°C Peh T,	at indoor
Tj=2°C	at IIIuUUI
Tj=2°C	3 21
Tij=r/C Pdh 2.94 kW Tij=r/C COPd 5.4 Tij=bivalent temperature Pdh 6.77 kW Tij=operating limit Pdh 6.57 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 6.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit Pdh 7.50 kW Tij=operating limit	
Tj=12°C Pdh 2.83 kW Tj=bivalent temperature Pdh 6.77 kW Tj=bivalent temperature Pdh 6.77 kW Tj=borerating limit Pdh 8.50 kW  Declared capacity for heating / Warmer season, at indoor temperature 20°C and outdoor temperature Tj Tj=2°C Pdh - kW Tj=12°C Pdh - kW Tj=12°C Pdh - kW Tj=bivalent temperature Pdh - kW Tj=bivalent temperature Pdh - kW Tj=bivalent temperature Pdh - kW Tj=bivalent temperature Pdh - kW Tj=bivalent temperature Pdh - kW Tj=bivalent temperature Pdh - kW Tj=bivalent temperature Pdh - kW Tj=borerating limit Pdh - kW Tj=borerating limit Pdh - kW Tj=12°C COPd - Tj=bivalent temperature COPd - Tj=borerating limit Pdh - kW Tj=12°C Pdh - kW Tj=2°C Pdh - kW Tj=2°C Pdh - kW Tj=2°C Pdh - kW Tj=12°C Pdh - kW Tj=12°C Pdh - kW Tj=12°C Pdh - kW Tj=12°C Pdh - kW Tj=12°C Pdh - kW Tj=12°C Pdh - kW Tj=12°C Pdh - kW Tj=12°C Pdh - kW Tj=12°C COPd - Tj=bivalent temperature Tj Tj=2°C Pdh - kW Tj=12°C COPd - Tj=bivalent temperature Tj Tj=2°C Pdh - kW Tj=12°C COPd - Tj=bivalent temperature Tj Tj=2°C Pdh - kW Tj=12°C COPd - Tj=bivalent temperature Tj Tj=2°C Pdh - kW Tj=12°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent temperature Tj Tj=2°C COPd - Tj=bivalent tem	
Tj=bivalent temperature	5.42 -
Declared capacity for heating / Warmer season, at indoor temperature 20°C and outdoor temperature Ti   Tj=2°C   Pdh   NW   Tj=operating limit   COPd   Z.7   Tj=2°C   Pdh   NW   Tj=0   Pdh   Tj=2°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd   Tj=1°C   COPd	6.23 -
Declared capacity for heating / Warmer season, at indoor temperature 20°C and outdoor temperature T] T]=2°C Pdh Pdh RW T]=1°C Pdh RW T]=1°C Pdh RW T]=1°C Pdh RW T]=2°C Pdh RW T]=1°C Pdh RW T]=2°C Pdh RW T]=1°C Pdh RW T]=2°C Pdh RW T]=1°C Pdh RW T]=1°C Pdh RW T]=1°C Pdh RW T]=1°C Pdh RW T]=1°C Pdh RW T]=1°C Pdh RW T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C Pdh RW T]=2°C Pdh RW T]=2°C Pdh RW T]=2°C Pdh RW T]=2°C Pdh RW T]=2°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°C COPd T]=1°	2.40 -
temperature 20°C and outdoor temperature Ti   Tj=2°C   Pdh	2.70 -
temperature 20°C and outdoor temperature Ti   Tj=2°C   Pdh	
Tj=2°C Pdh	at indoor
Tj=12°C Pdh - kW Tj=12°C COPd T	
Tj=12°C Pdh	-  -
Tj=bivalent temperature Pdh	
Tj=bivalent temperature Pdh	
Tj=operating limit Pdh	
Declared capacity for heating / Colder season, at indoor temperature 20°C and outdoor temperature 1'  Tj=-7°C Pdh	
Bivalent temperature heating / Average heating / Warmer heating / Warmer heating / Colder Tbiv Tbiv Tbiv Tbiv Tbiv Tbiv Tbiv Tbiv	
heating / Average heating / Warmer Tbiv — 10	
heating / Average heating / Warmer Tbiv — 10	
heating / Warmer heating / Colder Tbiv — °C heating / Warmer Tol — heating / Colder Tbiv — °C heating / Colder Tol — heating / Colder Tol	<b>-20</b> °C
Degradation coefficient cooling   Poych   Poych   Rated air flow(indoor)   Poych   P	
Cycling interval capacity for cooling Pcych RW for cooling For heating Pcych Roych R	
for cooling for heating Pcych RW for cooling for cooling for heating Pcych RW for heating COPcyc RW for heating COPcyc RW for heating COPcyc RW for heating COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RW for heating RW for heating	10
for cooling for heating Pcych RW for cooling for cooling for heating Pcych RW for heating COPcyc RW for heating COPcyc RW for heating COPcyc RW for heating COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RERcyc COPcyc RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating RW for heating	
for heating Pcych — kW for heating COPcyc —  Degradation coefficient cooling Cdc 0.25 - Degradation coefficient cooling Cdc 0.25 - Degradation coefficient heating Cdh 0.2  Electric power input in power modes other than 'active mode' off mode Poff 8 W heating / Average Qhe 2,84 heating / Average Qhe crankcase heater mode Pck 8 W heating / Coller Qhe —  Capacity control(indicate one of three options)  Fixed No Sound power level(indoor) Lwa 70 Global warming potential GWP 1,97 Rated air flow(outdoor) - 2,16 Ascolution of the manufacturer or of its authorised representative.  Contact details for obtaining more information Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.	
Degradation coefficient cooling	<del></del>
Cooling   Cdc   0.25   -	-  -
Cooling   Cdc   0.25   -	
Electric power input in power modes other than 'active mode' off mode	0.25
off mode standby mode standby mode Psb 8 W heating / Average Qhe 2,84 heating / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Average Abeliang / Abeliang / Average Abeliang / Average Abeliang / Abeliang / Average Abeliang / Averag	0.20
off mode standby mode standby mode Psb 8 W heating / Average Qhe 2,84 heating / Warmer Qhe rankcase heater mode Pck 8 W heating / Cooling heating / Average Qhe 2,84 heating / Warmer Qhe heating / Cooling heating / Warmer Qhe heating / Cooling heating / Average Qhe 2,84 heating / Warmer Qhe heating / Cooling heating / Warmer Qhe heating / Cooling heating / Average Qhe 2,84 heating / Warmer Qhe heating / Cooling heating / Average Qhe 2,84 heating / Warmer Qhe heating / Cooling Sound power level(indoor) Lwa 70 Global warming power level(outdoor) Lwa 70 Global warming potential GWP 1,97 Rated air flow(indoor) - 2,16 Rated air flow(outdoor) - 4,50 Contact details for obtaining more information Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.	
standby mode thermostat-off mode crankcase heater mode Pck 8 W heating / Average heating / Warmer Qhe —— Capacity control(indicate one of three options)  Capacity control(indicate one of three options)  Capacity control(indicate one of three options)  Capacity control(indicate one of three options)  Other items Sound power level(indoor) Sound power level(outdoor) Lwa 70 Global warming potential GWP 1,97 Rated air flow(indoor) - 2,16 Rated air flow(outdoor) - 4,50  Contact details for obtaining more information  Name and address of the manufacturer or of its authorised representative.  Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.	<b>573</b> kWh/a
thermostat-off mode crankcase heater mode  Pto 65 W heating / Warmer Qhe — heating / colder  Capacity control(indicate one of three options)  Capacity control(indicate one of three options)  Tixed No Global warming potential GWP 1,97 at a graph of the property of the property of the property of the manufacturer or of its authorised representative.  Name and address of the manufacturer or of its authorised representative.  Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.	
Capacity control(indicate one of three options)  Capacity control(indicate one of three options)  Fixed Staged Variable  No Variable  Name and address of the manufacturer or of its authorised representative.  Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.  Ne Heating / colder  Other items Sound power level(indoor) Lwa 65 Sound power level(outdoor) Lwa 70 Global warming potential GWP 1,97 Rated air flow(outdoor) - 2,16 Rated air flow(outdoor) - 4,50 Contact details for obtaining more information  Name and address of the manufacturer or of its authorised representative.  Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.	
Capacity control(indicate one of three options)    Capacity control(indicate one of three options)	- kWh/a
fixed  No Sound power level(indoor) Sound power level(outdoor) Lwa 70 Global warming potential Sound power level(outdoor) Global warming potential GWP 1,97 Rated air flow(indoor) - 2,16 Rated air flow(outdoor) - 4,50  Contact details for obtaining more information  Name and address of the manufacturer or of its authorised representative. Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.	- kWh/a
Sound power level(indoor) Lwa 65 Sound power level(outdoor) Lwa 70 Sound power level(outdoor) Lwa 70 Global warming potential GWP 1,97 staged No Rated air flow(indoor) - 2,16 Rated air flow(outdoor) - 4,50  Contact details for obtaining more information Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.	
fixed No Global warming potential GWP 1,97 staged No Rated air flow(indoor) - 2,16 Rated air flow(outdoor) - 4,50  Contact details for obtaining more information Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.	
fixed No Global warming potential GWP 1,97 staged No Rated air flow(indoor) - 2,16 variable Yes Rated air flow(outdoor) - 4,50  Contact details for obtaining more information Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.	
staged variable    No   Rated air flow(indoor) -   2,16	` '
variable  Yes  Rated air flow(outdoor) - 4,50  Contact details for obtaining more information  Name and address of the manufacturer or of its authorised representative.  Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.	1,975 kgCO <sub>2</sub> e
variable  Yes  Rated air flow(outdoor) - 4,50  Contact details for obtaining more information  Name and address of the manufacturer or of its authorised representative.  Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.	
Contact details for obtaining Mame and address of the manufacturer or of its authorised representative.  Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.	
more information Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.	<b>4,500</b> m <sup>3</sup> /h
more information Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd.	
	·
5 The Square, Stockley Park, Uxbridge, Middlesex, UB11 1ET.	
United Kingdom	
P.J.C	PJG000Z466_A

#### FDUM100VSAVF2

FDUM100VSAVF2				
	lel(s) to which the information relates to			
Indoor unit model name Outdoor unit model name	FDUM100VF2 FDC100VSA	information relates to. Indicated value		
Outdoor unit model name	FDC100VSA	heating season at a time. Include at I	east the heating season. Ave	erage .
Function(indicate if present)		Average(mandatory)	Yes	
cooling	Yes	Warmer(if designated)	No	
heating	Yes	Colder(if designated)	No	
	•		<u>.</u>	
Item	symbol value unit	Item		class
Design load	Delegione 400 IAM	Seasonal efficiency and energy efficiency		۸
cooling heating / Average	Pdesignc 10.0 kW Pdesignh 8.5 kW	cooling heating / Average	SEER 6.11 SCOP/A 4.19	A++ A+
heating / Warmer	Pdesignh – kW	heating / Warmer	SCOP/W -	— —
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C -	
ricating / Coldor	r designinj jitt	Trouting / Colder		unit
Declared capacity at outdoor t	emperature Tdesignh	Back up heating capacity at outdoor		
heating / Average (-10°C)	Pdh <b>8.50</b> kW	heating / Average (-10°C)	elbu <b>0</b> k	κW
heating / Warmer (2°C)	PdhkW	heating / Warmer (2°C)		κW
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu – k	κW
Deeless described as a line	-t in the section 07/40\\000	Deda-de-de-de-de-de-de-de-de-de-de-de-de-de-	-1t07(40) <sup>9</sup> 0	
outdoor temperature Tj	at indoor temperature 27(19)°C and	Declared energy efficiency ratio, at in outdoor temperature Tj	door temperature 27(19) C a	and
Tj=35°C	Pdc <b>10.00</b> kW	Tj=35°C	EERd <b>3.52</b> -	
Tj=30°C	Pdc 7.37 kW	Tj=33°C	EERd 4.83 -	
Tj=25°C	Pdc 4.74 kW	Tj=25°C	EERd 7.73 -	
Tj=20°C	Pdc 3.54 kW	Tj=20°C	EERd 11.60 -	
-,				
Declared capacity for heating		Declared coefficient of performance /		
temperature 20°C and outdoor		temperature 20°C and outdoor temperature		
Tj=-7°C	Pdh <b>7.52</b> kW	Tj=-7°C	COPd 3.21 -	
Tj=2°C	Pdh <b>4.58</b> kW	Tj=2°C	COPd 3.91 -	
Tj=7°C	Pdh <b>2.94</b> kW	Tj=7°C	COPd 5.42 -	
Tj=12°C	Pdh <b>2.83</b> kW	Tj=12°C	COPd 6.23 -	
Tj=bivalent temperature	Pdh <b>6.77</b> kW	Tj=bivalent temperature	COPd 2.40 -	
Tj=operating limit	Pdh <b>8.50</b> kW	Tj=operating limit	COPd <b>2.70</b> -	
Declared capacity for heating	/ Warmer season, at indoor	Declared coefficient of performance /	Warmer season, at indoor	
temperature 20°C and outdoor		temperature 20°C and outdoor temperature		
Tj=2°C	Pdh – kW	Tj=2°C	CÓPd	
Tj=7°C	Pdh – kW	Tj=7°C	COPd	
Tj=12°C	Pdh – kW	Tj=12°C	COPd	
Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd	
Declared capacity for heating		Declared coefficient of performance /		
temperature 20°C and outdoor		temperature 20°C and outdoor temperature		
Tj=-7℃ Ti=2℃	Pdh – kW	Tj=-7°C	COPd	
Tj=2 C Ti=7°C	Pdh — kW Pdh — kW	Tj=2°C Tj=7°C	COPd — -	
Tj=12°C	Pdh - kW	Tj=12°C	COPd -	
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd -	•
Tj=operating limit	Pdh - kW	Tj=blvalent temperature Tj=operating limit	COPd -	
Tj=-15°C	Pdh – kW	Tj=-15°C	COPd -	
.,		.,	00. 4	
Bivalent temperature		Operating limit temperature		
heating / Average	Tbiv°C	heating / Average		C
heating / Warmer	Tbiv°C	heating / Warmer		C
heating / Colder	Tbiv − °C	heating / Colder	Tol – °	C
Cycling interval capacity		Cycling interval efficiency		
for cooling	Pcycc - kW	for cooling	EERcyc	
for heating	Pcych – kW	for heating	COPcyc	
	, , , , , , , , , , , , , , , , , , , ,			
Degradation coefficient		Degradation coefficient		
cooling	Cdc <b>0.25</b> -	heating	Cdh <b>0.25</b> -	
Elastria nacione in contra	and a should be a least a	Annual alasticitus and		
	modes other than 'active mode'	Annual electricity consumption	000 572	kWh/a
off mode	Poff 8 W Psb 8 W	cooling		kwn/a kWh/a
standby mode thermostat-off mode	Psb 8 W Pto <b>65</b> W	heating / Average heating / Warmer		kwn/a kWh/a
crankcase heater mode	Pck 8 W	heating / colder		kwn/a kWh/a
oranicaso noater mode	1 01 1 0 1	nodding / colder	S(10   N	.,,,,,,,,,,,
Capacity control(indicate one	of three options)	Other items		
]		Sound power level(indoor)	Lwa <b>65</b>	dB(A)
		Sound power level(outdoor)	Lwa <b>70</b> c	dB(A)
fixed	No	Global warming potential	GWP <b>1,975</b> k	kgCO₂eq
staged	No	Rated air flow(indoor)		m <sup>3</sup> /h
variable	Yes	Rated air flow(outdoor)		m <sup>3</sup> /h
	,	a.ca all now(oatdoor)	7,000	
	<u> </u>			
Contact details for obtaining	Name and address of the m	anufacturer or of its authorised represent	ative.	
	Mitsubishi Heavy Industries Air-Cor	ditioning Europe, Ltd.	ative.	
Contact details for obtaining	Mitsubishi Heavy Industries Air-Cor 5 The Square, Stockley Park, Uxbri	ditioning Europe, Ltd.	ative.	
Contact details for obtaining	Mitsubishi Heavy Industries Air-Cor	ditioning Europe, Ltd.	ative.	
Contact details for obtaining	Mitsubishi Heavy Industries Air-Cor 5 The Square, Stockley Park, Uxbri	ditioning Europe, Ltd.	ative.	7466 A

## FDUM100VNAPVF

FDUM100VNAPVF			
	el(s) to which the information relates to:	If function includes heating: Indicate the	
Indoor unit model name Outdoor unit model name	FDUM50VF (2 units) FDC100VNA	information relates to. Indicated value	
Outdoor unit model name	FDC100VNA	heating season at a time. Include at le	east the heating season. Average.
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
-	•	· · · · · · · · · · · · · · · · · · ·	·
Item	symbol value unit	Item	symbol value class
Design load	Delaciona 400 IAM	Seasonal efficiency and energy efficie	
cooling heating / Average	Pdesignc 10.0 kW Pdesignh 8.5 kW	cooling heating / Average	SEER 5.50 A SCOP/A 3.94 A
heating / Warmer	Pdesignh — kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
Tiodaing / Colder	i deoigiiii	ricating / Colaci	unit
Declared capacity at outdoor to	emperature Tdesignh	Back up heating capacity at outdoor to	emperature Tdesignh
heating / Average (-10°C)	Pdh <b>8.50</b> kW	heating / Average (-10°C)	elbu <b>0</b> kW
heating / Warmer (2°C)	Pdh <u>–</u> kW	heating / Warmer (2°C)	elbu <u> </u>
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu – kW
Deeless described for a colling	07/40)90	D	07/40)%
outdoor temperature Tj	at indoor temperature 27(19)°C and	Declared energy efficiency ratio, at incontour temperature Ti	door temperature 27(19) C and
Tj=35°C	Pdc <b>10.00</b> kW	Tj=35°C	EERd <b>3.08</b> -
Tj=30°C	Pdc 7.37 kW	Tj=30°C	EERd <b>4.24</b> -
Tj=25°C	Pdc 4.74 kW	Tj=35°C	EERd <b>6.60</b> -
Tj=20°C	Pdc <b>3.30</b> kW	Tj=20°C	EERd 11.05
1, 200	1 40   0.00   NVV	1   1, 200	22.00   11.00  -
Declared capacity for heating /	Average season, at indoor	Declared coefficient of performance /	Average season, at indoor
temperature 20°C and outdoor	temperature Tj	temperature 20°C and outdoor tempe	rature Tj
Ťj=-7℃	Pdh <b>7.52</b> kW	Tj=-7°C	CÓPd <b>2.93</b> -
Tj=2℃	Pdh <b>4.58</b> kW	Tj=2°C	COPd <b>3.74</b> -
Tj=7°C	Pdh <b>2.94</b> kW	Tj=7°C	COPd <b>4.93</b> -
Tj=12°C	Pdh <b>2.70</b> kW	Tj=12°C	COPd <b>6.18</b> -
Tj=bivalent temperature	Pdh <b>6.77</b> kW	Tj=bivalent temperature	COPd <b>2.23</b> -
Tj=operating limit	Pdh <b>8.50</b> kW	Tj=operating limit	COPd <b>2.47</b> -
		1 -	
Declared capacity for heating /		Declared coefficient of performance /	
temperature 20°C and outdoor		temperature 20°C and outdoor tempe	
Tj=2°C	Pdh — kW Pdh — kW	Tj=2°C	001 u
Tj=7°C		Tj=7°C	* * * * * * * * * * * * * * * * * * * *
Tj=12°C	Pdh – kW	Tj=12°C	COPd – -
Tj=bivalent temperature Tj=operating limit	Pdh — kW Pdh — kW	Tj=bivalent temperature Tj=operating limit	COPd — - COPd — -
1j-operating limit	Full — KWV	IJ-operating limit	COFU —  -
Declared capacity for heating /	Colder season, at indoor	Declared coefficient of performance /	Colder season, at indoor
temperature 20°C and outdoor		temperature 20°C and outdoor tempe	
Tj=-7℃	Pdh – kW	Tj=-7°C	CÓPd – -
Tj=2°C	Pdh – kW	Tj=2°C	COPd
Tj=7°C	Pdh – kW	Tj=7°C	COPd
Tj=12°C	Pdh – kW	Tj=12°C	COPd – -
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd – -
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd – -
Tj=-15℃	Pdh — kW	Tj=-15℃	COPd – -
Di la di		16 6 6 7	
Bivalent temperature	This 40 °C	Operating limit temperature	Tol. 20 %
heating / Average heating / Warmer	Tbiv <u>-10</u> °C Tbiv — °C	heating / Average heating / Warmer	Tol <u>-20</u> °C Tol − °C
heating / Volder	Tbiv — °C	heating / Warmer heating / Colder	Tol — ℃
neating / Colder	TDIV C	heating / Colder	101   -  0
Cycling interval capacity		Cycling interval efficiency	
for cooling	Pcycc - kW	for cooling	EERcyc
for heating	Pcych - kW	for heating	COPcyc
			· · ·
Degradation coefficient	0.4:	Degradation coefficient	0.0
cooling	Cdc <b>0.25</b> -	heating	Cdh <b>0.25</b> -
Floatria powar input in a succession	and an other than lasting reside!	Appual alactricity as as :	
Electric power input in power n off mode	Poff 8 W	Annual electricity consumption cooling	Qce <b>637</b> kWh/a
standby mode	Psb 8 W	heating / Average	Qde <b>637</b> kWh/a Qhe <b>3,022</b> kWh/a
thermostat-off mode	Pto <b>45</b> W	heating / Warmer	Qhe
crankcase heater mode	Pck 8 W	heating / warrier	Qhe - kWh/a
S.G.M.SGOO HOGGOI HIOGO	. 5   0   11		
Capacity control(indicate one o	f three options)	Other items	
' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	,	Sound power level(indoor)	Lwa <b>60</b> dB(A)
		Sound power level(outdoor)	Lwa <b>70</b> dB(A)
fixed	No	Global warming potential	GWP 1,975 kgCO <sub>2</sub> e
			, ,
staged	No	Rated air flow(indoor)	
variable	Yes	Rated air flow(outdoor)	- <b>4,500</b> m <sup>3</sup> /h
Contact details for obtaining	Name and address of the me	nufacturer or of its authorised represent	ativo
Contact details for obtaining more information	Name and address of the ma Mitsubishi Heavy Industries Air-Cond	nufacturer or of its authorised representa	auve.
more information	5 The Square, Stockley Park, Uxbrid		
]	United Kingdom	ge,	
			PJG000Z466 A

## FDUM100VSAPVF

FDUM100VSAPVF				
	el(s) to which the information relates to			
Indoor unit model name	FDUM50VF (2 units)	information relates to. Indicated value		
Outdoor unit model name	FDC100VSA	heating season at a time. Include at le	east the neating seasor	n Average.
Function(indicate if present)		Average(mandatory)	Yes	
cooling	Yes	Warmer(if designated)	No	
heating	Yes	Colder(if designated)	No	
	+		-	
Item	symbol value unit	Item	symbol value	class
Design load		Seasonal efficiency and energy efficiency		
cooling	Pdesignc 10.0 kW	cooling	SEER <b>5.5</b> 0	
heating / Average	Pdesignh 8.5 kW	heating / Average	SCOP/A 3.94	
heating / Warmer	Pdesignh – kW	heating / Warmer	SCOP/W -	
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C -	
Declared capacity at outdoor to	emnerature Tdesignh	Back up heating capacity at outdoor t	emnerature Tdesignh	unit
heating / Average (-10°C)	Pdh 8.50 kW	heating / Average (-10°C)	elbu <b>0</b>	kW
heating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu –	kW
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu –	kW
	<u> </u>			ı
Declared capacity for cooling,	at indoor temperature 27(19)°C and	Declared energy efficiency ratio, at inc	door temperature 27(19	9)°C and
outdoor temperature Tj		outdoor temperature Tj		
Tj=35°C	Pdc <b>10.00</b> kW	Tj=35℃	EERd <b>3.08</b>	
Tj=30°C	Pdc <b>7.37</b> kW	Tj=30°C	EERd <b>4.2</b> 4	
Tj=25°C	Pdc <b>4.74</b> kW	Tj=25°C	EERd <b>6.60</b>	
Tj=20°C	Pdc <b>3.30</b> kW	Tj=20°C	EERd <b>11.0</b>	5 -
Doctored connects for booting	Average season of indeer	Declared coefficient of performance /	Average sesses of in-	loor
Declared capacity for heating / temperature 20°C and outdoor		Declared coefficient of performance / temperature 20°C and outdoor tempe		1001
Tj=-7°C	Pdh <b>7.52</b> kW	Ti=-7°C	COPd 2.93	3 -
Tj=2°C	Pdh 4.58 kW	Tj=2°C	COPd 3.74	
Tj=7°C	Pdh <b>2.94</b> kW	Tj=7°C	COPd 4.93	
Tj=12°C	Pdh <b>2.70</b> kW	Tj=12°C	COPd <b>6.18</b>	
Tj=bivalent temperature	Pdh <b>6.77</b> kW	Tj=bivalent temperature	COPd <b>2.2</b> 3	
Tj=operating limit	Pdh <b>8.50</b> kW	Tj=operating limit	COPd 2.4	
, , ,				
Declared capacity for heating /		Declared coefficient of performance /		loor
temperature 20°C and outdoor		temperature 20°C and outdoor tempe		
Tj=2°C	PdhkW	Tj=2°C	COPd -	
Tj=7°C	PdhkW	Tj=7°C	COPd -	
Tj=12℃	Pdh – kW	Tj=12°C	COPd -	
Tj=bivalent temperature	Pdh <u> </u>	Tj=bivalent temperature	COPd –	
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd -	-
Declared capacity for heating /	Colder season, at indoor	Declared coefficient of performance /	Colder season at indo	or
temperature 20°C and outdoor		temperature 20°C and outdoor tempe		Oi
Tj=-7°C	Pdh - kW	Ti=-7°C	COPd -	
Ti=2°C	Pdh - kW	Ti=2°C	COPd -	<b>−</b>  _
Tj=7°C	Pdh – kW		COPd -	_
Tj=12℃	Pdh – kW	Tj=12°C	COPd -	<del>-</del> -
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd -	-
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd -	-
Tj=-15℃	Pdh – kW	Tj=-15°C	COPd -	-
-	•		•	•
Bivalent temperature		Operating limit temperature		
heating / Average	Tbiv -10 °C	heating / Average	Tol -20	
heating / Warmer	Tbiv — °C	heating / Warmer	Tol –	°C
heating / Colder	Tbiv – °C	heating / Colder	Tol –	°C
Cycling interval capacity		Cycling interval efficiency		
for cooling	Pcycc - kW	for cooling	EERcyc -	
for heating	Pcych – kW	for heating	COPcyc -	<del>-</del> -
			/-	
Degradation coefficient		Degradation coefficient		
cooling	Cdc <b>0.25</b> -	heating	Cdh <b>0.2</b> !	5  -
Flactuic way were because t	and a other than the collection of the	Annual alasticitis and		
Electric power input in power n		Annual electricity consumption	000	kWh/a
off mode	Poff 8 W	cooling	Qce 637	
standby mode thermostat-off mode	Psb <b>8</b> W Pto <b>45</b> W	heating / Average	Qhe 3,02 Ohe —	kWh/a kWh/a
crankcase heater mode	Pto 45 W Pck 8 W	heating / Warmer heating / colder	Qhe —	kWh/a
CIAIINGASE HEALEI IIIOUE	I ON O VV	ricating / coluct	QIIC	IVANII/q
Capacity control(indicate one c	of three options)	Other items		
	/	Sound power level(indoor)	Lwa 60	dB(A)
		Sound power level(outdoor)	Lwa 70	dB(A)
fixed	No	Global warming potential	GWP <b>1,97</b>	
		<b>⊣</b> I	-	
staged	No	Rated air flow(indoor)	- 780	
variable	Yes	Rated air flow(outdoor)	- 4,50	<b>0</b> m <sup>3</sup> /h
Contact details for obtaining	Name and address of the	nufacturer or of its authorised representa	ativo	
Contact details for obtaining more information	Mitsubishi Heavy Industries Air-Con		auv€.	
more imorniation	5 The Square, Stockley Park, Uxbrid			
	United Kingdom	.g.,aa.ooo,, o.z. 1 1 1 1 1,		
			PJG	000Z466A

#### FDUM125VNAVF

Model(s): FDC125VNA /	FDUM125	SVF					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air conditioned	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space co	poling energy		
	Prated,c	12.5	kW	efficiency ηs,c		207.3	%
Declared cooling capacity for part load at gi	ven outdoor	temperatur	res	Declared energy e	fficiency ratio or gas utilization efficier	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fac	ctor for part load at given outdoor tem	peratures 1	j
T:- + 25°0	D.I.	40.5	المدير				1
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or	287.0	%
Tj=+30°C	Pdc	9.2	kW		GUEc,bin / AEFc,bin		1
17-130 0	i uc	3.2		Tj=+30°C	EERd or	409.0	%
Tj=+25°C	Pdc	5.9	kW	T: 05°0	GUEc,bin / AEFc,bin		1
,, 200	. 45	0.0	]	Tj=+25°C	EERd or	650.0	%
Tj=+20°C	Pdc	3.5	kW	Tj=+20°C	GUEc,bin / AEFc,bin EERd or		-
			_	1]-1200	GUEc,bin / AEFc,bin	865.0	%
Degradation			7		GOLO, BITT ALT O, BIT		1
coefficient for	Cdc	0.25	_				
air conditioners**							
			-				
Power consumpiton in other than 'active mo	ode'						
		_	_				,
Off mode	$P_{OFF}$	0.010	kW	Crankcase heater		0.008	kW
Thermostat-off mode	$P_{TO}$	0.075	kW	Standby mode	$P_{SB}$	0.010	kW
Other items							1
Consists control		verieble	7	For air-to-air air co	nditioner:	4,500	m³/h
Capacity control		variable		air flow-rate,outdoo	or measured		]
			٦				
Sound power level, outdoor	$L_{WA}$	71.0	dB				
Outdoor			_				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	_	fuel input				
oxides			GCV				
		<u></u>					
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		2,000	(100years)				
,			nal systems,L				
** If Cdc is not determined by measurement	t then the de	fault degra	dation coeffic	ient air conditioners	shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o	onditioners,	the test res	ult and perfor	mance data be obtai	ined on the basis of the performance		
of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.							
						PJG00	0Z466 A

Information to identify the model(	s) to which the informa	tion relates	:	FDC125VNA /	FDUM125VF		
Outdoor side heat exchanger of h		air					
Indoor side heat exchanger of he		air					
Indication if the heater is equippe				No			
if applicable : electric mo	otor						
Parameters shall be declared for	the average heating se	eason , para	ameters for t	he warmer and colder hea	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	-				g energy efficiency ηs,h		
	Prated,h	14.0	kW			162.1	%
Declared heating capacity for par	t load at indoor temper	L ature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	<u> </u>
and outdoor temperature Tj					for part load at given outdoor t	-	Tj
T <sub>i</sub> =-7°C	Pdh	8.7	lkW	T <sub>i</sub> =-7°C	COPd or		1
1,10	T dil	0.7	],,,,	1,==7 0	GUEh,bin / AEFh,bin	311.0	%
T <sub>j</sub> =+2°C	Pdh	5.3	kW	T <sub>j</sub> =+2°C	COPd or	391.0	%
T-17°C	Pdh	2.4	kW	T <sub>i</sub> =+7°C	GUEh,bin / AEFh,bin		1
T <sub>j</sub> =+7°C	Pull	3.4	JKVV	1 <sub>j</sub> =+7 C	COPd or GUEh,bin / AEFh,bin	530.0	%
T <sub>j</sub> =+12°C	Pdh	2.9	kW	T <sub>j</sub> =+12°C	COPd or	600.0	%
T. Disabathan	D.II.		1,,,,,	T blocked	GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	9.8	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	260.0	%
T <sub>OL</sub> =operation limit	Pdh	7.8	kW	T <sub>OL</sub> =operation limit	COPd or	231.0	%
			7		GUEh,bin / AEFh,bin	231.0	170
For air-to-water heat pumps : T <sub>i</sub> =-15°C	Pdh	_	kW	For air-to-water heat pumps:T <sub>i</sub> =-15°C	t COPd or GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			J
	_		1.				7
Bivalent temperature	$T_biv$	-10.0	°C	For water-to-air heat pumps:Operation lim		_	°C
Degradation			1	T <sub>ol</sub> temperature			
coefficient	$C_dh$	0.25	-				_
heat pumps**			]				
Power consumpiton in modes oth	ner than 'active mode'			Supplementary heat	er elbu	_	kW
Off mode	D	0.010	kW	back-up heating cap			]
Thermostat-off mode	P <sub>OFF</sub> P <sub>TO</sub>	0.010	kW	Type of energy input	t _		1
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	P <sub>SB</sub>	0.010	kW
0,1, 1,1							
Other items				For air-to-air heat pu	ımps:		1 ,
Capacity control		variable	]	air flow-rate,outdoor	•	4,380	m <sup>3</sup> /h
			1				1
Sound power level, outdoor measured	$L_WA$	71.0	dB	For water-/brine-to-a Rated brine or water		_	m <sup>3</sup> /h
outdoor mododrod			_	outdoor side heat ex	,		
Emissions of nitrogen	NOx		mg/kWh				_
oxides(if applicable)	***	_	fuel input GCV				
			]GCV				
			7				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			1(.00)04.0)				
	1						
Contact details	Mitsubishi heavy indu						
** If Cdh is not determined by me	easurement then the de	fault degrad	dation coeffic	cient air conditioners shall	I be 0,25.		
*** from 26 September 2018							
Where information relates to mul					on the basis of the performan	ce	
of the outdoor unit, with a combin	nation of indoor unit(s) r	ecommend	ed by the ma	anufacturer or importer.			
						PJG00	0Z466 🛦

#### FDUM125VSAVF

Model(s): FDC125VSA /	FDUM125	VF					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	ling energy		
	Prated,c	12.5	kW	efficiency ηs,c		207.3	%
Declared cooling capacity for part load at g	iven outdoor	temperatur	es	Declared energy effic	ciency ratio or gas utilization efficien	icy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	peratures T	ij
			_				
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or	287.0	%
					GUEc,bin / AEFc,bin	207.0	70
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	EERd or	409.0	%
			_		GUEc,bin / AEFc,bin	400.0	70
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or	650.0	%
			_		GUEc,bin / AEFc,bin	000.0	70
Tj=+20°C	Pdc	3.5	kW	Tj=+20°C	EERd or	865.0	%
			_		GUEc,bin / AEFc,bin	000.0	70
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**							
Power consumpiton in other than 'active me	ode'						
					i		1
Off mode	P <sub>OFF</sub>	0.010	kW	Crankcase heater me	ode P <sub>CK</sub>	0.008	kW
Thermostat-off mode	$P_{TO}$	0.075	kW	Standby mode	$P_{SB}$	0.010	kW
Other items					ı		1
			1	For air-to-air air cond	ditioner:	4,500	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outdoor	measured		
			7				
Sound power level,	$L_WA$	71.0	dB				
outdoor							
			1				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	_	fuel input				
oxides			GCV				
			1				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			](''''''				
Contact details Mitauhiah	ni hoovy indu	atrica therm	nal avatama l	I			
Contact details Mitsubisl  ** If Cdc is not determined by measuremen			nal systems,L dation coeffici		nall be 0.25.		
*** from 26 September 2018					·····		
Where information relates to multi-spilt air	conditioners	the test ros	ult and porfer	mance data he obtains	ed on the basis of the porformance		
of the outdoor unit, with a combination of in							
o. a.o oataoor anit, with a combination of in	aoor unit(s) l	Coomment	iou by the fild	naraotarei oi iiripoitei.	•		
						PJG000	)Z466 🛦

Information to identify the model(	s) to which the informa	tion relates	:	FDC125VSA /	FDUM125VF		
Outdoor side heat exchanger of h		air		. 50.2010/. ,	. 502011		
Indoor side heat exchanger of he		air					
Indication if the heater is equippe				No			
if applicable : electric mo		,					
Parameters shall be declared for		eason . para	meters for	the warmer and colder hea	ating seasons are optional.		
						Value	Linit
Item Rated heating capacity	Symbol	Value	Unit	Item Seasonal space heatin	Symbol g energy efficiency ηs,h	value	Unit
3 1 7	Prated,h	14.0	kW		3 37 717	162.1	%
Declared heating capacity for parand outdoor temperature Tj	t load at indoor temper	ature 20°C	•	11	performance or gas utilization for part load at given outdoo	-	Tj
T <sub>j</sub> =-7°C	Pdh	8.7	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	311.0	%
T <sub>j</sub> =+2°C	Pdh	5.3	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	391.0	%
T <sub>j</sub> =+7°C	Pdh	3.4	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	530.0	%
T <sub>j</sub> =+12°C	Pdh	2.9	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	600.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	9.8	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	260.0	%
T <sub>OL</sub> =operation limit	Pdh	7.8	kW	T <sub>OL</sub> =operation limit	COPd or GUEh,bin / AEFh,bin	231.0	%
For air-to-water heat pumps : $T_j$ =-15°C (if $T_{OL}$ <-20°C)	Pdh	_	kW	For air-to-water heat pumps:T <sub>j</sub> =-15°C (if T <sub>OL</sub> <-20°C)	COPd or GUEh,bin / AEFh,bin	_	%
Bivalent temperature	$T_{biv}$	-10.0	]℃	For water-to-air heat pumps:Operation lim			°c
Degradation coefficient	$C_dh$	0.25	_	T <sub>ol</sub> temperature	iit.		
heat pumps**	- un						
Power consumpiton in modes oth	ner than 'active mode'		_	Supplementary heat back-up heating cap	eibt	-	kW
Off mode	$P_{OFF}$	0.010	kW				-
Thermostat-off mode Crankcase heater mode	Р <sub>то</sub> Р <sub>ск</sub>	0.090	kW kW	Type of energy input Standby mode	t P <sub>SB</sub>	0.010	kW
Other items				1			
Capacity control		variable	]	For air-to-air heat pu air flow-rate,outdoor		4,380	m <sup>3</sup> /h
Sound power level, outdoor measured	$L_WA$	71.0	dB	For water-/brine-to-a Rated brine or water		_	m <sup>3</sup> /h
Emissions of nitrogen oxides(if applicable)	NOx ***	_	mg/kWh fuel input GCV	outdoor side heat ex	cchanger		J
GWP of the refrigerant		2,088	kg CO <sub>2eq</sub> (100years)				
Contact details  ** If Cdh is not determined by me	Mitsubishi heavy indu				l be 0,25.		
*** from 26 September 2018 Where information relates to mul of the outdoor unit, with a combir					on the basis of the performa	ance	
						D ICON	07400 ^

#### FDUM140VNAVF

Model(s): FDC140VNA /	FDUM140	VF					
Outdoor side heat exchanger of air condition	ner :	air					
Indoor side heat exchanger of air conditione	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cool	ing energy		
	Prated,c	13.6	kW	efficiency ηs,c		200.0	%
Declared cooling capacity for part load at gi	ven outdoor	temperatur	es	Declared energy effic	ciency ratio or gas utilization efficien	icy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	r for part load at given outdoor tem	peratures T	ij
T:- 125°0	Pdc	13.6	1,,,,,		I		1
Tj=+35°C	Pac	13.6	kW	Tj=+35°C	EERd or	276.0	%
Tj=+30°C	Pdc	10.0	kW	T. 0005	GUEc,bin / AEFc,bin		
11]=130 C	i do	10.0	JKVV	Tj=+30°C	EERd or	383.0	%
Tj=+25°C	Pdc	6.4	kW	T:- 105°0	GUEc,bin / AEFc,bin		
	. 40	• • • • • • • • • • • • • • • • • • • •	]	Tj=+25°C	EERd or	588.0	%
Tj=+20°C	Pdc	3.5	kW	Tj=+20°C	GUEc,bin / AEFc,bin EERd or		
			J	1]-1200	GUEc,bin / AEFc,bin	970.0	%
Degradation			1		OOLO,DIII / ALI O,DIII		ı
coefficient for	Cdc	0.25	-				
air conditioners**							
			-				
Power consumpiton in other than 'active mo	de'						
			,		·		,
Off mode	$P_{OFF}$	0.008	kW	Crankcase heater mo	<del></del>	0.008	kW
Thermostat-off mode	$P_{TO}$	0.090	kW	Standby mode	P <sub>SB</sub>	0.008	kW
Other items							1
Capacity control		variable	1	For air-to-air air cond		4,500	m³/h
Capacity Control		variable	]	air flow-rate,outdoor i	measured		l
Count of a count loved			1				
Sound power level, outdoor	$L_{WA}$	73.0	dB				
outdoor			J				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	_	fuel input				
oxides			GCV				
		ļ	]				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		2,000	(100years)				
			nal systems,L				
** If Cdc is not determined by measurement	then the de	fault degrad	dation coeffici	ent air conditioners sha	all be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air c	onditioners,	the test resu	ult and perfor	mance data be obtaine	ed on the basis of the performance		
of the outdoor unit, with a combination of inc	door unit(s)	recommend	led by the ma	nufacturer or importer.			
						PJG000	)Z466 A

Information to identify the model(s	s) to which the informa	tion relates	:	FDC140VNA /	FDUM140VF		
Outdoor side heat exchanger of h		air	•				
Indoor side heat exchanger of hea		air					
Indication if the heater is equippe				No			
if applicable : electric mo		<u> </u>					
Parameters shall be declared for	the average heating se	eason , para	ameters for	the warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Зупівої	value	Offic		ig energy efficiency ηs,h	Value	Offic
	Prated,h	15.5	kW			157.4	%
Declared heating capacity for par and outdoor temperature Tj	t load at indoor temper	ature 20°C			performance or gas utilization for part load at given outdoo	-	Тј
T <sub>j</sub> =-7°C	Pdh	9.3	kW	T <sub>j</sub> =-7°C	COPd or	300.0	%
T <sub>j</sub> =+2°C	Pdh	5.7	kW	T <sub>j</sub> =+2°C	GUEh,bin / AEFh,bin COPd or GUEh,bin / AEFh,bin	380.0	%
T <sub>j</sub> =+7°C	Pdh	3.7	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	518.0	%
T <sub>j</sub> =+12°C	Pdh	2.8	kW	T <sub>j</sub> =+12℃	COPd or GUEh,bin / AEFh,bin	567.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	10.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	256.0	%
T <sub>OL</sub> =operation limit	Pdh	7.9	kW	T <sub>OL</sub> =operation limit	COPd or GUEh,bin / AEFh,bin	229.0	%
For air-to-water heat pumps :  T <sub>j</sub> =-15°C	Pdh	_	kW	For air-to-water heat pumps:T <sub>j</sub> =-15°C	t COPd or GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)  Bivalent temperature	T <sub>biv</sub>	-10.0	]°c	(if T <sub>OL</sub> <-20°C)  For water-to-air heat	t		1
Degradation			]	pumps:Operation lin	nit	_	°C
coefficient	$C_{dh}$	0.25	-				-
Power consumpiton in modes oth  Off mode  Thermostat-off mode	er than 'active mode' P <sub>OFF</sub> P <sub>TO</sub>	0.008 0.100	kW kW	Supplementary heat back-up heating cap	pacity		kw
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	· P <sub>SB</sub>	0.008	kW
Other items							1
Capacity control		variable	]	For air-to-air heat pu air flow-rate,outdoor		4,380	m <sup>3</sup> /h
Sound power level, outdoor measured	$L_{WA}$	73.0	dB	For water-/brine-to-a Rated brine or water outdoor side heat ex	r fiow-rate,	_	m³/h
Emissions of nitrogen oxides(if applicable)	NOx ***	_	mg/kWh fuel input GCV				
GWP of the refrigerant		2,088	kg CO <sub>2eq</sub> (100years)				
Contact details	Mitsubishi heavy indu	stries therm	nal systems.	LTD			
** If Cdh is not determined by me					l be 0,25.		
*** from 26 September 2018							
Where information relates to mult	i-spilt air conditioners	he test resi	ult and perfo	ormance data be obtained	on the basis of the performa	ance	
of the outdoor unit, with a combin					on the basis of the policinit	41100	
						I BICOO	

#### FDUM140VSAVF

Model(s): FDC140VSA /	FDUM140	VF					
Outdoor side heat exchanger of air condition	ner :	air					
Indoor side heat exchanger of air condition	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cool	ling energy		
	Prated,c	13.6	kW	efficiency ηs,c		200.0	%
Declared cooling capacity for part load at g	iven outdoor	temperatur	es	Declared energy effic	ciency ratio or gas utilization efficien	cy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	peratures T	j
T: .05%	D.1	40.0	1				1
Tj=+35°C	Pdc	13.6	kW	Tj=+35°C	EERd or	276.0	%
Ti-120°C	Pdc	10.0	kW		GUEc,bin / AEFc,bin		-
Tj=+30°C	Puc	10.0	JKVV	Tj=+30°C	EERd or	383.0	%
Tj=+25°C	Pdc	6.4	kW		GUEc,bin / AEFc,bin		-
17-1200	1 40	0.4	],,,,	Tj=+25°C	EERd or	588.0	%
Tj=+20°C	Pdc	3.5	kW	T:- : 00°0	GUEc,bin / AEFc,bin		-
1, 1200	1 40	0.0	]	Tj=+20°C	EERd or	970.0	%
Degradation					GUEc,bin / AEFc,bin		J
coefficient for	Cdc	0.25	_				
air conditioners**	odo						
all conditioners			_				
Power consumpiton in other than 'active m	ode'						
·							
Off mode	$P_{OFF}$	0.008	kW	Crankcase heater me	ode P <sub>CK</sub>	0.008	kW
Thermostat-off mode	$P_{TO}$	0.090	kW	Standby mode	$P_{SB}$	0.008	kW
Other items							-
			-	For air-to-air air cond	litioner:	4,500	m³/h
Capacity control		variable		air flow-rate,outdoor	measured	,	],
			ا ا				
Sound power level,	$L_WA$	73.0	dB				
outdoor							
			1				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	_	fuel input				
oxides			GCV				
GWP of the			ls= CO				
		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			]` ´ ´				
Contact details Mitsubisl	ni hoovy indu	etrice therm	nal systems,L	I			
** If Cdc is not determined by measuremen	-		-		all be 0,25.		
*** from 26 September 2018	-	5					
Where information relates to multi-spilt air	conditioners	the test resi	ult and perfor	mance data be obtaine	ed on the basis of the performance		
of the outdoor unit, with a combination of ir							
	(5)		ay alo illa				
						PJG00	0Z466A

Information to identify the model/	a) to which the informa	tion rolatoo		FDC140V6A /	EDLIM140VE		
Information to identify the model(			:	FDC140VSA /	FDUM140VF		
Outdoor side heat exchanger of h		air					
Indoor side heat exchanger of he		air		No			
Indication if the heater is equippe		/ neater :		No			
if applicable : electric mo				d	-e		
Parameters shall be declared for			ameters for	the warmer and colder nea			
Item ::	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Prated,h	15.5	kW	Seasonal space neating	g energy efficiency ηs,h	157.4	%
Declared heating capacity for par	t load at indoor temper	ature 20°C		Declared coefficient of	performance or gas utilization	n efficiency /	
and outdoor temperature Tj					for part load at given outdoor	-	: Tj
T <sub>j</sub> =-7°C	Pdh	9.3	kW	T <sub>j</sub> =-7°C	COPd or	300.0	%
T <sub>j</sub> =+2°C	Pdh	5.7	kW	T <sub>j</sub> =+2°C	GUEh,bin / AEFh,bin COPd or	380.0	%
T <sub>j</sub> =+7°C	Pdh	3.7	kW	T <sub>j</sub> =+7°C	GUEh,bin / AEFh,bin COPd or		4
T <sub>i</sub> =+12°C	Pdh	2.8	]kW	T <sub>i</sub> =+12°C	GUEh,bin / AEFh,bin COPd or	518.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	10.5	lkW	T <sub>biv</sub> =bivalent	GUEh,bin / AEFh,bin COPd or	567.0	%
	Pdh		]kw	temperature	GUEh,bin / AEFh,bin COPd or	256.0	%
T <sub>oL</sub> =operation limit		7.9	1	T <sub>OL</sub> =operation limit	GUEh,bin / AEFh,bin	229.0	%
For air-to-water heat pumps : T <sub>j</sub> =-15°C	Pdh		kW	For air-to-water heat pumps:T <sub>j</sub> =-15°C	COPd or GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)			_	(if T <sub>OL</sub> <-20°C)			_
Bivalent temperature	$T_biv$	-10.0	°C	For water-to-air heat pumps:Operation lim		_	°C
Degradation			1	T <sub>ol</sub> temperature			
coefficient	$C_dh$	0.25	-				
heat pumps**			]				
							-
Power consumpiton in modes oth	ner than 'active mode'			Supplementary heating cap	eibu	_	kW
Off mode	$P_{OFF}$	0.008	kW		,		_
Thermostat-off mode	P <sub>TO</sub>	0.100	kW	Type of energy input	P <sub>SB</sub>	0.008	kW
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	35		]
Other items				1			
				For air-to-air heat pu	mps:	4 290	m <sup>3</sup> /h
Capacity control		variable	]	air flow-rate,outdoor	measured	4,380	m-/n
0			1	Formation (being the	to be a decision of		1
Sound power level, outdoor measured	$L_WA$	73.0	dB	For water-/brine-to-a Rated brine or water		_	m <sup>3</sup> /h
outdoor measured			_	outdoor side heat ex			,
Emissions of nitrogen	NOv		mg/kWh		· ·		-
oxides(if applicable)	NOx ***	_	fuel input				
			GCV				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
			4				
Contact details	Mitsubishi heavy indu	stries therm	nal systems	LTD			
** If Cdh is not determined by me					be 0,25.		
*** from 26 September 2018							
Where information relates to mul	ti-spilt air conditioners	he test res	ult and nerfo	ormance data he obtained	on the basis of the performan	nce	
of the outdoor unit, with a combir					on the pasis of the periorillar	100	
or the outdoor unit, with a compir	iation of indoor unit(S) f	ecommend	ieu by trie m	ianuraciurei or importer.			
L						D ICON	07400 A

#### FDUM125VNAPVF

Model(s): FDC125VNA /	FDUM60V	F (2 units)					
Outdoor side heat exchanger of air condit	oner:	air					
Indoor side heat exchanger of air condition	ner:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space co	ooling energy		
	Prated,c	12.5	kW	efficiency ηs,c		248.7	%
				_			
Declared cooling capacity for part load at	given outdoor	temperatur	es		ficiency ratio or gas utilization efficie	-	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fac	ctor for part load at given outdoor ten	nperatures T	j
Tj=+35°C	Pdc	12.5	kW				1
17-+33 0	Fuc	12.5	],,,	Tj=+35°C	EERd or	286.0	%
Tj=+30°C	Pdc	9.2	kW	T:- + 20°0	GUEc,bin / AEFc,bin		1
,, 55 5	. 45		]	Tj=+30°C	EERd or GUEc,bin / AEFc,bin	458.0	%
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or		-
			_	1]23 0	GUEc,bin / AEFc,bin	688.0	%
Tj=+20°C	Pdc	3.5	kW	Tj=+20°C	EERd or		
			-	,	GUEc,bin / AEFc,bin	1,400.0	%
Degradation					, ,		-
coefficient for	Cdc	0.25	-				
air conditioners**							
Power consumpiton in other than 'active n	node'						
	_		ı				1
Off mode	P <sub>OFF</sub>	0.008	kW	Crankcase heater		0.008	kW
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	$P_SB$	0.008	kW
Other items							
Other items				For air-to-air air co	nditioner:		1 .
Capacity control		variable	1	air flow-rate,outdoo		4,500	m <sup>3</sup> /h
			_	an now-rate,outdoo	i measured		1
Sound power level,		74.0	]				
outdoor	$L_{WA}$	71.0	dB				
			_				
If engine driven:	NO		mg/kWh				
Emissions of nitrogen	NOx ***	_	fuel input				
oxides			GCV				
			,				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			(100ycais)				
Contact datails Mitaubia	.hi haayayindy	atria a tha ann	a al avestama I				
Contact details Mitsubis  ** If Cdc is not determined by measureme	shi heavy indu nt then the de				shall be 0,25.		
*** from 26 September 2018		9.4			-, -		
Where information relates to multi-spilt air	conditioners	the test res	ult and perfor	mance data be obtai	ned on the basis of the performance		
of the outdoor unit, with a combination of i					•		
	(0) 1		,				
						P.IG000	0Z466A

Information to identify the model(s) to	which the informa	tion relates	:	FDC125VNA /	FDUM60VF (2 units)		
Outdoor side heat exchanger of heat	pump :	air					
Indoor side heat exchanger of heat p	ump :	air					
Indication if the heater is equipped w	ith a supplementary			No			
if applicable : electric motor							
Parameters shall be declared for the	average heating se	eason , para	ameters for the	ne warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Cymbol	Value	Onit		ng energy efficiency ηs,h	Value	OTIIC
	Prated,h	14.0	kW			188.3	%
Declared heating capacity for part loa and outdoor temperature Tj	ad at indoor temper	ature 20°C	!		performance or gas utilization for part load at given outdoor to		Тј
T <sub>j</sub> =-7°C	Pdh	8.7	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	333.0	%
T <sub>j</sub> =+2°C	Pdh	5.3	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	459.0	%
T <sub>j</sub> =+7°C	Pdh	3.4	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	605.0	%
T <sub>j</sub> =+12°C	Pdh	2.7	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	771.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	9.8	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	276.0	%
T <sub>OL</sub> =operation limit	Pdh	7.7	kW	T <sub>OL</sub> =operation limit		248.0	%
For air-to-water heat pumps : T <sub>j</sub> =-15°C	Pdh	_	kW	For air-to-water hear pumps:T <sub>j</sub> =-15°C		_	%
(if T <sub>OL</sub> <-20°C)	<b>T</b>	40.0	l <sub>°</sub>	(if T <sub>OL</sub> <-20°C)			1
Bivalent temperature  Degradation	$T_biv$	-10.0	]°C 1	For water-to-air hear pumps:Operation lin T <sub>ol</sub> temperature		_	°C
coefficient heat pumps**	$C_dh$	0.25	-	i <sub>ol</sub> temperature			J
Power consumpiton in modes other t	han 'active mode'			Supplementary heat	eibu	_	kW
Off mode	P <sub>OFF</sub>	0.008	kW	back-up fleating cap	Dacity		ı
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy inpu	t P <sub>SB</sub>	0.008	kW
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	ı SB	0.000	KVV
Other items				For the state of the state of			 1
Capacity control		variable	]	For air-to-air heat pu air flow-rate,outdoor	·	4,380	m <sup>3</sup> /h
Sound power level,		74.0	ا مه	For water-/brine-to-a	air heat pumps :		]
outdoor measured	$L_{WA}$	71.0	dB	Rated brine or wate		-	m <sup>3</sup> /h
				outdoor side heat ex	xchanger		
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	_	fuel input				
			JGCV				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
Contact details Mit	subishi heavy indu	stries therm	ıal systems I	-TD			
** If Cdh is not determined by measu					II be 0,25.		
*** from 26 September 2018		3					
	ilt air conditioners t	he teet roc	ilt and norfo	rmance data he obtained	on the basic of the porforman	20	
Where information relates to multi-sp					on the pasis of the periornant		
of the outdoor unit, with a combination	ii oi iiiuoor uriii(s) r	ecommena	eu by trie ma	andiacturer or importer.			
						PJG000	0Z466 🛝

#### FDUM125VSAPVF

Model(s): FDC125VSA /	FDUM60V	F (2 units)					
Outdoor side heat exchanger of air conditio	ner:	air					
Indoor side heat exchanger of air conditions	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cool	ing energy		
	Prated,c	12.5	kW	efficiency ηs,c		248.7	%
Declared cooling capacity for part load at gi	ven outdoor	temperatur	es	Declared energy effic	ciency ratio or gas utilization efficien	icy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	r for part load at given outdoor tem	peratures T	j
T: .05%	D.1	40.5	1				1
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or	286.0	%
Tj=+30°C	Pdc	9.2	kW		GUEc,bin / AEFc,bin		
11]=+30 C	Puc	9.2	JKVV	Tj=+30°C	EERd or	458.0	%
Tj=+25°C	Pdc	5.9	kW	T:- : 05°0	GUEc,bin / AEFc,bin		
1]25 5	1 40	0.5	]KVV	Tj=+25°C	EERd or	688.0	%
Tj=+20°C	Pdc	3.5	kW	Tj=+20°C	GUEc,bin / AEFc,bin EERd or		
,			]	1]-+20 C	GUEc,bin / AEFc,bin	1,400.0	%
Degradation			1		GOLC, DITT ALT C, DITT		ı
coefficient for	Cdc	0.25	_				
air conditioners**							
			-				
Power consumpiton in other than 'active mo	ode'						
		_	,		·		,
Off mode	$P_{OFF}$	0.008	kW	Crankcase heater mo	<del></del>	0.008	kW
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	P <sub>SB</sub>	0.008	kW
Other items							1
Capacity control		variable	1	For air-to-air air cond		4,500	m³/h
Capacity Control		Variable	]	air flow-rate,outdoor i	measured		J
Sound newer level			1				
Sound power level, outdoor	$L_WA$	71.0	dB				
outdoor			J				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	_	fuel input				
oxides			GCV				
			_				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		_,,,,,	(100years)				
·			nal systems,L				
** If Cdc is not determined by measurement	t then the def	ault degrac	tation coeffici	ent air conditioners sha	all be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air o					·		
of the outdoor unit, with a combination of in-	door unit(s) r	ecommend	ed by the ma	nufacturer or importer.			
<u> </u>						PJG000	)Z466 A

Information to identify the model(s	) to which the informa	tion relates	:	FDC125VSA /	FDUM60VF (2 units)		
Outdoor side heat exchanger of he	-	air			,		
Indoor side heat exchanger of hea		air					
Indication if the heater is equipped	I with a supplementar			No			
if applicable : electric mot		·					
Parameters shall be declared for t	he average heating se	eason , para	ameters for t	he warmer and colder he	ating seasons are optional.		
	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Зупівої	value	Offic		ng energy efficiency ηs,h	value	Offic
	Prated,h	14.0	kW		(gg)	188.3	%
Declared heating capacity for part and outdoor temperature Tj	load at indoor temper	ature 20°C			performance or gas utilization for part load at given outdoor to	-	Tj
T <sub>j</sub> =-7°C	Pdh	8.7	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	333.0	%
T <sub>j</sub> =+2°C	Pdh	5.3	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	459.0	%
T <sub>j</sub> =+7°C	Pdh	3.4	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	605.0	%
T <sub>j</sub> =+12°C	Pdh	2.7	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	771.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	9.8	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	276.0	%
T <sub>OL</sub> =operation limit	Pdh	7.7	kW	T <sub>OL</sub> =operation limit	COPd or GUEh,bin / AEFh,bin	248.0	%
For air-to-water heat pumps : $T_j$ =-15°C (if $T_{OL}$ <-20°C)	Pdh	_	kW	For air-to-water heat pumps:T <sub>j</sub> =-15°C (if T <sub>OL</sub> <-20°C)	t COPd or GUEh,bin / AEFh,bin	_	%
Bivalent temperature	$T_biv$	-10.0	]°C	For water-to-air heat pumps:Operation lin		_	င
Degradation coefficient heat pumps**	$C_dh$	0.25	_	T <sub>ol</sub> temperature			
Power consumpiton in modes other	er than 'active mode'			Supplementary heat	eibu	_	kW
Off mode	P <sub>OFF</sub>	0.008	kW	Back-up fleating cap	Jaony		1
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	t P <sub>SB</sub>	0.008	kW
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	. 36	0.000	]```
Other items							1
Capacity control		variable	]	For air-to-air heat pu air flow-rate,outdoor		4,380	m <sup>3</sup> /h
Sound power level,		74.0	1	For water-/brine-to-a	air heat pumps :		1
outdoor measured	$L_{WA}$	71.0	dB	Rated brine or water		_	m³/h
			7	outdoor side heat ex	xchanger		]
Emissions of nitrogen oxides(if applicable)	NOx ***	-	mg/kWh fuel input GCV				
GWP of the refrigerant		2,088	kg CO <sub>2eq</sub> (100years)				
Contact details	Mitsubishi heavy indu	stries therm	nal systems I	_TD			
** If Cdh is not determined by mea					Il be 0,25.		
*** from 26 September 2018		-					
Where information relates to multi	-snilt air conditioners	the test res	ilt and perfo	rmance data he obtained	on the basis of the performance	ne.	
of the outdoor unit, with a combina					on the passe of the periorillalit	-	
or are outdoor unit, with a combine	ation of induor driit(S) f	Commend	cu by tile in	аналаскиет от ппропет.			
						PJG000	0Z466 🛦

#### FDUM140VNAPVF1

Model(s): FDC140VNA /	FDUM71V	/F1 (2 units)	)				
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air conditioned	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cool	ing energy		
	Prated,c	13.6	kW	efficiency ηs,c		288.0	%
Declared cooling capacity for part load at gi	ven outdoor	temperatur	es	Declared energy effic	iency ratio or gas utilization efficien	icy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	r for part load at given outdoor tem	peratures T	ij
T0590	5.	40.0	ا				1
Tj=+35°C	Pdc	13.6	kW	Tj=+35°C	EERd or	286.0	%
T:- 120°C	Dda	40.0	kW		GUEc,bin / AEFc,bin		
Tj=+30°C	Pdc	10.0	_Kvv	Tj=+30°C	EERd or	504.0	%
Tj=+25°C	Pdc	6.4	kW	T. 0505	GUEc,bin / AEFc,bin		
1]-+25 0	Fuc	0.4	] <sub>K</sub> vv	Tj=+25°C	EERd or	740.0	%
Tj=+20°C	Pdc	3.6	kW	T. 0005	GUEc,bin / AEFc,bin		
17-1200	i uc	3.0	]Kvv	Tj=+20°C	EERd or	2,400.0	%
Degradation			1		GUEc,bin / AEFc,bin		J
Degradation coefficient for	Cdc	0.25					
air conditioners**	Cuc	-	-				
all conditioners			_				
Power consumpiton in other than 'active mo	nde'						
ower concernption in other than delive me	,40						
Off mode	P <sub>OFF</sub>	0.008	kW	Crankcase heater mo	ode P <sub>CK</sub>	0.008	kW
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	P <sub>SB</sub>	0.008	kW
			_		'		1
Other items							
				For air-to-air air cond	itioner:	4,500	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outdoor i	measured	4,500	111 /11
Sound power level,	$L_WA$	73.0	dB				
outdoor	-WA						
			_				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	_	fuel input				
oxides			GCV				
			,				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			(100years)				
Contact details Mitsubish  ** If Cdc is not determined by measurement	-		nal systems,L		all he 0.25		
-	ulen the de	iauit degrac	uation coeifici	ent all conditioners sh	ali ม <del>e</del> ∪,∠บ.		
*** from 26 September 2018	p						
Where information relates to multi-spilt air o					·		
of the outdoor unit, with a combination of in-	door unit(s) i	recommend	led by the ma	nutacturer or importer.			
						PJG000	0Z466 🛦

Information to identify the model(s) to	which the informa	tion relates	:	FDC140VNA /	FDUM71VF1 (2 units)		
Outdoor side heat exchanger of heat	oump :	air					
Indoor side heat exchanger of heat pu	imp :	air					
Indication if the heater is equipped with	h a supplementary			No			
if applicable : electric motor							
Parameters shall be declared for the	average heating se	eason , para	meters for the	ne warmer and colder he	eating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Symbol	value	Offic		ng energy efficiency ηs,h	Value	Offic
	Prated,h	15.5	kW			208.8	%
Declared heating capacity for part loa and outdoor temperature Tj	d at indoor temper	ature 20°C			f performance or gas utilization for part load at given outdoor to		Тј
T <sub>j</sub> =-7°C	Pdh	9.3	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	329.0	%
T <sub>j</sub> =+2°C	Pdh	5.7	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	507.0	%
T <sub>j</sub> =+7°C	Pdh	3.7	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	702.0	%
T <sub>j</sub> =+12°C	Pdh	2.8	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	1,037.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	10.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	265.0	%
T <sub>OL</sub> =operation limit	Pdh	8.3	kW	T <sub>OL</sub> =operation limit	·	246.0	%
For air-to-water heat pumps :  T <sub>j</sub> =-15°C	Pdh	_	kW	For air-to-water hea pumps:T <sub>j</sub> =-15°C	t COPd or GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)  Bivalent temperature	T <sub>biv</sub>	-10.0	l℃	(if T <sub>OL</sub> <-20°C)  For water-to-air hea	ıt		1
·	DIV		1	pumps:Operation lir		_	°C
Degradation	0	0.05		T <sub>ol</sub> temperature			
coefficient heat pumps**	$C_dh$	0.25	_				
Power consumpiton in modes other th	an 'active mode'			Supplementary hea	eibu	_	kW
Off mode	P <sub>OFF</sub>	0.008	kW	back-up ricating cap	pacity		1
Thermostat-off mode	$P_{TO}$	0.015	kW	Type of energy inpu	ıt P <sub>SB</sub>	0.008	kW
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	. 30	0.000	]
Other items				For sinks sinks sky			 1
Capacity control		variable		For air-to-air heat pu air flow-rate,outdoor	·	4,380	m <sup>3</sup> /h
Sound power level,		72.0	dB	For water-/brine-to-a	air heat pumps :		]
outdoor measured	$L_{WA}$	73.0	ub	Rated brine or wate		_	m³/h
			1	outdoor side heat ex	xchanger		
Emissions of nitrogen	NOx	_	mg/kWh				
oxides(if applicable)	***	_	fuel input GCV				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
Contact details Mits	subishi heavy indu	stries therm	al systeme I	TD			
** If Cdh is not determined by measur					II be 0,25.		
*** from 26 September 2018		3			,		
•	It air acaditi	ho toot	ult and ===f	rmanaa data ha abtalis sil	I on the basis of the manfarm	00	
Where information relates to multi-spi					on the basis of the performant	u <del>e</del>	
of the outdoor unit, with a combination	ı oı iliudor unit(s) f	ecommend	eu by trie ma	анивошег ог ітпропег.			
						PJG000	7466 🛦

## FDUM140VSAPVF1

Model(s): FDC140VSA /	FDUM71V	F1 (2 units)	)				
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air conditioned	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	ling energy		
	Prated,c	13.6	kW	efficiency ηs,c		288.0	%
Declared cooling capacity for part load at gi	ven outdoor	temperatur	es	Declared energy effi	ciency ratio or gas utilization efficien	cy /	
Tj and indoor 27°C/19°C(dry/wet bulb)		·		1	or for part load at given outdoor temp	-	ij
Tj=+35°C	Pdc	13.6	kW	Tj=+35°C	EERd or	286.0	%
Tj=+30°C	Pdc	10.0	kW		GUEc,bin / AEFc,bin		
17-130 0	i do	10.0	JKVV	Tj=+30°C	EERd or	504.0	%
Tj=+25°C	Pdc	6.4	kW	T:- : 05°0	GUEc,bin / AEFc,bin		
,, 200	. 40		]	Tj=+25°C	EERd or	740.0	%
Tj=+20°C	Pdc	3.6	kW	Tj=+20°C	GUEc,bin / AEFc,bin EERd or		
, ====			]	1]-+20 C		2,400.0	%
Degradation			1		GUEc,bin / AEFc,bin		J
coefficient for	Cdc	0.25	_				
air conditioners**	040						
			1				
Power consumpiton in other than 'active mo	de'						
·							
Off mode	$P_{OFF}$	0.008	kW	Crankcase heater m	ode P <sub>CK</sub>	0.008	kW
Thermostat-off mode	$P_{TO}$	0.000	kW	Standby mode	$P_{SB}$	0.008	kW
Other items				For air to air air ann	ditionar		]
Capacity control		variable	]	For air-to-air air cond air flow-rate,outdoor		4,500	m <sup>3</sup> /h
Sound power level,			1				
outdoor	$L_{WA}$	73.0	dB				
			_				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	_	fuel input				
oxides			GCV				
			_				
OWD 64			1				
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)				
refrigerant			(100)04.0)				
Contact details Mitaubiah	i hoovy indu	atrica therm	al avatama l	I TD			
Contact details Mitsubish  ** If Cdc is not determined by measurement			nal systems,L dation coeffici		nall be 0.25.		
*** from 26 September 2018		3.34			,		
Where information relates to multi-spilt air of	onditioners t	the test resi	ult and nerfor	mance data he obtain	ed on the basis of the performance		
of the outdoor unit, with a combination of inc					•		
5. 2.5 Salassi ant, war a combination of the	um(s) 1	200/IIIIIGIIU	.cu by the fild	aotaror or importer	•		
•						P.IG000	7466 🛦

Information to identify the model(s) to	which the informat	tion relates	:	FDC140VSA /	FDUM71VF1 (2 units)		
Outdoor side heat exchanger of heat	pump :	air					
Indoor side heat exchanger of heat p	ump :	air					
Indication if the heater is equipped w	ith a supplementary			No			
if applicable : electric motor							
Parameters shall be declared for the	average heating se	eason , para	ameters for the	ne warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Оуппрог	Value	Onit		ng energy efficiency ηs,h	Value	Onit
	Prated,h	15.5	kW		3 33 717	208.8	%
Declared heating capacity for part loa and outdoor temperature Tj	ad at indoor temper	ature 20°C			performance or gas utilization for part load at given outdoor to	,	Tj
T <sub>j</sub> =-7°C	Pdh	9.3	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	329.0	%
T <sub>j</sub> =+2°C	Pdh	5.7	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	507.0	%
T <sub>j</sub> =+7°C	Pdh	3.7	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	702.0	%
T <sub>j</sub> =+12°C	Pdh	2.8	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	1,037.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	10.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	265.0	%
T <sub>OL</sub> =operation limit	Pdh	8.3	kW	T <sub>OL</sub> =operation limit		246.0	%
For air-to-water heat pumps : T <sub>j</sub> =-15°C	Pdh	_	kW	For air-to-water heat pumps:T <sub>j</sub> =-15°C	t COPd or GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)	т	40.0	l℃	(if T <sub>OL</sub> <-20°C)			1
Bivalent temperature	$T_biv$	-10.0	] <sup>C</sup>	For water-to-air hear pumps:Operation lin T <sub>ol</sub> temperature		_	°C
Degradation coefficient heat pumps**	$C_dh$	0.25	-	T <sub>ol</sub> temperature			
Power consumpiton in modes other to Off mode Thermostat-off mode Crankcase heater mode  Other items Capacity control Sound power level, outdoor measured Emissions of nitrogen oxides(if applicable)  GWP of the refrigerant	han 'active mode'  POFF PTO PCK  LWA  NOX ***	0.008 0.015 0.008 variable 73.0	kW kW kW dB mg/kWh fuel input GCV kg CO <sub>2eq</sub> (100years)	Supplementary hear back-up heating cap.  Type of energy inpu Standby mode  For air-to-air heat pu air flow-rate,outdoor  For water-/brine-to-are Rated brine or water outdoor side heat expenses.	umps: r measured air heat pumps: r flow-rate,	- 0.008 4,380	kW m³/h m³/h
			•				
	subishi heavy indu				II he 0.25		
** If Cdh is not determined by measu	rement then the de	iauit degrac	ation coeffic	cient air conditioners shal	II DE U,25.		
*** from 26 September 2018							
Where information relates to multi-sp	ilt air conditioners,t	he test resu	ult and perfo	rmance data be obtained	on the basis of the performance	ce	
of the outdoor unit, with a combination	n of indoor unit(s) r	ecommend	ed by the ma	anufacturer or importer.			
						PJG000	7466 🛦

## FDUM200VSAPVF2

Model(s): FDC200VSA /	FDUM100	VF2 (2 units	s)				
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air conditione	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cod	oling energy		
	Prated,c	19.0	kW	efficiency ηs,c		291.2	%
Declared cooling capacity for part load at gi	ven outdoor	temperatur	es	Declared energy eff	iciency ratio or gas utilization efficien	icy /	
Tj and indoor 27°C/19°C(dry/wet bulb)		·			or for part load at given outdoor tem	-	ij
Tj=+35°C	Pdc	19.0	kW	Tj=+35°C	EERd or	311.0	%
Tj=+30°C	Pdc	14.0	kW	<b>T</b>	GUEc,bin / AEFc,bin		
17-130 0	i do	14.0	JKVV	Tj=+30°C	EERd or	521.0	%
Tj=+25°C	Pdc	9.0	kW	T: 05°0	GUEc,bin / AEFc,bin		
,, 200	. 40		]	Tj=+25°C	EERd or	962.0	%
Tj=+20°C	Pdc	4.3	kW	Tj=+20°C	GUEc,bin / AEFc,bin EERd or		
, ====			]	1]-+20 C		1,172.0	%
Degradation			1		GUEc,bin / AEFc,bin		J
coefficient for	Cdc	0.25	_				
air conditioners**	Cuo						
all containers			J				
Power consumpiton in other than 'active mo	de'						
Off mode	$P_{OFF}$	0.010	kW	Crankcase heater m	node P <sub>CK</sub>	0.010	kW
Thermostat-off mode	$P_{TO}$	0.000	kW	Standby mode	$P_{SB}$	0.010	kW
Other items					altal		]
Capacity control		variable	]	For air-to-air air con air flow-rate,outdoor		8,100	m <sup>3</sup> /h
Sound power level,			1				
outdoor	$L_{WA}$	72.0	dB				
outdoor			J				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	_	fuel input				
oxides			GCV				
- CANAGE		ļ	]001				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
rongerant			J				
•	•		nal systems,L		hall ha 0.25		
** If Cdc is not determined by measurement	inen the de	iauit degrac	aation coeffici	ent air conditioners si	naii 00 U,∠5.		
*** from 26 September 2018							
Where information relates to multi-spilt air c					·		
of the outdoor unit, with a combination of inc	door unit(s) r	ecommend	led by the ma	nufacturer or importer	r.		
						P.IG000	7466 🛦

Information to identify the model(s) to	which the informa	tion relates	:	FDC200VSA /	FDUM100VF2 (2 units)		
Outdoor side heat exchanger of heat	pump :	air					
Indoor side heat exchanger of heat p	ump :	air					
Indication if the heater is equipped wi	th a supplementary			No			
if applicable : electric motor							
Parameters shall be declared for the	average heating se	eason , para	meters for the	ne warmer and colder he	eating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Prated,h	22.4	kW	Seasonal space heatir	ng energy efficiency ηs,h	187.9	%
Declared heating capacity for part loa and outdoor temperature Tj	d at indoor temper	ature 20°C			performance or gas utilization for part load at given outdoor to	,	Tj
T <sub>j</sub> =-7°C	Pdh	11.1	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	278.0	%
T <sub>j</sub> =+2°C	Pdh	6.7	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	508.0	%
T <sub>j</sub> =+7°C	Pdh	4.3	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	553.0	%
T <sub>j</sub> =+12°C	Pdh	3.5	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	751.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	12.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	290.0	%
T <sub>OL</sub> =operation limit	Pdh	10.5	kW	T <sub>OL</sub> =operation limit	COPd or GUEh,bin / AEFh,bin	259.0	%
For air-to-water heat pumps : $T_j$ =-15°C (if $T_{OL}$ <-20°C)	Pdh	_	kW	For air-to-water hea pumps:T <sub>j</sub> =-15°C (if T <sub>OL</sub> <-20°C)	t COPd or GUEh,bin / AEFh,bin	-	%
Bivalent temperature	$T_biv$	-10.0	°C	For water-to-air hea		_	°C
Degradation coefficient heat pumps**	$C_dh$	0.25	-	T <sub>ol</sub> temperature			
Power consumpiton in modes other the	nan 'active mode'			Supplementary hear	eibu	_	kW
Off mode	$P_{OFF}$	0.010	kW	back-up fleating cap	paorty		
Thermostat-off mode Crankcase heater mode	P <sub>TO</sub> P <sub>CK</sub>	0.010 0.015	kW kW	Type of energy inpu Standby mode	ıt P <sub>SB</sub>	0.010	kW
Other items							
Capacity control		variable	]	For air-to-air heat pu air flow-rate,outdoor	·	8,100	m <sup>3</sup> /h
Sound power level, outdoor measured	$L_WA$	74.0	dB	For water-/brine-to-a Rated brine or wate outdoor side heat ex	r fiow-rate,	_	m³/h
Emissions of nitrogen oxides(if applicable)	NOx ***	_	mg/kWh fuel input GCV				
GWP of the refrigerant		2,088	kg CO <sub>2eq</sub> (100years)				
Contact details Mit	subishi heavy indu	stries therm	al systems,l	.TD			
** If Cdh is not determined by measur					II be 0,25.		
*** from 26 September 2018							
Where information relates to multi-sp	ilt air conditioners t	he test resu	alt and perfor	mance data be obtained	on the basis of the performance	ce	
of the outdoor unit, with a combinatio					are suche of the performance		
						PJG000	0Z466 🛦

#### FDUM250VSAPVF

Model(s): FDC250VSA /	FDUM125	VF (2 units)	)				
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air conditione	r:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cool	ing energy		
	Prated,c	24.0	kW	efficiency ηs,c		243.0	%
Declared cooling capacity for part load at gi	ven outdoor	temperatur	es	Declared energy effic	iency ratio or gas utilization efficien	cy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	r for part load at given outdoor temp	peratures T	j
T:- 125°O	Dda	24.0	1,,,,,		1		1
Tj=+35°C	Pdc	24.0	kW	Tj=+35°C	EERd or	304.0	%
Tj=+30°C	Pdc	17.7	kW	T. 0005	GUEc,bin / AEFc,bin		-
17-130 0	i do	17.7	JKVV	Tj=+30°C	EERd or	438.0	%
Tj=+25°C	Pdc	11.4	kW	T:- : 05°0	GUEc,bin / AEFc,bin		-
1, 1200	1 40		]	Tj=+25°C	EERd or	795.0	%
Tj=+20°C	Pdc	6.5	kW	Tj=+20°C	GUEc,bin / AEFc,bin EERd or		-
			J	1]-1200	GUEc,bin / AEFc,bin	905.0	%
Degradation			1		COLO,DIII / ALI C,DIII		1
coefficient for	Cdc	0.25	-				
air conditioners**							
			-				
Power consumpiton in other than 'active mo	de'						
			,		,		,
Off mode	$P_{OFF}$	0.010	kW	Crankcase heater mo	-···	0.010	kW
Thermostat-off mode	$P_{TO}$	0.000	kW	Standby mode	P <sub>SB</sub>	0.010	kW
Other items					ſ		1
Compain, control		iabla	1	For air-to-air air cond	itioner:	8,580	m³/h
Capacity control		variable	]	air flow-rate,outdoor i	measured		]
			1				
Sound power level,	$L_WA$	73.0	dB				
outdoor			]				
If angine driven:			mg/kWh				
If engine driven: Emissions of nitrogen	NOx ***	_	fuel input				
oxides	***		GCV				
Oxides		<u> </u>	]001				
GWP of the		2.000	kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
			_				
Contact details Mitsubish	i heavy indu	stries therm	nal systems,L	TD			
** If Cdc is not determined by measurement	then the de	fault degrad	dation coeffici	ent air conditioners sha	all be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air c	onditioners,	the test resu	ult and perfor	mance data be obtaine	d on the basis of the performance		
of the outdoor unit, with a combination of inc	door unit(s) r	ecommend	led by the ma	nufacturer or importer.			
						P.IG000	0Z466 🛦

Information to identify the model(s) to which the information relates : FDC250VSA / FDUM125VF (2 units)									
Outdoor side heat exchanger of heat pump : air									
Indoor side heat exchanger of heat pump : air									
Indication if the heater is equipped with a supplementary heater : No									
if applicable : electric motor									
Parameters shall be declared for the average heating season , parameters for the warmer and colder heating seasons are optional.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated heating capacity	Cymbol	Value	Offic		ating energy efficiency ηs,h	Value	Onit		
	Prated,h	27.0	kW		3 3, 7,7	176.9	%		
Declared heating capacity for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or gas utilization efficiency / auxiliary energy factor for part load at given outdoor temperatures Tj					
T <sub>j</sub> =-7°C	Pdh	12.6	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	303.0	%		
T <sub>j</sub> =+2°C	Pdh	7.7	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	454.0	%		
T <sub>j</sub> =+7°C	Pdh	5.7	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	557.0	%		
T <sub>j</sub> =+12°C	Pdh	6.0	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	692.0	%		
T <sub>biv</sub> =bivalent temperature	Pdh	14.2	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	281.0	%		
T <sub>OL</sub> =operation limit	Pdh	12.5	kW	T <sub>OL</sub> =operation lin		280.0	%		
For air-to-water heat pumps : T <sub>j</sub> =-15°C	Pdh	_	kW	For air-to-water h pumps:T <sub>j</sub> =-15°C		_	%		
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)					
Bivalent temperature	$T_biv$	-10.0	°C	For water-to-air h pumps:Operation		_	°C		
Degradation	0	0.05		T <sub>ol</sub> temperature					
coefficient heat pumps**	$C_dh$	0.25	-						
Power consumpiton in modes other  Off mode Thermostat-off mode Crankcase heater mode  Other items  Capacity control  Sound power level, outdoor measured	than 'active mode'  POFF PTO PCK	0.010 0.010 0.015 variable	kW kW kW	Supplementary h back-up heating Type of energy ir Standby mode  For air-to-air hea air flow-rate,outd  For water-/brine-t Rated brine or wa outdoor side hea	capacity  aput P <sub>SB</sub> t pumps: oor measured  to-air heat pumps : ater fiow-rate,	9,060	kW kW m³/h		
Emissions of nitrogen oxides(if applicable)	NOx ***	_	mg/kWh fuel input GCV						
GWP of the refrigerant		2,088	kg CO <sub>2eq</sub> (100years)						
•	litsubishi heavy indu		-						
** If Cdh is not determined by meas	urement then the de	fault degrad	lation coeffic	cient air conditioners s	hall be 0,25.				
*** from 26 September 2018									
Where information relates to multi-spilt air conditioners, the test result and performance data be obtained on the basis of the performance									
of the outdoor unit, with a combinati	on of indoor unit(s) r	ecommend	ed by the ma	anufacturer or importe	r.				
						PJG000	7466 🛦		

## FDUM140VNATVF

Model(s): FDC140VNA / FDUM50VF (3 units)								
Outdoor side heat exchanger of air conditioner : air								
Indoor side heat exchanger of air conditioner : air								
Type: vapour compression								
if applicable : electric motor								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated cooling capacity				Seasonal space cod	oling energy			
	Prated,c	13.6	kW	efficiency ηs,c		288.0	%	
Declared cooling capacity for part load at given outdoor temperatures			Declared energy eff	iciency ratio or gas utilization efficier	ncy /			
			auxiliary energy factor for part load at given outdoor temperatures Tj					
Tj=+35°C	Pdc	13.6	kW	Tj=+35°C	EERd or	286.0	%	
Tj=+30°C	Pdc	10.0	kW	Tj=+30°C	GUEc,bin / AEFc,bin EERd or			
			_	,	GUEc,bin / AEFc,bin	504.0	%	
Tj=+25°C	Pdc	6.4	kW	Tj=+25°C	EERd or	740.0	%	
			,		GUEc,bin / AEFc,bin			
Tj=+20°C	Pdc	3.6	kW	Tj=+20°C	EERd or	2,400.0	%	
Degradation			]		GUEc,bin / AEFc,bin		1	
coefficient for	Cdc	0.25	_					
air conditioners**								
			<b>'</b>					
Power consumpiton in other than 'active mo	ode'							
Off mode	$P_{OFF}$	0.008	kW	Crankcase heater m	node P <sub>CK</sub>	0.008	kw	
Thermostat-off mode	P <sub>TO</sub>	0.000	kW	Standby mode	P <sub>SB</sub>	0.008	kW	
	10		]		35		]	
Other items							1	
Capacity control		variable	]	For air-to-air air con air flow-rate,outdoor		4,500	m <sup>3</sup> /h	
Sound power level,		72.0	dB					
outdoor	$L_{WA}$	73.0	dB					
			ı İ					
If engine driven:	NOx	_	mg/kWh					
Emissions of nitrogen	***		fuel input					
oxides			JGCV					
GWP of the			kg CO <sub>2eq</sub>					
refrigerant		2,088	(100years)					
romgorant			J					
Contact details Mitsubish	i heavy indu	stries therm	nal systems,L	TD				
** If Cdc is not determined by measurement	-				hall be 0,25.			
*** from 26 September 2018								
Where information relates to multi-spilt air of	onditioners	the test resu	ult and perfor	mance data be obtain	ned on the basis of the performance			
of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.								
,	(-)		,					
						P.JG000	1/4hh //	

Information to identify the model(s)	) to which the informa	tion relates	:	FDC140VNA /	FDUM50VF (3 units)				
Outdoor side heat exchanger of heat pump : air									
Indoor side heat exchanger of heat pump:									
Indication if the heater is equipped with a supplementary heater : No									
if applicable : electric motor									
Parameters shall be declared for the average heating season , parameters for the warmer and colder heating seasons are optional.									
	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated heating capacity	Зупівої	value	Offic		ng energy efficiency ηs,h	value	Offic		
	Prated,h	15.5	kW		, s = , , , , , , , , , , , , , , , , ,	208.8	%		
Declared heating capacity for part load at indoor temperature 20°C and outdoor temperature Tj			Declared coefficient of performance or gas utilization efficiency / auxiliary energy factor for part load at given outdoor temperatures Tj						
T <sub>j</sub> =-7°C	Pdh	9.3	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	329.0	%		
T <sub>j</sub> =+2°C	Pdh	5.7	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	507.0	%		
T <sub>j</sub> =+7°C	Pdh	3.7	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	702.0	%		
T <sub>j</sub> =+12°C	Pdh	2.8	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	1,037.0	%		
T <sub>biv</sub> =bivalent temperature	Pdh	10.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	265.0	%		
T <sub>OL</sub> =operation limit	Pdh	8.3	kW	T <sub>OL</sub> =operation limit	COPd or GUEh,bin / AEFh,bin	246.0	%		
For air-to-water heat pumps : $T_j$ =-15°C (if $T_{OL}$ <-20°C)	Pdh	_	kW	For air-to-water hear pumps:T <sub>j</sub> =-15°C (if T <sub>OL</sub> <-20°C)	t COPd or GUEh,bin / AEFh,bin	_	%		
Bivalent temperature	$T_biv$	-10.0	]℃	For water-to-air heat pumps:Operation lin		_	°c		
Degradation coefficient heat pumps**	$C_dh$	0.25	_	T <sub>ol</sub> temperature					
Power consumpiton in modes other	er than 'active mode'			Supplementary heat	eibu	_	kW		
Off mode	$P_{OFF}$	0.008	kW	Back-up fleating cap	doity		1		
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	t P <sub>SB</sub>	0.008	kW		
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	. 36	0.000	]```		
Other items							1		
Capacity control		variable	]	For air-to-air heat pu air flow-rate,outdoor		4,380	m <sup>3</sup> /h		
Sound power level,		72.0	]	For water-/brine-to-a	air heat pumps :		1		
outdoor measured	$L_{WA}$	73.0	dB	Rated brine or water		_	m³/h		
			1	outdoor side heat ex	changer				
Emissions of nitrogen oxides(if applicable)	NOx ***	-	mg/kWh fuel input GCV						
GWP of the refrigerant		2,088	kg CO <sub>2eq</sub> (100years)						
Contact details	Mitsubishi heavy indu	stries therm	nal systems I	_TD					
** If Cdh is not determined by mea					I be 0,25.				
*** from 26 September 2018		-							
Where information relates to multi-spilt air conditioners, the test result and performance data be obtained on the basis of the performance									
of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.									
						PJG000	0Z466 🛦		

#### FDUM140VSATVF

Model(s): FDC140VSA / FDUM50VF (3 units)									
Outdoor side heat exchanger of air conditioner : air									
Indoor side heat exchanger of air conditioner : air									
Type: vapour compression									
if applicable : electric motor									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated cooling capacity				Seasonal space of	cooling energy				
	Prated,c	13.6	kW	efficiency ηs,c		288.0	%		
Declared cooling capacity for part load at given outdoor temperatures				Declared energy efficiency ratio or gas utilization efficiency /					
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy factor for part load at given outdoor temperatures Tj					
			_				,		
Tj=+35°C	Pdc	13.6	kW	Tj=+35°C	EERd or	286.0	%		
			_		GUEc,bin / AEFc,bin				
Tj=+30°C	Pdc	10.0	kW	Tj=+30°C	EERd or	504.0	%		
			_		GUEc,bin / AEFc,bin				
Tj=+25°C	Pdc	6.4	kW	Tj=+25°C	EERd or	740.0	%		
			_		GUEc,bin / AEFc,bin				
Tj=+20°C	Pdc	3.6	kW	Tj=+20°C	EERd or	2,400.0	%		
			_		GUEc,bin / AEFc,bin	2,400.0	]~		
Degradation									
coefficient for	Cdc	0.25	-						
air conditioners**									
Power consumpiton in other than 'active m	ode'								
			_				_		
Off mode	$P_{OFF}$	0.008	kW	Crankcase heater	r mode P <sub>CK</sub>	0.008	kW		
Thermostat-off mode	$P_{TO}$	0.000	kW	Standby mode	$P_SB$	0.008	kW		
Other items							,		
		_	_	For air-to-air air c	onditioner:	4,500	m³/h		
Capacity control		variable	]	air flow-rate,outdo	oor measured	,	],		
		_	_						
Sound power level,	$L_WA$	73.0	dB						
outdoor	WA		_						
			_						
If engine driven:	NOv		mg/kWh						
Emissions of nitrogen	NOx ***	-	fuel input						
oxides			GCV						
			-						
GWP of the		2,088	kg CO <sub>2eq</sub>						
refrigerant			(100years)						
			nal systems,L						
** If Cdc is not determined by measurement then the default degradation coefficient air conditioners shall be 0,25.									
*** from 26 September 2018									
Where information relates to multi-spilt air conditioners, the test result and performance data be obtained on the basis of the performance									
of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.									
						D.O.C.	07460 ^		
						I PJG00	0Z466 🛦		

Information to identify the model(	s) to which the informa	tion relates	:	FDC140VSA /	FDUM50VF (3 units)				
Outdoor side heat exchanger of heat pump:									
Indoor side heat exchanger of heat pump : air									
Indication if the heater is equipped with a supplementary heater : No									
if applicable : electric motor									
Parameters shall be declared for the average heating season , parameters for the warmer and colder heating seasons are optional.									
Item Symbol Value Unit Item Symbol Value Unit									
Rated heating capacity	Суппоп	Value	Onit		g energy efficiency ηs,h	Value	Onit		
	Prated,h	15.5	kW			208.8	%		
			ļ						
Declared heating capacity for par	t load at indoor temper		performance or gas utilization	-	т:				
and outdoor temperature Tj				auxiliary effergy factor i	for part load at given outdoor	terriperatures	')		
T <sub>j</sub> =-7°C	Pdh	9.3	kW	T <sub>j</sub> =-7°C	COPd or	329.0	%		
			-		GUEh,bin / AEFh,bin	323.0	,,,		
T <sub>j</sub> =+2°C	Pdh	5.7	kW	T <sub>j</sub> =+2°C	COPd or	507.0	%		
T <sub>i</sub> =+7°C	Pdh	3.7	kW	T <sub>i</sub> =+7°C	GUEh,bin / AEFh,bin COPd or				
,,		0	1		GUEh,bin / AEFh,bin	702.0	%		
T <sub>j</sub> =+12°C	Pdh	2.8	kW	T <sub>j</sub> =+12°C	COPd or	1,037.0	%		
			1		GUEh,bin / AEFh,bin	1,007.0			
T <sub>biv</sub> =bivalent temperature	Pdh	10.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or	265.0	%		
T <sub>OI</sub> =operation limit	Pdh	8.3	kW	T <sub>OI</sub> =operation limit	GUEh,bin / AEFh,bin COPd or				
OL 1			1		GUEh,bin / AEFh,bin	246.0	%		
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water heat		_	%		
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		]		
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)					
Bivalent temperature	T <sub>biv</sub>	-10.0	°c	For water-to-air heat			1		
			_	pumps:Operation lim	nit	_	°C		
Degradation	_			T <sub>ol</sub> temperature					
coefficient heat pumps**	$C_{dh}$	0.25	-						
neat pumps			J						
							_		
Power consumpiton in modes oth	ner than 'active mode'			Supplementary heat	elbu	_	kW		
Off mode	D	0.008	kw	back-up heating cap	acity				
Thermostat-off mode	P <sub>OFF</sub> P <sub>TO</sub>	0.008	kW	Type of energy input	· _		1		
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	P <sub>SB</sub>	0.008	kW		
			•	,					
Other items							1		
Capacity control		variable	1	For air-to-air heat pu air flow-rate,outdoor	·	4,380	m <sup>3</sup> /h		
Capacity Control		Variable	J	all llow-rate,outdoor	illeasureu		J		
Sound power level,	Luz	73.0	dB	For water-/brine-to-a	ir heat pumps :		]		
outdoor measured	L <sub>WA</sub> 73.0 db			Rated brine or water	*	_	m <sup>3</sup> /h		
Footstone of the con-			1	outdoor side heat ex	changer				
Emissions of nitrogen oxides(if applicable)	NOx	_	mg/kWh fuel input						
oxidoo(ii appiloabio)	***		GCV						
			-						
OWD C			1						
GWP of the		2,088	kg CO <sub>2eq</sub> (100years)						
refrigerant			1(.00)00.0)						
Contact details	Mitsubishi heavy indu	stries therm	nal systems,l	LTD					
** If Cdh is not determined by me	asurement then the de	fault degrad	dation coeffic	cient air conditioners shall	l be 0,25.				
*** from 26 September 2018									
Where information relates to multi-spilt air conditioners, the test result and performance data be obtained on the basis of the performance									
of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.									
						PJG000	0Z466 🛝		

#### FDUM200VSATVF1

Model(s): FDC200VSA /	FDUM71V	/F1 (3 units)	)				
Outdoor side heat exchanger of air condition	ner :	air					
Indoor side heat exchanger of air conditione	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cool	ing energy		
	Prated,c	19.0	kW	efficiency ηs,c		291.2	%
Declared cooling capacity for part load at gi	ven outdoor	temperatur	es	Declared energy effic	ciency ratio or gas utilization efficien	icy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	r for part load at given outdoor tem	peratures T	j
			_				
Tj=+35°C	Pdc	19.0	kW	Tj=+35°C	EERd or	311.0	%
			,		GUEc,bin / AEFc,bin		,,
Tj=+30°C	Pdc	14.0	kW	Tj=+30°C	EERd or	521.0	%
			-		GUEc,bin / AEFc,bin	021.0	,,,
Tj=+25°C	Pdc	9.0	kW	Tj=+25°C	EERd or	962.0	%
			-		GUEc,bin / AEFc,bin		, ,
Tj=+20°C	Pdc	4.3	kW	Tj=+20°C	EERd or	1,172.0	%
			_		GUEc,bin / AEFc,bin	1,112.0	,,,
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**			]				
Power consumpiton in other than 'active mo	de'						
			-				
Off mode	$P_{OFF}$	0.010	kW	Crankcase heater mo	ode P <sub>CK</sub>	0.010	kW
Thermostat-off mode	$P_{TO}$	0.000	kW	Standby mode	$P_{SB}$	0.010	kW
Other items					,		1
			,	For air-to-air air cond	itioner:	8,100	m³/h
Capacity control		variable	]	air flow-rate,outdoor	measured		
			,				
Sound power level,	$L_WA$	72.0	dB				
outdoor			]				
			,				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	_	fuel input				
oxides			GCV				
			,				
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant			(100years)				
			nal systems,L		all ha 0.25		
** If Cdc is not determined by measurement	trien the de	iauii degrad	Jalion Coeffici	ent all conditioners sh	ali D€ U,∠O.		
*** from 26 September 2018							
Where information relates to multi-spilt air c					·		
of the outdoor unit, with a combination of inc	door unit(s) i	recommend	led by the ma	nufacturer or importer.			
L						PJG000	)Z466 A

Information to identify the model(s)	to which the informa	tion relates	:	FDC200VSA /	FDUM71VF1 (3 units)		
Outdoor side heat exchanger of he	at pump :	air					
Indoor side heat exchanger of heat	pump :	air					
Indication if the heater is equipped	with a supplementary			No			
if applicable : electric moto	or						
Parameters shall be declared for the	ne average heating se	eason , para	ameters for t	he warmer and colder he	eating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Cymbol	Value	Onit	T T	ng energy efficiency ηs,h	Value	Onit
	Prated,h	22.4	kW	,		187.9	%
Declared heating capacity for part and outdoor temperature Tj	oad at indoor temper	ature 20°C	!		f performance or gas utilization for part load at given outdoor t	•	Tj
T <sub>j</sub> =-7°C	Pdh	11.1	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	278.0	%
T <sub>j</sub> =+2°C	Pdh	6.7	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	508.0	%
T <sub>j</sub> =+7°C	Pdh	4.3	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	553.0	%
T <sub>j</sub> =+12°C	Pdh	3.5	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	751.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	12.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	290.0	%
T <sub>OL</sub> =operation limit	Pdh	10.5	kW	T <sub>OL</sub> =operation limit		259.0	%
For air-to-water heat pumps : T <sub>j</sub> =-15°C	Pdh	_	kW	For air-to-water hea		_	%
(if T <sub>OL</sub> <-20°C)	<b>T</b>		100	(if T <sub>OL</sub> <-20°C)			1
Bivalent temperature	$T_biv$	-10.0	]°C 1	For water-to-air hea		_	°C
Degradation coefficient	$C_{dh}$	0.25	_	T <sub>ol</sub> temperature			l
heat pumps**	- 011						
Power consumpiton in modes othe	r than 'active mode'			Supplementary hea	eibu	_	kW
Off mode	P <sub>OFF</sub>	0.010	kW	back-up fleating ca	pacity		J
Thermostat-off mode	P <sub>TO</sub>	0.010	kW	Type of energy inpu	ıt P <sub>SB</sub>	0.010	kW
Crankcase heater mode	P <sub>CK</sub>	0.015	kW	Standby mode	. 35	0.010	
Other items				For the state of the state			 1
Capacity control		variable	]	For air-to-air heat p	•	8,100	m <sup>3</sup> /h
Sound power level,		74.0	ا ا	For water-/brine-to-	air heat pumps :		]
outdoor measured	$L_{WA}$	74.0	dB	Rated brine or wate		_	m³/h
				outdoor side heat e	xchanger		
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	_	fuel input GCV				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2,088	(100years)				
Contact details	Mitsubishi heavy indu	stries therm	ıal systems I	_TD			
** If Cdh is not determined by meas			•		III be 0,25.		
*** from 26 September 2018		5			•		
	enilt air conditionors	he test roc	ilt and norfo	rmance data he obtaines	on the basis of the performen	CO	
Where information relates to multi-					a on the pasis of the periorman	00	
of the outdoor unit, with a combina	uon oi inaooi unii(s) f	ecommend	ea by the ma	анивасциег от ітпрогіег.			
						PJG00	0Z466 🛝

# Models FDUM100VF2, 125VF, 140VF

Model(s): FDUM100VF2										
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit			
Cooling capacity (sensible)	Prated,c	7.7	kW	Total electric power input	Pelec	0.290	kW			
Cooling capacity (latent)	Prated,c	2.3	kW	Sound power level (per speed setting,if applicable)	LWA	65.0	dB			
Heating capacity	Prated,h	11.2	kW							
Contact details	Mitsubishi h	subishi heavy industries thermal systems,LTD								

Model(s): FDUM125VF										
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Uni			
Cooling capacity (sensible)	Prated,c	10.5	kW	Total electric power input	Pelec	0.330	kW			
Cooling capacity (latent)	Prated,c	2.0	kW	Sound power level (per speed setting,if applicable)	LWA	67.0	dB			
Heating capacity	Prated,h	14.0	kW							
Contact details	Mitsubishi h	subishi heavy industries thermal systems,LTD								

Model(s): FDUM140VF										
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit			
Cooling capacity (sensible)	Prated,c	11.2	kW	Total electric power input	Pelec	0.450	kW			
Cooling capacity (latent)	Prated,c	2.8	kW	Sound power level (per speed setting,if applicable)	LWA	70.0	dB			
Heating capacity	Prated,h	16.0	kW							
Contact details	Mitsubishi h	subishi heavy industries thermal systems,LTD								

PJG000Z466 A

# (3) Duct connected-High static pressure (FDU)

FDU100VNAVF2

Information to identify the model(s) to Indoor unit model name Outdoor unit model name	which the information relates FDU100VF2 FDC100VNA	If function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.				
Function(indicate if present) cooling	Yes	Average(mandatory) Warmer(if designated)	Yes No			
heating	Yes	Colder(if designated)	No			
Item	symbol value unit	Item	symbol	value class		
Design load	Ddooigno 400 k/M	Seasonal efficiency and energy efficiency		644		
cooling heating / Average	Pdesignc 10.0 kW Pdesignh 8.5 kW	cooling heating / Average	SEER SCOP/A	6.11 A++ 4.19 A+		
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W			
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C			
				unit		
Declared capacity at outdoor tempera		Back up heating capacity at outdoor temp				
heating / Average (-10°C)	Pdh 8.5 kW	heating / Average (-10°C)	elbu	0 kW		
heating / Warmer (2°C) heating / Colder (-22°C)	Pdh — kW Pdh — kW	heating / Warmer (2°C) heating / Colder (-22°C)	elbu elbu	– kW – kW		
ricating / Colder (-22 C)	T GIT	ricating / Colder (-22 0)	Ciba	KVV		
Declared capacity for cooling, at indocoutdoor temperature Tj	or temperature 27(19)°C and	Declared energy efficiency ratio, at indoor outdoor temperature Tj	r temperatu	re 27(19)°C and		
Tj=35°C	Pdc <b>10.0</b> kW	Tj=35℃	EERd	3.52 -		
Tj=30°C	Pdc <b>7.37</b> kW	Tj=30°C	EERd	4.83 -		
Tj=25°C	Pdc 4.74 kW	Tj=25°C	EERd	7.73 -		
Tj=20°C	Pdc <b>3.54</b> kW	Tj=20°C	EERd	11.6 -		
Declared capacity for heating / Average temperature 20°C and outdoor temper Ti=-7°C		Declared coefficient of performance / Ave temperature 20°C and outdoor temperature Ti=-7°C		on, at indoor		
Tj=2℃	Pdh <b>4.58</b> kW	Tj=2°C	COPd	3.91 -		
Tj=7°C	Pdh <b>2.94</b> kW	Tj=7°C	COPd	5.42 -		
Tj=12°C	Pdh <b>2.83</b> kW	Tj=12°C	COPd	6.23 -		
Tj=bivalent temperature	Pdh <b>6.77</b> kW	Tj=bivalent temperature	COPd	2.40 -		
Tj=operating limit	Pdh 8.5 kW	Tj=operating limit	COPd	2.70 -		
Declared capacity for heating / Warmetemperature 20°C and outdoor temper	ature Tj	Declared coefficient of performance / Wa temperature 20°C and outdoor temperature	re Tj	on, at indoor		
Tj=2°C	Pdh – kW	Tj=2°C	COPd			
Tj=7°C Tj=12°C	Pdh — kW Pdh — kW	Tj=7°C Ti=12°C	COPd COPd			
Tj=12 C Tj=bivalent temperature	Pdh — kW	Tj=12 C Tj=bivalent temperature	COPd	<del>-</del> -		
Tj=operating limit	Pdh – kW	Tj=blvalent temperature Tj=operating limit	COPd	<del>-</del> -		
Declared capacity for heating / Colder temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C Tj=12°C		Declared coefficient of performance / Col temperature 20°C and outdoor temperatu Tj=-7°C Tj=2°C Tj=7°C Tj=12°C		, at indoor		
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd			
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd			
Tj=-15℃	Pdh – kW	Tj=-15℃	COPd			
Bivalent temperature		Operating limit temperature				
heating / Average	Tbiv -10 °C	heating / Average	Tol	-20 °C		
heating / Warmer heating / Colder	Tbiv — °C Tbiv — °C	heating / Warmer heating / Colder	Tol Tol	°C		
rieating / Colder	TDIV — C		101	_   0		
Cycling interval capacity for cooling	Pcycc - kW	Cycling interval efficiency for cooling	EERcyc			
for heating	Pcych – kW	for heating	COPcyc			
				<u>'</u>		
Degradation coefficient cooling	Cdc <b>0.25</b> -	Degradation coefficient heating	Cdh	0.25 -		
Electric power input in power modes of mode		Annual electricity consumption	Oce	573 kWh/a		
orr mode standby mode	Poff 8 W Psb 8 W	cooling heating / Average	Qce Qhe	2,843 kWh/a		
thermostat-off mode	Pto 65 W	heating / Average	Qhe	<b>–</b> kWh/a		
crankcase heater mode	Pck 8 W	heating / volder	Qhe	- kWh/a		
Capacity control(indicate one of three	options)	Other items Sound power level(indoor)	Lwa	<b>65</b> dB(A)		
		Sound power level(outdoor)	Lwa	70 dB(A)		
fixed	No	Global warming potential	GWP	1,975 kgCO <sub>2</sub> e		
staged	No	Rated air flow(indoor)	_	2,160 m <sup>3</sup> /h		
variable	Yes	Rated air flow(indoor)  Rated air flow(outdoor)	-	<b>4,500</b> m <sup>3</sup> /h		
valiable	169	Trated all How(outdoor)		7,500  111 /11		
5 Th	Name and address of the r ubishi Heavy Industries Air-Co le Square, Stockley Park, Uxb ed Kingdom		<b>)</b> .			
1						
				PJG000Z462 A		

### FDU100VSAVF2

FDU100VSAVF2			
	(s) to which the information relates to		
Indoor unit model name Outdoor unit model name	FDU100VF2 FDC100VSA	information relates to. Indicated value heating season at a time. Include at le	
Outdoor unit moder name	100100434	Treating season at a time. Include at it	east the fleating season Average .
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
Item	symbol value unit	Item	symbol value class
Design load	Symbol value unit	Seasonal efficiency and energy efficie	
cooling	Pdesignc 10.0 kW	cooling	SEER <b>6.11</b> A++
heating / Average	Pdesignh 8.5 kW	heating / Average	SCOP/A <b>4.19</b> A+
heating / Warmer	Pdesignh – kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
Declared capacity at outdoor tem	nnerature Tdesignh	Back up heating capacity at outdoor to	unit emperature Tdesignh
heating / Average (-10°C)	Pdh 8.5 kW	heating / Average (-10°C)	elbu <b>0</b> kW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu – kW
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu – kW
	·		·
	indoor temperature 27(19)°C and	Declared energy efficiency ratio, at inc	door temperature 27(19)°C and
outdoor temperature Tj	Dda 400 kW	outdoor temperature Tj	EED4 2.52
Tj=35°C Tj=30°C	Pdc 10.0 kW Pdc 7.37 kW		EERd 3.52 - EERd 4.83 -
Tj=30 C Tj=25°C	Pdc 7.37 kW Pdc 4.74 kW	Tj=30 C	EERd 4.83 - EERd 7.73 -
Tj=20°C	Pdc 3.54 kW	Tj=20°C	EERd 7.73
., 200	. 20   0.07   1.07	1 1 20 0	
Declared capacity for heating / A		Declared coefficient of performance /	
emperature 20°C and outdoor te		temperature 20°C and outdoor tempe	
Tj=-7°C	Pdh <b>7.52</b> kW	Tj=-7°C	COPd 3.21 -
Tj=2°C	Pdh <b>4.58</b> kW	Tj=2°C	COPd 3.91 -
Tj=7℃ Ti=12℃	Pdh 2.94 kW	Tj=7°C	COPd 5.42 -
Tj=12 <sup>-</sup> C Tj=bivalent temperature	Pdh <b>2.83</b> kW Pdh <b>6.77</b> kW	Tj=12°C Tj=bivalent temperature	COPd <b>6.23</b> - <b>2.40</b> -
Tj=operating limit	Pdh <b>8.5</b> kW	Tj=blvalent temperature Tj=operating limit	COPd 2.70 -
ry operating innit	1 411 0.0 101	ij operating iiiiit	2014 2010
Declared capacity for heating / W	/armer season, at indoor	Declared coefficient of performance /	Warmer season, at indoor
temperature 20°C and outdoor te	mperature Tj	temperature 20°C and outdoor tempe	
Tj=2°C	Pdh <u> </u>	Tj=2°C	COPd
Tj=7°C	Pdh – kW	Tj=7°C	COPd – -
Tj=12°C	Pdh – kW	Tj=12°C	COPd – -
Tj=bivalent temperature	PdhkW	Tj=bivalent temperature	COPd – -
Tj=operating limit	Pdh	Tj=operating limit	COPd – -
Declared capacity for heating / C	older season, at indoor	Declared coefficient of performance /	Colder season, at indoor
temperature 20°C and outdoor te		temperature 20°C and outdoor tempe	
Tj=-7℃	Pdh <b>–</b> kW	Tj=-7°C	CÓPd – -
Tj=2°C	Pdh – kW	Tj=2°C	COPd – -
Tj=7℃	Pdh – kW	Tj=7°C	COPd – -
Tj=12°C	Pdh — kW	Tj=12°C	COPd – -
Tj=bivalent temperature	Pdh — kW	Tj=bivalent temperature	COPd – -
Tj=operating limit	Pdh — kW	Tj=operating limit	COPd – -
Tj=-15°C	Pdh – kW	Tj=-15°C	COPd – -
Diverse to see a set use		On a wating a live it to you a waterna	
Bivalent temperature heating / Average	Tbiv <b>-10</b> ℃	Operating limit temperature heating / Average	Tol <b>-20</b> ℃
heating / Warmer	Tbiv − °C	heating / Average	Tol
heating / Colder	Tbiv − °C	heating / Colder	Tol − °C
<u> </u>	1 1-		1 1-
Cycling interval capacity		Cycling interval efficiency	
for cooling	Pcycc – kW	for cooling	EERcyc — -
for heating	Pcych - kW	for heating	COPcyc
Degradation coefficient		Degradation coefficient	
Degradation coefficient cooling	Cdc <b>0.25</b> -	Degradation coefficient heating	Cdh <b>0.25</b> -
,y	0.20		- U.20  -
Electric power input in power mo	des other than 'active mode'	Annual electricity consumption	
off mode	Poff 8 W	cooling	Qce 573 kWh/a
standby mode	Psb 8 W	heating / Average	Qhe <b>2,843</b> kWh/a
thermostat-off mode	Pto <b>65</b> W	heating / Warmer	Qhe – kWh/a
crankcase heater mode	Pck 8 W	heating / colder	Qhe – kWh/a
Congoity control/indicate and fi	three entions)	Other items	
Capacity control(indicate one of t	unee opuons)	Other items Sound power level(indoor)	LWO GE JD(A)
		Sound power level(indoor)  Sound power level(outdoor)	Lwa <b>65</b> dB(A) Lwa <b>70</b> dB(A)
fixed	No	<del>-</del>   ' ' ' '	
fixed	No	Global warming potential	GWP 1,975 kgCO <sub>2</sub> 6
staged	No	Rated air flow(indoor)	- <b>2,160</b> m <sup>3</sup> /h
variable	Yes	Rated air flow(outdoor)	- <b>4,500</b> m <sup>3</sup> /h
0	Non- 1-12 5"		45
Contact details for obtaining		anufacturer or of its authorised representa	ative.
more information	Mitsubishi Heavy Industries Air-Cor 5 The Square, Stockley Park, Uxbr		
	United Kingdom	ago, Miladiesex, ODTITET,	
<u>'</u>			PJG000Z462 🖟

#### FDU125VNAVF

Model(s): FDC125VNA /	FDU125V	F					
Outdoor side heat exchanger of air conditio	ner:	air					
Indoor side heat exchanger of air conditions	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	•			Seasonal space coo	•		
	Prated,c	12.5	kW	efficiency ηs,c	0 0,	207.3	%
Declared cooling capacity for part load at gi	iven outdoor	r temperatu	res	Declared energy effi	iciency ratio or gas utilization efficier	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)		·		1	or for part load at given outdoor tem	-	Гј
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or	287.0	%
			_		GUEc,bin / AEFc,bin	207.0	70
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	EERd or	409.0	%
		_	_		GUEc,bin / AEFc,bin	405.0	70
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or	650.0	%
					GUEc,bin / AEFc,bin	030.0	70
Tj=+20°C	Pdc	3.5	kW	Tj=+20°C	EERd or	865.0	%
			_		GUEc,bin / AEFc,bin	000.0	70
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**							
Power consumpiton in other than 'active mo	ode'						
			_		•		1
Off mode	$P_{OFF}$	0.010	kW	Crankcase heater m	node P <sub>CK</sub>	800.0	kW
Thermostat-off mode	$P_{TO}$	0.075	kW	Standby mode	P <sub>SB</sub>	0.010	kW
Other items					ı		1
			, l	For air-to-air air con	ditioner:	4,500	m³/h
Capacity control		variable	J	air flow-rate,outdoor	measured		
			, l				
Sound power level,	$L_WA$	71.0	dB				
outdoor			1				
			, l				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
GWP of the			kg CO <sub>2eq</sub>				
		2,088	(100years)				
refrigerant			_				
Contact details Mitsubish	i heavy indu	etries thern	nal systems,L	TD			
** If Cdc is not determined by measuremen					shall be 0,25.		
*** from 26 September 2018		J			•		
Where information relates to multi-spilt air of	conditionere	the test res	sult and perfo	rmance data be obtain	ned on the basis of the performance		
of the outdoor unit, with a combination of in					•		
and salass. This, was a sombiliation of the		. 20011111011					
						D ICONO	7462 🛦

Information to identify the model(s) to which	h the informa	ation relates	:	FDC125VNA /	FDU125VF		
Outdoor side heat exchanger of heat pump	):	air					
Indoor side heat exchanger of heat pump :		air					
Indication if the heater is equipped with a s	supplementa			No			
if applicable : electric motor							
Parameters shall be declared for the avera	age heating s	eason , par	ameters for t	the warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heatin	g energy efficiency ηs,h		
	Prated,h	14.0	kW			162.1	%
Declared heating capacity for part load at	indoor tempe	rature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor to	emperatures	Tj
			_				
T <sub>j</sub> =-7°C	Pdh	8.7	kW	T <sub>j</sub> =-7°C	COPd or	311.0	%
			_		GUEh,bin / AEFh,bin	• • • • • • • • • • • • • • • • • • • •	
T <sub>j</sub> =+2°C	Pdh	5.3	kW	T <sub>j</sub> =+2°C	COPd or	391.0	%
			_		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	3.4	kW	T <sub>j</sub> =+7℃	COPd or	530.0	%
			_		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	2.9	kW	T <sub>j</sub> =+12°C	COPd or	600.0	%
			_		GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	9.8	kW	T <sub>biv</sub> =bivalent	COPd or	260.0	%
			-	temperature	GUEh,bin / AEFh,bin		,,,
T <sub>OL</sub> =operation limit	Pdh	7.8	kW	T <sub>OL</sub> =operation limit	COPd or	231.0	%
			_		GUEh,bin / AEFh,bin	201.0	]″
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water hea	t COPd or	l _	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
			-			1	.
Bivalent temperature	$T_biv$	-10.0	°C	For water-to-air hea	t		
			-	pumps:Operation lin	nit	-	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				
heat pumps**							
							,
Power consumpiton in modes other than 'a	ctive mode'			Supplementary heat	ter elbu	_	kW
			,	back-up heating cap			
Off mode	Poff	0.010	kW				,
Thermostat-off mode	P <sub>TO</sub>	0.090	kW	Type of energy inpu	t P <sub>SB</sub>	0.010	kW
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	0.5		
Other items							,
			1	For air-to-air heat pu	umps:	4,380	m³/h
Capacity control		variable		air flow-rate,outdoor	r measured		
			7				,
Sound power level,	L <sub>WA</sub>	71.0	dB	For water-/brine-to-a	air heat pumps :		
outdoor measured				Rated brine or wate	r fiow-rate,	_	m <sup>3</sup> /h
			n	outdoor side heat ex	xchanger		
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	_	fuel input				
			GCV				
			7				
GWP of the		2088	kg CO <sub>2eq</sub>				
refrigerant			(100years)				
Contact details Mitsubis	hi heavy indu	ustries thern	nal systems,l	LTD			
** If Cdh is not determined by measurement	nt then the de	efault degra	dation coeffic	cient air conditioners shal	I be 0,25.		7
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners	the test res	ult and perfo	rmance data be obtained	on the basis of the performance	e	
of the outdoor unit, with a combination of in	ndoor unit(s)	recommend	led by the m	anufacturer or importer.			
						PJG000	)Z462 🛦

#### FDU125VSAVF

Model(s): FDC125VSA /	FDU125V	F					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	oling energy		
	Prated,c	12.5	kW	efficiency ηs,c		207.3	%
		<u> </u>		,			
Declared cooling capacity for part load at g	iven outdoor	r temperatu	res	Declared energy effi	iciency ratio or gas utilization efficier	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	iperatures <sup>-</sup>	Гј
			,		ı		1
Tj=+35°C	Pdc	12.5	kW	Tj=+35°C	EERd or	287.0	%
			ا ا		GUEc,bin / AEFc,bin		
Tj=+30°C	Pdc	9.2	kW	Tj=+30°C	EERd or	409.0	%
			, l		GUEc,bin / AEFc,bin		
Tj=+25°C	Pdc	5.9	kW	Tj=+25°C	EERd or	650.0	%
			, l		GUEc,bin / AEFc,bin		
Tj=+20°C	Pdc	3.5	kW	Tj=+20°C	EERd or	865.0	%
			, l		GUEc,bin / AEFc,bin		
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**			]				
Power consumpiton in other than 'active m	ode'						
			_		,		1
Off mode	$P_{OFF}$	0.010	kW	Crankcase heater m	node P <sub>CK</sub>	0.008	kW
Thermostat-off mode	P <sub>TO</sub>	0.075	kW	Standby mode	P <sub>SB</sub>	0.010	kW
				,			
Other items					ı		1
			, l	For air-to-air air cond	ditioner:	4,500	m <sup>3</sup> /h
Capacity control		variable	_	air flow-rate,outdoor	measured		],
			, l				
Sound power level,	$L_WA$	71.0	dB				
outdoor	WA						
			_				
If engine driven:	NOv		mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
				,			
GWP of the		2,088	kg CO <sub>2eq</sub>				
refrigerant		2,000	(100years)				
			_				
Contact details Mitsubish	ıi heavy indı	ustries thern	nal systems,L	TD			
** If Cdc is not determined by measuremer	t then the de	efault degra	dation coeffic	cient air conditioners s	hall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners	the test res	sult and perfo	rmance data be obtain	ned on the basis of the performance	;	
of the outdoor unit, with a combination of ir			-		•		
	,		•	·			
						PJG000	7462 A

Information to identify the model(s) to which	ch the informa	ation relates	s:	FDC125VSA /	FDU125VF		
Outdoor side heat exchanger of heat pum	o :	air					
Indoor side heat exchanger of heat pump		air					
Indication if the heater is equipped with a				No			
if applicable : electric motor		-					
Parameters shall be declared for the aver-	age heating s	season , par	ameters for	the warmer and colder he	ating seasons are optional.		
	Symbol	Value	Unit	Item	Symbol	Value	Unit
Retad beating conseits	Syllibol	value	Offic			value	Offic
Rated heating capacity	Prated,h	14.0	kW	Seasonal space nealin	ig energy efficiency ηs,h	162.1	%
	, ratou, r	1					,,,
			<u> </u>	1			<u> </u>
Declared heating capacity for part load at	indoor tempe	erature 20°C			performance or gas utilization	•	_
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor t	emperatures	ij
T 700	Б. II	0.7	٦	T 700	0001		1
T <sub>j</sub> =-7°C	Pdh	8.7	kW	T <sub>j</sub> =-7°C	COPd or	311.0	%
_			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	5.3	kW	T <sub>j</sub> =+2°C	COPd or	391.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	3.4	kW	T <sub>j</sub> =+7°C	COPd or	530.0	%
			n		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	2.9	kW	T <sub>j</sub> =+12°C	COPd or	600.0	%
			_		GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	9.8	kW	T <sub>biv</sub> =bivalent	COPd or	260.0	%
			_	temperature	GUEh,bin / AEFh,bin		]~
T <sub>OL</sub> =operation limit	Pdh	7.8	kW	T <sub>OL</sub> =operation limit		231.0	%
			-		GUEh,bin / AEFh,bin	231.0	70
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water hea			0,
T <sub>i</sub> =-15°C			J	pumps:T <sub>i</sub> =-15°C	GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)	, , , ,		ı
( 10] ( 23 0)				(11.101 1.20 0)			
Bivalent temperature	т.,	-10.0	l℃	For water-to-air hea	ıt		1
Divalent temperature	T <sub>biv</sub>	-10.0	] ~	pumps:Operation lir		l _	°C
Degradation			1	T <sub>ol</sub> temperature	TIIL		Ŭ
Degradation	_	0.05		I ol terriperature			ļ
coefficient	$C_{dh}$	0.25	-				
heat pumps**							
							1
Power consumpiton in modes other than 'a	active mode'			Supplementary hear	ter elbu	_	kW
			,	back-up heating cap	pacity		
Off mode	P <sub>OFF</sub>	0.010	kW				
Thermostat-off mode	P <sub>TO</sub>	0.090	kW	Type of energy inpu	ıt P <sub>SB</sub>	0.010	kW
Crankcase heater mode	Pck	0.008	kW	Standby mode	- 36	0.010	
Other items							
				For air-to-air heat p	umps:	4,380	m <sup>3</sup> /h
Capacity control		variable	]	air flow-rate,outdoor	r measured	4,300	m /n
			_				
Sound power level,			1	For water-/brine-to-a	air heat numns ·		]
outdoor measured	$L_{WA}$	71.0	dB	Rated brine or wate		_	m <sup>3</sup> /h
Salabor measured			_	outdoor side heat ex			
Emissions of nitrogen			mallable	Judador side fleat ex	nonanger		I
Emissions of nitrogen	NOx	_	mg/kWh				
oxides(if applicable)	***		fuel input				
		L	GCV				
				<u> </u>			
			<b>1</b>				
GWP of the		2088	kg CO <sub>2eq</sub>				
refrigerant			(100years)				
<u>,                                      </u>				<u> </u>			
Contact details Mitsubis	hi heavy indu	ustries thern	nal systems,	LTD			
** If Cdh is not determined by measureme	nt then the de	efault degra	dation coeffi	cient air conditioners shal	II be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners	the test res	ult and perfo	ormance data be obtained	on the basis of the performan	ce	
of the outdoor unit, with a combination of i			•		,		
,	(2)		,				
						PJG000	)Z462 🛝

#### FDU140VNAVF

Model(s): FDC140VNA /	FDU140V	F						
Outdoor side heat exchanger of air condition	ner:	air						
Indoor side heat exchanger of air conditioned	er:	air						
Type: vapour compression								
if applicable : electric motor								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated cooling capacity				Seasonal space cool	ing energy			
	Prated,c	13.6	kW	efficiency ηs,c		200.0	%	
Declared cooling capacity for part load at gi	ven outdooi	r temperatu	res	Declared energy effic	ciency ratio or gas utilization efficier	ncy /		
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy factor for part load at given outdoor temperatures Tj				
			_		-		,	
Tj=+35°C	Pdc	13.6	kW	Tj=+35°C	EERd or	276.0	%	
			_		GUEc,bin / AEFc,bin	270.0	]″	
Tj=+30°C	Pdc	10.0	kW	Tj=+30°C	EERd or	383.0	%	
			_		GUEc,bin / AEFc,bin	300.5	70	
Tj=+25°C	Pdc	6.4	kW	Tj=+25°C	EERd or	588.0	%	
			_	-	GUEc,bin / AEFc,bin	300.0	70	
Tj=+20°C	Pdc	3.5	kW	Tj=+20°C	EERd or	270.0	0/	
			<b>-</b>		GUEc,bin / AEFc,bin	970.0	%	
Degradation			]				1	
coefficient for	Cdc	0.25	_					
air conditioners**								
an oc., 2., 2., 2.			]					
Power consumpiton in other than 'active mo	ıde'							
1 Ower serioumpites care	uc							
Off mode	P <sub>OFF</sub>	0.008	kW	Crankcase heater mo	ode P <sub>CK</sub>	0.008	kW	
Thermostat-off mode	P <sub>TO</sub>	0.090	kW	Standby mode	P <sub>SB</sub>	0.008	kW	
	-		]		L		1	
Other items								
				For air-to-air air cond	litioner:		] 。	
Capacity control		variable	]	air flow-rate,outdoor		4,500	m³/h	
			_	an new rate, eatager			1	
Sound power level,			1					
outdoor	$L_{WA}$	73.0	dB					
outdoor		ļ	-					
If anyting driven.								
If engine driven: Emissions of nitrogen	NOx	_	mg/kWh					
, and the second	***		fuel input					
oxides			_GCV					
GWP of the			]ka CO					
		2,088	kg CO <sub>2eq</sub> (100years)					
refrigerant			]( , , , ,					
·			nal systems,L		anii ha 0 25			
** If Cdc is not determined by measurement	then trie us	atauit degra	dation coemic	cient air conditioners si	nali de u,∠5.			
*** from 26 September 2018								
Where information relates to multi-spilt air c	onditioners	the test res,	sult and perfo	rmance data be obtain	ed on the basis of the performance			
of the outdoor unit, with a combination of inc	door unit(s)	recommend	ded by the ma	anufacturer or importer				
					I	PJG000	17462 A	

Information to identify the model(s) to which	h the informa	ation relates	s:	FDC140VNA /	FDU140VF		
Outdoor side heat exchanger of heat pump	):	air					
Indoor side heat exchanger of heat pump :		air					
Indication if the heater is equipped with a s	supplementa			No			
if applicable : electric motor							
Parameters shall be declared for the avera	age heating s	season , par	ameters for t	the warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heatin	g energy efficiency ηs,h		
	Prated,h	15.5	kW			157.4	%
Declared heating capacity for part load at	indoor tempe	erature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor to	emperatures	Tj
			7				,
T <sub>j</sub> =-7°C	Pdh	9.3	kW	T <sub>j</sub> =-7°C	COPd or	300.0	%
			n		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	5.7	kW	T <sub>j</sub> =+2°C	COPd or	380.0	%
			n		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	3.7	kW	T <sub>j</sub> =+7℃	COPd or	518.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	2.8	kW	T <sub>j</sub> =+12°C	COPd or	567.0	%
			7		GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	10.5	kW	T <sub>biv</sub> =bivalent	COPd or	256.0	%
			7	temperature	GUEh,bin / AEFh,bin		
T <sub>OL</sub> =operation limit	Pdh	7.9	kW	T <sub>OL</sub> =operation limit	COPd or	229.0	%
			7		GUEh,bin / AEFh,bin		
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water hea	t COPd or	-	%
T <sub>j</sub> =-15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin		
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
			٦				,
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air hea			0
			٦	pumps:Operation lin	nit	_	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				
heat pumps**							
							1
Power consumpiton in modes other than 'a	ictive mode'			Supplementary heat	eibu	-	kW
Off mode	P <sub>OFF</sub>	0.008	kW	back-up heating cap	pacity		]
Thermostat-off mode	P <sub>TO</sub>	0.100	kW				1
Crankcase heater mode	P <sub>CK</sub>	0.100	kW	Type of energy inpu	t P <sub>SB</sub>	0.008	kW
Claricease fieater filode	FCK	0.008	7~~~	Standby mode			]
Other items							
Other items				For air-to-air heat pu	umpe:		1
Conscitu control		variable	1	air flow-rate,outdoor	·	4,380	m³/h
Capacity control			_	air ilow-rate,outdoor	measureu		1
Sound newer level			1	For water /bring to	air heat numne :		1
Sound power level, outdoor measured	$L_{WA}$	73.0	dB	For water-/brine-to-a	• •	_	m <sup>3</sup> /h
outdoor measured			J	outdoor side heat ex			,
Emissions of nitrogen			mg/kWh	outdoor side fleat ex	korlanger		,
oxides(if applicable)	NOx	_	fuel input				
Oxides(ii applicable)	***		GCV				
			_00v				
GWP of the			kg CO <sub>2eq</sub>				
refrigerant		2088	(100years)				
			_				
Contact details Mitsubis	hi heavv indi	ustries thern	nal systems,l	LTD			
** If Cdh is not determined by measurement					I be 0,25.		
*** from 26 September 2018		-					
Where information relates to multi-spilt air	conditioners	the test res	ult and nerfo	rmance data he obtained	on the basis of the performance	e	
of the outdoor unit, with a combination of in			•		. s alo basis of the periorilland		
Satass. ann, white Combination of the		. 555111116110	y u 10 illi				
						PJG000	)Z462 🛝

#### FDU140VSAVF

Model(s): FDC140VSA /	FDU140V	F					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	ling energy		
	Prated,c	13.6	kW	efficiency ηs,c		200.0	%
Declared cooling capacity for part load at g	iven outdoor	r temperatu	res	Declared energy effi	ciency ratio or gas utilization efficier	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)		•		auxiliary energy facto	or for part load at given outdoor tem	iperatures <sup>-</sup>	Tj
Tj=+35°C	Pdc	13.6	kW	Tj=+35°C	EERd or	276.0	0/
			-	.   ^	GUEc,bin / AEFc,bin	276.0	%
Tj=+30°C	Pdc	10.0	kW	Tj=+30°C	EERd or	202.0	10/
			<b>-</b>	.   ^	GUEc,bin / AEFc,bin	383.0	%
Tj=+25°C	Pdc	6.4	kW	Tj=+25°C	EERd or		1
			-	, , , , , , , , , , , , , , , , , , , ,	GUEc,bin / AEFc,bin	588.0	%
Tj=+20°C	Pdc	3.5	kW	Ti=+20°C	EERd or		1
			ا ا	1]20 0	GUEc,bin / AEFc,bin	970.0	%
Degradation			1	,	GOLC, DITT ALT C, DITT		J
coefficient for	Cdc	0.25		,			
air conditioners**	Out		[	, [			
all conditioners			ا ا	, [			
S ton in other than lactive m	- 4-1						
Power consumpiton in other than 'active me	ode						
Off mode	P <sub>OFF</sub>	0.008	kW	Crankcase heater m	ode P <sub>CK</sub>	0.008	kW
Thermostat-off mode	P <sub>TO</sub>	0.008	kW	Standby mode	P <sub>SB</sub>	0.008	kW
memosiai-on mode	1 10	0.030	] [	Standby mode	' SB	0.000	]Kvv
011 4-11-1							
Other items							1
Capacity control		variable	ו ר	For air-to-air air cond		4,500	m³/h
Сараспу сопцоі		Valiable	]	air flow-rate,outdoor	measured		J
			ا ر				
Sound power level,	$L_WA$	73.0	dB				
outdoor		<u></u>	_				
			, I	,			
If engine driven:	NOx		mg/kWh	,			
Emissions of nitrogen	***	-	fuel input	,			
oxides			GCV	,			
				,			
			,	,			
GWP of the		2,088	kg CO <sub>2eq</sub>	,			
refrigerant		,000	(100years)	,			
				,			
				,			
Contact details Mitsubish	ıi heavy indu	ustries thern	nal systems,L	.TD			
** If Cdc is not determined by measuremen	t then the de	efault degra	dation coeffic	cient air conditioners s	hall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners	the test res	sult and perfo	rmance data be obtain	ned on the basis of the performance	:	
of the outdoor unit, with a combination of ir					•		
,	,		•	•			
L						PJG000	07462 A

Information to identify the model(s) to which	ch the informa	ation relates	:	FDC140VSA /	FDU140VF		
Outdoor side heat exchanger of heat pump	o :	air					
Indoor side heat exchanger of heat pump	:	air					
Indication if the heater is equipped with a	supplementar	y heater :		No			
if applicable : electric motor							
Parameters shall be declared for the avera	age heating s	eason , para	ameters for t	he warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heatin	g energy efficiency ηs,h		
	Prated,h	15.5	kW			157.4	%
Declared heating capacity for part load at	indoor tempe	rature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor to	mperatures	Tj
			1				,
T <sub>j</sub> =-7°C	Pdh	9.3	kW	T <sub>j</sub> =-7°C	COPd or	300.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+2°C	Pdh	5.7	kW	T <sub>j</sub> =+2°C	COPd or	380.0	%
			1		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	3.7	kW	T <sub>j</sub> =+7°C	COPd or	518.0	%
7 (00)		- 0.0	1	T 400=	GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	2.8	kW	T <sub>j</sub> =+12°C	COPd or	567.0	%
	Б. II	10.5	1		GUEh,bin / AEFh,bin		
T <sub>biv</sub> =bivalent temperature	Pdh	10.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or	256.0	%
T = eneration limit	Pdh	7.9	kW		GUEh,bin / AEFh,bin		1
T <sub>OL</sub> =operation limit	Pull	7.5	KVV	T <sub>OL</sub> =operation limit		229.0	%
E	Б. II		]		GUEh,bin / AEFh,bin		
For air-to-water heat pumps :  T <sub>i</sub> =-15°C	Pdh		kW	For air-to-water hea pumps:T <sub>i</sub> =-15°C	GUEh,bin / AEFh,bin	-	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)	GOLII, BIII / ALI II, BIII		1
(1101 < -20 0)				(II 10L <-20 0)			
Bivalent temperature	T <sub>biv</sub>	-10.0	l∘c	For water-to-air hea	t		1
Situation temperature	• DIV		] "	pumps:Operation lin		_	°C
Degradation			]	T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	_				1
heat pumps**	uii						
			1				
Power consumpiton in modes other than 'a	active mode			Supplementary heat	ter "		].,,,
·				back-up heating cap	eibu	_	kW
Off mode	Poff	0.008	kW		•		•
Thermostat-off mode	P <sub>TO</sub>	0.100	kW	Type of energy inpu	t P <sub>SB</sub>	0.008	kW
Crankcase heater mode	P <sub>CK</sub>	0.008	kW	Standby mode	! SB	0.008	KVV
			_				
Other items							
			,	For air-to-air heat pu	umps:	4,380	m³/h
Capacity control		variable		air flow-rate,outdoor	r measured	.,	,
			•				,
Sound power level,	L <sub>WA</sub>	73.0	dB	For water-/brine-to-a	air heat pumps :		
outdoor measured				Rated brine or wate	r fiow-rate,	-	m <sup>3</sup> /h
		_	1	outdoor side heat ex	xchanger		
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	-	fuel input				
			GCV				
			1				
GWP of the		2088	kg CO <sub>2eq</sub> (100years)				
refrigerant			(Tooyears)				
I. I.				<u>                                     </u>			
	hi heavy indu				I he 0.25		
** If Cdh is not determined by measureme	ni unen ine de	riauit degrad	auun coeffic	Jent all conditioners shal	ı DE U,∠Ə.		
*** from 26 September 2018							
Where information relates to multi-spilt air					on the basis of the performance	е	
of the outdoor unit, with a combination of i	ndoor unit(s)	recommend	ed by the ma	anutacturer or importer.			
L						PJG000	0Z462 <u>A</u>

#### FDU200VSAVG

Model(s): FDC200VSA /	FDU200V	'G					
Outdoor side heat exchanger of air condition	oner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cod	oling energy		
	Prated,c	19.0	kW	efficiency ηs,c		199.5	%
Declared cooling capacity for part load at g	iven outdoo	r temperatu	ires	Declared energy ef	ficiency ratio or gas utilization efficie	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)					tor for part load at given outdoor ten	-	Tj
Tj=+35°C	Pdc	19.0	kW	Tj=+35°C	EERd or	200.0	0/
			<b>-</b>		GUEc,bin / AEFc,bin	308.0	%
Tj=+30°C	Pdc	14.0	kW	Tj=+30°C	EERd or		
			-	', ' ' ' '	GUEc,bin / AEFc,bin	440.0	%
Tj=+25°C	Pdc	9.0	kW	Tj=+25°C	EERd or		† !
			ا ا			667.0	%
Tj=+20°C	Pdc	4.5	kW	T:- : 00°0	GUEc,bin / AEFc,bin		<del> </del>
11]-+20 0	1 40	7.0	7,44	Tj=+20°C	EERd or	647.0	%
			ا ٦		GUEc,bin / AEFc,bin		]
Degradation		0.25					
coefficient for	Cdc	0.23	-				
air conditioners**			]				
Power consumpiton in other than 'active m	ode'						
			ا ا				٦
Off mode	$P_{OFF}$	0.020	kW	Crankcase heater n	node P <sub>CK</sub>	0.010	kW
Thermostat-off mode	P <sub>TO</sub>	0.190	kW	Standby mode	P <sub>SB</sub>	0.020	kW
Other items							_
			_	For air-to-air air con	nditioner:	8,100	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outdoo	r measured	0,100	
			_				
Sound power level,	$L_{WA}$	72.0	dB				
outdoor	-WA	72.0	UD				
			-				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides	***		GCV				
Oxides			Jack				
GWP of the			kg CO <sub>2eq</sub>				
		2,088	(100years)				
refrigerant			ا' ' 'ا				
				<u> </u>			
			mal systems,L		shall be 0.25		
** If Cdc is not determined by measuremer	it tileli tile de	erauri degra	idation coeffic	Jeni ali conditioners	Shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners	the test res	sult and perfo	rmance data be obtai	ned on the basis of the performance	)	
of the outdoor unit, with a combination of ir	ndoor unit(s)	recommen	ded by the ma	anufacturer or importe	er.		
						P.IG00/	0Z462 🛝

Information to identify the model(s) to which	h the informa	ation relates	s:	FDC200VSA /	FDU200VG		
Outdoor side heat exchanger of heat pump	);	air					
Indoor side heat exchanger of heat pump :		air					
Indication if the heater is equipped with a s	upplementa			No			
if applicable : electric motor							
Parameters shall be declared for the avera	ge heating s	eason , par	ameters for t	the warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heatin	g energy efficiency ηs,h		
	Prated,h	22.4	kW			137.6	%
Declared heating capacity for part load at	ndoor tempe	erature 20°C	•	Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor to	mperatures	Tj
T <sub>j</sub> =-7°C	Pdh	11.1	kW	T <sub>j</sub> =-7°C	COPd or	310.0	%
			_		GUEh,bin / AEFh,bin	010.0	,,,
T <sub>j</sub> =+2°C	Pdh	6.7	kW	T <sub>j</sub> =+2°C	COPd or	327.0	%
			_		GUEh,bin / AEFh,bin	027.0	,,,
T <sub>j</sub> =+7°C	Pdh	4.3	kW	T <sub>j</sub> =+7°C	COPd or	440.0	%
			- -		GUEh,bin / AEFh,bin	770.0	70
T <sub>j</sub> =+12°C	Pdh	3.9	kW	T <sub>j</sub> =+12°C	COPd or	438.0	%
			-		GUEh,bin / AEFh,bin	430.0	76
T <sub>biv</sub> =bivalent temperature	Pdh	12.5	kW	T <sub>biv</sub> =bivalent	COPd or	263.0	%
			-	temperature	GUEh,bin / AEFh,bin	203.0	76
T <sub>OL</sub> =operation limit	Pdh	10.5	kW	T <sub>OL</sub> =operation limit		220.0	0/
			-		GUEh,bin / AEFh,bin	239.0	%
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water hea			0/
T <sub>i</sub> =-15°C			_	pumps:T <sub>i</sub> =-15°C	GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20℃)			
, == ,				, ,			
Bivalent temperature	T <sub>biv</sub>	-10.0	°c	For water-to-air hea	t		
·	211		_	pumps:Operation lin	nit	_	°C
Degradation			1	T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	_				
heat pumps**	- un						
			J				
Power consumpiton in modes other than 'a	ctive mode'			Supplementary heat	tor		
l ower consumption in modes other than a	cuve mode			back-up heating cap	eibu	_	kW
Off mode	P <sub>OFF</sub>	0.020	kW	back-up neating cap	Dacity		
Thermostat-off mode	P <sub>TO</sub>	0.210	kW	Type of operaty input	.4		
Crankcase heater mode	P <sub>CK</sub>	0.010	kW	Type of energy inpu	P <sub>SB</sub>	0.020	kW
	· OK		]	Standby mode			
Other items							
Other items				For air-to-air heat pu	limne:		
Consoity control		variable	1	air flow-rate,outdoor		8,100	m <sup>3</sup> /h
Capacity control		variable	_	air ilow-rate,outdoor	rmeasured		
Sound nower level			1	For water //	air haat numna		
Sound power level,	$L_{WA}$	74.0	dB	For water-/brine-to-a		_	m <sup>3</sup> /h
outdoor measured			_	Rated brine or water			,
			1	outdoor side heat ex	xcnanger		
Emissions of nitrogen	NOx	_	mg/kWh				
oxides(if applicable)	***		fuel input				
			GCV				
GWP of the			ka 00				
		2088	kg CO <sub>2eq</sub> (100years)				
refrigerant			(100yours)				
ļ				Ш			
			nal systems,l		15-025		
** If Cdh is not determined by measurement	n then the de	eiauit degra	uation coeffic	cient air conditioners shal	i pe U,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners	the test res	ult and perfo	rmance data be obtained	on the basis of the performance	е	
of the outdoor unit, with a combination of i	ndoor unit(s)	recommend	led by the m	anufacturer or importer.			
						I DIOCC	7460 *
						PJG000	J_40Z <u>A</u>

#### FDU250VSAVG

Model(s): FDC250VSA /	FDU250V	G					
Outdoor side heat exchanger of air condition	ner:	air					
Indoor side heat exchanger of air condition	er:	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	ling energy		
	Prated,c	24.0	kW	efficiency ηs,c		189.9	%
				,		<u> </u>	
Declared cooling capacity for part load at g	iven outdoor	r temperatu	res	Declared energy effic	ciency ratio or gas utilization efficier	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor tem	peratures <sup>-</sup>	Tj
			,	,	,		1
Tj=+35°C	Pdc	24.0	kW	Tj=+35°C	EERd or	301.0	%
			,		GUEc,bin / AEFc,bin		
Tj=+30°C	Pdc	17.7	kW	Tj=+30°C	EERd or	395.0	%
			, l	,	GUEc,bin / AEFc,bin		]
Tj=+25°C	Pdc	11.4	kW	Tj=+25°C	EERd or	622.0	%
			- I	,	GUEc,bin / AEFc,bin		]
Tj=+20°C	Pdc	6.5	kW	Tj=+20°C	EERd or	638.0	%
			, l	,	GUEc,bin / AEFc,bin		]
Degradation							
coefficient for	Cdc	0.25	-				
air conditioners**			]	.			
				.			
Power consumpiton in other than 'active mo	ode'			.			
	_		7		-	15	1
Off mode	P <sub>OFF</sub>	0.020	kW	Crankcase heater m		0.010	kW
Thermostat-off mode	P <sub>TO</sub>	0.190	kW	Standby mode	$P_{SB}$	0.020	kW
Other items							1
Capacity control		variable	1	For air-to-air air cond		8,580	m³/h
Capacity Control		variable	_	air flow-rate,outdoor	measured	L	]
			ا ٦	,			
Sound power level,	$L_WA$	73.0	dB				
outdoor			_	,			
			1 " l	,			
If engine driven:	NOx	_	mg/kWh	,			
Emissions of nitrogen	***	_	fuel input	,			
oxides			_GCV				
				1			
GWP of the			kg CO <sub>2eq</sub>	,			
		2,088	(100years)				
refrigerant			J	,			
				,			
Contact details Mitsubish	i heavy indu	etries thern	nal systems,L				
** If Cdc is not determined by measuremen					hall be 0,25.		
*** from 26 September 2018		Ü					
Where information relates to multi-spilt air of	conditioners	the test res	cult and perfo	rmance data he obtair	and on the basis of the performance		
of the outdoor unit, with a combination of in			-		•		
of the outdoor unit, with a combination of in	door unit(s)	recomment	ded by the m	andiacturer or importer	1.		
						PJG000	07462 A

Information to identify the model(s) to which	ch the informa	ation relates	:	FDC250VSA /	FDU250VG		
Outdoor side heat exchanger of heat pump	o :	air					
Indoor side heat exchanger of heat pump		air					
Indication if the heater is equipped with a	supplementa			No			
if applicable : electric motor							
Parameters shall be declared for the avera	age heating s	eason , par	ameters for t	the warmer and colder he	ating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heatin	g energy efficiency ηs,h		
	Prated,h	27.0	kW			137.5	%
Declared heating capacity for part load at	indoor tempe	rature 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor to	emperatures	: Tj
			_				_
T <sub>j</sub> =-7°C	Pdh	12.6	kW	T <sub>j</sub> =-7°C	COPd or	269.0	%
			_		GUEh,bin / AEFh,bin	200.0	]"
T <sub>j</sub> =+2°C	Pdh	7.7	kW	T <sub>j</sub> =+2°C	COPd or	351.0	%
			_		GUEh,bin / AEFh,bin	551.15	]
T <sub>j</sub> =+7°C	Pdh	4.9	kW	T <sub>j</sub> =+7°C	COPd or	402.0	%
			 -		GUEh,bin / AEFh,bin	402.0	],0
T <sub>j</sub> =+12°C	Pdh	6.4	kW	T <sub>j</sub> =+12°C	COPd or	527.0	%
			 -		GUEh,bin / AEFh,bin	327.0	],0
T <sub>biv</sub> =bivalent temperature	Pdh	14.2	kW	T <sub>biv</sub> =bivalent	COPd or	260.0	%
			-	temperature	GUEh,bin / AEFh,bin	200.0	70
T <sub>OL</sub> =operation limit	Pdh	12.5	kW	T <sub>OL</sub> =operation limit	COPd or	254.0	0,
			-		GUEh,bin / AEFh,bin	254.0	%
For air-to-water heat pumps :	Pdh	_	kW	For air-to-water hea			0,
T <sub>i</sub> =-15°C			-	pumps:T <sub>i</sub> =-15°C	GUEh,bin / AEFh,bin	_	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20℃)			•
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air hea	t		]
			_	pumps:Operation lin	mit	_	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				.
heat pumps**	- un						
			1				
Power consumpiton in modes other than 'a	active mode'			Supplementary heat	ter		1
l ower consumption in modes offer than t	adave mode			back-up heating cap	eibu	_	kW
Off mode	Poff	0.020	kW	back-up fleating cap	Jacity		'
Thermostat-off mode	P <sub>TO</sub>	0.210	kW	Type of energy inpu	ıt		1
Crankcase heater mode	Pck	0.010	kW	Standby mode	P <sub>SB</sub>	0.020	kW
	O.C		J	Standby mode			·
Other items							
				For air-to-air heat pu	umps:		]
Capacity control		variable	]	air flow-rate,outdoor	·	9,060	m <sup>3</sup> /h
Capacity control			1	all llow-rate,outdoor	measureu		1
Sound nower level			1	For water-/brine-to-a	air hoat numne :		1
Sound power level, outdoor measured	$L_{WA}$	75.0	dB		• •	_	m <sup>3</sup> /h
outdoor measured			1	Rated brine or wate outdoor side heat ex			,
			//->	outdoor side fleat ex	xcrianger		1
Emissions of nitrogen	NOx	_	mg/kWh fuel input				
oxides(if applicable)	***		· ·				
			GCV				
GWP of the			kg CO <sub>2eq</sub>				
		2088	(100years)				
refrigerant							
				<u> </u>			
	hi heavy indu				I bo 0.25		-
** If Cdh is not determined by measureme	ni inen the de	alault degra	ualion coeffi	Jent air conditioners shal	I DE U,∠O.		
*** from 26 September 2018							
Where information relates to multi-spilt air	conditioners	the test res	ult and perfo	rmance data be obtained	on the basis of the performance	е	
of the outdoor unit, with a combination of i	ndoor unit(s)	recommend	led by the m	anufacturer or importer.			
						D ICOO	0Z462 <u>A</u>
						L 1G00	JL4UL /A

# Models FDU100VF2, 125VF, 140VF, 200VG, 250VG

Model(s): FDU100VF2							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	7.7	kW	Total electric power input	$P_{elec}$	0.350	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	2.3	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	65.0	dB
Heating capacity	$P_{rated,h}$	11.2	kW				
Contact details	Mitsubishi I	neavy ind	ustries the	rmal systems,LTD			

Model(s): FDU125VF							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{\text{rated,c}}$	10.5	kW	Total electric power input	$P_{elec}$	0.400	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	2.0	kW	Sound power level (per speed setting,if applicable)	$L_WA$	67.0	dB
Heating capacity	$P_{\text{rated,h}}$	14.0	kW				
Contact details	Mitsubishi I	heavy ind	ustries the	rmal systems,LTD			

Model(s): FDU140VF							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	11.2	kW	Total electric power input	$P_{elec}$	0.550	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	2.8	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	70.0	dB
Heating capacity	$P_{rated,h}$	16.0	kW				
Contact details	Mitsubishi	heavy ind	ustries th	ermal systems,LTD			

Model(s): FDU200VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{\text{rated,c}}$	14.2	kW	Total electric power input	$P_{elec}$	1.180	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	4.8	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	75.0	dB
Heating capacity	$P_{rated,h}$	22.4	kW				
Contact details	Mitsubishi	heavy ind	ustries the	ermal systems,LTD			

Model(s): FDU250VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	20.0	kW	Total electric power input	P <sub>elec</sub>	1.180	kW
Cooling capacity (latent)	$P_{\text{rated,c}}$	4.0	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	75.0	dB
Heating capacity	$P_{\text{rated},h}$	27.0	kW				
Contact details	Mitsubishi	heavy ind	ustries ther	mal systems,LTD			

PJG000Z462 🕭

# 3. STANDARD INVERTER PACKAGED AIR-CONDITIONERS

CONTENTS	
3.1 SPECIFICATIONS	
3.2 EXTERIOR DIMENSIONS	
(1) Indoor units	. 460
(2) Outdoor units	
(3) Remote control (Option parts)	. 462
3.3 ELECTRICAL WIRING	. 463
(1) Indoor units	. 463
(2) Outdoor units	. 463
3.4 NOISE LEVEL	. 466
3.5 CHARACTERISTIC OF FAN	. 467
3.6 TEMPERATURE AND VELOCITY DISTRIBUTION	
3.7 PIPING SYSTEM	
3.8 RANGE OF USAGE & LIMITATIONS	
3.9 SELECTION CHART	
3.9.1 Capacity tables	
3.9.2 Correction of cooling and heating capacity in relation to air flow rate control (fan speed)	
3.9.3 Correction of cooling and heating capacity in relation to one way length of refrigerant piping	
3.9.4 Height difference between the indoor unit and outdoor unit	
3.10 APPLICATION DATA	
3.10.1 Installation of indoor unit	
3.10.2 Electric wiring work installation	
3.10.3 Installation of wired remote control (Option parts)	
3.10.4 Installation of outdoor unit	
(1) Model FDC71VNP	
(2) Model FDC90VNP1	
(3) Model FDC100VNP	
( )	
3.11 TECHNICAL INFORMATION  Example: FDE 90 VNP1 VG	. 503
Series code Applicable power sourceSee the specification Product capacity Model name FDE: Ceiling suspended type	]
FDUM: Duct connected-Low/Middle static pressure type FDU: Duct connected-High static pressure type FDC: Outdoor unit	

# 3.1 SPECIFICATIONS

## (1) Ceiling suspended type (FDE)

#### Single type

			Model	FDE71	VNPVG			
Item				Indoor unit FDE71VG	Outdoor unit FDC71VNP			
Power sour	ce			1 Phase 220-240V	50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW	7.1 [ 1.4(Mir	n.)-7.1(Max.)]			
	Nominal heating capacity		kW	7.1 [ 1.0(Mir	n.)-7.1(Max.)]			
	D	Cooling		2.	50			
	Power consumption	Heating	kW	1.	96			
	Max power consumption		i t	3.27				
		Cooling		11.3	/ 11.8			
	Running current	Heating	A	8.8	/ 9.2			
	Inrush current, max curren	ıt	1 [	5 ,	14.5			
Operation		Cooling	0.4		96			
data	Power factor	Heating	%	9	97			
	EER	Cooling		2.	84			
	COP	Heating	ĺ	3.	62			
		Cooling						
	Sound power level	Heating	1 1	60	67			
		Cooling	dB(A)					
	Sound pressure level	Heating	' '	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	54			
	Silent mode sound pressu		i t		49			
		-						
Exterior dim	nensions (Height x Width x I	Depth)	mm	210 × 1,320 × 690	640×800(+71)×290			
Exterior app	nearance			Plaster white	Stucco white			
( Munsell co		ļ	Í I	(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent			
Net weight	,		kg	33	45			
	r type & Q'ty		- Kg		RMT5113MCE2 (Twin rotary type )×1			
	r motor (Starting method)		kW		Direct line start			
<u> </u>	oil (Amount, type)			<del>_</del>	0.45 (M-MA68)			
	(Type, amount, pre-charge	longth)	l l	P410A 1 6kg in outdoor unit (Incl.)	the amount for the piping of : 15m)			
Heat excha		lengin)	kg	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant			$\vdash$		tronic expansion valve			
Fan type &			$\vdash$	Centrifugal fan ×4	Propeller fan ×1			
	Starting method)		W	50 < Direct line start >	34 < Direct line start >			
ran motor (	Starting method)	Cooling		50 < Direct line start >	34 < Direct line start >			
Air flow		Heating	m³/min	P-Hi:20 Hi:16 Me:13 Lo:10	36			
	ternal static pressure		Pa	0	-			
Outside air				Not possible	-			
	ality / Quantity			Pocket plastic net ×2(Washable)	_			
	oration absorber			Rubber sleeve(for fan motor) Rubber sleeve(for compres				
Electric hea	,		W	_	_			
Operation	Remote control			, ,	5, RCH-E3 Wireless: RCN-E-E3			
control	Room temperature control			Thermostat I	by electronics			
55111151	Operation display			-	_			
Safety equi	pments			Frost protection, Serial signal error prot	ction, Overcurrent protection, ection, Indoor fan motor error protection, sure control ), Cooling overload protection			
	Refrigerant piping size ( O.	D )	mm		φ 6.35(1/4")x0.8 O/U φ 6.35 (1/4")			
	nemgerani piping size ( O.	ן .ט.	mm	Gas line: I/U $\phi$ 15.88 (5/8") Pipe	φ 12.7(1/2")x0.8 O/U φ 12.7 (1/2")			
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping		m	<del>-</del>	_			
data	Insulation for piping			Necessary (both	Liquid & Gas lines)			
	Refrigerant line (one way)	length	m	Max	30m			
	Vertical height diff. between O/	U and I/U	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)			
	Drain hose			Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 5 pcs			
Drain pump, max lift height		mm		_				
Recommended breaker size		Α		_				
	ked rotor ampere)		Α	5	5.0			
Interconnec		ımber			e) / Termainal block (Screw fixing type)			
IP number	J			IPX0	IPX4			
Standard ad	ccessories			Mounting kit, Drain hose	Drain elbow, Drain hole grommet			
Option part								
Option parts			r I		Motion sensor : LB-E			

Notes (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1503131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model	FDE90\	VNP1VG
Item				Indoor unit FDE100VG	Outdoor unit FDC90VNP1
Power sour	ce			1 Phase 220-240V	750Hz / 220V 60Hz
	Nominal cooling capacity	(range)	kW		n.)-9.0(Max.)]
	Nominal heating capacity	(range)	kW		n.)-9.0(Max.)]
	Power consumption	Cooling	] [		75
	Tower consumption	Heating	kW	2.	22
	Max power consumption			4.	19
	Running current	Cooling		12.3	/ 12.9
	Hulling current	Heating	Α	10.0	/ 10.5
Operation	Inrush current, max curren	ıt		5 ,	18.0
Operation data	Power factor	Cooling	%	9	97
uata	Fower factor	Heating	70	g	97
	EER	Cooling		3.	27
	COP	Heating		4.	.05
	Sound power level	Cooling		64	69
	Sourid power level	Heating		04	69
	Cound processing level	Cooling	dB(A)	P-Hi: 48 Hi: 43 Me: 38 Lo: 34	57
	Sound pressure level	Heating	1	P-HI: 46 HI: 43 ME: 36 LO: 34	55
	Silent mode sound pressu	re level	[	_	Cooling:52 / Heating:50
Francisco elica		D 41-1		050 1000 000	750 000(-00) 040
Exterior diff	nensions (Height x Width x I	Depth)	mm	250 × 1,620 × 690	750 x 880(+88) x 340
Exterior app	pearance			Plaster white	Stucco white
( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight			kg	43	57
	r type & Q'ty			_	RMT5118MDE2 (Twin rotary type )×1
	r motor (Starting method)		kW	_	Direct line start
<u> </u>	oil (Amount, type)		e l	_	0.675 (M-MA68)
	(Type, amount, pre-charge	lenath)	kg	R410A 2.1kg in outdoor unit (Incl.	the amount for the piping of : 15m)
Heat excha	( )		g	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant					tronic expansion valve
Fan type &				Centrifugal fan ×4	Propeller fan ×1
	Starting method)		W	80 < Direct line start >	86 < Direct line start >
,	<u> </u>	Cooling			63
Air flow		Heating	m³/min	P-Hi: 32 Hi: 26 Me: 21 Lo: 16.5	49.5
Available ex	ternal static pressure	i routing	Pa	0	_
Outside air	·			Not possible	_
	ality / Quantity			Pocket plastic net ×2(Washable)	_
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for fan motor & compressor)
Electric hea			W	—	—
Licoti ic rica	Remote control		**	(Ontion) Wired : BC-EX3 BC-E	5 , RCH-E3 Wireless : RCN-E-E3
Operation	Room temperature control				by electronics
control	Operation display			memostat i	_
	Oporation display				
L .					ction, Overcurrent protection,
Safety equip	oments				ection, Indoor fan motor error protection,
				Heating overload protection( High press	sure control), Cooling overload protection
				Liquid line: I/U & 9.52 (3/8") Pine	φ 6.35(1/4")x0.8 O/U φ 6.35 (1/4")
	Refrigerant piping size (O.	.D. )	mm		15.88 (5/8")x1.0 O/U \( \phi \) 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping		m	——————————————————————————————————————	——————————————————————————————————————
data	Insulation for piping				Liquid & Gas lines)
	Refrigerant line (one way)	lenath	m		30m
	Vertical height diff. between O/		m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)
	Drain hose	J 4114 1/ U		Hose connectable with VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs
Drain pump, max lift height		mm	—	—	
Recommended breaker size		A		<u></u>	
L.R.A. (Locked rotor ampere)		A	5	5.0	
Interconnec		ımher	, · · ·		e) / Termainal block (Screw fixing type)
IP number	ung wires   OIZE A OOIE IIL	an incl		IPX0	IPX4
Standard ad	coesories			Mounting kit, Drain hose	Drain elbow, Drain hole grommet
				-	nsor : LB-E
Option parts				iviotion se	110UI . LD-E

Notes (1) The data are measured at the following

. ,		•			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1903131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.(5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model	FDE100	VNP1VG
Item				Indoor unit FDE100VG	Outdoor unit FDC100VNP
Power sour	ce			1 Phase 220-240V	50Hz / 220V 60Hz
Nominal cooling capacity (range)			kW	10.0 [ 2.8(Mir	ı.)-11.2(Max.)]
Nominal heating capacity (range)			kW	11.2 [ 2.5(Mir	i.)-12.5(Max.)]
	Power consumption	Cooling		2.	66
	Power consumption	Heating	kW	2.	94
	Max power consumption	1	1	4.	28
	Dunning gurrant	Cooling		11.7	/ 12.2
	Running current	Heating	Α	12.9	/ 13.5
Operation	Inrush current, max curre	ent		5,	21.0
data	Power factor	Cooling	%	9	9
uala	Fower factor	Heating	70	9	9
	EER	Cooling		3.	76
	COP	Heating		3.	81
	Sound power level	Cooling		64	70
	Souria power level	Heating		04	70
	Cound processes level	Cooling	dB(A)	P-Hi: 48 Hi: 43 Me: 38 Lo: 34	57
	Sound pressure level	Heating		P-HI: 46 HI: 43 Me: 36 LO: 34	61
	Silent mode sound press	sure level		_	Cooling:50 / Heating:49
Exterior dia	aanaiana (Haight \\/idth	Donth)		250 1 620 600	845×970×370
Exterior airr	nensions (Height × Width	× Deptn)	mm	250 × 1,620 × 690	845×970×370
Exterior app	pearance			Plaster white	Stucco white
( Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	( 4.2Y7.5/1.1)near equivalent
Net weight			kg	43	70
Compresso	or type & Q'ty			_	RMT5126MCE1 (Twin rotary type)×1
	or motor (Starting method)		kW	_	Direct line start
Refrigerant	oil (Amount, type)		l	_	0.90 (M-MA68)
Refrigerant	(Type, amount, pre-charg	ge length)	kg	R410A 2.55kg in outdoor unit (Incl.	the amount for the piping of : 15m)
Heat excha	nger	, ,	_ ŭ	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant	control			Capillary tubes + Elec	tronic expansion valve
Fan type &	Q'ty	,		Centrifugal fan ×4	Propeller fan ×1
Fan motor (	(Starting method)		W	80 < Direct line start >	86 < Direct line start >
Air flass		Cooling	m³/min	D.16.20 16.06 Ma.01 La.16 F	75
Air flow		Heating	m /min	P-Hi: 32 Hi: 26 Me: 21 Lo: 16.5	79
Available ex	xternal static pressure		Pa	0	_
Outside air	intake			Not possible	_
Air filter, Qu	ality / Quantity			Pocket plastic net ×2(Washable)	_
Shock & vit	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for fan motor & compressor)
Electric hea	iter		W		
Onevetien	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3	
Operation	Room temperature contr	ol		Thermostat b	by electronics
control	Operation display			-	
				Compressor overheat prote	ction, Overcurrent protection,
Safety equip	pments			· · · · · · · · · · · · · · · · · · ·	ection, Indoor fan motor error protection,
				, , ,	ure control), Cooling overload protection
	T			Liquid line: I/U φ 9.52 (3/8") Pipe	
	Refrigerant piping size (	O.D. )	mm	Gas line: I/U φ 15.88 (5/8") Pipe φ	
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping	7	m	–	— — — — — — — — — — — — — — — — — — —
data	Insulation for piping	3	- 111	Necessary (both L	iguid & Gas lines)
Janu	Refrigerant line (one way	v) lenath	m	, ,	.30m
	Vertical height diff, between 0	, -	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)
	Drain hose	J, J W W I/ U	- '''	Hose connectable with VP20 (O.D.26)	Hole size $\phi 20 \times 3$ pcs
		mm	— — — — — — — — — — — — — — — — — — —		
Drain pump, max lift height Recommended breaker size			A		<u>-</u> -
	ked rotor ampere)		A		.0
`	cting wires   Size × Core no	umher	_ ^		Termainal block (Screw fixing type)
IP number	rung wires Tolke x Colle III	ui i i i i i		φ 1.6ηητές cores + earth cable /	IPX4
Standard ad	ccessories			Mounting kit, Drain hose	Edging
Option part				-	nsor : LB-E
Notes (1) The data are measured at the follow					

Notes (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air	Standards	
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.(5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

## (2) Duct connected-Low / Middle static pressure type (FDUM) Single type

			Model	FDUM71	VNPVF1	
ltem				Indoor unit FDUM71VF1	Outdoor unit FDC71VNP	
Power source				1 phase 220-240V		
	Nominal cooling capaci	ty (range)	kW	7.1 [ 1.4(Min	.)-7.1(Max.)]	
	Nominal heating capaci	ty (range)	kW	7.1 [ 1.0(Min	.)-7.1(Max.)]	
	Power consumption	Cooling		2.6	60	
	Power consumption	Heating	kW	1.8	39	
	Max power consumption	n	] [	3.2	27	
	Dunning augrent	Cooling		11.5 /	12.0	
	Running current	Heating	Α	8.5 /	8.9	
Operation	Inrush current, max cur	rent	1 [	5,	14.5	
	Power factor	Cooling	%	98 /	98	
data	Power lactor	Heating	70	97 /	97	
	EER	Cooling		2.	73	
	COP	Heating	] [	3.7	76	
	Cound nowar lovel	Cooling		65	67	
	Sound power level	Heating	1	65	67	
	Cound programs land	Cooling	dB(A)	D.16 - 20 16 - 22 M 20 1 25	F. A.	
	Sound pressure level	Heating	1 1	P-Hi: 38 Hi: 33 Me: 29 Lo: 25	54	
	Silent mode sound pres		1	_	49	
Exterior dim	nensions (Height × Width		mm	280 × 950 × 635	640×800(+71)×290	
Exterior app		. ,			Stucco white	
Munsell co				_	(4.2Y7.5/1.1) near equivalent	
Net weight	,	1	kg	34	45	
	r type & Q'ty			_	RMT5113MDE2 (Twin rotary type )×1	
	r motor (Starting method	D	kW	_	Direct line start	
	oil (Amount, type)	.,	e l	_	0.45 (M-MA68)	
	(Type, amount, pre-char	rae lenath)	kg	R410A 1.6kg in outdoor unit (Incl. t		
leat exchar		90 .01.91.7	1.9	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant				Capillary tubes + Elect	<u> </u>	
an type & (				Centrifugal fan ×2	Propeller fan ×1	
	Starting method)		w	130 < Direct line start >	34 < Direct line start >	
,	otal ting method)	Cooling				
Air flow		Heating	m³/min	P-Hi: 24 Hi: 19 Me: 15 Lo: 10	36	
Available ex	ternal static pressure	Trouting	Pa	Standard: 35 Max: 100		
Outside air i			- · u	Possible		
	ality / Quantity			Procure locally		
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W		—	
LICOTIIO IICA	Remote control		**	(Option) Wired: RC-EX3, RC-E5,RCH-E3 Wireless: RCN-KIT4-E2		
Operation	Room temperature con	trol		Thermostat by electronics		
control	Operation display	u OI	<del>                                     </del>	memostat b	-	
	Operation display				-ti O	
				·	ction, Overcurrent protection,	
Safety equip	pments				ection, Indoor fan motor error protection,	
					ure control), Cooling overload protection	
	Refrigerant piping size	( O D )	mm	Liquid line: I/U φ 9.52 (3/8") Pipe α		
		J.D. )		Gas line: I/U φ 15.88 (5/8") Pipe φ		
	Connecting method			Flare piping	Flare piping	
nstallation	Attached length of pipir	ng	m	_	_	
data	Insulation for piping			Necessary (both L	iquid & Gas lines)	
	Refrigerant line (one wa	<u> </u>	m	Max.		
	Vertical height diff. between	O/U and I/U	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)	
	Drain hose			Hose connectable VP25 (I.D.25, O.D.32)	Hole size φ 20 x 5 pcs	
	, max lift height		mm	Built-in Drain pump,600	_	
Drain pump	, max intriolgine		Ι Δ		_	
	ded breaker size		A	5.0		
Recommen			A	5.	0	
Recommend L.R.A. (Lock	ded breaker size	number				
Recommendur.R.A. (Lock nterconnection number	ded breaker size ked rotor ampere) sting wires   Size × Core	number		5. 1.5mm²×4 cores (including earth cable IPX0		
Recommend L.R.A. (Lock Interconnect IP number	ded breaker size ked rotor ampere) sting wires   Size × Core	number		1.5mm <sup>2</sup> ×4 cores (including earth cable	e)/ Termainal block (Screw fixing type)	
Recommend L.R.A. (Lock	ded breaker size ked rotor ampere) sting wires   Size × Core in	number		1.5mm²×4 cores (including earth cable IPX0	e)/ Termainal block (Screw fixing type) IPX4 Drain elbow, Drain hole grommet	

( )						
Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	35Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.(5) The operation data indicates when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
- (6) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.
- (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM90	VNP1VF2	
Item				Indoor unit FDUM100VF2	Outdoor unit FDC90VNP1	
Power sour				1 phase 220-240V	50Hz / 220V 60Hz	
	Nominal cooling capacity	(range)	kW		n.)-9.0(Max.)]	
	Nominal heating capacity	(range)	kW		n.)-9.0(Max.)]	
	Power consumption	Cooling	] [		69	
	· ·	Heating	kW		25	
	Max power consumption				19	
	Running current Cooling				/ 12.5	
		Heating	Α		/ 10.6	
Operation	Inrush current, max currer	·		,	18.0	
data	Power factor	Cooling	%		/ 97	
	FED	Heating			/ 97	
	EER	Cooling			35	
	COP	Heating		4.	00 T	
	Sound power level	Cooling		65	69	
		Heating Cooling	dB(A)		57	
	Sound pressure level	Heating		P-Hi: 44 Hi: 38 Me: 36 Lo: 30	55	
	Silent mode sound pressu		} }		Cooling:52 / Heating:50	
Exterior dim	ensions (Height × Width ×		mm	280 × 1370 × 740	750 × 880(+88) × 340	
Exterior app	<u> </u>	<b>Бер</b> иі)	111111	200 × 1070 × 740	Stucco white	
( Munsell co				_	(4.2Y7.5/1.1) near equivalent	
Net weight	,		kg	54	57	
	r type & Q'ty		ING I	— —	RMT5118MDE2 (Twin rotary type)×1	
	r motor (Starting method)		kW	_	Direct line start	
<u> </u>	oil (Amount, type)		Q.	_	0.675 (M-MA68)	
	(Type, amount, pre-charge	lenath)	kg	R410A 2.1kg in outdoor unit (Incl.	the amount for the piping of : 15m)	
Heat excha			9	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant					tronic expansion valve	
Fan type &				Centrifugal fan ×3	Propeller fan ×1	
	Starting method)		W	100 + 130 < Direct line start >	86 < Direct line start >	
Air flow		Cooling	m³/min	P-Hi: 36 Hi: 28 Me: 25 Lo: 19	63	
		Heating			49.5	
	ternal static pressure		Pa	Standard: 60 Max: 100	_	
Outside air				Possible Procure locally	_	
	ality / Quantity ration absorber				Rubber sleeve (for fan motor & compressor)	
Electric hea			W	Rubber sleeve(for fan motor)  Rubber sleeve (for fan motor & c		
Liectric riea	Remote control		VV	(Option) Wired: RC-EX3, RC-E5,RCH-E3 Wireless: RCN-KIT4-E2		
Operation	Room temperature contro	l			by electronics	
control	Operation display			-	_	
	[operation display			Compressor overheat prote	ection, Overcurrent protection,	
Safety equi	amonte				tection, Indoor fan motor error protection,	
Salety equi	onlents			, , ,	sure control), Cooling overload protection	
	T .	-			,	
	Refrigerant piping size ( O	.D. )	mm		φ 6.35(1/4")×0.8 O/U φ 6.35 (1/4")	
		•		, , , , ,	15.88(5/8")×1.0 O/U φ 15.88 (5/8")	
Installation	Connecting method		m	Flare piping	Flare piping	
data	Attached length of piping Insulation for piping		m	Necessary (both I	 Liquid & Gas lines)	
uala	Refrigerant line (one way)	length	m		30m	
	Vertical height diff. between O/		m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)	
	Drain hose	C 4114 1/ U	- 111	Hose connectable VP25(I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs	
Drain pump, max lift height		mm	Built-in Drain pump,600			
Recommended breaker size			A			
L.R.A. (Locked rotor ampere)			A	5	.0	
	ting wires   Size × Core nur	nber	_ ^ \		e)/ Termainal block (Screw fixing type)	
IP number				IPX0	IPX4	
Standard ad	cessories			Mounting kit, Drain hose	Drain elbow, Drain hole grommet	
Option part					Motion sensor : LB-KIT	
1 1 1 1 1 1 1 1 1						

Notes (1) The data are measured at the following conditions.

` '		0				1 1 0
Item Indoor air temperature		Outdoor air temperature External static pressur			Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicates when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
- (6) Static pressure of optional air filter "UM-FL3EF" is 5Pa initially.
- (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

			Model	FDUM100	VNP1VF2		
Item				Indoor unit FDUM100VF2	Outdoor unit FDC100VNP		
Power source	ce			1 Phase 220-240V	50Hz / 220V 60Hz		
	Nominal cooling capacity	(range)	kW	10.0 [ 2.8(Mir	i.)-11.2(Max.)]		
	Nominal heating capacity	(range)	kW	11.2 [ 2.5(Mir	11.2 [ 2.5(Min.)-12.5(Max.)]		
	Power consumption	Cooling		3.	00		
	Fower consumption	Heating	kW	2.5	93		
	Max power consumption				60		
	Running current	Cooling			/ 13.8		
		Heating	A		/ 13.5		
Operation	Inrush current, max curre			<u> </u>	22.0		
data	Power factor	Cooling	%		9		
		Heating			9		
	EER	Cooling			33		
	COP	Heating		3.	82		
	Sound power level	Cooling		65	70		
		Heating	ID(A)		57		
	Sound pressure level	Cooling	dB(A)	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	57 61		
	Cilent made sound press	Heating			Cooling:50 / Heating:49		
	Silent mode sound pressi	ure level			Cooling:50 / Heating:49		
Exterior dim	nensions (Height × Width ×	Depth)	mm	280 × 1,370 × 740	845×970×370		
Exterior app				_	Stucco white		
( Munsell co	olor)				( 4.2Y7.5/1.1)near equivalent		
Net weight			kg	54	70		
	r type & Q'ty				RMT5126MCE1 (Twin rotary type)×1		
	r motor (Starting method)		kW		Direct line start		
	oil (Amount, type)		l		0.90 (M-MA68)		
	(Type, amount, pre-charge	e length)	kg	· · ·	the amount for the piping of : 15m)		
Heat exchar				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant					tronic expansion valve		
Fan type &			144	Centrifugal fan ×3	Propeller fan ×1		
Fan motor (	Starting method)	10 "	W	100 + 130 < Direct line start >	86 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi: 36 Hi: 28 Me: 25 Lo: 19	75 79		
Available ex	ternal static pressure		Pa	Standard: 60 Max: 100	_		
Outside air				Possible	_		
	ality / Quantity			Procure locally	_		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for fan motor & compressor)		
Electric hea			W				
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-KIT4-E2			
control	Room temperature contro	Ol		I hermostat b	by electronics		
	Operation display			<del>-</del>			
				·	ction, Overcurrent protection,		
Safety equip	oments				ection, Indoor fan motor error protection,		
				9 1 (91	ure control), Cooling overload protection		
	Refrigerant piping size ( C	D.D. )	mm	Liquid line: I/U φ 9.52 (3/8") Pipe φ Gas line: I/U φ 15.88 (5/8") Pipe φ			
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	——————————————————————————————————————	_		
data	Insulation for piping			Necessary (both L	Liquid & Gas lines)		
	Refrigerant line (one way	) length	m	Max	.30m		
	Vertical height diff. between O	/U and I/U	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)		
Drain hose			Hose connectable VP25 (I.D.25,O.D.32)	Hole size $\phi 20 \times 3$ pcs			
Drain pump, max lift height			mm	Built-in drain pump , 600			
Recommen	Recommended breaker size			-			
,	ked rotor ampere)		Α		.0		
Interconnec	ting wires   Size × Core nu	ımber			Termainal block (Screw fixing type)		
IP number				IPX0	IPX4		
Standard ad				Mounting kit, Drain hose	_		
Option parts					Motion sensor : LB-KIT		
Notes (1)	The data are manaured at				The pine length is 7 Fm		

Notes (1) The data are measured at the following conditions.

Item	Indoor air to	emperature	Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19℃	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	-	7°C	6°C	oura	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (2) Inis air-conditioner is manufactured and tested in conformity with the ISO.
  (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
  (4) Select the breaker size according to the own national standard.
  (5) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
  (6) Static pressure of optional air filter "UM-FL3EF" is 5Pa initially.
  (7) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3 and RC-E5 only)

## (3) Duct connected-High static pressure type (FDU) Single type

			Model		FDU71\	/NPVF1	
Item				Indoor unit <b>FDL</b>	J71VF1		Outdoor unit FDC71VNP
Power sour	ce				1 phase 220-240V		
Nominal cooling capacity (range)			kW		7.1 [ 1.4(Min	.)-7.1(Max.	)]
Nominal heating capacity (range)			kW		7.1 [ 1.0(Min	.)-7.1(Max.	)]
Cooling			2.60				
	Power consumption	Heating	kW		1.8	39	
Max power consumption		1		3.2			
	max perrer consumption	Cooling			11.5 /		
	Running current	Heating	A		8.5/		
	Invitab attended to a control		- ^		5,		
Operation	Inrush current, max curre						
data	Power factor	Cooling	%		98 /		
		Heating			97 /		
	EER	Cooling			2.7		
	COP	Heating			3.7	76	
	Cound navior level	Cooling		65			67
	Sound power level	Heating	1	00			67
		Cooling	dB(A)				_,
	Sound pressure level	Heating	1 ' '	P-Hi:38 Hi:33 Me	: 29 Lo : 25		54
	Silent mode sound press		†				49
Exterior dim	nensions (Height × Width ×		mm	280 × 950 × 0	605		640×800(+71)×290
		Deptil)	mm	280 x 930 x 1	033		. ,
Exterior app				_			Stucco white
( Munsell co	olor)					( 4	1.2Y7.5/1.1 ) near equivalent
Net weight			kg	34			45
Compresso	r type & Q'ty					RMT5	5113MDE2 (Twin rotary type)×1
Compresso	r motor (Starting method)		kW	_			Direct line start
Refrigerant	oil (Amount, type)		Q	_			0.45 (M-MA68)
Refrigerant (Type, amount, pre-charge length)		kg	B410∆ 1 6kg in	outdoor unit (Incl. t	he amount	for the piping of : 15m)	
Heat exchanger		I Ng	Louver fin & inner gro			nape fin & inner grooved tubing	
					pillary tubes + Elect		1 0
Refrigerant	-					ronic expa	
Fan type & Q'ty			Centrifugal fa			Propeller fan ×1	
Fan motor (	Starting method)		W	130 < Direct line	start >		34 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi: 24 Hi: 19 Me: 15 Lo: 10 36		36	
Available ex	ternal static pressure		Pa	Standard: 35 Ma	ax: 200		_
Outside air	intake			Possible			_
	ality / Quantity			Procure loca			_
	ration absorber			Rubber sleeve(for f		Ru	bber sleeve(for compressor)
Electric hea			W	-	arr motor)	110	
_iectific fiea	Remote control		V V	(Option) Wired	I DO EVA DO ES	DCH E3 V	Vireless : RCN-KIT4-E2
Operation				(Option) wired			
control	Room temperature contro	DI			Thermostat b	y electroni	CS
	Operation display						
				Compres	ssor overheat protec	ction, Over	current protection,
Safety equip	oments			Frost protection, Ser	rial signal error prote	ection. Ind	oor fan motor error protection,
,							), Cooling overload protection
	1			•			
	Refrigerant piping size ( C	D.D. )	mm				")×0.8 O/U $\phi$ 6.35 (1/4")
						12./(1/2"	)×0.8 O/U φ 12.7 (1/2")
	Connecting method			Flare pipin	g		Flare piping
nstallation	Attached length of piping	l	m				_
data	Insulation for piping				Necessary (both L	iquid & Ga	s lines)
	Refrigerant line (one way	) length	m		Max.	30m	
Vertical height diff. between O/U and I/U		m	Max.20m (Outdoor ur	nit is higher)	Ма	x.20m (Outdoor unit is lower)	
	Drain hose			Hose connectable VP25 (			Hole size φ 20 × 5 pcs
Orain numn	, max lift height	-	mm	Built-in Drain pur	,		
	ded breaker size			Duit-iii Diaiii pui	- -		
			A				
	ked rotor ampere)		Α	4.5.0.	5.		
	ting wires   Size × Core nu	ımber			ncluding earth cable	e)/ Iermain	al block(Screw fixing type)
P number				IPX0			IPX4
Standard ac	ccessories			Mounting kit, Dra	ain hose	Dra	in elbow, Drain hole grommet
Option part	S				Motion sens	sor : LB-KI	Г
	The data are measured at	the followi	ng cond	itions.			The pipe length is 7.5m.
		temperatu		Outdoor air temperature	External static pr	essure	
_	Indoor all	Jamporatu		Catador an tomporator	_xtorriar statio pr		Standards

( )						
Item	Indoor air t	emperature	Outdoor air temperature External static pressure		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19℃	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	35Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
  (6) The operation data indicates when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)

			Model	FDU90V	/NP1VF2
Item				Indoor unit FDU100VF2	Outdoor unit FDC90VNP1
Power source				· · · · · · · · · · · · · · · · · · ·	7 50Hz / 220V 60Hz
Nominal cooling capacity (range)			kW		n.)-9.0(Max.)]
	Nominal heating capacity		kW		n.)-9.0(Max.)]
	Power consumption	Cooling			69
		Heating	kW		25
	Max power consumption				19
	Running current	Cooling			/ 12.5
		Heating	Α		/ 10.6
Operation	Inrush current, max curren			,	18.0 / 97
data	Power factor	Cooling Heating	%		/ 97
	EER	Cooling			35
	COP	Heating			.00
		Cooling			
	Sound power level	Heating		65	69
		Cooling	dB(A)		57
	Sound pressure level	Heating	` ` /	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	55
	Silent mode sound pressu			_	Cooling:52 / Heating:50
Exterior dim	ensions (Height × Width ×		mm	280 × 1,370 × 740	750 × 880(+88) × 340
Exterior app	pearance				Stucco white
( Munsell co	olor)			_	(4.2Y7.5/1.1) near equivalent
Net weight			kg	54	57
Compresso	r type & Q'ty			_	RMT5118MDE2 (Twin rotary type)×1
Compressor motor (Starting method)		kW	_	Direct line start	
Refrigerant oil (Amount, type)		l	_	0.675 (M-MA68)	
Refrigerant (Type, amount, pre-charge length)		kg	• '	the amount for the piping of : 15m)	
Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant control					tronic expansion valve
Fan type & Q'ty				Centrifugal fan ×3	Propeller fan ×1
Fan motor (	Starting method)		W	100 + 130 < Direct line start >	86 < Direct line start >
Air flow		Cooling	m³/min	P-Hi: 36 Hi: 28 Me: 25 Lo: 19	63
Available av	ternal static pressure	Heating	Pa	Standard: 60 Max: 200	49.5
Outside air i			га	Possible	_
	ality / Quantity			Procure locally	_
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for fan motor & compressor)
Electric hear			W	——————————————————————————————————————	—
	Remote control			(Option) Wired: RC-EX3, RC-E5	5,RCH-E3 Wireless : RCN-KIT4-E2
Operation	Room temperature control				by electronics
control	Operation display			-	_
				Compressor overheat prote	ection, Overcurrent protection,
Safety equip	oments			·	tection, Indoor fan motor error protection,
				, , ,	sure control), Cooling overload protection
				. , , , , ,	φ 6.35(1/4")×0.8 O/U φ 6.35 (1/4")
	Refrigerant piping size ( O	.D. )	mm		15.88(5/8")×1.0 O/U $\phi$ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping	,	m	— · · Auba	——————————————————————————————————————
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)
	Refrigerant line (one way)	length	m		:.30m
	Vertical height diff. between O/	U and I/U	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)
	Drain hose			Hose connectable VP25(I.D.25, O.D.32)	Hole size φ 20 x 3 pcs
	, max lift height		mm	Built-in Drain pump,600	
Recommend	ded breaker size		Α	-	
	red rotor ampere)		Α		5.0
Interconnec	ting wires Size x Core nur	nber		, ,	e)/ Termainal block (Screw fixing type)
IP number				IPX0	IPX4
Standard ac				Mounting kit, Drain hose	Drain elbow, Drain hole grommet
Option parts	8			Motion sen	sor : LB-KIT

Notes (1) The data are measured at the following conditions.

		_				
Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
  (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicates when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

  (7) The factory E.S.P. setting is set within the range of 80 150 Pa.If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)

Indoor unit   FOUTOWTE				Model	FDU100\	VNP1VF2			
Prisse 260-240V 50Hz / 220V 60Hz   220V	Item				1				
Normal aconing capacity (range) Normal heating capacity (range) Normal heating capacity (range) Normal heating capacity (range) Normal heating capacity (range) Normal heating capacity (range) Normal heating capacity (range) Normal heating capacity (range) Normal heating current Normal control   Gooling   Heating   W   2.93   Normal current   Gooling   Heating   A   13.2 / 13.8   Normal current   Gooling   Heating   A   12.3 / 13.5   Normal current   Gooling   Normal current   N	Power source					ļ.			
Nominal heating capacity (range)   WW   11.2 (2.5Min)-12.5(Max.)    Power consumption   Heating   WW   2.93     Max power consumption   Running current   Fleating   WW   2.93     Max power consumption   Running current   Fleating   WW   2.93     Max power consumption   Running current   Fleating   WW   2.93     Max power consumption   Running current   Fleating   WW   3.2 / 13.8     Power factor   Cooling   Reating   GOP   R	Nominal cooling capacity (range)			kW	10.0 [ 2.8(Mir	n.)-11.2(Max.)]			
Power consumption   Cooling   Max power consumption   Heating   W   2.93				kW					
Power consumption   Heating   W									
Max power consumption   Authority   Auth		Power consumption		kW					
Running current   Cooling   Heating   A   13.2 / 13.8		Max power consumption		'''		*			
Heating   A   12.9 / 13.5									
Incush current, max current   S. 22.0   Power factor   Cooling   Power factor   Heating   Power factor   Heating   COP   Heating   COP   Heating   COP   Heating   Sound pressure level   Gooling   Heating   Sound pressure level   Heating   Milkering   Heating   Sound pressure level   Heating   Heating   Sound pressure level   Heating   Milkering   Heating   Sound pressure level   Heating   Milkering   Heating   Sound pressure level   Heating   Milkering   Heating   Milkering   Heating   Milkering   Milke		Running current		<u> </u>					
Power factor   Cooling   Heating   File   Cooling   Heating   Sound power level   Cooling   Heating   Sound pressure level   Cooling   Heating   Sound pressure level   Cooling   Heating   Sound pressure level   Cooling   Heating   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling   Silent mode sound pressure   Cooling		Inrush current may curre		l ^					
Power factor   Heating   EER   Cooling   3.33   3.33	Operation	Illiusii cuiteili, max cuite							
EER	data	Power factor		%					
COP						<u></u>			
Sound power level   Cooling   Heating									
Sound pressure level   Heating   Sound pressure level   Cooling   Heating   Silent mode sound pressure level   Cooling   Heating   Silent mode sound pressure level   Cooling   Heating   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Silent mode sound pressure level   Cooling   Silent mode sound pressure level   Silent mode sound pressure level   Silent mode sound pressure level   Silent mode sound pressure level   Silent mode sound pressure level   Silent mode sound pressure level   Silent mode sound pressure level   Silent mode sound pressure level   Silent mode sound pressure level   Silent mode sound pressur		СОР			3.	82			
Heating   Gooling   Heating   Gooling   Heating   Silent mode sound pressure level   Heating   Silent mode sound pressure level   Heating   Silent mode sound pressure level   Heating   -   Cooling:50 / Heating:49   -   Cooling:50 / Heating:49   -   Cooling:50 / Heating:49   -   Cooling:50 / Heating:49   -   Cooling:50 / Heating:49   -   Cooling:50 / Heating:49   -   Cooling:50 / Heating:49   -   Cooling:50 / Heating:49   -   Cooling:50 / Heating:49   -   Cooling:50 / Heating:49   -     Cooling:50 / Heating:49   -     Cooling:50 / Heating:49   -     Cooling:50 / Heating:49   -     Cooling:50 / Heating:49   -     Cooling:50 / Heating:49   -     Cooling:50 / Heating:49   -     Cooling:50 / Heating:49   -     Cooling:50 / Heating:49   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:49   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heating:40   -     Cooling:50 / Heat		Sound power level			65	70			
Sound pressure level		Country position not on				-			
Heating   Heating   Silent mode sound pressure level   -		Sound pressure level		dB(A)	P-Hi : 44 Hi : 38 Me : 36 Lo : 30				
Exterior dimensions (Height × Width × Depth) mm		Heating		] [	1 111.44 111.00 W.C.00 LO.00	61			
Exterior appearance Munsell color)  Wet weight Compressor by the & City Compressor motor (Starting method) Edifigerant oil (Amount, type) Edifigerant oil (Amount, type) Earl by the Acity Earl by the Acity Earl by the Edificial		Silent mode sound press	ure level		_	Cooling:50 / Heating:49			
Exterior appearance Munsell color)  Wet weight Compressor by the & City Compressor motor (Starting method) Edifigerant oil (Amount, type) Edifigerant oil (Amount, type) Earl by the Acity Earl by the Acity Earl by the Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial Edificial	Exterior dim	oppione (Height v Width	(Donth)		290 v 1 270 v 740	945,070,270			
Munsell color	Exterior diri	iensions (Height x Width )	k Deptil)	'''''	200 × 1,370 × 740	645x970x370			
Munsell color	Exterior app	pearance				Stucco white			
Net weight					_				
Compressor type & City	`			ka	54				
Compressor motor (Starting method)  Refrigerant (i) (Amount, type)  Refrigerant (i) (Type, amount, pre-charge length)  Refrigerant (i) (Type, amount, pre-charge length)  Refrigerant (Type, amount, pre-charge length)  Refrigerant (Type, amount, pre-charge length)  Refrigerant (Type, amount, pre-charge length)  Refrigerant (Type, amount, pre-charge length)  Refrigerant (Type, amount, pre-charge length)  Refrigerant (Type, amount, pre-charge length)  Refrigerant (Type, amount, pre-charge length)  Refrigerant (Type, amount, pre-charge length)  Refrigerant (Type, amount, pre-charge length)  Refrigerant piping size (O.D.)  Cololing (Heating)  Refrigerant piping size (O.D.)  Connecting method  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (one way) length  Refrigerant line (on		r type & O'ty		I Ng					
Refrigerant oil (Amount, type)				I/\//					
Refrigerant (Type, amount, pre-charge length)  Refrigerant (Type, amount, pre-charge length)  Refrigerant control  Capillary tubes + Electronic expansion valve	<u> </u>			<del>_</del>					
Louver fin & inner grooved tubing   M shape fin & inner grooved tubing   Capillary tubes + Electronic expansion valve	9 , 7, 7		<del> </del>		,				
Refrigerant control Fan type & Qity Fan type &			кд						
Centrifugal fan x3									
Fan motor (Starting method)  Air flow    Cooling Heating   P-Hi : 36   Hi : 28   Me : 25   Lo : 19   75     Available external static pressure   Pa   Standard : 60   Max : 200   —   Dutside air intake   Possible   —   Air filter, Quality / Quantity   Procure locally   —   Shock & vibration absorber   Remote control   Remote control   Remote control   Room temperature control   Operation display   —   Compressor overheat protection, Nercurrent protection, Indoor fan motor error protection, Heating overload protection (High pressure control), Cooling overload protection (High pressure control), Cooling overload protection (High pressure control), Connecting method   Flare piping   Flare piping   Flare piping   Flare piping   Flare piping   Flare piping   Flare piping   Flare piping   Flare piping   Flare piping   Refrigerant line (one way) length   Max.20m (Outdoor unit is higher)   Max.20m (Outdoor unit is lower)   Max.20m (Outdoor unit is lower)   Pumber   Flare piping   Plate   Formation   Plate	<u> </u>								
Air filow   Cooling Heating   P-Hi: 36 Hi: 28 Me: 25 Lo: 19   75   79   Available external static pressure   Pa Standard: 60 Max: 200   — Outside air intake   Possible   — Air filter, Quality / Quantity   Procure locally   — Shock & vibration absorber   Rubber sleeve(for fan motor)   Rubber sleeve (for fan motor & compressor)   Electric heater   W					<u> </u>	·			
Available external static pressure  Available external static pressure  Pa Standard: 60 Max: 200 —  Dutside air intake  Prossible ——  Air filter, Quality / Quantity  Procure locally  Rubber sleeve(for fan motor)  Rubber sleeve (for fan motor & compressor)  Remote control  Room temperature control  Operation display  Compressor overheat protection, Overcurrent protection,  Frost protection, Serial signal error protection, Indoor fan motor error protection,  Heating overload protection (High pressure control), Cooling overload protection  Effigerant piping size (O.D.)  Max. 20m (Outdoor unit is higher)  Refrigerant line (one way) length  Vertical height diff. between O/U and I/U m  Vertical height diff. between O/U and I/U m  Procure locally  Rubber sleeve(for fan motor)  Rubber sleeve (for fan motor & compressor)  Rubber sleeve (for fan motor & compressor)  Rubber sleeve (for fan motor & compressor)  Rubber sleeve (for fan motor & compressor)  Rubber sleeve (for fan motor & compressor)  Rubber sleeve (for fan motor & compressor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor & compressor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor & compressor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor & compressor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Rubber sleeve (for fan motor)  Ruber sleeve (for fan motor)  Ruber sleeve (for fan motor)  Ruber sleeve (for fan motor)  Ruber sleeve (for fan motor)  Ruber sleeve (for fan motor)  Ruber	Fan motor (	Starting method)		W	100 + 130 < Direct line start >				
Heating	Air flow			m³/min	P-Hi: 36 Hi: 28 Me: 25 Lo: 19				
Dutside air intake Possible — Air filter, Quality / Quantity Procure locally — Nonck & vibration absorber Rubber sleeve(for fan motor) Rubber sleeve (for fan motor & compressor) Electric heater W — — — — — — — — — — — — — — — — — —	7 11 110 11		Heating						
Air filter, Quality / Quantity Procure locally Rubber sleeve (for fan motor) Rubber sleeve (for fan motor & compressor)  Becteric heater W — — — — — — — — — — — — — — — — — —	Available ex	ternal static pressure		Pa	Standard: 60 Max: 200	_			
Refrigerant piping size ( O.D. )   Refrigerant piping method   Rate piping   Refrigerant line (one way) length   Rate piping   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant piping max lift height   Refrigerant piping size   A   Refrigerant piping   Refrigerant line (one way) length   Refrigerant piping   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Rescommended breaker size   A   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant					Possible	_			
Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Remote control   Refrigerant piping size (O.D.)   Refrigerant piping size (O.D.)   Refrigerant piping size (O.D.)   Refrigerant piping size (O.D.)   Refrigerant piping size (O.D.)   Refrigerant piping size (O.D.)   Refrigerant piping   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Refrigerant line (one way) length   Rescommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker size   A   Recommended breaker s	Air filter, Qu	ality / Quantity			Procure locally	_			
Remote control   Room temperature control   Room temperature control   Room temperature control   Room temperature control   Thermostat by electronics   Thermostat by electronics   Thermostat by electronics   Thermostat by electronics   Compressor overheat protection, Overcurrent protection,   Frost protection, Serial signal error protection, Indoor fan motor error protection,   Heating overload protection   Heating over	Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for fan motor & compressor)			
Room temperature control   Coperation display   Compressor overheat protection, Overcurrent protection, Frost protection, Serial signal error protection, Indoor fan motor error protection, Heating overload protection (High pressure control ), Cooling overload protection   Heating overload protection (High pressure control ), Cooling overload protection	Electric hea	ter		W	<u>-</u>	_			
Room temperature control   Coperation display   Compressor overheat protection, Overcurrent protection, Frost protection, Serial signal error protection, Indoor fan motor error protection, Heating overload protection (High pressure control ), Cooling overload protection   Heating overload protection (High pressure control ), Cooling overload protection	0 1:	Remote control			(Option) Wired: RC-EX3, RC-E5	, RCH-E3 Wireless : RCN-KIT4-E2			
Compressor overheat protection, Overcurrent protection, Frost protection, Serial signal error protection, Indoor fan motor error protection, Heating overload protection (High pressure control), Cooling overload protection Liquid line: I/U \$\phi\$ 9.52 (3/8") Pipe \$\phi\$ 9.52(3/8")×0.8 O/U \$\phi\$ 9.52 (3/8") Connecting method Insulation for piping Insu	l .	Room temperature contr	ol						
Compressor overheat protection, Overcurrent protection, Frost protection, Serial signal error protection, Indoor fan motor error protection, Heating overload protection (High pressure control ), Cooling overload protection  Refrigerant piping size (O.D.)  mm    Liquid line: I/U \( \phi \) 9.52 (3/8") Pipe \( \phi \) 9.52(3/8")×0.8 \( \O/U \( \phi \) 9.52 (3/8")   Gas line: I/U \( \phi \) 15.88 (5/8") Pipe \( \phi \) 9.52(3/8")×1.0 \( \O/U \( \phi \) 15.88 (5/8")   Connecting method   Flare piping   Flare piping    Attached length of piping   Mexistent of piping   Necessary (both Liquid & Gas lines)   Refrigerant line (one way) length   m	control	<u>-</u>				-			
Frost protection, Serial signal error protection, Indoor fan motor error protection, Heating overload protection (High pressure control), Cooling overload protection  Refrigerant piping size (O.D.)  mm    Liquid line: I/U \( \phi\) 9.52 (3/8") Pipe \( \phi\) 9.52(3/8") ×0.8 \( \O \) (U \( \phi\) 9.52 (3/8")    Gas line: I/U \( \phi\) 15.88 (5/8") Pipe \( \phi\) 15.88 (5/8") ×1.0 \( \O \) U \( \phi\) 15.88 (5/8")    Connecting method   Flare piping   Flare piping     Attached length of piping   m   —     Insulation for piping   Refrigerant line (one way) length   m   Max.30m     Vertical height diff. between O/U and I/U   m   Max.20m (Outdoor unit is higher)   Max.20m (Outdoor unit is lower)     Drain hose   Hose connectable VP25 (I.D.25,O.D.32)   Hole size \( \phi\) 20 × 3 pcs    Drain pump, max lift height   m   Built-in drain pump , 600   —     Recommended breaker size   A   —     L.R.A. (Locked rotor ampere)   A   5.0     number   Size × Core number   P number   IPX0   IPX4     Standard accessories   Mounting kit, Drain hose   Edging     Doption parts   Motion sensor : LB-KIT		1 1 2 2 2 2 2 2 2 2			Compressor overheat proto	ction Overcurrent protection			
Heating overload protection (High pressure control ), Cooling overload protection    Refrigerant piping size (O.D.)   mm   Liquid line: I/U \( \phi 9.52 \) (3/8")   Pipe \( \phi 9.52 \) (3/8") \( \chio 0.0 \)   Pipe \( \phi 9.52 \) (3/8") \( \chio 0.0 \)   Gas line: I/U \( \phi 15.88 \) (5/8")   Pipe \( \phi 15.88 \) (5/8") \( \chio 0.0 \)   U \( \phi 15.88 \) (5/8") \( \chio 0.0 \)   Gas line: I/U \( \phi 15.88 \) (5/8")   Pipe \( \phi 9.52 \) (3/8") \( \chio 0.0 \)   U \( \phi 15.88 \) (5/8") \( \chio 0.0 \)   Gas line: I/U \( \phi 15.88 \) (5/8") \( \chio 0.0 \)   Pipe \( \phi 15.88 \) (5/8") \( \chio 0.0 \)   U \( \phi 15.88 \) (5/8") \( \chio 0.0 \)   Flare piping   Flare piping   P	Safaty ago:	amonte			·				
Refrigerant piping size ( O.D. ) mm	Jaiety equip	אוופוונס				•			
Refrigerant piping size (O.D.) mm Gas line: I/U \( \phi\) 15.88 (5/8") Pipe \( \phi\) 15.88 (5/8")×1.0 O/U \( \phi\) 15.88 (5/8")  Connecting method Flare piping Flare piping Flare piping Insulation for piping Max.30m  Refrigerant line (one way) length Max.20m (Outdoor unit is higher) Max.30m  Vertical height diff. between O/U and I/U Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Drain hose Hose connectable VP25 (I.D.25,O.D.32) Hole size \( \phi\) 20 × 3 pcs  Drain pump, max lift height Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Recommended breaker size A Built-in drain pump, 600 —  Recommended breaker size A S.0.  Interconnecting wires Size × Core number A Size × Core number A Size × Core number A Size × Core number A Standard accessories Mounting kit, Drain hose Edging  Option parts Motion sensor : LB-KIT									
Installation Attached length of piping method Attached length of piping method Insulation for piping method Insulation for piping method Insulation for piping method Insulation for piping method Insulation for piping method Insulation for piping Max.30m    Refrigerant line (one way) length method Max.30m     Vertical height diff. between O/U and I/U method Max.20m (Outdoor unit is higher) method Max.20m (Outdoor unit is lower)     Drain hose method Max.20m (Outdoor unit is higher) method Max.20m (Outdoor unit is lower)     Drain hose method Max.20m (Outdoor unit is higher) method Size of 20 × 3 pcs     Drain pump, max lift height method Max.20m (Outdoor unit is lower)     Drain pump, max lift height method Max.20m (Outdoor unit is higher) method Size of 20 × 3 pcs     Drain pump, max lift height method Max.20m (Outdoor unit is lower)     Drain pump, max lift height method Max.20m (Outdoor unit is lower)     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Max.20m (Outdoor unit is lower)     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump, max lift height method Size of 20 × 3 pcs     Drain pump		Refrigerant piping size (	ו חכ	mm					
Attached length of piping m — Necessary (both Liquid & Gas lines)  Refrigerant line (one way) length m Max.30m  Vertical height diff. between O/U and I/U m Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Drain hose Hose connectable VP25 (I.D.25,O.D.32) Hole size \$\phi 20 \times 3 \text{ pco}\$ pcommended breaker size  A Becommended breaker size  AR.A. (Locked rotor ampere) A Built-in drain pump, 600  Thereconnecting wires Size × Core number A Standard accessories Mounting kit, Drain hose Edging  Option parts  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdo			J.D. j			15.88(5/8")×1.0 O/U φ 15.88 (5/8")			
Attached length of piping m — Necessary (both Liquid & Gas lines)  Refrigerant line (one way) length m Max.30m  Vertical height diff. between O/U and I/U m Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Drain hose Hose connectable VP25 (I.D.25,O.D.32) Hole size \$\phi 20 \times 3 \text{ pco}\$ pcommended breaker size  A Becommended breaker size  AR.A. (Locked rotor ampere) A Built-in drain pump, 600  Thereconnecting wires Size × Core number A Standard accessories Mounting kit, Drain hose Edging  Option parts  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is lower)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher) Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdoor unit is higher)  Max.20m (Outdo		Connecting method			Flare piping	Flare piping			
Refrigerant line (one way) length m	Installation	Attached length of piping		m	_	_			
Vertical height diff. between O/U and I/U       m       Max.20m (Outdoor unit is higher)       Max.20m (Outdoor unit is lower)         Drain hose       Hose connectable VP25 (I.D.25,O.D.32)       Hole size φ 20 × 3 pcs         Drain pump, max lift height       mm       Built-in drain pump , 600       —         Recommended breaker size       A       —        R.A. (Locked rotor ampere)       A       5.0         nterconnecting wires       Size × Core number       φ 1.6mm×3 cores + earth cable / Termainal block (Screw fixing type)         P number       IPX0       IPX4         Standard accessories       Mounting kit, Drain hose       Edging         Option parts       Motion sensor : LB-KIT	<u> </u>				Necessary (both I	iquid & Gas lines)			
Vertical height diff. between O/U and I/U       m       Max.20m (Outdoor unit is higher)       Max.20m (Outdoor unit is lower)         Drain hose       Hose connectable VP25 (I.D.25,O.D.32)       Hole size φ 20 × 3 pcs         Drain pump, max lift height       mm       Built-in drain pump , 600       —         Recommended breaker size       A       —        R.A. (Locked rotor ampere)       A       5.0         nterconnecting wires       Size × Core number       φ 1.6mm×3 cores + earth cable / Termainal block (Screw fixing type)         P number       IPX0       IPX4         Standard accessories       Mounting kit, Drain hose       Edging         Option parts       Motion sensor : LB-KIT			m	Max	.30m				
Drain hose     Hose connectable VP25 (I.D.25,O.D.32)     Hole size φ20 x 3 pcs       Drain pump, max lift height     mm     Built-in drain pump, 600     —       Recommended breaker size     A     —      R.A. (Locked rotor ampere)     A     5.0       nterconnecting wires     Size x Core number     φ1.6mmx3 cores + earth cable / Termainal block (Screw fixing type)       P number     IPX0     IPX4       Standard accessories     Mounting kit, Drain hose     Edging       Option parts     Motion sensor : LB-KIT				<del>                                     </del>					
Drain pump, max lift height     mm     Built-in drain pump , 600     —       Recommended breaker size     A     —      R.A. (Locked rotor ampere)     A     5.0       nterconnecting wires     Size × Core number     φ 1.6mm×3 cores + earth cable / Termainal block (Screw fixing type)       P number     IPX0     IPX4       Standard accessories     Mounting kit, Drain hose     Edging       Option parts     Motion sensor : LB-KIT									
Recommended breaker size         A         —          R.A. (Locked rotor ampere)         A         5.0           nterconnecting wires         Size × Core number         φ 1.6mm×3 cores + earth cable / Termainal block (Screw fixing type)           P number         IPX0         IPX4           Standard accessories         Mounting kit, Drain hose         Edging           Option parts         Motion sensor : LB-KIT	Drain pump			mm	, , ,	<u> </u>			
R.A. (Locked rotor ampere)       A       5.0         nterconnecting wires       Size × Core number       φ 1.6mm×3 cores + earth cable / Termainal block (Screw fixing type)         P number       IPX0       IPX4         Standard accessories       Mounting kit, Drain hose       Edging         Option parts       Motion sensor : LB-KIT									
nterconnecting wires         Size × Core number         φ 1.6mm×3 cores + earth cable / Termainal block (Screw fixing type)           P number         IPX0         IPX4           Standard accessories         Mounting kit, Drain hose         Edging           Option parts         Motion sensor : LB-KIT									
P number IPX0 IPX4 Standard accessories Mounting kit, Drain hose Edging Option parts Motion sensor : LB-KIT			ımher	^					
Standard accessories Mounting kit, Drain hose Edging  Option parts Motion sensor : LB-KIT		ung wires poize x Core ni	al i IDEI			, 9717			
Option parts Motion sensor : LB-KIT		occoorios							
					<u> </u>	,			
				<u> </u>		Sor: LB-KII The pipe length is 7.5m			

Notes (1) The data are measured at the following conditions.

. ,		•				
Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19℃	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
  (6) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.
  (7) The factory E.S.P. setting is set within the range of 80 150 Pa.If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX3 and RC-E5 only)

Unit:mm

# 3.2 EXTERIOR DIMENSIONS

**Outdoor units** 

**Model FDC71VNP** 

Leave 1m or more space above the unit. A wall in front of the blower outlet must not exceed the units height. The model name label is attached on the lower right corner of the front panel.

a direction that the blower outlet faces perpendicularly to the dominant wind direction.

Where the unit is subject to strong winds, lay it in such

3

protrude more than 15mm.

Notes

(1) It must not be surrounded by walls on the four sides.

(2) The unit must be fixed with anchor bolts. An anchor bolt must not

466

2

Open 80 250 280 Ħ 280 75 80 Open 100 250 250 **L**2 <sub>교</sub> 4  $\Box$ **Dimensions** 

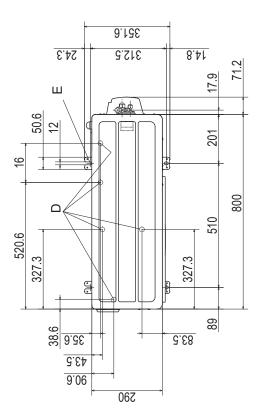
Minimum installation space

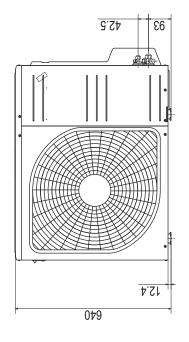
Open 80 Open

180  $\geq$ 

> 40°  $\circ$ Terminal block S 33. 148.4 Ω

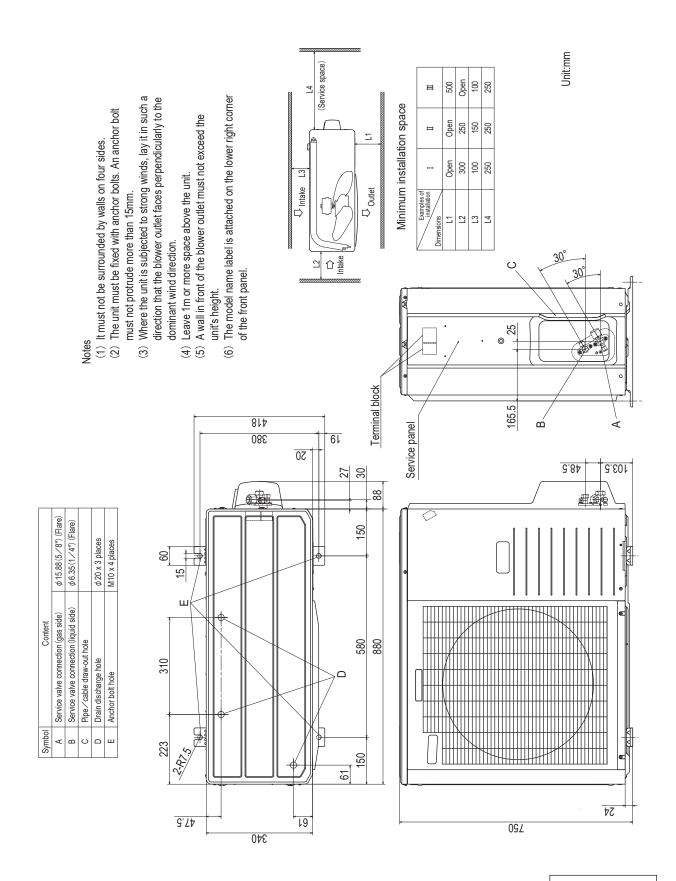
		φ12.7 (1/2") (Flare)	φ 6.35 (1 / 4") (Flare)		$\phi$ 20 × 5 places	M10×4 places	
400	CONTENT	Service valve connection (gas side)	Service valve connection (liquid side)	Pipe / cable draw-out hole	Drain discharge hole	Anchor bolt hole	
Cympol	Ognibol	A	В	O	D	Е	





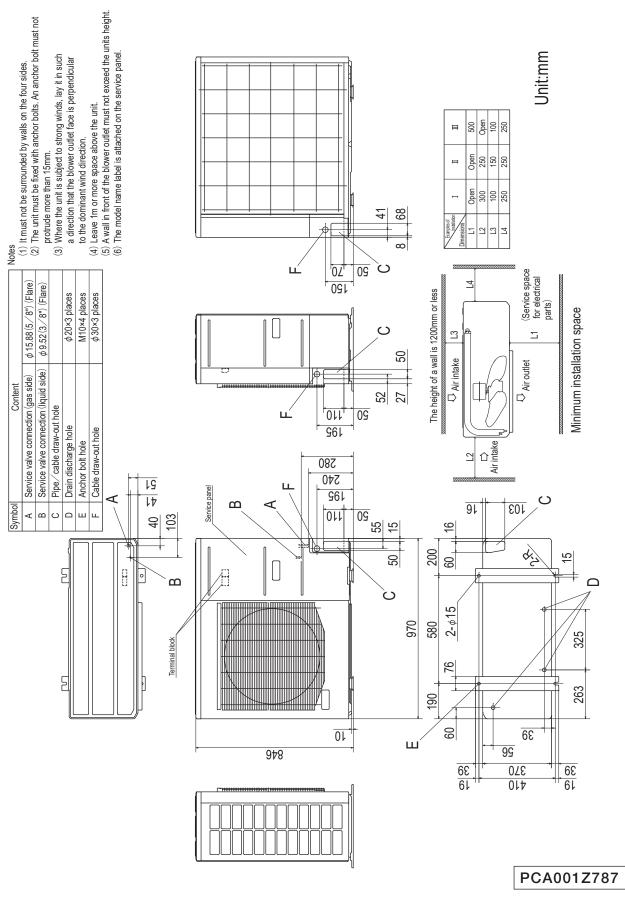
PCA001Z713

#### **Model FDC90VNP1**



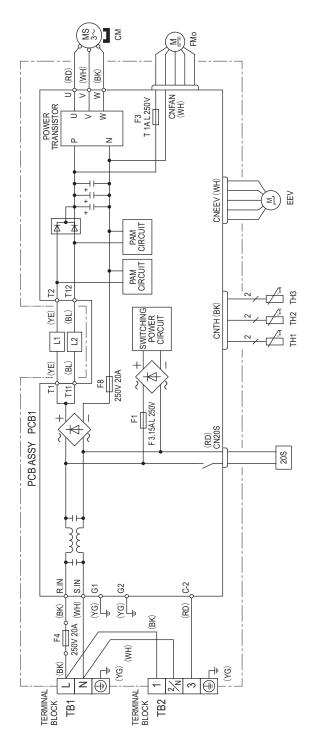
PCA001Z714

#### Model FDC100VNP



# 3.3 ELECTRICAL WIRING

- (2) Outdoor units **Model FDC71VNP**



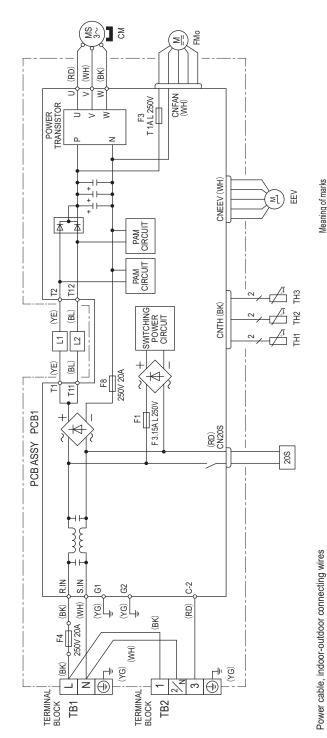
Meaning of marks	20S 4-WAY VALVE (COIL)	CM COMPRESSOR MOTOR	EEV   ELECTRIC EXPANSION VALVE (COIL)	FMo FAN MOTOR	L1,2 REACTOR	TH1 HEAT EXCHANGER SENSOR	TH2 OUTDOOR AIR TEMP. SENSOR	TH3 DISCHARGE PIPE TEMP. SENSOR
Mes			T		_	<u> </u>		
	Farth wire size	(mm <sup>2</sup> )			7.	2		
	Indoor-outdoor	>			1 5mm2x 4			
	Power cable length	(m)	)		15	2		
ecting wires	Power cable size	(mm <sup>2</sup> )	`		2.0	ì		
Power cable, indoor-outdoor connecting wires	MAX running current	(A) (mm <sup>2</sup> ) (m)			14.5			
Power c		Model			71	:		

	3		Î		(-HIH)	ĺ
						FF\
						FWo
7.1	7 / 7	0.0	<u>ر</u>	1 5mm2v 4	<del>ر</del> بر	L1,2
-	2	5	2		?	Ŧ
						TH2
						TH3
<ul> <li>The sp</li> </ul>	<ul> <li>The specifications shown in the above table are for units without heaters. For units with heaters, refer</li> </ul>	above table are for unit	s without heaters. For	units with heaters, refe	- L	
to the	to the installation instructions or the construction instructions of the indoor unit.	the construction instruc	ctions of the indoor un	نید		
<ul> <li>Switch</li> </ul>	<ul> <li>Switchgear of Circuit breaker capacity which is calculated from MAX, over current should be chosen</li> </ul>	pacity which is calculate	ed from MAX, over cu	rrent should be chosen		Color of
along t	along the regulations in each country.	untrv.				Mark
0						ì

<ul> <li>The cable specifications are based on the assumption that a metal or plastic conduit is used with no</li> </ul>	more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling	outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation	
netal or pla	rop is 2%	egulations	
n that a m	voltage d	l cabling r	
assumptio	duit and a	ne interna	
ed on the	d in a cond	se follow tl	
s are base	contained	ons, pleas	
ecifications	ee cables	se condition	ch country
s cable spe	re than thr	side of the	in effect in each country
• The	OM.	out	2.

PCA001Z837

#### Model FDC90VNP1



MAX running current (A)         Power cable length (mm²)         Indoor-outdoor (mm²)         Earth wire size (mm²)         CM (cmm²)         CM (cmm²)         CM (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EEV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)         EAV (cmm²)	THE PROPERTY OF THE PROPERTY O	20S 4-WAY VALVE (COIL)	CM COMPRESSOR MOTOR	( ILOO) BY IN INDISING SO TIET OF IT	ELECTRIC EAPAINGION VALVE (COIL)	FAN MOTOR	L1,2 REACTOR	HEAT EXCHANGER SENSOR	TH2 OUTDOOR AIR TEMP. SENSOR	TH3 DISCHARGE PIPE TEMP. SENSOR	
Power cable size Power cable length Indoor-outdoor (mm²) wire size x number wire size x number 15 1.5mm²x 4	5	208	CM	\   	^ Ц	FMo	L1,2	TH1	TH2	윒	
Power cable size Power cable length (mm²) (m)		Farth wire size	(mm <sup>2</sup> )				7.	2			
Power cable size (mm²)		Indoor-outdoor	wire size x number				1 5mm2x 4				
		Power cable length	(m)	(iii)			72	2			
MAX running current (A)	•	Power cable size	(mm <sup>2</sup> )	\\			2.5	ì			
	,	MAX running current	(A)				78	2			

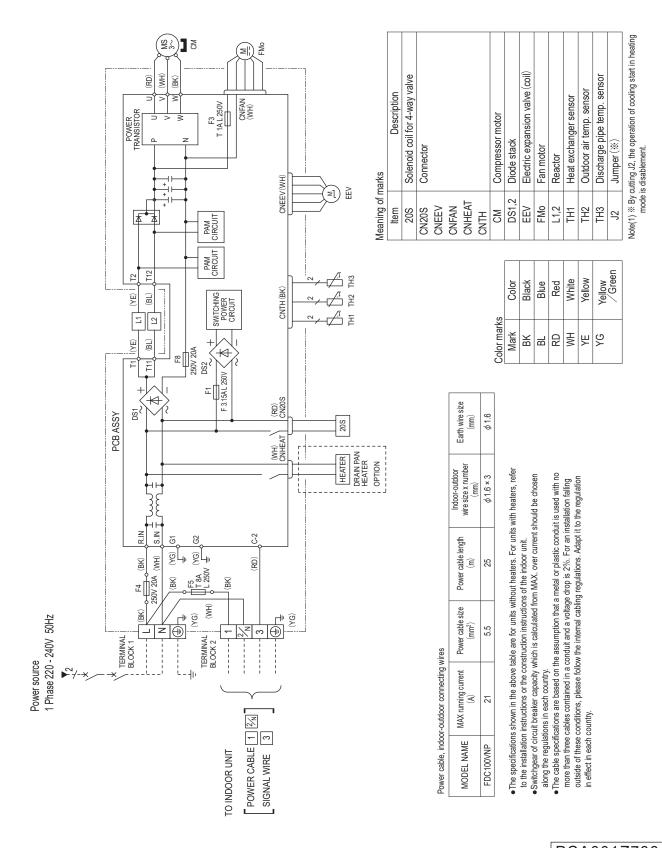
<ul> <li>The specifications shown in the above table are for units without heaters. For units with heaters, refer to the installation instructions or the construction instructions of the indoor unit.</li> <li>Switchgear of Circuit breaker capacity which is calculated from MAX. over current should be chosen along the regulations in each country.</li> <li>The cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation in effect in each country.</li> </ul>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

PCA001Z838

Model

8

#### Model FDC100VNP



PCA001Z788

# 3.4 NOISE LEVEL

Notes(1) The data are based on the following conditions.

Ambient air temperature: Indoor unit 27°CWB. Outdoor unit 35°CDB.

- (2) The data in the chart are measured in an anechoic room.
- (3) The noise levels measured in the field are usually higher than the data because of reflection.

#### 

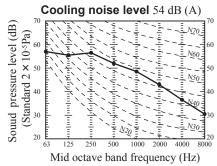
#### (2) Outdoor units

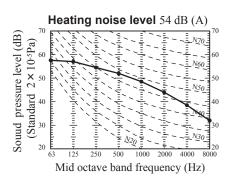
Measured based on ISO-T1, JIS B 8616

Mike position: at highest noise level in position as mentined below

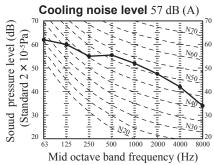
Distance from front side 1m Height 1m

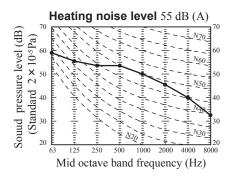
#### Model FDC71VNP



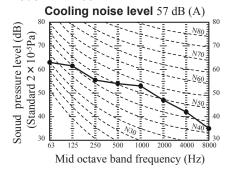


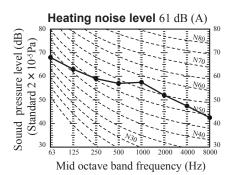
#### Model FDC90VNP1





#### Model FDC100VNP





# 3.5 CHARACTERISTIC OF FAN

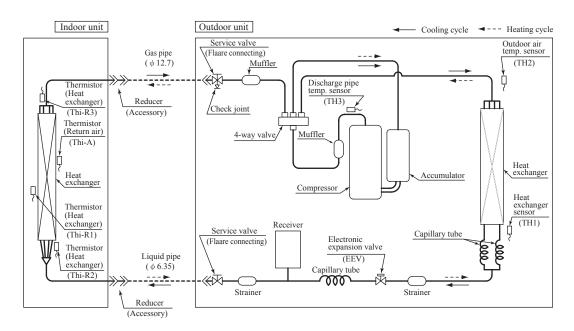
See page 76 of 1.5 chapter.

# 3.6 TEMPERATURE AND VELOCITY DISTRIBUTION

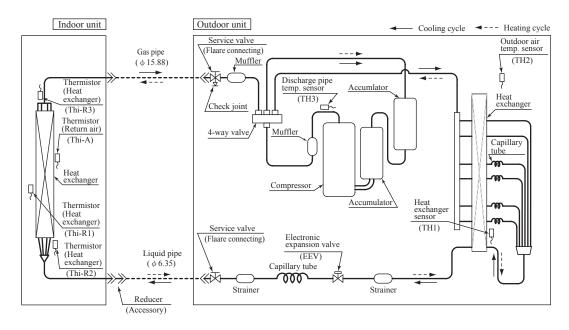
See page 83 of 1.6 chapter.

# 3.7 PIPING SYSTEM

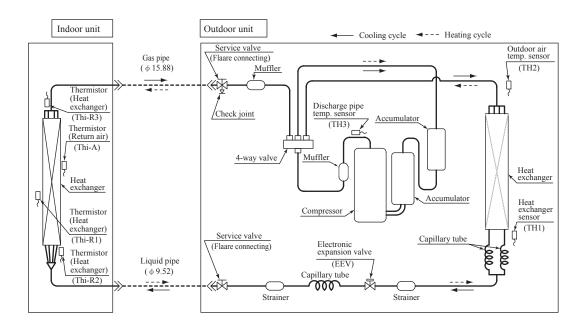
Model 71



#### Model 90



### Model 100



### Preset point of the protective devices

Parts name	Mark	Equipped unit	All models
Thermistor (for protection overloading in heating)	Thi-R	Indoor unit	OFF 63℃ , ON 56℃
Thermistor (for frost prevention)	INFR	indoor unit	OFF 1.0℃, ON 10℃
Thermistor (for protection high pressure in cooling)	TH1	0	OFF 63℃ , ON 53℃
Thermistor (for detecting discharge pipe temperature)	TH3	Outdoor unit	OFF 115℃ , ON 95℃

### 3.8. RANGE OF USAGE & LIMITATIONS

On exeting temporature rep		See next page.
Operating temperature range	ge	When used below -5°C, install a snow hood (prepared on site).
Recommendable area to in	ıstall	Considering to get sufficient heating capacity, the area where the averaged lowest ambient air temperature in day time during winter is above 0°C, and it has no accumulation of snow.
Installation site		The limitations of installation space are shown in the page for exterior dimensions.  Install the indoor unit at least 2.5m higher than the floor surface.
Temperature and humidity of indoor unit (Note 2)	conditions surrounding the	Model FDE : Dew point temperature : 23°C or less, relative hummdity : 80% or less Other models : Dew point temperature : 28°C or less, relative hummdity : 80% or less
Limitations on unit and pipi	ng installation	See page 471.
Compressor	Cycle Time	10 minutes or more (from OFF to OFF) or (from ON to ON)
ON-OFF cycling	Stop Time	3 minutes or more
	Voltage range	Rating ±10%
Power source	Voltage drop at start-up	Min.85% of rating
	Phase-to-phase imbalance	3% or less

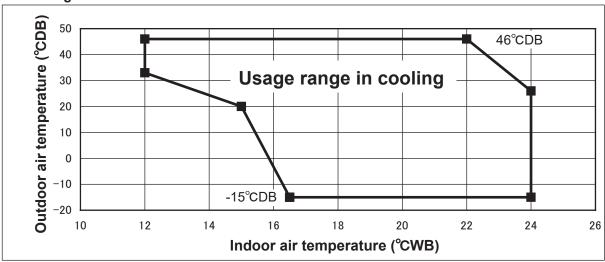
Note 1. Do not install the unit in places which:

- 1) Flammable gas may leak.
- 2) Carbon fiber, metal particles, powder, etc. are floating.
- 3) Cosmetic or special sprays are used frequently.
- 4) Exposed to oil splashes or steam (e.g. kitchen and machine plant).
- 5) Exposed to sea breeze (e.g. coastal area) or calcium chloride (e.g. snow melting agent).
- 6) Exposed to ammonia substance (e.g. organic fertilizer).
- 7) Matters affecting devices, such as sulfuric gas, chlorine gas, acid, alkali, etc. may generate or accumulate.
- 8) Chimney smoke is hanging.
- 9) Sucking the exhaust gas from heat exchanger.
- 10) Adjacent to equipment generating electromagnetic waves or high frequency waves.
- 11) There is light beams that affect the receiving device of indoor unit in case of the wireless specification.
- 12) Snow falls heavily.
- 13) At an elevation of 1000 meters or higher.
- 14) On mobile machine (e.g. vehicle, ship, etc.)
- 15) Splashed with water to indoor unit (e.g. laundry room).
- Note 2. If ambient temperature and humidity exceed the above conditions, add polyurethane foam insulation on the outer plate (10mm or thicker) of indoor unit.

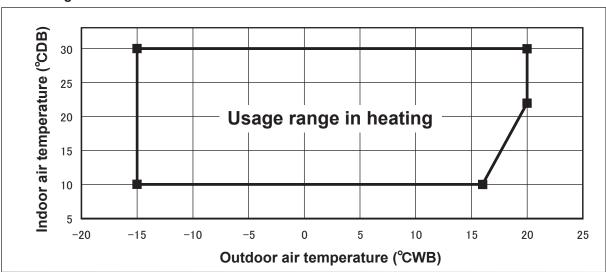
Note 3. Both gas and liquid pipes need to be coverd with 20mm or thicker heat insulation materials at the place where humidity exceeds 70%.

### Operating temperature range





### ■ Heating



Decline in cooling and heating capacity or operation stop may occur when the outdoor unit is installed in places where natural wind can increase or decrease its design air flow rate.

PJF000Z317

### "CAUTION" Cooling operation under low outdoor air temperature conditions

PAC models can be operated in cooling mode at low outdoor air temperature condition within above temperature range. However in case of severely low temperature conditions if the following precaution is not observed, it may not be operated in spite of operable temperature range mentioned above and cooling capacity may not be established under certain conditions.

### [Precaution]

In case of severely low temperature condition

- 1) Install the outdoor unit at the place where strong wind cannot blow directly into the outdoor unit.
- 2) If there is no installation place where can prevent strong wind from directly blowing into the outdoor unit, mount the flex flow adapter (prepared as option part) or like such devices onto the outdoor unit in order to divert the strong wind.

### [Reason]

Under the low outdoor air temperature conditions of -5°C or lower, the outdoor fan is controlled at lower or lowest speed by outdoor fan control, but if strong wind directly blow into the outdoor unit, the outdoor heat exchanger temperature will drop more.

This makes high and low pressures to drop as well. This low pressure drop makes the indoor heat exchanger temperature to drop and will activate anti-frost control at indoor heat exchanger at frequent intervals, that cooling operation may not be established for any given time.

Limitation on unit and p	oiping installation			
Descriptions		Model for outdoor unit	Dimensional limitations	Marks appearing in the drawing
One-way pipe length			≦ 30m	L
Elevation difference between	When the outdoor unit is positioned higher	FDC71VNP FDC90VNP1 FDC100VNP	≦ 20m	н
indoor and outdoor unit	When the outdoor unit is positioned lower	1 BOTOUVIVI	≦ 20m	П
	Н	Outdoor unit	Indoor unit	

PJF000Z317

### 3.9 SELECTION CHART

Correct the cooling and heating capacity in accordance with the operating conditions. The net cooling and heating capacity can be obtained in the following way.

Net capacity = Capacity shown in the capacity tables (3.9.1) × Correction factors shown in the table (3.9.2) (3.9.3) (3.9.4).

Caution: In case that the cooling operation during low outdoor air temperature below -5°C is expected, install the outdoor unit where it is not influenced by natural wind. Otherwise protection control by low pressure will be activated much more frequently and it will cause insufficient capacity or breakdown of the compressor in worst case.

### 3.9.1 Capacity tables

(1) Ceiling suspended type (FDE)

Model FDE71VNPVG Indoor unit FDE71VG Outdoor unit FDC71VNP

Cooling	mode	9														(kW)
Outdoor							Indo	or air t	emper	ature						
air temp.	18°0	DB	21°C	DB	23°C	DB	26°0	DB	27°C	DB	28°0	DB	31°C	DB	33°C	DB
an temp.	12°C	WB	14℃	:WB	16℃	:WB	18°C	:WB	19℃	WB	20°C	WB	22℃	:WB	24℃	:WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.71	4.37	5.34	4.89	5.65	4.90	5.78	4.85	6.04	5.12	6.30	5.00
13					5.00	4.48	5.58	4.98	5.87	4.98	5.99	4.92	6.23	5.18	6.48	5.05
15					5.30	4.59	5.83	5.06	6.09	5.05	6.20	4.99	6.43	5.24	6.66	5.10
17					5.59	4.71	6.07	5.15	6.31	5.13	6.41	5.06	6.62	5.29	6.83	5.14
19					5.73	4.76	6.13	5.17	6.34	5.14	6.48	5.08	6.76	5.33	7.04	5.20
21					5.80	4.79	6.20	5.20	6.36	5.15	6.54	5.10	6.89	5.37	7.25	5.25
23					6.23	4.96	6.63	5.36	6.81	5.30	6.96	5.24	7.26	5.49	7.56	5.34
25			6.26	5.28	6.67	5.14	7.07	5.52	7.26	5.47	7.38	5.38	7.63	5.60	7.88	5.43
27			6.72	5.49	7.11	5.33	7.51	5.69	7.71	5.63	7.91	5.57	8.31	5.82		
29			6.60	5.44	6.98	5.27	7.36	5.64	7.56	5.57	7.75	5.51	8.13	5.76		
31			6.47	5.38	6.85	5.22	7.22	5.58	7.40	5.52	7.59	5.45	7.95	5.70		
33	6.01	5.00	6.27	5.29	6.72	5.16	7.08	5.53	7.25	5.46	7.43	5.40	7.77	5.65		
35	5.89	4.94	6.15	5.23	6.59	5.11	6.94	5.47	7.10	5.41	7.26	5.34	7.59	5.59		
37	5.62	4.81	5.86	5.11	6.27	4.98	6.59	5.34	6.75	5.28	6.91	5.22	7.23	5.48		
39	5.35	4.69	5.57	4.98	5.95	4.85	6.25	5.22	6.40	5.16	6.55	5.10	6.86	5.37		
41	5.08	4.56	5.29	4.86	5.62	4.72	5.90	5.09	6.05	5.04	6.20	4.98	6.50	5.26		
43	4.99	4.52	5.18	4.81	5.47	4.66	5.73	5.03	5.88	4.98	6.04	4.93	6.35	5.21		

Heating mode : HC (kW) Outdoor Indoor air temperature									
Out	door	In	door a	ir temp	oeratui	re			
air te	emp.			°CDB					
°CDB	°CWB	16	18	20	22	24			
-14.5	-15	4.17	4.15	4.13	4.11	4.09			
-13.5	-14	4.23	4.21	4.19	4.17	4.14			
-11.5	-12	4.35	4.33	4.31	4.29	4.26			
-9.5	-10	4.47	4.45	4.43	4.40	4.38			
-7.5	-8	4.59	4.57	4.55	4.52	4.50			
-5.5	-6	4.94	4.92	4.89	4.87	4.84			
-3.0	-4	5.29	5.26	5.24	5.21	5.18			
-1.0	-2	5.64	5.61	5.58	5.55	5.52			
1.0	0	5.99	5.96	5.93	5.89	5.86			
2.0	1	6.16	6.13	6.10	6.06	6.03			
3.0	2	6.37	6.33	6.30	6.26	6.22			
5.0	4	6.77	6.74	6.70	6.66	6.62			
7.0	6	7.18	7.14	7.10	7.05	7.01			
9.0	8	7.28	7.24	7.19	7.14	7.09			
11.5	10	7.38	7.33	7.29	7.23	7.17			
13.5	12	7.34	7.29	7.24	7.18	7.12			
15.5	14	7.30	7.25	7.19	7.13	7.07			
16.5	16	7.28	7.23	7.17	7.10	7.04			

PFA004Z049/A

Model FDE90VNP1VG Indoor unit FDE100VG Outdoor unit FDC90VNP1 Cooling mode

																(1000)
Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°0	DB	21°CDB 23°CDB 14°CWB 16°CWB			DB	26°0	DB	27°C	DB	28°C	DB	31℃	DB	33°C	DB
un temp.	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19℃	WB	20°C	WB	22°C	WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.35	7.46	8.93	8.14	9.21	8.09	9.59	8.07	10.34	8.62	11.09	8.52
13					8.42	7.49	8.94	8.14	9.20	8.09	9.55	8.06	10.25	8.59	10.96	8.48
15					8.48	7.51	8.96	8.15	9.19	8.08	9.52	8.04	10.17	8.57	10.83	8.45
17					8.54	7.54	8.97	8.15	9.18	8.08	9.49	8.03	10.09	8.54	10.70	8.41
19					8.51	7.52	8.96	8.15	9.19	8.08	9.48	8.03	10.06	8.53	10.63	8.39
21					8.32	7.45	8.96	8.15	9.20	8.09	9.47	8.03	10.02	8.52	10.57	8.37
23					8.52	7.53	9.04	8.18	9.21	8.09	9.47	8.03	10.00	8.51	10.52	8.36
25			8.10	7.77	8.72	7.61	9.13	8.22	9.23	8.10	9.48	8.03	9.97	8.51	10.47	8.35
27			8.38	7.89	8.92	7.69	9.22	8.25	9.24	8.10	9.27	7.96	9.31	8.30		
29			8.25	7.83	8.77	7.63	9.11	8.21	9.18	8.08	9.26	7.96	9.41	8.33		
31			8.11	7.77	8.62	7.57	9.00	8.16	9.12	8.06	9.25	7.95	9.50	8.36		
33	7.53	7.16	7.88	7.67	8.46	7.51	8.88	8.12	9.06	8.04	9.24	7.95	9.59	8.39		
35	7.41	7.10	7.74	7.59	8.31	7.44	8.77	8.08	9.00	8.02	9.23	7.95	9.68	8.41		
37	7.15	6.98	7.47	7.32	8.00	7.32	8.44	7.96	8.66	7.90	8.88	7.83	9.33	8.30		
39	6.89	6.75	7.20	7.05	7.70	7.20	8.11	7.84	8.32	7.78	8.54	7.71	8.97	8.20		
41	6.63	6.49	6.92	6.78	7.39	7.08	7.77	7.62	7.98	7.66	8.20	7.60	8.62	8.09		
43	6.36	6.24	6.65	6.52	7.08	6.94	7.44	7.29	7.65	7.49	7.85	7.48	8.26	7.98		

(kW)		Heatir	ng mo	de : H	IC			(kW)
		Out	door	ln	door a	ir tem	peratui	e
ЭB		air te	emp.			°CDB		
VВ		°CDB	°CWB	16	18	20	22	24
SHC		-14.5	-15	5.26	5.24	5.21	5.18	5.15
8.52		-13.5	-14	5.38	5.35	5.32	5.29	5.26
8.48		-11.5	-12	5.61	5.58	5.55	5.52	5.49
8.45		-9.5	-10	5.84	5.81	5.78	5.74	5.71
8.41		-7.5	-8	6.07	6.04	6.00	5.97	5.93
8.39		-5.5	-6	6.25	6.21	6.17	6.13	6.09
8.37		-3.0	-4	6.42	6.37	6.33	6.29	6.25
8.36		-1.0	-2	6.59	6.54	6.50	6.45	6.41
8.35		1.0	0	6.76	6.71	6.66	6.61	6.56
		2.0	1	6.84	6.79	6.74	6.69	6.64
		3.0	2	7.30	7.25	7.19	7.14	7.08
		5.0	4	8.22	8.16	8.10	8.04	7.97
		7.0	6	9.13	9.07	9.00	8.93	8.86
		9.0	8	9.61	9.54	9.47	9.39	9.32
		11.5	10	10.09	10.01	9.93	9.85	9.77
		13.5	12	10.26	10.18	10.10	10.01	9.93
		15.5	14	10.42	10.34	10.26	10.17	10.08
		16.5	16	10.51	10.42	10.34	10.25	10.16
	•							

Notes (1) These data show average statuses

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m Level difference of Zero.

(3) Symbols are as follows. TC: Total cooling capacity (kW) SHC : Sensible heat capacity (kW) HC : Heating capacity (kW) PFA004Z049A

Model Cooling		100V	NP1V	G	Indoor	unit	FDE1	00VG	O	utdoor	unit	FDC1	00VNF	0		(kW)	Heati	ng mod	de : HC	;			(kW
0.44							Indo	or air t	emper	ature							Outo	oor air	In	door a	ir temp	peratu	re
Outdoor air temperature	18°0	DB	21°0	DB	23°0	DB	26°0	DB	27°C	DB	28°0	DB	31°0	DB	33°0	DB	temp	erature			°CDB		
temperature	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19°C	WB	20°C	WB	22°C	WB	24°C	WB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-14.5	-15	6.20	6.18	6.16	6.14	6.11
11					9.71	8.14	10.21	8.62	10.46	8.54	10.66	8.44	11.06	8.85	11.46	8.63	-13.5	-14	6.26	6.23	6.21	6.19	6.16
13					9.71	8.14	10.21	8.62	10.46	8.54	10.66	8.44	11.06	8.85	11.46	8.63	-11.5	-12	6.36	6.34	6.31	6.29	6.26
15					9.71	8.14	10.21	8.62	10.46	8.54	10.66	8.44	11.06	8.85	11.46	8.63	-9.5	-10	6.47	6.44	6.42	6.39	6.36
17					9.71	8.14	10.21	8.62	10.46	8.54	10.66	8.44	11.06	8.85	11.46	8.63	-7.5	-8	6.58	6.55	6.52	6.49	6.46
19					9.65	8.11	10.18	8.61	10.45	8.54	10.66	8.44	11.08	8.86	11.51	8.64	-5.5	-6	7.16	7.13	7.10	7.06	7.02
21					9.59	8.09	10.16	8.60	10.44	8.54	10.67	8.44	11.11	8.87	11.56	8.66	-3.0	-4	7.75	7.71	7.67	7.63	7.59
23					9.60	8.09	10.17	8.61	10.46	8.55	10.69	8.45	11.14	8.88	11.60	8.67	-1.0	-2	8.33	8.29	8.24	8.20	8.15
25			9.03	8.18	9.60	8.09	10.19	8.62	10.48	8.55	10.71	8.46	11.17	8.89	11.63	8.68	1.0	0	8.92	8.87	8.81	8.77	8.72
27			9.02	8.18	9.61	8.10	10.20	8.62	10.51	8.56	10.81	8.49	11.41	8.96			2.0	1	9.21	9.15	9.10	9.05	9.00
29			8.92	8.13	9.49	8.05	10.08	8.57	10.38	8.51	10.68	8.45	11.28	8.92			3.0	2	9.63	9.58	9.52	9.47	9.41
31			8.81	8.08	9.38	8.00	9.96	8.53	10.25	8.47	10.55	8.40	11.14	8.88			5.0	4	10.48	10.42	10.36	10.30	10.24
33	8.24	7.49	8.61	7.99	9.26	7.95	9.83	8.48	10.13	8.42	10.42	8.36	11.01	8.83			7.0	6	11.33	11.26	11.20	11.14	11.07
35	8.08	7.41	8.47	7.93	9.14	7.90	9.71	8.43	10.00	8.38	10.29	8.31	10.87	8.79			9.0	8	11.49	11.42	11.36	11.29	11.22
37	7.85	7.31	8.23	7.83	8.84	7.78	9.37	8.31	9.67	8.25	9.96	8.20	10.54	8.68			11.5	10	11.64	11.58	11.51	11.44	11.36
39	7.62	7.20	7.98	7.72	8.54	7.66	9.03	8.18	9.33	8.13	9.62	8.08	10.21	8.58			13.5	12	10.42	10.35	10.29	10.22	10.14
41	7.39	7.09	7.74	7.58	8.24	7.54	8.70	8.05	8.99	8.01	9.29	7.97	9.89	8.48			15.5	14	9.20	9.13	9.06	8.99	8.92

Notes (1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

7.16 6.98 7.10 6.96 7.54 7.26 7.93 7.77 8.66 7.89 8.47 7.69 9.00 8.20

PFA004Z049A

8.58 8.52 8.45 8.38 8.31

### (2) Duct connected-Low/Middle static pressure type (FDUM)

Model FDUM71VNPVF1 Indoor unit FDUM71VF1 Outdoor unit FDC71VNP Cooling mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°0	DB	21°0	DB	23℃	DB	26°0	DB	27℃	DB	28℃	DB	31℃	DB	33°C	DB
all tomp.	12°C	WB	14°C	WB	16℃	WB	18℃	WB	19℃	WB	20℃	WB	22℃	WB	24°C	WB
℃DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.71	4.62	5.34	5.23	5.65	5.38	5.78	5.32	6.04	5.66	6.30	5.52
13					5.00	4.89	5.58	5.46	5.87	5.45	5.99	5.38	6.23	5.71	6.48	5.56
15					5.30	5.00	5.83	5.54	6.09	5.52	6.20	5.44	6.43	5.76	6.66	5.60
17					5.59	5.10	6.07	5.62	6.31	5.58	6.41	5.50	6.62	5.81	6.83	5.64
19					5.73	5.15	6.13	5.64	6.34	5.59	6.48	5.52	6.76	5.84	7.04	5.69
21					5.80	5.18	6.20	5.66	6.36	5.60	6.54	5.54	6.89	5.88	7.25	5.74
23					6.23	5.34	6.63	5.80	6.81	5.74	6.96	5.67	7.26	5.98	7.56	5.82
25			6.26	5.68	6.67	5.50	7.07	5.95	7.26	5.89	7.38	5.80	7.63	6.08	7.88	5.89
27			6.72	5.87	7.11	5.67	7.51	6.10	7.71	6.03	7.91	5.96	8.31	6.27		
29			6.60	5.82	6.98	5.62	7.36	6.05	7.56	5.98	7.75	5.91	8.13	6.22		
31			6.47	5.76	6.85	5.57	7.22	6.00	7.40	5.93	7.59	5.86	7.95	6.17		
33	6.01	5.33	6.27	5.68	6.72	5.52	7.08	5.96	7.25	5.88	7.43	5.81	7.77	6.12		
35	5.89	5.27	6.15	5.63	6.59	5.47	6.94	5.91	7.10	5.83	7.26	5.76	7.59	6.07		
37	5.62	5.15	5.86	5.51	6.27	5.35	6.59	5.79	6.75	5.72	6.91	5.65	7.23	5.97		
39	5.35	5.04	5.57	5.40	5.95	5.23	6.25	5.68	6.40	5.61	6.55	5.55	6.86	5.87		
41	5.08	4.92	5.29	5.18	5.62	5.11	5.90	5.56	6.05	5.50	6.20	5.44	6.50	5.77		
43	4.99	4.88	5.18	5.07	5.47	5.06	5.73	5.51	5.88	5.45	6.04	5.39	6.35	5.74		

(kW)	Heatir	ng mo	de : H	IC			(kW)
	Out	door	In	door a	ir temp	peratui	re
OB	air te	emp.			℃DB		
VB	℃DB	°CWB	16	18	20	22	24
SHC	-14.5	-15	4.17	4.15	4.13	4.11	4.09
5.52	-13.5	-14	4.23	4.21	4.19	4.17	4.14
5.56	-11.5	-12	4.35	4.33	4.31	4.29	4.26
5.60	-9.5	-10	4.47	4.45	4.43	4.40	4.38
5.64	-7.5	-8	4.59	4.57	4.55	4.52	4.50
5.69	-5.5	-6	4.94	4.92	4.89	4.87	4.84
5.74	-3.0	-4	5.29	5.26	5.24	5.21	5.18
5.82	-1.0	-2	5.64	5.61	5.58	5.55	5.52
5.89	1.0	0	5.99	5.96	5.93	5.89	5.86
	2.0	1	6.16	6.13	6.10	6.06	6.03
	3.0	2	6.37	6.33	6.30	6.26	6.22
	5.0	4	6.77	6.74	6.70	6.66	6.62
	7.0	6	7.18	7.14	7.10	7.05	7.01
	9.0	8	7.28	7.24	7.19	7.14	7.09
	11.5	10	7.38	7.33	7.29	7.23	7.17
	13.5	12	7.34	7.29	7.24	7.18	7.12
	15.5	14	7.30	7.25	7.19	7.13	7.07
	16.5	16	7.28	7.23	7.17	7.10	7.04

### PJG000Z189A

Model FDUM90VNP1VF2 Indoor unit FDUM100VF2 Outdoor unit FDC90VNP1

Cooling	g mod	е														(kW)
0.44							Indo	or air	tempe	rature						
Outdoor air temp.	18 °	CDB	21 °	CDB	23 °	CDB	26 °	CDB	27 °	CDB	28°	CDB	31 °	CDB	33 °	CDB
all tellip.		CWB	14°	CWB	16°	CWB	18 °	CWB	19°	CWB	20 °	CWB	22 °(	CWB	24 °	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.35	7.08	8.93	7.59	9.21	7.47	9.59	7.37	10.34	7.83	11.09	7.56
13					8.42	7.10	8.94	7.59	9.20	7.47	9.55	7.36	10.25	7.82	10.96	7.54
15					8.48	7.12	8.96	7.59	9.19	7.47	9.52	7.35	10.17	7.80	10.83	7.53
17					8.54	7.14	8.97	7.60	9.18	7.46	9.49	7.35	10.09	7.79	10.70	7.51
19					8.51	7.13	8.96	7.60	9.19	7.47	9.48	7.35	10.06	7.78	10.63	7.50
21					8.32	7.07	8.96	7.59	9.20	7.47	9.47	7.34	10.02	7.78	10.57	7.49
23					8.52	7.13	9.04	7.62	9.21	7.47	9.47	7.34	10.00	7.77	10.52	7.48
25			8.10	7.36	8.72	7.19	9.13	7.64	9.23	7.48	9.48	7.35	9.97	7.77	10.47	7.47
27			8.38	7.45	8.92	7.25	9.22	7.66	9.24	7.48	9.27	7.30	9.31	7.65		
29			8.25	7.41	8.77	7.20	9.11	7.63	9.18	7.46	9.26	7.30	9.41	7.67		
31			8.11	7.36	8.62	7.16	9.00	7.60	9.12	7.45	9.25	7.30	9.50	7.68		
33	7.53	6.79	7.88	7.29	8.46	7.11	8.88	7.58	9.06	7.44	9.24	7.29	9.59	7.70		
35	7.41	6.74	7.74	7.24	8.31	7.07	8.77	7.55	9.00	7.42	9.23	7.29	9.68	7.72		
37	7.15	6.65	7.47	7.16	8.00	6.98	8.44	7.47	8.66	7.35	8.88	7.22	9.33	7.65		
39	6.89	6.55	7.20	7.05	7.70	6.90	8.11	7.39	8.32	7.27	8.54	7.15	8.97	7.59		
41	6.63	6.46	6.92	6.78	7.39	6.81	7.77	7.31	7.98	7.20	8.20	7.08	8.62	7.53		
43	6.36	6.24	6.65	6.52	7.08	6.73	7.44	7.23	7.65	7.12	7.85	7.01	8.26	7.48		

V)													
	Outdoor air temperature car temp.												
	air t	emp.			°CDB								
1	°CDB	°CWB	16	18	20	22	24						
7	-14.5	-15	5.26	5.24	5.21	5.18	5.15						
1	-13.5	-14	5.38	5.35	5.32	5.29	5.26						
1	-11.5	-12	5.61	5.58	5.55	5.52	5.49						
1	-9.5	-10	5.84	5.81	5.78	5.74	5.71						
	-7.5	-8	6.07	6.04	6.00	5.97	5.93						
	-5.5	-6	6.25	6.21	6.17	6.13	6.09						
	-3.0	-4	6.42	6.37	6.33	6.29	6.25						
1	-1.0	-2	6.59	6.54	6.50	6.45	6.41						
	1.0	0	6.76	6.71	6.66	6.61	6.56						
	2.0	1	6.84	6.79	6.74	6.69	6.64						
	3.0	2	7.30	7.25	7.19	7.14	7.08						
1	5.0	4	8.22	8.16	8.10	8.04	7.97						
1	7.0	6	9.13	9.07	9.00	8.93	8.86						
	9.0	8	9.61	9.54	9.47	9.39	9.32						
	11.5	10	10.09	10.01	9.93	9.85	9.77						
	13.5	12	10.26	10.18	10.10	10.01	9.93						
1	15.5	14	10.42	10.34	10.26	10.17	10.08						
	16.5	16	10.51	10.42	10.34	10.25	10.16						

Notes (1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is same as nominal condition frequency

or follows the protection controls.

(2) Capacities are based on the following conditions.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference: 0m

Indoor fan speed: PHi

(3) Symbols are as follows.

TC: Total cooling capacity (kW), SHC: Sensible heat capacity (kW), HC: Heating capacity (kW)

PJG000Z189A

Model	FDUM100VNP1VF2	Indoor unit	FDUM100VF2	Outdoor unit	FDC100VNP
Cooling	mode				

Cooling		WI 100	VIVE	V1 Z	muo	or urin	, IDC	JIVI TOC	/VI Z	Ou	tuooi t	111111 1	DC10	UVINE		(kW)	Heati	ng mod	e : HC				(kW)
0.11							Indo	or air t	emper	ature							Outd	oor air	In	door a	ir tem	peratur	e
Outdoor air temperature	18°0	DB	21°0	DB	23°0	CDB	26°C	DB	27°C	DB	28°C	DB	31°C	DB	33°C	DB	temp	erature			°CDB		
lemperature	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19°C	WB	20°C	WB	22°C	WB	24°C	WB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-14.5	-15	6.20	6.18	6.16	6.14	6.11
11					9.71	7.49	10.21	7.92	10.46	7.77	10.66	7.61	11.06	7.97	11.46	7.62	-13.5	-14	6.26	6.23	6.21	6.19	6.16
13					9.71	7.49	10.21	7.92	10.46	7.77	10.66	7.61	11.06	7.97	11.46	7.62	-11.5	-12	6.36	6.34	6.31	6.29	6.26
15					9.71	7.49	10.21	7.92	10.46	7.77	10.66	7.61	11.06	7.97	11.46	7.62	-9.5	-10	6.47	6.44	6.42	6.39	6.36
17					9.71	7.49	10.21	7.92	10.46	7.77	10.66	7.61	11.06	7.97	11.46	7.62	-7.5	-8	6.58	6.55	6.52	6.49	6.46
19					9.65	7.47	10.18	7.91	10.45	7.77	10.66	7.61	11.08	7.97	11.51	7.63	-5.5	-6	7.16	7.13	7.10	7.06	7.02
21					9.59	7.45	10.16	7.90	10.44	7.77	10.67	7.61	11.11	7.98	11.56	7.63	-3.0	-4	7.75	7.71	7.67	7.63	7.59
23					9.60	7.45	10.17	7.91	10.46	7.77	10.69	7.61	11.14	7.98	11.60	7.64	-1.0	-2	8.33	8.29	8.24	8.20	8.15
25			9.03	7.67	9.60	7.45	10.19	7.91	10.48	7.78	10.71	7.62	11.17	7.99	11.63	7.65	1.0	0	8.92	8.87	8.81	8.77	8.72
27			9.02	7.67	9.61	7.45	10.20	7.92	10.51	7.78	10.81	7.64	11.41	8.03			2.0	1	9.21	9.15	9.10	9.05	9.00
29			8.92	7.63	9.49	7.42	10.08	7.88	10.38	7.75	10.68	7.61	11.28	8.01			3.0	2	9.63	9.58	9.52	9.47	9.41
31			8.81	7.60	9.38	7.38	9.96	7.85	10.25	7.72	10.55	7.58	11.14	7.98			5.0	4	10.48	10.42	10.36	10.30	10.24
33	8.24	7.05	8.61	7.53	9.26	7.35	9.83	7.82	10.13	7.69	10.42	7.55	11.01	7.96			7.0	6	11.33	11.26	11.20	11.14	11.07
35	8.08	6.99	8.47	7.48	9.14	7.31	9.71	7.79	10.00	7.66	10.29	7.52	10.87	7.93			9.0	8	11.49	11.42	11.36	11.29	11.22
37	7.85	6.90	8.23	7.40	8.84	7.23	9.37	7.70	9.67	7.58	9.96	7.45	10.54	7.87			11.5	10	11.64	11.58	11.51	11.44	11.36
39	7.62	6.82	7.98	7.32	8.54	7.14	9.03	7.61	9.33	7.50	9.62	7.38	10.21	7.81			13.5	12	10.42	10.35	10.29	10.22	10.14
41	7.39	6.73	7.74	7.24	8.24	7.05	8.70	7.53	8.99	7.42	9.29	7.31	9.89	7.75			15.5	14	9.20	9.13	9.06	8.99	8.92
43	7.16	6.65	7.10	6.96	7.54	6.85	7.93	6.34	8.66	7.34	8.47	7.13	9.00	7.60			16.5	16	8.58	8.52	8.45	8.38	8.31

Notes (1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

PJG000Z189<u>A</u>

### (3) Duct connected-High static pressure type (FDU)

Model FDU71VNPVF1 Indoor unit FDU71VF1 Outdoor unit FDC71VNP Cooling mode

Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°C	DB	21℃	DB	23°C	DB	26℃	DB	27°C	DB	28℃	DB	31℃	DB	33°C	DB
un tomp.	12℃	WB	14°C	WB	16℃	WB	18℃	WB	19℃	WB	20℃	:WB	22℃	WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.71	4.62	5.34	5.23	5.65	5.38	5.78	5.32	6.04	5.66	6.30	5.52
13					5.00	4.89	5.58	5.46	5.87	5.45	5.99	5.38	6.23	5.71	6.48	5.56
15					5.30	5.00	5.83	5.54	6.09	5.52	6.20	5.44	6.43	5.76	6.66	5.60
17					5.59	5.10	6.07	5.62	6.31	5.58	6.41	5.50	6.62	5.81	6.83	5.64
19					5.73	5.15	6.13	5.64	6.34	5.59	6.48	5.52	6.76	5.84	7.04	5.69
21					5.80	5.18	6.20	5.66	6.36	5.60	6.54	5.54	6.89	5.88	7.25	5.74
23					6.23	5.34	6.63	5.80	6.81	5.74	6.96	5.67	7.26	5.98	7.56	5.82
25			6.26	5.68	6.67	5.50	7.07	5.95	7.26	5.89	7.38	5.80	7.63	6.08	7.88	5.89
27			6.72	5.87	7.11	5.67	7.51	6.10	7.71	6.03	7.91	5.96	8.31	6.27		
29			6.60	5.82	6.98	5.62	7.36	6.05	7.56	5.98	7.75	5.91	8.13	6.22		
31			6.47	5.76	6.85	5.57	7.22	6.00	7.40	5.93	7.59	5.86	7.95	6.17		
33	6.01	5.33	6.27	5.68	6.72	5.52	7.08	5.96	7.25	5.88	7.43	5.81	7.77	6.12		
35	5.89	5.27	6.15	5.63	6.59	5.47	6.94	5.91	7.10	5.83	7.26	5.76	7.59	6.07		
37	5.62	5.15	5.86	5.51	6.27	5.35	6.59	5.79	6.75	5.72	6.91	5.65	7.23	5.97		
39	5.35	5.04	5.57	5.40	5.95	5.23	6.25	5.68	6.40	5.61	6.55	5.55	6.86	5.87		
41	5.08	4.92	5.29	5.18	5.62	5.11	5.90	5.56	6.05	5.50	6.20	5.44	6.50	5.77		
43	4.99	4.88	5.18	5.07	5.47	5.06	5.73	5.51	5.88	5.45	6.04	5.39	6.35	5.74		

(kW)	<u>.</u>	Heatir	ng mo	de : H	IC			(kW)
	П	Out	door	ln	door a	ir temp	eratur	re
DВ	П	air te	emp.			°CDB		
VB	П	℃DB	°CWB	16	18	20	22	24
SHC		-14.5	-15	4.17	4.15	4.13	4.11	4.09
5.52	П	-13.5	-14	4.23	4.21	4.19	4.17	4.14
5.56	П	-11.5	-12	4.35	4.33	4.31	4.29	4.26
5.60	П	-9.5	-10	4.47	4.45	4.43	4.40	4.38
5.64	П	-7.5	-8	4.59	4.57	4.55	4.52	4.50
5.69	П	-5.5	-6	4.94	4.92	4.89	4.87	4.84
5.74	П	-3.0	-4	5.29	5.26	5.24	5.21	5.18
5.82	П	-1.0	-2	5.64	5.61	5.58	5.55	5.52
5.89	П	1.0	0	5.99	5.96	5.93	5.89	5.86
		2.0	1	6.16	6.13	6.10	6.06	6.03
		3.0	2	6.37	6.33	6.30	6.26	6.22
	П	5.0	4	6.77	6.74	6.70	6.66	6.62
	П	7.0	6	7.18	7.14	7.10	7.05	7.01
	П	9.0	8	7.28	7.24	7.19	7.14	7.09
		11.5	10	7.38	7.33	7.29	7.23	7.17
	П	13.5	12	7.34	7.29	7.24	7.18	7.12
	П	15.5	14	7.30	7.25	7.19	7.13	7.07
		16.5	16	7.28	7.23	7.17	7.10	7.04

Model FDU90VNP1VF2 Indoor unit FDU100VF2 Outdoor unit FDC90VNP1 Cooling mode

Indoor air temperature Outdoor 18 °CDB 21 °CDB 23 °CDB 26 °CDB 27 °CDB 28 °CDB 31 °CDB 33 ℃DB air temp 12 °CWB 14 °CWB 16 °CWB 18 °CWB 19 °CWB 20 °CWB 22 °CWB 24 °CWB °CDB TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHO 11 8.35 7.08 8.93 7.59 9.21 7.47 9.59 7.37 10.34 7.83 11.09 7.56 13 8.42 7.10 8.94 7.59 7.47 7.36 10.25 10.96 7.54 7.53 15 8.48 7.12 8.96 7.59 9.19 7.47 9.52 7.35 10.17 7.80 10.83 17 8.54 7.14 8.97 7.60 9.18 7.46 9.49 7.35 10.09 7.79 10.70 7.51 19 8.51 7.13 8.96 7.60 9.19 7.47 9.48 7.35 10.06 7.78 10.63 7.50 7.07 7.59 7.34 10.57 7.49 21 8.32 8.96 9.20 7.47 9.47 10.02 7.78 23 8.52 7.13 9.04 7.62 7.47 9.47 7.34 10.00 7.77 10.52 7.48 9.21 25 8.10 7.36 8.72 7.19 9.13 7.64 9.23 7.48 9.48 7.35 9.97 7.77 10.47 7.47 7.65 27 8.38 7 4 5 8.92 7.25 9 22 7.66 9 24 7.48 9.27 7.30 9.31 29 8.25 7.41 8.77 7.20 9.11 7.63 9.18 7.46 9.26 7.30 9.41 7.67 31 8.11 7.36 8.62 7.16 9.00 7.60 9.12 7.45 9.25 7.30 9.50 7.68 33 7.53 6.79 7 88 7.29 8 46 7 11 8 88 7 58 9.06 7 44 9 24 7.29 9 59 7 70 7.72 35 7.41 6.74 7.74 7.24 8.31 7.07 8.77 7.55 9.00 7.42 9.23 7.29 9.68 37 7.15 6.65 7.47 7.16 8.00 6.98 8.44 7.47 8.66 7.35 8.88 7.22 9.33 7.65 39 6.89 6.55 7.70 6.90 8.11 7.39 8.32 7.27 8.54 8.97 7.59 7.20 7.05 7.15 7.53 6.78 7.39 6.81 7.31 7.20 8.20 7.08 8.62

W)	Heatir	ng mo	de : H	IC			(kW)
$\Box$		door	In	door a	ir tem	peratui	re
╝	air te	emp.			°CDB		
╝	°CDB	°CWB	16	18	20	22	24
С	-14.5	-15	5.26	5.24	5.21	5.18	5.15
6	-13.5	-14	5.38	5.35	5.32	5.29	5.26
4	-11.5	-12	5.61	5.58	5.55	5.52	5.49
3	-9.5	-10	5.84	5.81	5.78	5.74	5.71
1	-7.5	-8	6.07	6.04	6.00	5.97	5.93
0	-5.5	-6	6.25	6.21	6.17	6.13	6.09
9	-3.0	-4	6.42	6.37	6.33	6.29	6.25
8	-1.0	-2	6.59	6.54	6.50	6.45	6.41
7	1.0	0	6.76	6.71	6.66	6.61	6.56
	2.0	1	6.84	6.79	6.74	6.69	6.64
	3.0	2	7.30	7.25	7.19	7.14	7.08
	5.0	4	8.22	8.16	8.10	8.04	7.97
	7.0	6	9.13	9.07	9.00	8.93	8.86
	9.0	8	9.61	9.54	9.47	9.39	9.32
	11.5	10	10.09	10.01	9.93	9.85	9.77
	13.5	12	10.26	10.18	10.10	10.01	9.93
	15.5	14	10.42	10.34	10.26	10.17	10.08
	16.5	16	10.51	10.42	10.34	10.25	10.16

6.24 Notes (1) These data show average statuses.

6.36

43

Depending on the system control, there may be ranges where the operation is not conducted continuously These data show the case where the operation frequency of a compressor is same as nominal condition frequency or follows the protection controls.

7.44

7.23 7.65 7.12 7.85 7.01

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length: 7.5m

6.65

Level difference : 0m Indoor fan speed: PHi

TC: Total cooling capacity (kW), SHC: Sensible heat capacity (kW), HC: Heating capacity (kW)

7.08 6.73

PJG000Z190 🗥

8.26 7.48 Model FDU100VNP1VF2 Indoor unit FDU100VF2 Outdoor unit FDC100VNP Heating mode : HC Cooling mode (kW) (kW) Indoor air temperature Indoor air temperature Outdoor air Outdoor ai 18°CDB 21°CDB 23°CDB 26°CDB 27°CDB 28°CDB 31°CDB 33°CDB temperature temperatur 24 12°CWB 14°CWB 16°CWB 18°CWB 19°CWB 20°CWB 22°CWB 24°CWB °CDB °CWB 16 18 20 °CDB TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC 6.20 6.18 6.16 6.14 6.11 -14.5 -15 9.71 7.49 10.21 7.92 10.46 7.77 10.66 7.61 11.06 7.97 11.46 7.62 11 -13.5 -14 6.26 6.23 6.21 6.19 6.16 13 9.71 7.49 10.21 7.92 10.46 7.77 10.66 7.61 11.06 7.97 11.46 7.62 -11.5 -12 6.36 6.34 6.31 6.29 6.26 15 9.71 10.21 7.92 10.46 7.77 10.66 7.61 11.06 7.97 11.46 7.62 6.47 6.44 6.42 6.39 6.36 7.49 -9.5 -10 17 9.71 7.49 10.21 7.92 10.46 7.77 10.66 7.61 11.06 7.97 11.46 7.62 -7.5 -8 6.58 6.52 6.49 6.46 6.55 19 9.65 7.47 10.18 7.91 10.45 7.77 10.66 7.61 11.08 7.97 11.51 7.63 -5.5 -6 7.16 7.13 7.10 7.06 7.02 21 9.59 7.45 10.16 7.90 10.44 7.77 10.67 7.61 11.11 7.98 11.56 7.63 7.59 -3.0 -4 7.75 7.71 7.67 7.63 23 9.60 7.45 10.17 7.91 10.46 7.77 10.69 7.61 11.14 7.98 11.60 7.64 8.15 -1.0 -2 8.33 8.29 8.24 8.20 10.48 7.99 25 9.03 7.67 9.60 7.45 10.19 7.91 7.78 10.71 7.62 11.17 11.63 7.65 1.0 0 8.92 8.87 8 81 8.77 8.72 7.64 27 9.02 7.67 9.61 10.20 7.92 10.51 7.78 10.81 11.41 8.03 9.00 7.45 2.0 9.21 9.15 9.10 9.05 29 8.92 7.63 9.49 7.42 10.08 7.88 10.38 7.75 10.68 7.61 11.28 8.01 9.41 3.0 9.63 9.58 9.52 9.47 7.60 9.38 7.38 9.96 7.85 10.25 7.72 10.55 7.58 7.98 10 24 31 8.81 11.14 5.0 4 10 48 10 42 10.36 10.30 10.42 8.24 7.05 7.53 9.26 7.82 10.13 7.69 7.55 11.01 7.96 33 8.61 7.35 9.83 7.0 6 11.33 11.26 11.20 11.14 11.07 35 8.08 6.99 8.47 7.48 9.14 7.31 9.71 7.79 10.00 7.66 10.29 7.52 10.87 7.93 9.0 8 11.49 11.42 11.36 11.29 11.22 7.87 7.85 6.90 8.23 8.84 7.70 9.96 7.45 37 7.40 7.23 9.37 9.67 7.58 10.54 11.64 11.58 11.44 11.36 11.5 10 11.51 39 7.62 6.82 7.98 7.32 8.54 7.14 9.03 7.61 9.33 7.50 9.62 7.38 10.21 7.81 13.5 12 10.42 10.35 10.29 10.22 10.14 41 7.39 6.73 7.74 7.24 8.24 7.05 8.70 7.53 8.99 7.42 9.29 7.31 9.89 7.75 15.5 14 9.20 9.13 9.06 8.99 8.92

6.65 Notes (1) These data show average statuses

7.16

43

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is same as nominal condition frequency or follows the protection controls.

7.93 6.34 8.66 7.34 8.47 7.13 9.00 7.60

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length: 7.5m

7.10 6.96

Level difference : 0n Indoor fan speed: PHi (3) Symbols are as follows

TC: Total cooling capacity (kW), SHC: Sensible heat capacity (kW), HC: Heating capacity (kW)

7.54

6.85

8.38 PJG000Z190/A

8.31

8.45

16 16.5

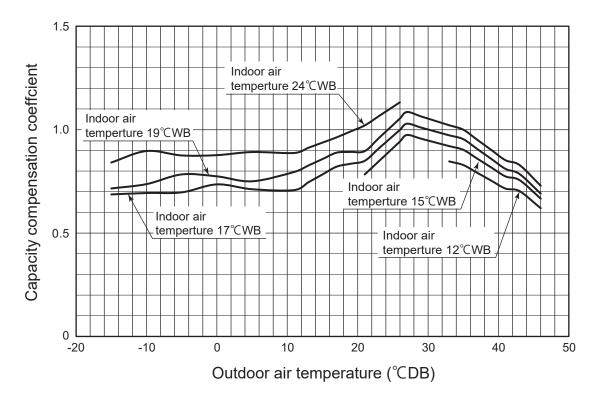
8.58 8.52

### [References data]

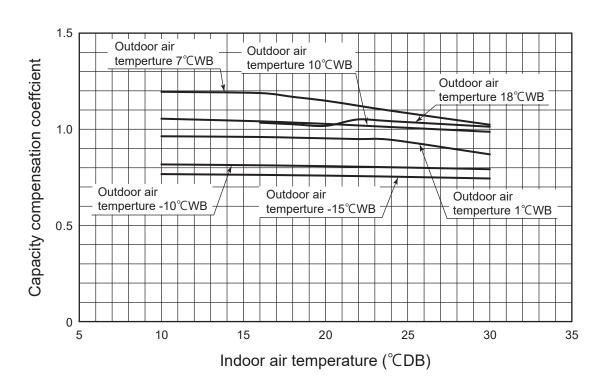
Capacity variation against outdoor and indoor temperature at the maximum compressor speed capacity compensation coefficient shows the ratio to nominal capacity.

### (I) Model FDC71VNP

### 1 Cooling

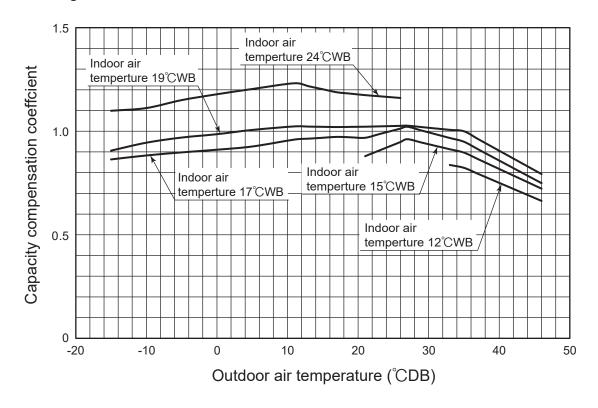


### 2 Heating

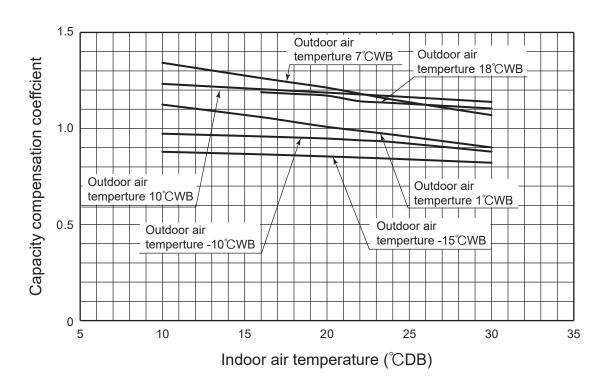


### (II) Model FDC90VNP1

### 1 Cooling

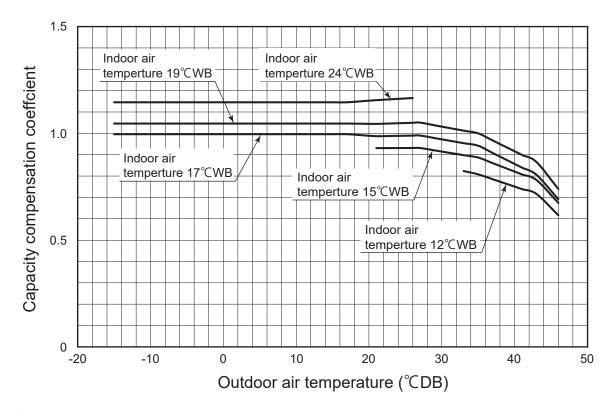


### 2 Heating

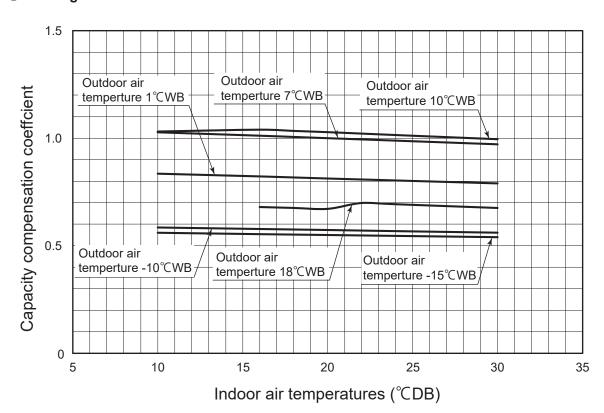


### (III) Model FDC100VNP

### 1 Cooling



### 2 Heating



### 3.9.2 Correction of cooling and heating capacity in relation to air flow rate control Fan speed

Fan speed		P-Hi	Hi	Me	Lo
Coefficient	Cooling	1.00	0.95	0.93	0.90
Coefficient	Heating	1.00	0.97	0.96	0.94

### 3.9.3 Correction of cooling and heating capacity in relation to one way length of refrigerant piping

It is necessary to correct the cooling and heating capacity in relation to the one way equivalent piping length between the indoor and outdoor units.

Equivalent piping length (m)	7.5	10	15	20	25	30
Cooling	1	0.99	0.97	0.96	0.94	0.92
Heating	1	1	1	1	1	1

### 3.9.4 Height difference between the indoor unit and outdoor unit

When the outdoor unit is located below indoor units in cooling mode, or when the outdoor unit is located above indoor units in heating mode, the correction coefficient mentioned in the below table should be subtracted from the value in the above table.

Height difference between the indoor unit and outdoor unit in the vertical height difference	5m	10m	15m	20m
Adjustment coefficient	0.99	098	0.97	0.96

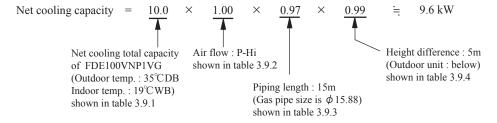
### **Piping length limitations**

Model	All models
Max. one way piping length	30m
Max. vertical height difference	Outdoor unit is higher 20m Outdoor unit is lower 20m

Note (1) Values in the table indicate the one way piping length between the indoor and outdoor units.

### How to obtain the cooling and heating capacity

Example : The net cooling capacity of the model FDE100VNP1VG with the air flow "P-Hi", the piping length of 15m, the outdoor unit located 5m lower than the indoor unit, indoor wet-bulb temperature at  $19.0^{\circ}$ C and outdoor dry-bulb temperature  $35^{\circ}$ C is



### 3.10 APPLICATION DATA

- 3.10.1 Installation of indoor unit See page 122. .....

(1) Model FDC71VNP



# R410A REFRIGERANT USED

When install the unit, be sure to check whether the selection of installation place, power source specifications, usage limitation (piping length, height differences between indoor and outdoor units, power **PRECAUTIONS** SAFETY source voltage and etc.) and installation spaces.

This installation manual deals with outdoor units and general installation specifications only. For indoor units, refer to page 122.

- Keep the installation manual together with owner's manual at a place where any user can read at any time. Moreover if necessary, ask to hand them to a new user. · Read the "SAFETY PRECAUTIONS" carefully first of all and strictly follow it during the installation work in The precautionary items mentioned below are distinguished into two levels, A WARNING and A CAUTION
- For installing qualified personnel, take precautions in respect to themselves by using suitable protective clothing, groves, etc., and then perform the installation works.
  - Please pay attention not to fall down the tools, etc. when installing the unit at the high position.

  - If unusual noise can be heard during operation, consult the dealer The meanings of "Marks" used here are shown as follows:

Both mentions the important items to protect your health and safety so strictly follow them by any means.

Be sure to confirm no anomaly on the equipment by commissioning after completed installation and

explain the operating methods as well as the maintenance methods of this equipment to the user

according to the owner's manual.

: Wrong installation might cause serious consequences depending on circumstances.

: Wrong installation would cause serious consequences such as injuries or death

order to protect yourself.

**NARNING** 

Never do it under any circumstances.

Always do it according to the instruction.

WARNING

- If the refrigerant comes into contact with naked flames, poisonous gas is produced. Use the prescribed pipes, flare nuts and tools for R410A.
- If the flare nut were tightened with excess torque, this may cause burst and Tighten the flare nut by torque wrench with specified method. accidents due to burst of the refrigerant circuit

Using existing parts (for R22 or R407C) can cause the unit failure and serious

If you install the system by yourself, it may cause serious trouble such as water eleaks, electric shocks, fire and personal injury, as a result of a system malfunction.

Installation must be carried out by the qualified installer

Do not carry out the installation and maintenance work except by the qualified

- Do not open the service valves for liquid line and gas line until completed refrigerant leakage after a long period.
- refrigerant circuit, which can cause bust or personal injury due to anomalously high pressure in the refrigerant.

  The electrical installation must be carried out by the qualified electrician completed connection of refrigerant piping work, air can be sucked into If the compressor is operated in state of opening service valves before refrigerant piping work, air tightness test and evacuation.

servicing.

- Power source with insufficient capacity and incorrect function done by in accordance with "the norm for electrical work" and "national wiring regulation", and the system must be connected to the dedicated circuit. improper work can cause electric shocks and fire. If the density of refrigerant exceeds the limit, please consult the dealer and install Use the original accessories and the specified components for installation.
- Failure to shut off the power can cause electric shocks, unit failure or incorrect Be sure to shut off the power before starting electrical work. function of equipment.

If parts other than those prescribed by us are used, It may cause water leaks,

the ventilation system, otherwise lack of oxygen can occur, which can cause

serious accident

Unsuitable installation locations can cause the unit to fall and cause material

Install the unit in a location with good support.

electric shocks, fire and personal injury.

Ensure the unit is stable when installed, so that it can withstand

earthquakes and strong winds.

damage and personal injury.

installation.

damage and personal injury.

Unsuitable installation locations can cause the unit to fall and cause material Ventilate the working area well in the event of refrigerant leakage during

- Be sure to use the cables conformed to safety standard and cable ampacity for power distribution work.
- Unconformable cables can cause electric leak, anomalous heat production or This appliance must be connected to main power source by means of a
- Arrange the wiring in the control box so that it cannot be pushed up further into circuit breaker or switch (fuse: 20A) with a contact separation of at least 3mm. the box. Install the service panel correctly
- Touching rotating equipments, hot surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric shocks. Do not bundling, winding or processing for the power cord. Or, do not deforming the power plug due to tread it.
  This may cause fire or heating.
  Do not run the unit with removed panels or protections.

- Incorrect installation may result in overheating and fire
- Loose connections or cable mountings can cause anomalous heat production or fire. water.

  • Be sure to switch off the power source in the event of installation, inspection or Use the prescribed cables for electrical connection, tighten the cables Incorrect fixing can cause electric shocks or fire due to intrusion of dust or securely in terminal block and relieve the cables correctly to prevent Be sure to fix up the service panels. overloading the terminal blocks.
- If the power source is not shut off, there is a risk of electric shocks, unit failure valve open, air would be mixed in the refrigeration circuit and it could cause If the pipe is removed when the compressor is in operation with the service Stop the compressor before removing the pipe after shutting the or personal injury due to the unexpected start of fan. service valve on pump down work.
  - If you install the system by yourself, it can cause serious trouble such as water explosion and injuries due to abnormal high pressure in the cooling cycle.

    • Only use prescribed option parts. The installation must be carried out leaks, electric shocks, fire. by the qualified installer.
    - If the earth leakage breaker is not installed, it can cause electric shocks. Be sure to wear protective goggles and gloves while at work. Earth leakage breaker must be installed.
- Appliance is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction. Children being supervised not to play with appliance
- Do not perform any change of protective device itself or its setup condition. The forced operation by short-circuiting protective device of pressure switch and temperature controller or the use of non specified component can cause fire or burst.

- Ensure that no air enters in the refrigerant circuit when the unit is installed and removed.
- If air enters in the refrigerant circuit, the pressure in the refrigerant circuit becomes too high, which can cause burst and personal injury.
- Do not processing, splice the power cord, or share a socket with other power plugs. This may cause fire or electric shock due to defecting contact, defecting insulation and over-current etc.

If this appliance is installed in inferior environment such as machine shop and

Be sure to use only for household and residence.

shocks and fire.

-482 -

exceed the density limit of refrigerant in the event of leakage, referred

by the formula (accordance with IS05149).

When installing in small rooms, take prevention measures not to

etc., it can cause malfunction.

Incorrect installation may cause bursts, personal injury, water leaks, electric

Install the system in full accordance with the installation manual.

### CAUTION

# Carry out the electrical work for ground lead with care.

Do not connect the ground lead to the gas line, water line, lightning conductor or telephone line's ground lead. Incorrect grounding can cause unit faults such as electric shocks due to short-circuiting.



Take care when carrying the unit by hand.

## Use the circuit breaker for all pole correct capacity. Circuit breaker should be the one that disconnect all poles under over current.

Using the incorrect circuit breaker, it can cause the unit malfunction and fire. After maintenance, all wiring, wiring ties and the like, should be returned to their original state and wiring route, and the necessary clearance from The isolator should be locked in OFF state in accordance with EN60204-1. Install isolator or disconnect switch on the power source wiring in accordance with the local codes and regulations. all metal parts should be secured. Insufficient space can result in accident such as personal injury due to falling from the installation place.

Secure a space for installation, inspection and maintenance specified in

### Do not carry by the plastic straps, always use the carry handle when carrying the unit by hand. Use gloves to minimize the risk of cuts by the aluminum fins. If the unit weights more than 20kg, it must be carried by two or more persons. Dispose of any packing materials correctly.

Any remaining packing materials can cause personal injury as it contains nails and wood. And to avoid danger of suffocation, be sure to keep the plastic wrapper away from children and to dispose after tear it up.

• Be sure to insulate the refrigerant pipes so as not to condense the

 When perform the air-conditioner operation (cooling or drying operation) incorporate the air into the room that may appropriate to ventilation (For example; Open the door a little). In addition, just as above, so set up the air-conditioner in parallel with the ventilator, there is the possibility that drain water may backflow in accordance with the room lapse into the negative pressure status. Therefore, set up the opening port such as opening port if the room lapse into negative pressure status due to in which ventilator is installed in the room. In this case, using the register of the wind for the high rise apartment etc.

# Do not install the unit in the locations listed below.

 Locations where any substances that can affect the unit such as sulphide Locations where carbon fiber, metal powder or any powder is floating. gas, chloride gas, acid and alkaline can occur.

- Vehicles and ships.
- Locations with direct exposure of oil mist and steam such as kitchen and Locations where cosmetic or special sprays are often used.
- Locations where any machines which generate high frequency harmonics machine plant.

Locations where an equipment affected by high harmonics is placed (TV set

unit can affect seriously (on the wall or at the place near bed room)

Locations where vibration and operation sound generated by the outdoor

insufficient strength of structure.

Locations where outlet air of the outdoor unit blows directly to an animal or

plants. The outlet air can affect adversely to the plant etc.

• Locations where vibration can be amplified and transmitted due to

Locations where discharged hot air or operating sound of the outdoor unit

can bother neighborhood.

Do not install the outdoor unit in the locations listed below.

Insufficient insulation can cause condensation, which can lead to moisture

ambient air moisture on them.

damage on the ceiling, floor, furniture and any other valuables.

- Locations with salty atmospheres such as coastlines.
- Locations with heavy snow (If installed, be sure to provide base flame and snow hood mentioned in the manual).
  - Locations where the unit is exposed to chimney smoke. Locations at high altitude (more than 1000m high).
- Locations where heat radiation from other heat source can affect the unit. Locations with ammonic atmospheres. (e.g. organic fertilizer) Locations with calcium chloride (e.g. snow melting agent).

 Do not install the unit where corrosive gas (such as sulfurous acid gas etc.) or combustible gas (such as thinner and petroleum gases) can accumulate

If leaked gases accumulate around the unit, it can cause fire.

gases can occur.

Corrosive gas can cause corrosion of heat exchanger, breakage of plastic parts and etc. And combustible gas can cause fire.

or collect, or where volatile combustible substances are handled.

Do not install the unit near the location where leakage of combustible

Locations where drainage cannot run off safely.
 It can affect surrounding environment and cause a claim.

or radio receiver is placed within 5m).

- Locations with any obstacles which can prevent inlet and outlet air of the unit. Locations without good air circulation.
  - Locations where short circuit of air can occur (in case of multiple units installation).
- It can cause remarkable decrease in performance, corrosion and damage of Locations where strong air blows against the air outlet of outdoor unit. Locations where something located above the unit could fall. components, malfunction and fire.

- Insects and small animals can enter the electric parts and cause damage or Do not install the outdoor unit in a location where insects and small
- fire. Instruct the user to keep the surroundings clean.

   Do not use the base flame for outdoor unit which is corroded or damaged Using an old and damage base flame can cause the unit falling down and due to long periods of operation

cause personal injury.

- Do not use any materials other than a fuse with the correct rating in the Connecting the circuit with copper wire or other metal thread can cause unit location where fuses are to be used. failure and fire.
  - Do not touch any buttons with wet hands. It can cause electric shocks.
- During operation the refrigerant pipes become extremely hot or extremely cold Do not touch any refrigerant pipes with your hands when the system is in depending the operating condition, and it can cause burn injury or frost injury.
  - Do not touch the suction or aluminum fin on the outdoor unit. This may cause injury.
- This may cause damage the objects or injury due to falling to the object.

   Do not use the unit for special purposes such as storing foods, cooling Do not put anything on the outdoor unit and operating unit. Do not install nor use the system close to the equipment that generates
  - precision instruments and preservation of animals, plants or art. Do not clean up the unit with water.

malfunctions and breakdowns. The system can also affect medical equipment and

telecommunication equipment, and obstruct its function or cause jamming.

equipments and telecommunication equipments can affect the system, and cause

Equipment such as inverters, standby generators, medical high frequency

electromagnetic fields or high frequency harmonics.

# 9 Wrench key (Hexagon) [4mm] 10 Vacuum pump sary tools for the installation work

# Notabilia as a unit designed for R410A

Do not use any refrigerant other than R410A. R410A will rise to pressure about 1.6 times higher than that of a conventional refrigerant.

A cylinder containing R410A has a pink indication mark on the top.

• A unit designedfor R410A has adopteda differentsize indoor unit service valve charge port and a differentsize check joint providedin the unit to prevent the charging of a wrong refrigerant by mistake. The processed dimension of the flared part of a refrigerant pipe and a flare nut's parallel side measurementhave also been altered to raise strength against pressure. Accordingly, you are required to arrange dedicated R410A tools listed in the table on the left before installingor servicing this unit.

Do not use a charge cylindar. The use of a charge cylinder will cause the refrigerant composition to change, which results in performance degradation.

• In chargingrefrigerant, always take it out from a cylinder in the liquid phase.

• All indoorunits must be models designed exclusively for R410A. Check connectable indoorunit models in a catalog, etc. (A wrong indoorunit, if connected into the system, will impair propersystem operation)

Model name and power source Perigarant piping length Indoor unit installation manual Accessories for outdoor unit  Grommet (Heat pump type only) Drain albow (Heat pump type only) Reducer set 09.52—86.35	Check before installation work	2 V
Refrigerant piping length reports with a modern that and miscellaneous small parts indoor unit installation manual accessories for outdoor unit accessories for outdoor unit accessories for outdoor unit accessories for outdoor unit accessories for outdoor unit accessories for outdoor unit accessories for outdoor unit accessories for outdoor unit accessories for accessories and accessories for acc	Model name and power source	)
Piping, wiring and miscellaneous small parts indoor unit installation manual  Accessories for outdoor unit  Grommet (Heat pump type only)  Commet (Heat pump type only)  Reducer set 69.58 66.35	Refrigerant piping length	
<u>.</u>   2	Piping, wiring and miscellaneous smal	parts
≥	Indoor unit installation manual	
<b>.</b>    ≤		
Grommet (Heat pump type only) 4  Drain elbow (Heat pump type only) 1  Reducer set 09.52 06.35 1		) >
Drain elbow (Heat pump type only) 1  Reducer set ø9.52 ø6.35 1	T Grommet (Heat pump type only)	4
3) Reducer set ø9.52 ø6.35	Drain elbow (Heat pump type only)	-
	3 Reducer set ø9.52 ø6.35	-

Reducer set ø15.88 ø12.7

	Option parts	∑ 		Necess
(a)	a Sealing plate	-	-	1 Plus headec
<u> </u>	Sleeve	-	2	2 Knife
)(0	loclination plate	-	က	Saw
9 (		-	4	4 Tape measu
6	d) Putty	<del>-</del>	Ц	Потто
10		,	0	מ
<u>_</u> (و	e) Urain nose (extension nose)	-	9	6 Spanner wre
	Divisor cover		1	
Ē		,	_	/ lorque wren
) _	(for insulation of connection piping)		ω	8 Hole core di

		2	
-	1 Plus headed driver	1	11 Vacuum pump adapter (Anti-reverse flow type)
$\sim$	2 Knife		(Designed specifically for R410A)
က	3 Saw	12	12 Gauge manifold (Designed specifically for R410A)
4	4   Tape measure	13	13 Charge hose (Designed specifically for R410A)
5	5 Hammer	4	14 Flaring tool set (Designed specifically for R410A)
9	6 Spanner wrench	15	15 Gas leak detector (Designed specifically for R410A)
/	7   Torque wrench [14.0—82.0N·m (1.4—8.2kgf·m)]	9	Gauge for projection adjustment
$\infty$	8 Hole core drill (65mm in diameter)	2	(Used when flare is made by using conventional flare tool)

# . HAULAGE AND INSTALLATION (Take particular care in carrying in or moving the unit, and always perform such an operation with two or more persons.)

1) Delivery

**○ CAUTION** 

When a unit is hoisted with slings for haulage, take into considerationthe offset of its gravity center position. If not properly balanced, the unit can be thrown off-balanceand fall.

Deliver the unit as close as possible to the installation site before removing it from

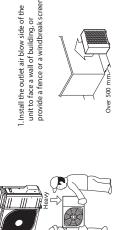
Strong wind can cause damage of fan (fan motor), or can cause performance degradation,or can trigger anomalousstop of the unit due to rising of high pressure.

If the unit can be affected by strong wind, following measures are required.

 When you have to unpack the unit for a compellingreason before you haul it to the installationpoint, hoist the unit with nylon slings or ropes and protectionpads so that you may not damage the unit.

### Portage ล

A person carrying the right hand side must take heed of this fact. A person carrying the left hand side must hold with his right hand the handle provided on the front panel The right hand side of the unit as viewedfrom the front (diffuser side) is heavier. of the unit and with his left hand the corner column section



### 5) Installation space

 Walls surrounding the unit in the four sides are not acceptable. There must be a 1-meter or larger space in the above.





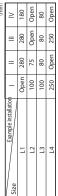
Install the outlet air blow side of the 2. Install the outlet air blow side of unit to face a wall of building, or the unit in a position perpendicular provide a fence or a windbreak screen. to the direction of wind.

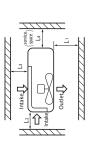
 When more than one unit are installed side by side, provide a 250mm or wider interval between them as a service space. In order to facilitate servicing of controllers, please provide a sufficient space between units so that their top plates can be removed easily.

Where a danger of short-circuiting exists, install guide louvers.

Where piling snow can bury the outdoor unit, provide proper snow guards.

The heightof a wall is 1200mm or less.





### Installation

6

(1) Anchorboltfixed position

200 Intake 510 88.4 7.882

£.4.3

Fasten with bolts (M10-12)

Notabiliafor installation

Use a thickerblock to anchor deeper Use a long block to extendthe width.

3.12.5 3.12.5 D Outlet

In installing the unit, fix the unit's legs with bolts specified on the above.

The protrusion of an anchor bolt on the front side must be kept within 15 mm.

Securely install the unit so that it does not fall over during earthquakes or strong winds, etc.
 Refer to the above illustrations for information regarding concrete foundations.
 Install the unit in a level area. (With a gradient of 5 mm or less.)

mproper installation can result in a compressor failure, broken piping within theunitand abnormal noise generation.

when the outdoor temperature is -5°C or lower. 7) To run the unit for a cooling operation,

 When the outdoor air temperature is -5°C or lower, provide a snow hood to the outdoor unit on site. So that strong wind will not blow against the outdoor heat exchanger directly.

# Selection of installation location for the outdoor unit Be sure to select a suitable installation place in consideration of following conditions.

### Over 500 mm

O A place where it is horizontal, stable and can endure the unit weight and will not allow vibration transmittance of the

3

Unit.

A place where it can be free from possibility of bothering neighbors due to noise or exhaust air from the unit.

A place where the unit is not exposed to oil splashes.

A place where the unit is not exposed to oil splashes.

A place where drain water can be disposed without any trouble.

A place where the unit will not be affected by heat radiation from other heat source.

A place where snow will not accumulate.

A place where the unit can be kept away 5m or more from TV set and/or radio receiver in order to avoid any radio or TV interference.

A place where good air circulation can be secured, and enough service space can be secured for maintenance and

A place where the unit will not be affected by electromagnetic waves and/or high-harmonic waves generated by other O A place where chemical substances like suffuric gas, chloric gas, acid and alkali (includingammonia), which can harm the unit, will not be generated and not remain. O If a operation is conducted when the outdoor air temperature is -5°C lower, the outdoor unit should be installed at a place

service of the unit safely.

■When more than one unit are installed, provide sufficient intake space consciously so that short-circuiting may not.occur

1   1   1   1   1   1   1   1   1   1	
280 280 75 Open 0 80 80 Open 250 0	Example installation
75 Open 80 80 Open 250	
80 80 Open 250	
Open 250	

				0	
=	280	Open	80	250	
=	280	75	80	Open	
_	Open	100	100	250	
Size Example installation	L1	L2	L3	L4	

# 4) Caution about selection of installation location

agent), exposed to ammonia substance (e.g. organic fertilizer).

where it is not influenced by natural wind

O A place where strong wind will not blow against the outlet air blow of the unit.

Do not install the unit in places which exposed to sea breeze (e.g. coastal area) or calcium chloride (e.g. snow melting

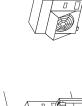
(1) If the unit is installed in the area where the snow will accumulate, following measures are required. The bottom plate of unit and intake, outlet may be blocked by snow.

that the bottom is higher than 1 Install the unit on the base so

draining water is secured.

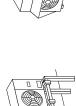
snow cover surface, and

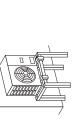
3 Install the unit under eaves or provide the roof on site. 2 Provide a snow hood to the outdoorunit on site.

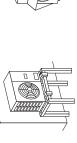












Since drain water generatedby defrost control may freeze, following measures are required

Don't execute drain piping work by using a drain elbow and drain grommets (accessories).

In case that the product has a corrective drainage system, the drainage paths should have suitable threatment against freezing but be sure not to melt the material of drainage paths with heat.

Attached heater on a base plate on site, if there is possibility to freeze drain water.

[Refer to Drain piping work.]

Copper In the case of a rigid (clutch) type pipe outer With an R410A tool With a conventional to

Copper pipe protrusion for flaring: B(mm)

16.6

012.7

1.0 - 1.5

0 - 0.5

ø12.7 06.35

The screw of the side cover is tightened securely.

handle (mm

Side cover

Use a torque wrench. If a torque wrench is not available, fasten the flare nut manually first and then tighten it further, using the left table as a guide.

Do not hold the valve cap area with a spanner

# 2. REFRIGERANT PIPING WORK

# 1) Restrictions on unit installation and use

- Check the followingpoints in light of the indoor unit specifications and the installationsite.
   Observe the followingrestrictions on unit installation and use. Improper installation can result in a compressor failure or performance degradation

 The use restrictions appearing in the table above are applicable to the standard pipe size combinations shown in the table below.
 Where an existing pipe system is utilized, different one-way pipe length restrictions should apply depending on its pipe size.
 For more information, please see "S. UTILIZATION OF EXISTING PIPING." **☆CAUTION** 

Outdoor un

I

2) Determination of pipe size

Determine refrigerantpipe size pursuant to the following guidelines based on the

	Liquid pipe	ø6.35 Flare	ø6.35	09.52	ø6.35
	Gas pipe	ø12.7 Flare	ø12.7	ø15.88	ø15.88
		onnected	oranch pipeL)	FDT, FDEN, FDU, FDUM, FDF	SRK
indoor unit specifications.		Outdoor unit connected	Refrigerant piping (branch pipeL)	Indoor unit connected	

### Withoutnitrogengas, a large quantityof foreign matters (oxidizedfilm) are created, causing a critical failure from capillary tube or expansion valve clogging. If the refrigerant is existing in the pipe at brazing, poisonous gas is produced Brazing must be performed under a nitrogen gas flow. Plug the end of the pipe with tape, or oth material, and fill the pipe with nitrogen ga When pipe is brazing. About brazing ПерочіИ В перочій

	Pipe diameter [mm]	06.35	ø12.7
ipe size.	Minimum pipe wall thickness [mm]	8.0	8.0
	Pipe material*	O-type pipe	O-type pipe
	*Phosphorus deoxidized seamless copper pipe ICS 23.040.15, ICS 77.150.30	oipe ICS 23.040	.15, ICS 77.150.

Select refrigerant pipes of the table shown on the right wall thickness and material as specified for each pip

[Except SRK] Liquid side joint (ø9.52) [SRK] Liquid side joint (ø6.35) [Usage of reducer set] Take care so that installed pipes may not touckomponents within a unit. If touching with an internal componerit will generate abnormal sounds and/or vibrations. NOTE • Select pipes having a wall thickness larger than the specified minimum pipe thickness. [Except SRK] Regarding the change in the size of liquid/gas pipe;

4) On-site piping work

M IMPORTANT

[SRK] Regarding the change in the size of gas pipe;

How to remove the side cover

Outdoor unit

ø6.35 pipe

© [Except SRK] Reducer [L=115mm] (ø9.52-ø6.35) JSRK] Reducer is not used

@Flare nut

ø12.7 pipe

Reducer set  $(\mathbb{O} \sim \mathbb{G})$  is included in the outdoor unit as accessory Gas side joint (ø15.88) Indoor unit. Carry out the on site piping work with the service valve fully closed.
 © Gives valificant protection to a pipe end (compressed and blazed, or with an adhesive tape) so that water or foreign matters may not enter the piping.
 Eend a pipe to a radius as large as practical.(R100-R150) Do not bend a pipe repeatedly to correct Please remove the screw of a side cover and remove to the front. Use the reducer at indoor unit side. Reducer set is available in the outdoor unit as accessory. Use the reducer at indoor unit side. Reducer set is available in the outdoor unit as accessory.

Flared pipe end: A(mm) Copper 0 0 0 diameter A -0.4

er [L=124mm](ø15.88-ø12.7)

its form.

— Flare connection is used between the unit and refrigerant pipe. Flare a pipe after engaging a place nut onto it. Flare dimensions for R410A are different from those for conventional R407C. Although we recommend the use of flaring tools designed specifically for R410A, conventional flaring tools can also be used by adjusting the measurement of protrusion B with a protrusion The pipe should be anchored every 1.5m or less to isolate the vibration.

Do not apply force beyond proper fastening torque in tightening the flare nut.

Tighten a flare joint securely with a double spanner.

**△** CAUTION

trated on the right,	Tightening torque (N-m) Tightening angle (°) Recommended length of a tool l	150	200	250	300
e main bodies as illus ening torque.	Tightening angle (°)	45 - 60	30 - 45	30 - 45	15 - 20
rvice valves at the valve plying appropriate fast	Tightening torque (N·m)	14 - 18	34 - 42	49 - 61	68 - 82
Fix both liquid and gas service valves at the valve main bodies as illustrated on the right, and then fasten them, applying appropriate fastening torque.	Service valve size (mm)	ø6.35	ø9.52	012.7	ø15.88

-	485	5 —

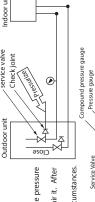
3) Refrigerant pipe wall thickness and material

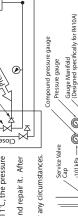
### Air tightness test

- ① Although outdoor and indoor units themselves have been tested for air tightness at the factory, check the connecting pipes after the installation work for air tightness from the service valve's check joint equipped on the outdoor unit side. While conducting a test, keep the service valve shut all the time. a) Raise the pressure to 0.5 MPa, and then stop. Leave it for five minutes to see if the pressure drops. b) Then raise the pressure to 1.5 MPa, and stop. Leave it for five more minutes to see if the pressure drops.
- c) Then raise the pressure to the specified level (4.15 MPa), and record the ambient temperature and the pressure.

  a) If no pressure doubt an installation pressurized to the specified level of If for about one day, it is acceptable. When the ambient Temperature fall 1°C, the pressure also fall approximately 0.01 MPa. The pressure, if changed, should be compensated for.
  - e) if a pressure drop is observed in checking e) and a) d), a leak exists somewhere. Find a leak by applying bubble test liquid to welded parts and flare joints and repair it. After repair, conduct an air-tightness test again.
- 🕘 In conducting an air-tightness test, use nitrogen gas and pressurize the system with nitrogen gas from the gas side. Do not use a medium other than nitrogen gas under any circumstances.

### Indoor unit Gas side service valve Compound pressure gauge Check joint Ø Outdoorunit





Charge hose (Designed specifically for R410A) Vacuum pump adapter (Anti-reverse flow type) (Designed specifically for R410A) Charge hose Designed specifically for R410A) - Handle Hi. ١ -101kPa -Handle Lo vice Valve Theck joint  $^{\lozenge}$ 

Run the vacuum pump for at least one hour after the vacuum gauge shows -101kPa or lower. (-755mmHg or lower)

Airtighteness test completed

<Work flow>

6) Evacuation

Vacuuming begins

When the system has remaining moisture inside or a leaky point, the vacuum gauge Check the system for a leaky point and then draw air to create a vacuum again.

indicator will rise.

Confirm that the vacuum gauge indicator does not rise even if the system is left for one hour or more.

Vacuumingcompleted

Securely tighten the service valve cap and the check joint blind nut after adjustment.

Service valve size (mm)	Service valve cap tightening torque (N·m)	Check joint blind nut tightening torque (N·m)
ø6.35 (1/4")	20-30	
ø12.7 (1/2")	25-35	71-01

Additional charge volume (kg) per meter of Refrigerant volume charged for Installation's pipe length (m) covered refrigerant piping (liquid pipe 66.35) shipment at the factory (kg) without additional refrigerant charge

(1) Calculate a required refrigerant charge volume from the following table.

Indoor unit

7) Additional refrigerant charge

15

To prevent a different oil from entering, assign dedicated tools, etc. to each refrigerant type. Under no circumstances

Pay attention to the following points in addition to the above for the R410A and compatible machines.

Fill refrigerant

Vacuum gauge check

must a gauge manifold and a charge hose in particular be shared with other refrigerant types (R22, R407C, etc.).

OUse a counterflow prevention adapter to prevent vacuum pump oil from entering the refrigerant system.

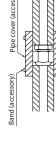
- (2) Charging refrigerant

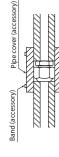
  Size R410A refrigerant must be charged in the liquid phase, you should charge it, keeping the

  Soften R410A refrigerant must be charged in the liquid phase, you should charge it, keeping the

  Container cylinder upside down or using a refrigerant cylinder equipped with a sphon tube.

  Charge refrigerant always from the liquid side service port with the service valve shut. When you find
  - it difficult to charge a required amount, fully open the outdoor unit valves on both liquid and gas sides and charge refrigerant from the gas (suction) side service port, while running the unit in the cylinder in the liquid phase all the time. When the cylinder valve is throttled down or a dedicated cooling mode. In doing so, care must be taken so that refrigerant may be discharged from the conversion tool to change liquid-phase refrigerant into mist is used to protect the compressor, however, adjust charge conditions so that refrigerant will gasify upon entering the unit.
- •In charging refrigerant, always charge a calculated volume by using a scale to measure the charge volume. •When refrigerant is charged with the unit being run, complete a charge operation within 30 minutes. Running the unit with an insufficient quantity of refrigerant for a long time can cause a compressor
  - NOTE Put down the refrigerant volume calculated from the pipe length onto the caution label attached on the back side of the service panel.





exterior tape

Wires for connecting indoo

Gas piping

8) Heating and condensation prevention

factory, when you recharge refrigerant after servicing etc. it is not necessary to charge refrigerant additionally.

• For an installation measuring 15m/8m or shorter in pipe length, please charge the refrigerant volume charged for shipment at the

Additional charge volume (kg) = { Main length (m) – Factory charged volume} x 0.02 (kg/m)

"When an additional charge volume calculation result is negative,

Formula to calculate the volume of additional refrigerant required

(1) Dress refrigerant pipes (both gas and liquid pipes) for heat insulation and prevention of dew condensation.

Improper heat insulation/anti-dew dressing can result in a water leak or dripping causing damage to household effects, etc.

(2) Use a heat insulating material that can withstand 120°C or a higher temperature. Poor heat insulating capacity can cause heat insulation problems or cable

- All gas pipes must be securely heat insulated in order to prevent damage from dripping water that comes from the condensation formed on them during a cooling operation Liquid piping or personal injury from burns because their surface can reach quite a high temperature due to discharged gas flowing inside during a heating operation. Wrap indoor units' flare joints with heat insulating parts (pipe cover) for heat insulation (both gas and liquid pipes).
  - · Give heat insulation to both gas and liquid side pipes. Bundle a heat insulating material and a pipe tighty together so that no gaps may be left between them and wrap them together with a connecting cable by a dressing tape.
    - Both gas and liquid pipes need to be dressed with 20 mm or thicker heat insulation materials above the ceiling where relative humidity exceeds 70%.

charge on the installation site is not required for an installation with up to 15m/8m refrigerant piping. When refrigerant piping exceeds 15m/8m, additionally charge an amount cakulated from the pipe length and the above table for the portion in excess of 15m/8m. If an existing pipe system is used, a required refrigerant charge volume will vary depending on the liquid pipe size. For further information, please see "5. UTILIZATION OF EXISTING PIPING."

This unit contains factory charged refrigerant covering 15m/8m of refrigerant piping and additional refrigerant

1.6

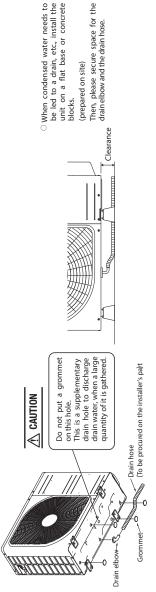
0.02 0.02

FDU, FDUM, SRK

FDT, FDEN

# 3. DRAIN PIPING WORK

- Execute drain piping by using a drain elbow and drain grommets supplied separately as accessories, where water drained from the outdoor unit is a problem.
- Water may drip where there is a larger amount of drain water. Seal around the drain elbow and drain grommets with putty or adequate caulking material.
- Condensed water may flow out from vicinity of service valve or connected pipes.
- Where you are likely to have several days of sub-zero temperatures in a row, do not use a drain elbow and drain grommets. (There is a risk of drain water freezing inside and blocking the drain.)



space for the

Then, please secure space for drain elbow and the drain hose.

(prepared on site)

# For details of electrical cabling, refer to the indoor unit installation manual **ELECTRICAL WIRING WORK**

Electrical installation work must be executed according to the technical standards and other regulations applicable to electrical installations in the country Electrical installation work must be performed by an electrical installation service provider qualified by a power provider of the country. Do not use any supply cord lighter than one specified in parentheses for each type below.

- braided cord (code designation 60245 IEC 51),
- ordinary tough rubber sheathed cord (code designation 60245 IEC 53) flat twin tinsel cord (code designation 60227 IEC 41);
- Use polychloroprene sheathed flexible cord (code designation 60245 IEC57) for supply cords of parts of appliances for outdoor use.

In case of faulty wiring connection, the indoor unit stops, and then the run lamp turns on and the timer lamp blinks.

**△** CAUTION

Use cables for interconnection wiring to avoid loosening of the wires. CENELEC code for cables Required field cables.

H05RNR4G1.5 (Example) or 245IEC57

Harmonized cable type

300/500 volts

Polychloroprene rubber conductors insulation Natural-and/or synth. rubber wire insulation

Stranded core

- •Ground the unit. Do not connect the grounding wire to a gas pipe, water pipe, lightning rod or telephone grounding wire If impropery grounded, an electric shock or malfunction may result.
- A grounding wire must be connected before connecting the power cable. Provide a grounding wire longer than the power cable.
   The installation of an impulse withstanding type earth leakage breaker is necessary. A failure to install an earth leakage breaker can result in an
  - Do not turn on the power until the electrical work is completeted. acccident such as an electric shock or a fire.
- Do not use a condensive capacitor for power factor improvement under any circumstances. (It dose not improve power factor, while it can cause an abnormal overheat accident)
  • For power source cables, use conduits.
- Do not lay electronic control cables (remote control and signaling wires) and other cables together outside the unit. Laying them together can result
- When cables are connected, make sure that all electrical components within the electrical component box are free of loose connector coupling or terminal connection and then attach the cover securely. (Improper cover attachment can result in malfunctioning or a failure of the unit, if water in the malfunctioning or a failure of the unit due to electric noises. Fasten cables so that may not touch the piping, etc.
  - •Always use a three-core cable for an indoor-outdoor connecting cable. Never use a shield cable. penetrates into the box.)

One conductor of the cable is the earth conductor Section of copper wire (mm²) Number of conductors (yellow/green) Main firse specification H 05 N N R 40r5 1.5

	Part No.	SSA564A136A	
ווומווו ומסס סאסטוווסממסוו	Specification	250V 20A	

Power cable, indoor-outdoor connecting wires

In cabling, fasten cables securely with cable clamps so that no external force may work on terminal connections. Connect a pair bearing a common terminal number with an indoor-outdoor connecting wire. Always perform grounding system installation work with the power cord unplugged.

Always use an earth leakage circuit breaker designed for inverter circuits to prevent a faulty operation. CAUTION ↲ Outdoor unit

Grounding terminals are provided in the control box.

Switchgear or Circuit breake

· Z · 1 2/N 3 2/N 3

Olt holds cables in place and protect the terminal

OThis clamp is for the cable in the outside Please adjust it when not suitable

diameter 9-15mm.

connection from external force.

Earth leakage breaker (Harmonic resistant type)

Power source terminal block

Cable clamp

Indoor unit

X Y Remote control

Olt holds cables in place and protect the terminal

connection from external force.

Grounding terminal grounding work.

OPlease be sure to carry out D-type (type III)

The specifications shown in the above table are for units without heaters. For units with heaters, refer to

the installation instructions or the construction instructions of the indoor unit.

Switchgear or Circuit breaker capacity which is calculated from MAX. over current should be chosen along the

regulations in each country. The absed on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation in effect in each country.

# 5. UTILIZATION OF EXISTING PIPING

 Run the unit for 30 minutes for a cooling operation.
 Stop the indoor fan and run the unit for 3 minutes for a cooling operation (returning liquid)
 Close the liquid side service valve of the outdoor unit and pump down (refrigerant recovery)
 Blow with nitrogen gas. \*\* If discolored refrigeration oil or any foreign matters is discharged by the blow, wash the pipe system or install a new pipe system. For the flare nut, do not use the old one, but use the one supplied with the outdoor unit.
 Process a flare to the dimensions specified for R410A. Additional charge volume (kg) = (Main pipe length (m) – Length covered without additional charge shown in the table (m)  $\times$  Additional charge volume per meter of pipe shown in the table (kg/m) ø15.88 ø9.52 Carry out the following steps with the excising unit (in the order of (1), (2), (3) and (4)) Please consult with our distributor in the area, if you need to recover refrigerant and charge it again. st If you obtain a negative figure as a result of calculation, no additional refrigerant needs to be charged **Example)** When FDT is installed in a 10m long existing pipe system (liquid  $\theta$ 9.52, gas  $\theta$ 12.7), the quantity of refrigerant to charge additionally should be  $(10m-5m) \times 0.06$ kg/m = 0.3 kg. ø9.52 If you choose to wash the pipe system, please contact our distributor in the area. <Where the existing unit cannot be run for a cooling operation.> <Where the existing unit can be run for a cooling operation.> 0.02kg/m 0.025kg/m ø15.88 ø6.35 ø6.35 ø12.7  $\odot$ :Standard pipe size $\bigcirc$ :Usable $\triangle$ :Restricted to shorter pipe length limits Any combinations of pipe sizes not listed in the table are not usable Gaps are properly sealed between the pipe covers (A) (B) and the wall surface / pipes. Wash the pipe system or install a new pipe system. The cover of the pipe cover (A) faces downward to prevent rain from entering. Maximum one-way pipe length Length covered without additional charge Length covered without additional charge Check the following points again after completion of the installation, and before turning on the power. Conduct a test run again and ensure that the unit operates properly. Explain to the customer how to use the unit and how to take care of the unit following the instruction manual. Maximum one-way pipe length Formula to calculate additional charge volume Additional charge volume per meter of pipe The pipe joints for indoor and outdoor pipes have been insulated. Liquid pipe Gas pipe <Table of pipe size restrictions> Pipe size The screw of the side cover is tightened securely. The reverse flow check cap is attached. FDT, FDEN FDU, FDUM, SRK Indoor unit **△** WARNING F Check whether an existing pipe system is reusable or not by using the following flow chart. Can't Use Repair is impossible Please make an inquiry for reusability. \*\*Check with the flow chart developed for a case where an existing pipe system is reused for a twin-triple-double-twin model published as a technical data sheet. The existing pipe system is not reusable. Install a new pipe system. Change the branching pipe to a specified type. Check the pipe system for air tightness on the site. 2 Power cables and connecting wires are securely fixed to the terminal block. Repair the damaged parts. Repair the damaged parts. Repair the damaged parts. Which of the following refrigeration oil does the existing unit use? Suniso, MS, Barrel Freeze, HAB, Freol, ether oil, ester oil Remove those branches. INSTALLATION TEST CHECK POINTS Repair Air tightness is OK No gas leaks from the joints of the service valve and joint. Some loose pipe supports The power source voltage is correct as the rating ¥ ES 일† YES 9 ES T 9 toes the existing pipe system to reuse satisfy all of the following?

1) The pipe length is 30m or the table of pipe size restrictions.

2) The pipe size conforms to the table of pipe size restrictions.

3) The elevation difference between the indoor and outdoor units conforms to the following restrictions. Is the existing pipe system to reuse free of corrosion, flaws or dents Are an outdoor unit and an indoor unit connected to the existing pipe system to reuse? Is the existing pipe system to reuse free of gas leaks? (Check whether refrigerant charge was required frequently for the system before) Are there any branch pipes with no indoor unit connected? Are heat insulation materials of the existing pipe system to reuse free of peel-offs or deterioration? (Heat insulation is necessary for both gas and liquid pipes) The existing pipe system is reusable. Is the unit to install in the existing pipe system a twin-triple-double-twin model? The drain hose is fixed securely. Aren't there any loose pipe supports? Are the existing units our products? Where the outdoor unit is above: 15m or less Where the outdoor unit is below: 15m or less Service valve is fully open. ON START 9 After installation YES YES No loose pipe supports

### $\triangleleft$ PSC012D054

# R410A REFRIGERANT USED

- When install the unit, be sure to check whether the selection of installation place, power source specifications, usage limitation (piping length, height differences between indoor and outdoor units, power This installation manual deals with outdoor units and general installation specifications only. For indoor units, refer to page 122.
  - SAFETY PRECAUTIONS source voltage and etc.) and installation spaces.

- Read the "SAFETY PRECAUTIONS" carefully first of all and strictly follow it during the installation work in order to protect yourself.
  - The precautionary items mentioned below are distinguished into two levels, AWARNING and ACAUTION Wrong installation might cause serious consequences depending on circumstances. Wrong installation would cause serious consequences such as injuries or death △ WARNING
    A CAUTION
- Be sure to confirm no anomaly on the equipment by commissioning after completed installation and explain the operating methods as well as the maintenance methods of this equipment to the user according to the owner's Both mentions the important items to protect your health and safety so strictly follow them by any means.
- Keep the installation manual together with owner's manual at a place where any user can read at any time. Moreover if necessary, ask to hand them to a new user.
  - For installing qualified personnel, take precautions in respect to themselves by using suitable protective clothing, groves, etc., and then perform the installation works.
    - Please pay attention not to fall down the tools, etc. when installing the unit at the high position.
      - If unusual noise can be heard during operation, consult the dealer The meanings of "Marks" used here are shown as follows
- Never do it under any circumstances. 0

Always do it according to the instruction

 Use the prescribed cables for electrical connection, tighten the cables Incorrect installation may result in overheating and fire.

Loose connections or cable mountings can cause anomalous heat production or fire. securely in terminal block and relieve the cables correctly to prevent overloading the terminal blocks. Be sure to fix up the service panels.

Incorrect fixing can cause electric shocks or fire due to intrusion of dust or water. Be sure to switch off the power source in the event of installation, inspection or servicing.

If the power source is not shut off, there is a risk of electric shocks, unit failure or personal injury due to the unexpected start of fan.

Stop the compressor before removing the pipe after shutting the

Only use prescribed option parts. The installation must be carried out by open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.

If the pipe is removed when the compressor is in operation with the service valve

service valve on pump down work.

f you install the system by yourself, it can cause serious trouble such as water the qualified installer.

Be sure to wear protective goggles and gloves while at work. leaks, electric shocks, fire.

Earth leakage breaker must be installed.

 Appliance is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, If the earth leakage breaker is not installed, it can cause electric shocks. unless they have been given supervision or instruction. Children being supervised not to play with appliance. circuit breaker or switch (fuse:20A) with a contact separation of at least

Do not perform any change of protective device itself or its setup condition.
 The forced operation by short-circuiting protective device of pressure switch and temperature control or the use of non specified component can cause fire or burst.

### WARNING

If the refrigerant comes into contact with naked flames, poisonous gas is produced. Using existing parts (for R22 or R407C) can cause the unit failure and serious Use the prescribed pipes, flare nuts and tools for R410A. If you install the system by yourself, it may cause serious trouble such as water leaks, electric shocks, fire and personal injury, as a result of a system malfunction. Do not carry out the installation and maintenance work except by the qualified installer. Installation must be carried out by the qualified installer.

Install the system in full accordance with the installation manual.

If the flare nut were tightened with excess torque, this may cause burst and Tighten the flare nut by torque wrench with specified method. accidents due to burst of the refrigerant circuit Incorrect installation may cause bursts, personal injury, water leaks, electric

 Do not open the operation valves for liquid line and gas line until refrigerant leakage after a long period. If this appliance is installed in inferior environment such as machine shop and etc.,

completed connection of refrigerant piping work, air can be sucked into refrigerant circuit, which can cause bust or personal injury due to anomalously high pressure completed refrigerant piping work, air tightness test and evacuation. If the compressor is operated in state of opening operation valves before in the refrigerant.

 The electrical installation must be carried out by the qualified electrician in accordance with "the norm for electrical work" and "national wiring

the ventilation system, otherwise lack of oxygen can occur, which can cause serious

f parts other than those prescribed by us are used, It may cause water leaks,

Use the original accessories and the specified components for

installation

Unsuitable installation locations can cause the unit to fall and cause material

Install the unit in a location with good support.

electric shocks, fire and personal injury.

If the density of refrigerant exceeds the limit, please consult the dealer and install exceed the density limit of refrigerant in the event of leakage, referred

by the formula (accordance with IS05149).

When installing in small rooms, take prevention measures not to

it can cause malfunction.

Be sure to use only for household and residence.

regulation", and the system must be connected to the dedicated circuit.

Power source with insufficient capacity and incorrect function done by improper Failure to shut off the power can cause electric shocks, unit failure or incorrect Be sure to shut off the power before starting electrical work. work can cause electric shocks and fire.

Be sure to use the cables conformed to safety standard and cable

Unconformable cables can cause electric leak, anomalous heat production or fife. 
• This appliance must be connected to main power source by means of a ampacity for power distribution work.

Arrange the wiring in the control box so that it cannot be pushed up further into the box. Install the service panel correctly

Ventilate the working area well in the event of refrigerant leakage during

 Ensure that no air enters in the refrigerant circuit when the unit is If air enters in the refrigerant circuit, the pressure in the refrigerant circuit

installed and removed.

0

Unsuitable installation locations can cause the unit to fall and cause material

Ensure the unit is stable when installed, so that it can withstand

earthquakes and strong winds. damage and personal injury.

damage and personal injury.

installation.

Do not bundling, winding or processing for the power cord. Or, do not deforming the power plug due to tread it.

Touching rotating equipments, hot surfaces or high voltage parts can cause Do not run the unit with removed panels or protections. personal injury due to entrapment, burn or electric shocks.

This may cause fire or electric shock due to defecting contact, defecting insulation

and over-current etc.

Do not processing, splice the power cord, or share a socket with other power plugs.

becomes too high, which can cause burst and personal injury.

### CAUTION

# Carry out the electrical work for ground lead with care.

Do not connect the ground lead to the gas line, water line, lightning conductor or telephone line's ground lead. Incorrect grounding can cause unit faults such as electric shocks due to short-circuiting.

# Use the circuit breaker for all pole correct capacity. Circuit breaker

Using the incorrect circuit breaker, it can cause the unit malfunction and fire. Install isolator or disconnect switch on the power source wiring in should be the one that disconnect all poles under over current.

to their original state and wiring route, and the necessary clearance from After maintenance, all wiring, wiring ties and the like, should be returned accordance with the local codes and regulations.

The isolator should be locked in OFF state in accordance with EN60204-1. all metal parts should be secured.

 Secure a space for installation, inspection and maintenance specified in Insufficient space can result in accident such as personal injury due to falling

If the unit weights more than 20kg, it must be carried by two or more persons. Do not carry by the plastic straps, always use the carry handle when carrying the unit by hand. Use gloves to minimize the risk of cuts by the aluminum fins. Dispose of any packing materials correctly. Take care when carrying the unit by hand.

wood. And to avoid danger of suffocation, be sure to keep the plastic wrapper Be sure to insulate the refrigerant pipes so as not to condense the away from children and to dispose after tear it up.

Insufficient insulation can cause condensation, which can lead to moisture

damage on the ceiling, floor, furniture and any other valuables.

Any remaining packing materials can cause personal injury as it contains nails and

ambient air moisture on them.

incorporate the air into the room that may appropriate to ventilation For example; Open the door a little). In addition, just as above, so set up the opening port if the room lapse into negative pressure status due to When perform the air-conditioner operation (cooling or drying operation drain water may backflow in accordance with the room lapse into the in which ventilator is installed in the room. In this case, using the airconditioner in parallel with the ventilator, there is the possibility that negative pressure status. Therefore, set up the opening port such as register of the wind for the high rise apartment etc.

# Do not install the unit in the locations listed below.

Locations where carbon fiber, metal powder or any powder is floating.
 Locations where any substances that can affect the unit such as sulphide gas, chloride gas, acid and alkaline can occur.

Locations where discharged hot air or operating sound of the outdoor unit can

bother neighborhood.

Do not install the outdoor unit in the locations listed below.

Locations where outlet air of the outdoor unit blows directly to an animal or

plants. The outlet air can affect adversely to the plant etc.

Locations where vibration can be amplified and transmitted due to insufficient

Locations where vibration and operation sound generated by the outdoor unit

strength of structure.

can affect seriously (on the wall or at the place near bed room).

Vehicles and ships.

Locations where cosmetic or special sprays are often used.

 Locations with direct exposure of oil mist and steam such as kitchen and machine plant.

Locations where any machines which generate high frequency harmonics are

 Locations with heavy snow (if installed, be sure to provide base flame and snow Locations with salty atmospheres such as coastlines. hood mentioned in the manual). nsed.

 Locations where the unit is exposed to chimney smoke. Locations at high altitude (more than 1000m high).

 Locations where heat radiation from other heat source can affect the unit. Locations with ammonic atmospheres. (e.g. organic fertilizer) Locations with calcium chloride (e.g. snow melting agent)

 Locations with any obstacles which can prevent inlet and outlet air of the unit. Locations where short circuit of air can occur (in case of multiple units Locations without good air circulation.

It can cause remarkable decrease in performance, corrosion and damage of Locations where strong air blows against the air outlet of outdoor unit. Locations where something located above the unit could fall.

Do not install the outdoor unit in a location where insects and small animals can inhabit

Instruct the user to keep the surroundings clean.

Do not use the base flame for outdoor unit which is corroded or damaged Insects and small animals can enter the electric parts and cause damage or fire. Using an old and damage base flame can cause the unit falling down and cause due to long periods of operation. personal injury.

 Do not use any materials other than a fuse with the correct rating in the location where tuses are to be used.

Connecting the circuit with copper wire or other metal thread can cause unit

Locations where an equipment affected by high harmonics is placed (TV set or

Do not touch any buttons with wet hands. It can cause electric shocks. failure and fire.

Do not touch any refrigerant pipes with your hands when the system is in operation.

During operation the refrigerant pipes become extremely hot or extremely cold depending the operating condition, and it can cause burn injury or frost injury. Do not touch the suction or aluminum fin on the outdoor unit.

Do not install the unit where corrosive gas (such as sulfurous acid gas etc.)

If leaked gases accumulate around the unit, it can cause fire.

gases can occur.

Do not install the unit near the location where leakage of combustible

It can affect surrounding environment and cause a claim.

Locations where drainage cannot run off safely.

radio receiver is placed within 5m).

or combustible gas (such as thinner and petroleum gases) can accumulate

or collect, or where volatile combustible substances are handled.

This may cause injury Corrosive gas can cause corrosion of heat exchanger, breakage of plastic parts

This may cause damage the objects or injury due to falling to the object. Do not use the unit for special purposes such as storing foods, Do not put anything on the outdoor unit and operating unit. Do not install nor use the system close to the equipment that generates

cooling

precision instruments and preservation of animals, plants or art. Do not clean up the unit with water.

equipments and telecommunication equipments can affect the system, and cause malfunctions and breakdowns. The system can also affect medical equipment and

Equipment such as inverters, standby generators, medical high frequency

electromagnetic fields or high frequency harmonics.

and etc. And combustible gas can cause fire.

telecommunication equipment, and obstruct its function or cause jamming.

# Notabilia as a unit designed for R410A

Do not use any refrigerant other than R410A. R410A will rise to pressure about 1.6 times higher than that of a conventional refrigerant.
 A cylinder containing R410A has a pink indication mark on the top.
 A cylinder containing R410A has adopted a different size indoor unit operation valve charge port and a different size check joint provided in the unit to prevent the charging of a wrong refrigerant by mistake. The processed dimension

Accordingly, you are required to arrange dedicated R410A tools listed in the table on the left before installing of servicing this unit.

Do not use a charge oylinder. The use of a charge cylinder will causet the efficierant composition to change, which results in performance degradation.

In charging efficierant, always take it out from a cylinder in the liquid phase.

All indoor units must be models designed exclusively for R410A. Check connectable indoor unit models in a catalog, etc. (A wrong indoor unit, if connected into the system, will impair proper system operation.) of the flared part of a refrigerant pipe and a flare nut's parallel side measurement have also been altered to raise strength against pressure.

### Ö't₹ (for insulation of connection piping) Drain hose (extension hose) Option parts Inclination plate Sealing plate Piping cover Sleeve Dutty Dutty Model name and power source Refrigerant piping length Piping, wiring and miscellaneous small parts o't⁄ Check before installation work

Drain elbow (Heat pump type only)

Reducer set ø9.52 → ø6.35

Accessories for outdoor unit Grommet (Heat pump type only)

Indoor unit installation manual

L	Nome a citalistani odtash aloot vaccoooli	6	9  Wrench key (Hexagon) [4mm]
		10	10 Vacuum pump
-	1 Plus headed driver	7	Vacuum pump adapter (Anti-reverse flow type)
N	2 Knife		(Designed specifically for R410A)
က	3 Saw	12	12 Gauge manifold (Designed specifically for R410A)
4	4 Tape measure	13	13 Charge hose (Designed specifically for R410A)
2	5 Hammer	4	14 Flaring tool set (Designed specifically for R410A)
9	6 Spanner wrench	15	15 Gas leak detector (Designed specifically for R410A)
^	7 Torque wrench [14.0-82.0N·m (1.4-8.2kgf·m)]	9	Gauge for projection adjustment
ω	8 Hole core drill (65mm in diameter)	2	(Used when flare is made by using conventional flare tool)

# . HAULAGE AND INSTALLATION (Take particular care in carrying in or moving the unit, and always perform such an operation with two or more persons.)

**○ CAUTION** 

When a unit is hoisted with slings for haulage, take into consideration the offset of its gravity center position. If not properly balanced, the unit can be thrown off-balance and fall.

### 1) Deliver

- Deliver the unit as close as possible to the installation site before removing it from the packaging.
- When you have to unpack the unit for a compelling reason before you haul it to the installation point, hoist the unit with nylon slings or ropes and protection pads so that you may not damage the unit.

9///////

### 2

A person carrying the right hand side must take heed of this fact. A person carrying the left hand side must hold with his right hand the handle provided on the front panel of the unit and with his left hand the corner column section. The right hand side of the unit as viewed from the front (diffuser side) is heavier.

# O A place where it is horizontal, stable and can endure the unit weight and will not allow vibration transmittance Be sure to select a suitable installation place in consideration of following conditions. Selection of installation location for the outdoor unit

### Heavy

### 5) Installation space

### the unit in a position perpendicular to the direction of wind. 2.Install the outlet air blow side of provide a fence or a windbreak screen. I.Install the outlet air blow side of the unit to face a wall of building, or

(2) If the unit can be affected by strong wind, following measures are required. Strong wind can cause damage of fan (fan motor), or can cause performance degradation, or can trigger anomatious stop of the unit due to rising of high pressure.

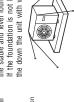
the stable and level foundation. If the foundation is not level, the down the unit with wires.

3.The unit should be installed on

### Over 500 mm







### Wind direction

- Walls surrounding the unit in the four sides are not acceptable.
  - ■There must be a 1-meter or larger space in the above.
- When more than one unit are installed side by side, provide a 250mm or wider interval between them as a service space. In order to facilitate servicing of controls, please provide a sufficient space between units so that their top plates can be removed easily.
  - Where a danger of short-circuiting exists, install guide louvers.

O A place where it can be free from possibility of bothering neighbors due to noise or exhaust air from the unit.

O A place where the unit is not exposed to oil splashes.

O A place where it can be free from danger of flammable gas leakage.

O A place where it can be free from danger of flammable gas leakage.

O A place where drain water can be disposed without any trouble.

O A place where the unit will not be affected by heat radiation from other heat source.

O A place where snow will not accumulate.

the unit

and service of the unit safely.

O A place where the unit will not be affected by electromagnetic waves and/or high-harmonic waves generated by O A place where chemical substances like sulfuric gas, chloric gas, acid and alkali (includingammonia), which can harm the unit, will not be generated and not remain.

O A place where good air circulation can be secured, and enoug hservice space can be secured for maintenance

radio or TV interference.

other equipment.

at a place where it is not influenced by natural wind.

O Aplace where strong wind will not blow against the outlet air blow of the unit.

Do not install the unit in places which exposed to sae breeze (e.g. coastal area) or calcium chloride (e.g. snow melting agent), exposed to ammonia substance (e.g. organic fertilizer).

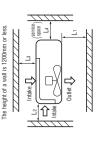
(1) If the unit is installed in the area where the snow will accumulate, following measures are required.

4) Caution about selection of installation location The bottom plate of unit and intake, outlet may be blocked by snow.

O If a operation is conducted when the outdoor air temperature is -5°C lower, the outdoor unit should be installed

- When more than one unit are installed, provide sufficient intake space consciously so that short-circuiting may not occur. Where piling snow can bury the outdoor unit, provide proper snow guards.

(mm)	III	200	Open	100	250	
	П	Open	250	150	250	
	I	0pen	300	100	250	
	Size Example installation	П	L2	F7	F4	

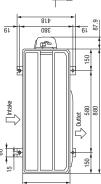


### 6) Installation

Anchor bolt fixed position

Fasten with bolts

② Notabilia for installation



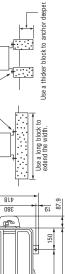
Install the unit under eaves or provide the roof on site.

က

Provide a snow hood to the outdoor unit on site.

1 Install the unit on the base so that the bottom is higher than

draining water is secured snow cover surface, and



- In installing the unit, fix the unit's legs with bolts specified on the above
- Securely install the unit so that it does not fall over during earthquakes or strong winds, etc. The protrusion of an anchor bolt on the front side must be kept within 15 mm.
  - Refer to the above illustrations for information regarding concrete foundations.
- mproper installation can result in a compressor failure, broken piping within the unit and abnormal noise generation. Install the unit in a level area. (With a gradient of 5 mm or less.)

### when the outdoor temperature is -5°C or lower. To run the unit for a cooling operation, ~

 When the outdoor air temperature is -5°C or lower, provide a snow hood to the outdoor unit on site. So that strong wind will not blow against the outdoor heat exchanger directly.

# П





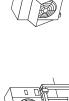












# 2. REFRIGERANT PIPING WORK

# 1) Restrictions on unit installation and use

- Check the following points in light of the indoor unit specifications and the installation site.
   Observe the following restrictions on unit installation and use. Improper installation can result in a compressor failure or performance degradation.

	Marks appearing in the drawing on the right	٦	7	Н	H
	Dimensional restrictions	30m or less	23m or less	20m or less	20m or less
		- Main pipe length-		itioned higher	nit is positioned lower
	Restrictions	FDT, FDE, FDU, FDUM	FDF	When the outdoor unit is positioned his	When the outdoor unit is pos
		3	indoor unit	Elevation difference between	indoor and outdoor units

▲ CAUTION
 The use restrictions appearing in the table above are applicable to the standard pipe size combinations shown in the table below.
 Where an existing pipe system is utilized, different one-way pipe length restrictions should apply depending on its pipe size.
 For more information, please see " 5. UTILIZATION OF EXISTING PIPING."

indoor unit specifications.

 Determine refrigerant pipe size pursuant to the following guidelines based on the 2) Determination of pipe size

Liquid pipe	ø6.35 Flare	96.35	99.55
Gas pipe	ø15.88 Flare	ø15.88	ø15.88
	Outdoor unit connected	Refrigerant piping (branch pipeL)	Indoor unit connected

### Brazing must be performed under a nitrogen gas flow. When pipe is brazing. About brazing

Without nitrogen gas, a large quantity of foreign matters (oxidized film) are created, causing a critical failure from capillary tube or expansion valve clogging. If the refrigerant is existing in the pipe at brazing, poisonous gas is produced.

### Plug the end of the pipe with tape, or other material, and fill the pipe with nitrogen gas Only use nitrogen gas (N2) \ \ \ \ \ \

### 0-type pipe 96.35 0.8 Minimum pipe wall thickness [mm] Pipe diameter [mm] Pipe material\*

### \*Phosphorus deoxidized seamless copper pipe ICS 23.040.15, ICS 77.150.30 DReducer [L=115mm](ø9.52-ø6.35) 0-type pipe 015.88 1.0 Liquid side joint (ø9.52) usage or reducer set, Indoor unit.

Gas side joint (ø15.88) Select refrigerant pipes of the table shown on the right wall thickness and material as specified for each pipe size.

Outdoor unit

ø15.88 pipe

Reducer set  $(\mathbb{O},\mathbb{Q})$  is included in the outdoor unit as accessory

Izke care so that installed pipes may not touch components within a unit.

If touching with an internal component, it will generate abnormal sounds and/or vibrations. Use the reducer at indoor unit side. Reducer set is available in the outdoor unit as accessory

Please remove the screw of a side cover and remove to the front

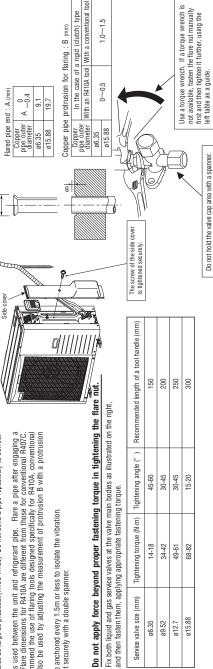
How to remove the side cover

Regarding the change in the size of liquid pipe;

4) On-site piping work

Carry out the on site piping work with the operation valve fully closed.
 Give sufficient protection to a pipe and (compressed and blazed, or with an adhesive tape) so fitted water or foreign matters may not enter the piping.
 Bend a pipe to a radius as large as practical (R100-R150) Do not bend a pipe repeatedly to correct its form.
 Its form that water or convertion is used between the unit and refrigerant pipe. Rare a pipe after engaging a flare connection it. Rare dimensions for R410A are different from those for conventional R407C Although we recommend the use of flaring tools designed specifically for R410A, conventional flaring tools can also be used by adjusting the measurement of protrusion B with a protrusion

The pipe should be anchored every 1.5m or less to isolate the vibration. Tighten a flare joint securely with a double spanner.



 $1.0 \sim 1.5$ 

Fix both liquid and gas service valves at the valve main bodies as illustrated on the right, and then fasten them, applying appropriate fastening torque.

Recommended length of a tool handle	150	200	250	300
Tightening angle (°)	45-60	30-45	30-45	15-20
Tightening torque (N·m) Tightening angle (°)	14-18	34-42	49-61	68-82
Service valve size (mm)	96.35	09.52	012.7	ø15.88

Do not hold the valve cap area with a spanner.

NOTE Select pipes having a wall thickness larger than the specified minimum pipe thickness.

3) Refrigerant pipe wall thickness and material

### 5) Air tightness test

- ① Although outdoor and indoor units themselves have been tested for air tightness at the factory, check the connecting pipes after the installation work for air tightness from the service valve's check joint equipped on the outdoor unit side. While conducting a test, keep the service valve's that all the time.
  a) Raise the pressure to 0.5 MPa, and then stop. Leave if for five minutes to see if the pressure drops.
  b) Then raises the pressure to 1.5 MPa, and stop. Leave if the rive more minutes to see if the pressure drops.
  c) Then raise the pressure to the specified level (4.15 MPa), and record the ambient temperature and the pressure.

- of If no pressure drop is observed with an installation pressurized to the specified level and left for about one day, it is acceptable. When the ambient temperature fall 1°C, the pressure also fall approximately 0.01 MPa. The pressure, if changed, should be compensated for.

  e) If a pressure drop is observed in checking e) and a) d), a leak exists somewhere. Find a leak by applying bubble test liquid to welded parts and flare joints and repair it. After
  - ② In conducting an air-tightness test, use nitrogen gas and pressurize the system with nitrogen gas from the gas side. Do not use a medium other than nitrogen gas under any circumstances repair, conduct an air-tightness test again.

Airtighteness test completed

<Work flow>

6) Evacuation

Vacuuming begins

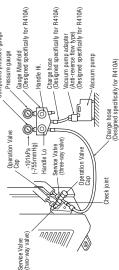
Vacuuming

inside or a feaky point, the vacuum gauge indicator will rise.
Check the system for a leaky point and then draw air to create a vacuum again. When the system has remaining moisture

Run the vacuum pump for at least one hour after the vacuum gauge shows -101kPa or lower. (-755mmHg or lower)

Confirm that the vacuum gauge indicator does not rise even if the system is left for one hour or more.

### ndoor unit Gas side service valve compound pressure gauge Check joint Outdoor unit



Securely tighten the operation valve cap and the check joint blind nut after adjustment.

Check joint blind nut tightening torque (N·m)	0	10-12
Service valve cap tightening torque (N·m)	20-30	30-40
Service valve size (mm)	ø6.35 (1/4")	ø15.88 (5/8")

- Under no circumstances must a gauge manifold and a charge hose in particular be shared with other refrigerant types (R22, R407C, etc.) ○To prevent a different oil from entering, assign dedicated tools, etc. to each refrigerant type.

Pay attention to the following points in addition to the above for the R410A and compatible machines.

Fill refrigerant gauge check

Vacuum

- OUse a counterflow prevention adapter to prevent vacuum pump oil from entering the refrigerant system
- 7) Additional refrigerant charge
- (1) Calculate a required refrigerant charge volume from the following table

Installation's pipe length (m) covered without additional refrigerant charge	15	8
Rerngerant volume cnarged for shipment at the factory (kg)	2.1	2.1
Additional charge volume (kg) per meter of refrigerant piping (liquid pipe ø6.35)	0.025	0.025
Indoor unit	FDT, FDE FDU, FDUM	FDF

■This unit contains factory charged refrigerant covering 15m/8m of refrigerant piping and additional refrigerant charge on the installation site is not required for an installation with up to 15m/8m refrigerant piping.
When refrigerant piping exceeds 15m/8m, additionally charge an amount calculated from the pipe length and the above If an existing pipe system is used, a required refrigerant charge volume will vary depending on the liquid pipe size.
 For further information, please see "5. UTILIZATION OF EXISTING PIPING." table for the portion in excess of 15m/8m.

doing so, care must be taken so that refrigerant may be discharged from the cylinder in the liquid phase all the time. When the cylinder valve is throttled down or a dedicated conversion tool to change liquid-phase

refrigerant into mist is used to protect the compressor, however, adjust charge conditions so that

refrigerant will gasify upon entering the unit.

charge refrigerant from the gas (suction) side service port, while running the unit in the cooling mode. In

difficult to charge a required amount, fully open the outdoor unit valves on both liquid and gas sides and cylinder upside down or using a refrigerant cylinder equipped with a siphon tube. ●Charge refrigerant always from the liquid side service port with the service valve shut. When you find it

Since R410A refrigerant must be charged in the liquid phase, you should charge it, keeping the container

(2) Charging refrigerant

NOTE Put down the refrigerant volume calculated from the pipe length onto the caution label attached on

the back side of the service panel.

In charging refrigerant, always charge a calculated volume by using a scale to measure the charge volume.
 When refrigerant is charged with the unit being run, complete a charge operation within 30 minutes.

Running the unit with an insufficient quantity of refrigerant for a long time can cause a compressor failure.

Additional charge volume (kg) = { Main length (m) - Factory charged volume} x 0.025 (kg/m) Formula to calculate the volume of additional refrigerant required

"When an additional charge volume calculation result is negative,

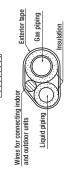
it is not necessary to charge refrigerant additionally.

• For an installation measuring 15m/8m or shorter in pipe length, please charge the refrigerant volume charged for shipment at the actory, when you recharge refrigerant after servicing etc.

# 8) Heating and condensation prevention

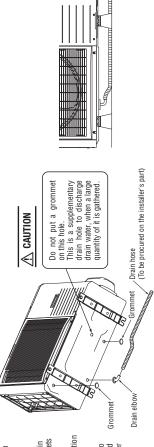
- (1) Dress refrigerant pipes (both gas and liquid pipes) for heat insulation and prevention of dew condensation
- (2) Use a heat insulating material that can withstand 120°C or a higher temperature. Poor heat insulating capacity can cause heat insulation problems or cable Improper heat insulation/anti-dew dressing can result in a water leak or dripping causing damage to household effects, etc.
- All gas pipes must be securely heat insulated in order to prevent damage from dripping water that comes from the condensation formed on them during a cooling operation or personal injury from burns because their surface can reach quite a high temperature due to discharged gas flowing inside during a heating operation.
  - Wrap indoor units' flare joints with heat insulating parts (pipe cover) for heat insulation (both gas and liquid pipes).
- Give heat insulation to both gas and liquid side pipes. Bundle a heat insulating material and a pipe tightly together so that no gaps may be left between them and wrap them
  - together with a connecting cable by a dressing tape.

    Both gas and liquid pipes need to be dressed with 20 mm or thicker heat insulation materials above the ceiling where relative humidity exceeds 70%.
- Pipe cover (accessory) Band (accessory)



# 3. DRAIN PIPING WORK

- Execute drain piping by using a drain elbow and drain grommets supplied separately as accessories, where water drained from the outdoor unit is a problem.
- Water may drip where there is a larger amount of drain water. Seal around the drain elbow and drain grommets with putty or adequate caulking material.
- Condensed water may flow out from vicinity of operation temperatures in a row, do not use a drain elbow and drain grommets. (There is a risk of drain water freezing inside and blocking the drain.) Where you are likely to have several days of sub-zero valve or connected pipes.



When condensed water needs to be led to a drain, etc., install the unit on

a flat base or concrete blocks.

(prepared on site)

Then, please secure space for the drain elbow and the drain hose.

Clearance

# For details of electrical cabling, refer to the indoor unit installation manual ELECTRICAL WIRING WORK

Electrical installation work must be executed according to the technical standards and other regulations applicable to electrical installations in the country. Electrical installation work must be performed by an electrical installation service provider qualified by a power provider of the country.

- Do not use any supply cord lighter than one specified in parentheses for each type below braided cord (code designation 60245 IEC 51),
  - ordinary tough rubber sheathed cord (code designation 60245 IEC 53)
  - flat twin tinsel cord (code designation 60227 IEC 41);
- Use polychloroprene sheathed flexible cord (code designation 60245 IEC57) for supply cords of parts of appliances for outdoor use. Ground the unit. Do not connect the grounding wire to a gas pipe, water pipe, lightning rod or telephone grounding wire.
  - If impropery grounded, an electric shock or malfunction may result.
- •A grounding wire must be connected before connecting the power cable. Provide a grounding wire longer than the power cable.
  •The installation of an impulse withstanding type earth leakage breaker is necessary. A failure to install an earth leakage breaker is necessary. A failure to install an earth leakage breaker can result in an acccident such as an electric shock or a fire.

Use cables for interconnection wiring to avoid loosening of the wires. CENELEC code for cables Required field cables.

H05RNR4G1.5 (Example) or 245IEC57

Harmonized cable type

300/500 volts

and then the run lamp turns on and the timer lamp blinks.

In case of faulty wiring connection, the indoor unit stops,

A CAUTION

- Do not turn on the power until the electrical work is completeted.
- Do not use a condensive capacitor for power factor improvement under any circumstances. (It dose not improve power factor, while it can cause
  - an abnormal overheat accident)
     For power source cables, use conduits.
- Do not lay electronic control cables (remote control and signaling wires) and other cables together outside the unit. Laying them together can result in the malfunctioning or a failure of the unit due to electric noises.
  - · Fasten cables so that may not touch the piping, etc.
- •When cables are connected, make sure that all electrical components within the electrical component box are free of loose connector coupling or terminal connection and then attach the cover securely. (Improper cover attachment can result in malfunctioning or a failure of the unit, if water penetrates into the box.)
  - Always use a three-core cable for an indoor-outdoor connecting cable. Never use a shield cable

Main fuse specification Power cable, indoor-outdoor connecting wires

|--|

One conductor of the cable is the earth conductor

Number of conductors Stranded core

Section of copper wire (mm<sup>2</sup>)

1.5

yellow/green)

Polychloroprene rubber conductors insulation Natural-and/or synth. rubber wire insulation

H 05 N N R 40r5

Always perform grounding system installation work with the power cable unplugged.

Always use an earth leakage circuit breaker designed for inverter circuits to prevent a faulty operation. **△** CAUTION

Outdoor unit

Switchgear or circuit breaker Earth leakage breaker (Harmonic resistant type)

It holds cables in place and protect the terminal

Power source terminal block

Cable clamp

This clamp is for the cable in the outside Please adjust it when not suitable

diameter 9-15mm.

connection from external force

Indoor unit

2/N 3 ±

2/N 3 N T

X Y Remote control

It holds cables in place and protect the terminal

connection from external force

Grounding terminal

Please be sure to carry out D-type (type III) grounding work.

In cabling, fasten cables securely with cable clamps so that no external force may work on terminal connections.
 Grounding terminals are provided in the control box.

Connect a pair bearing a common terminal number with an indoor-outdoor connecting wire.

		Switchgear	Switchgear or circuit breaker	Power source	Interconnecting and
Earl	Earth leakage breaker	Switch breaker	Over current protector rated capacity	(minimum)	grounding wires (minimum)
	20A,30mA, 0.1sec or less	30A	20A	2.5 mm <sup>2</sup>	1.5mm²×4

The specifications shown in the above table are for units without heaters. For units with heaters, refer to

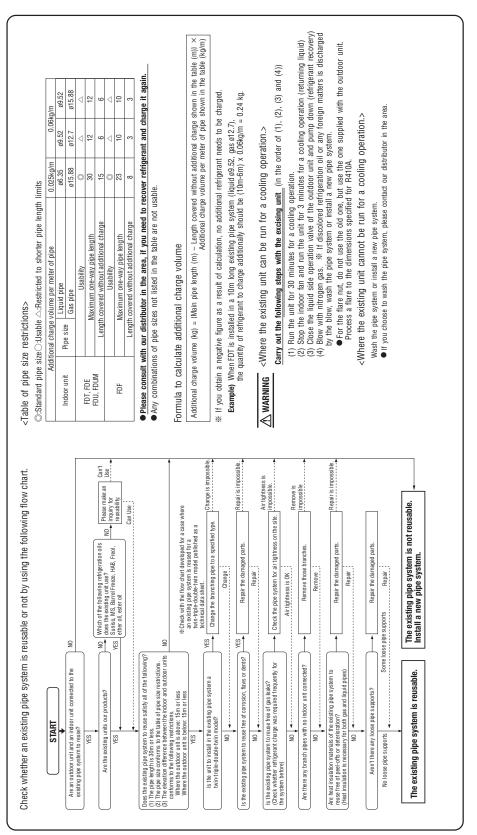
the installation instructions or the construction instructions of the indoor unit.

Switchgear or circuit breaker capacity which is calculated from MAX. over current should be chosen along the regulations in each country.

And cable specifications are based on the assumption that a metal or p lastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation in effect in each country.

### **-** 494 **-**

# 5. UTILIZATION OF EXISTING PIPING



# INSTALLATION TEST CHECK POINTS

Check the following points again after completion of the installation, and before turning on the power. Conduct a test run again and ensure that the unit operates properly. Explain to the customer how to use the unit and how to take care of the unit following the instruction manual.

0
-
=
a
=
Œ
تن
တ
_
-
æ
盂
=
-

The power source voltage is correct as the rating. The drain hose is fixed securely.	The reverse flow check cap is attached.  The cover of the pipe cover (A) faces downwar
Service valve is fully open.	Gaps are properly sealed between the pipe cox
No gas leaks from the joints of the service valve and joint.	The screw of the side cover is tightened securely

Power cables and connecting wires are securely fixed to the terminal block.

Gaps are properly sealed between the pipe covers (A) (B) and the wall surface / pipes.

The cover of the pipe cover (A) faces downward to prevent rain from entering.

The pipe joints for indoor and outdoor pipes have been insulated.



# R410A REFRIGERANT USED

This installation manual deals with outdoor units and general installation specifications only. For indoor units, refer to page 122.
While install the unit, be sure to check the selection of installation place, power source specifications, usage limitation (piping length, height differences between indoor and outdoor units, power source voltage etc.) and installation spaces.

# SAFETY PRECAUTIONS

be taken by qualified installer.

• Keep the installation manual together with owner's manual at a place where any user can read at any time. Moreover if necessary, ask to hand them to a new user. Before installation, read the "SAFETY PRECAUTIONS" carefully and strictly follow it during the installation work in order to protect yourself.

The precautionary items mentioned below are distinguished into two levels, A WARNING and A CAUTION. : Wrong installation might cause serious consequences depending on circumstances. :Wrong installation would cause serious consequences such as injuries or death. CAUTION

Be sure to confirm no anomaly on the equipment by commissioning after completing installation and explain the operating methods as well as the maintenance methods of this equipment to the user according to the Both mention the important items to protect your health and safety so strictly follow them by any means.

owner's manual

 Before starting the installation work, proper precautions (using suitable protective clothing, groves etc.) should Pay attention not to fall down the tools, etc. when installing the unit at the high position · If unusual noise can be heard during operation, consult the dealer. The meanings of "Marks" used here are shown as follows:

Never do it under any cir cumstances.

Always do it accor ding to the instruction

### WARNING

connection of refrigerant piping work, air can be sucked into refrigerant circuit, which can cause bust or personal injury due to anomalously high pressure in the refrigerant. If you install the system by yourself, it may cause serious trouble such as water leaks, electric shocks, fire and personal injury, as a result of a system malfunction. Do not carry out the

accordance with "the norm for electrical work" and "national wiring regulation", and the system must be connected to the dedicated circuit.

Power source with insufficient capacity and incorrect function done by improper work can The electrical installation must be carried out by the qualified electrician in cause electric shocks and fire. Incorrect installation may cause bursts, personal injury, water leaks, electric shocks and fire.

 Be sure to use the cables conformed to safety standard and cable ampacity for Failure to shut off the power can cause electric shocks, unit failure or incorrect function of equipment.

Be sure to shut off the power before starting electrical work.

If the earth leakage breaker is not installed, it can cause electric shocks.

• In on or perform any change of protective device faste for its setup condition.

• In lorded operation by short-directling protective device of pressure switch and temperature.

Be sure to wear protective goggles and gloves while at work.
 Earth leakage breaker must be installed.

shocks, fire.

**qualified installer.** If you install the system by yourself, it can cause serious trouble such as water leaks, electric

Only use prescribed option parts. The installation must be carried out by the

abnormal high pressure in the cooling cycle.

If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to

· This appliance must be connected to main power source by means of a circuit **power distribution work.** Unconformable cables can cause electric leak, anomalous heat production or fire. system, otherwise lack of oxygen can occur, which can cause serious accident. **Use the original accessories and the specified components for installation.**If parts other than those prescribed by us are used, It may cause water leaks, electric shocks,

breaker or switch (fuse: 30A) with a contact separation of at least 3mm.

• Arrange the wiring in the control box so that it cannot be pushed up further into

Unsuitable installation locations can cause the unit to fall resulting in material damage and

Install the unit in a location with good support.

If the density of refrigerant exceeds the limit, consult the dealer and install the ventilation

When installing in small rooms, take prevention measures not to exceed the

Install the system in full accordance with the installation manual.

nstallation and maintenance work except the by qualified installer.

· Installation must be carried out by the qualified installer.

density limit of refrigerant in the event of leakage, referred by the formula (accordance with ISO5149).

Unsuitable installation locations can cause the unit to fall and cause material damage and

and strong winds. personal injury.

personal injury.

Ventilate the working area well in the event of refrigerant leakage during

installation.

Ensure the unit is stable when installed, so that it can withstand earthquakes

Incorrect installation may result in overheating and fire.

• Use the prescribed cables for electrical connection, tighten the cables securely in terminal block and relieve the cables correctly to prevent the box. Install the service panel correctly. overloading the terminal blocks.

An improper manner of portage such as 3-point support can cause death or serious personal

injury due to falling of the unit.

• Do not perform brazing work in the airtight room

It can cause lack of oxygen

Loose flare connection or damage on the flare part by tightening with excess torque can Tighten the flare nut by using double spanners and torque wrench according to

cause burst or refrigerant leaks which may result in lack of oxygen.

• Consult the dealer or an expert regarding removal of the unit. Incorrect installation can cause water leaks, electric shocks or fire.

prescribed method. Be sure not to tighten the flare nut too much.

weight in lifting for portage. And to avoid jolting out of alignment, be sure to hang up the unit at 4-point support.

Hang up the unit at the specified points with ropes which can support the

If refrigerant leaks into the room and comes into contact with an oven or other hot surface, poisonous gas is produced.

After completed installation, check that no refrigerant leaks from the system

controller or the use of non specified component can cause fire or burst

 Be sure to switch off the power source in the event of installation, inspection Loose connections or cable mountings can cause anomalous heat production or fire. Incorrect fixing can cause electric shocks or fire due to intrusion of dust or water. Be sure to fix up the service panels. If the refrigerant comes into contact with naked flames, poisonous gas is produced,

• **Use the prescribed pipes, flare nuts and tools for R410A.**Using existing parts (for R22 or R407C) can cause the unit failure and serious accidents due

If the power source is not shut off, there is a risk of electric shocks, unit failure or personal injury due to the unexpected start of fan.

Stop the compressor before removing the pipe after shutting the service or servicing.

valve on pump down work.

Do not bundle or wind or process the power cord. Do not deform the power

Do not perform any repairs or modifications by yourself. Consult the dealer if the unit requires repair.
 the unit requires repair.
 the control is the control in t

If the compressor is operated in state of opening service valves before completing refrigerant piping work, air tightness test and evacuation.

Ensure that no air enters in the refrigerant circuit when the unit is installed and

Do not open the service valves for liquid line and gas line until completed

to burst of the refrigerant circuit.

Do not process or splice the power cond, or share the socket with other power plugs.
 This may cause fire or electric shock due to defecting contact, defecting insulation and over-current etc.

high, which can cause burst and personal injury.

 Do not run the unit with removed panels or protections.
 Touching rotating equipments, hot surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric shocks. **cord by treading it.** This may cause fire or heating. If air enters in the refrigerant circuit, the pressure in the refrigerant circuit becomes too

### CAUTION

• Carry out the electrical work for ground lead with care.

Do not connect the ground lead to the gas line, water line, lighthing conductor or telephone lines ground lead. Incorrect grounding can cause unit faults such as electric shocks due to short-circuiting. Never connect the grounding wire to a gas pipe because if gas leaks, if could cause explosion or ignition.

### Use the circuit breaker for all pole correct capacity. Circuit breaker should be able to disconnect all poles under over current.

Install isolator or disconnect switch on the power source wiring in the incorrect circuit breaker, it can cause the unit malfunction and fire. accordance with the local codes and regulations.

 After maintenance, all wiring, wiring ties and the like, should be returned to their original state and wiring route, and the necessary clearance from all The isolator should be locked in OFF state in accordance with EN60204-1. metal parts should be secured.

Insufficient space can result in accident such as personal injury due to falling from the Secure a space for installation, inspection and maintenance specified in

 Pay attention not to damage the drain pan by weld spatter when welding If the unit weights more than 20kg, it must be carried by two or more persons. Do not carry by the plastic straps, always use the carry handle when carrying the unit by hand. Use gloves to minimize the risk of cuts by the aluminum fins. Dispose of any packing materials correctly. Take care when carrying the unit by hand.

If weld spatter entered into the indoor unit during welding work, it can cause pin-hole in drain pan and result in water leakage. To prevent such damage, keep the indoor unit

work is done near the indoor unit.

Be sure to perform air tightness test by pressurizing with nitrogen gas after

completed refrigerant piping work.

in its packing or cover it.

If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the

wood. And to avoid danger of suffocation, be sure to keep the plastic wrapper away from children and to dispose after tear it up. Be sure to insulate the refrigerant pipes so as not to condense the

Any remaining packing materials can cause personal injury as it contains nails and

small room, lack of oxygen can occur, which can cause serious accidents. Insufficient insulation can cause condensation, which can lead to moisture damage

Perform installation work properly according to this installation manual.

Improper installation can cause abnormal vibrations or increased noise generation.

**due to long periods of operation.** Using an old and damage base flame can cause the unit falling down and cause personal injury.

Connecting the circuit with copper wire or other metal thread can cause unit failure Do not use any materials other than a fuse with the correct rating in the Do not touch any buttons with wet hands. location where fuses are to be used.

Locations where an equipment affected by high harmonics is placed (TV set or radio receiver is placed within 5m).

Do not install the unit near the location where leakage of combustible

It can affect surrounding environment and cause a claim.

Locations where drainage cannot run off safely

fleaked gases accumulate around the unit, it can cause fire.

gases can occur.

collect, or where volatile combustible substances are handled.

combustible gas (such as thinner and

Locations where vibration and operation sound generated by the outdoor unit can

affect seriously (on the wall or at the place near bed room)

Locations where vibration can be amplified and transmitted due to insufficient

on the ceiling, floor, furniture and any other valuables The outlet air can affect adversely to the plant etc.

ambient air moisture on them.

 Do not touch any refrigerant pipes with your hands when the system is in t can cause electric shocks operation.

depending the operating condition, and it can cause burn injury or frost injury.

• Do not touch the suction or aluminum fin on the outdoor unit. During operation the refrigerant pipes become extremely hot or extremely cold Do not install the unit where corrosive gas (such as sulfurous acid gas etc.) or

 Do not put anything on the outdoor unit and operating unit. i'his may cause injury Corrosive gas can cause corrosion of heat exchanger, breakage of plastic parts and petroleum gases) can accumulate or

This may cause damage the objects or injury due to falling to the object.

• Do not use the unit for special purposes such as storing foods, cooling When the outdoor unit is installed on a roof or a high place, provide precision instruments and preservation of animals, plants or art. Do not clean up the unit with water. Equipment such as inverters, standby generators, medical high frequency equipments and telecommunication equipments can affect the system, and cause malfunctions and etc. And combustible gas can cause fire.

• Do not install nor use the system close to the equipment that generates

If safety facilities are not provided, it can cause personal injury due to falling from the handrails around the outdoor unit.

permanent ladders and handrails along the access route and fences and

breakdowns. The system can also affect medical equipment and telecommunication

equipment, and obstruct its function or cause jamming

electromagnetic fields or high frequency harmonics.

Insects and small animals can enter the electric parts and cause damage or fire. Do not install the outdoor unit in a location where insects and small

animals can inhabit.

You may incur injury from a drop or fall. Do not step onto the outdoor unit.

### (Used when flare is made by using conventional flare tool) 5 Gas leak detector (Designed specifically for R410A) 12 Gauge manifold (Designed specifically for R410A) 4 Flaring tool set (Designed specifically for R410A) Vacuum pump adapter (Anti-reverse flow type) 3 Charge hose (Designed specifically for R410A) (Designed specifically for R410A) Gauge for projection adjustment | Wrench key (Hexagon) [4m/m] 16 Necessary tools for the installation work Spanner wrench Torque wrench [14.0-82.0N·m (1.4-8.2kgf·m)] Hole core drill (65mm in diameter) Plus headed driver Tape measure Hammer Knife Saw Q'ty Piping cover(for insulation of connection piping) Locally procured parts Orain hose (extension hose)

### nstallation place.

Do not install the unit in the locations listed below.

Locations where carbon fiber, metal powder or any powder is floating.
 Locations where any substances that can affect the unit such as sulphide gas,

chloride gas, acid and alkaline can occur. Vehicles and ships.

 Locations where cosmetic or special sprays are often used.
 Locations with direct exposure of oil mist and steam such as kitchen and machine plant.

 Locations where any machines which generate high frequency harmonics are used. Locations with heavy snow (if installed, be sure to provide base flame and snow Locations with salty atmospheres such as coastlines.

hood mentioned in the manual).

 Locations with ammonic atmospheres (e.g. organic fertilizer). Locations where the unit is exposed to chimney smoke. Locations at high altitude (more than 1000m high).

Locations with calcium chloride (e.g. snow melting agent)

 Locations with any obstacles which can prevent inlet and outlet air of the unit. Locations where heat radiation from other heat source can affect the unit. Locations without good air circulation.

 Locations where short circuit of air can occur (in case of multiple units installation). It can cause remarkable decrease in performance, corrosion and damage of Locations where strong air blows against the air outlet of outdoor unit. Locations where something located above the unit could fall.

Do not install the outdoor unit in the locations listed below. components, malfunction and fire.

 Locations where discharged hot air or operating sound of the outdoor unit can bother neighborhood.

Locations where outlet air of the outdoor unit blows directly to an animal or plants.

 Do not use the base flame for outdoor unit which is corroded or damaged Instruct the user to keep the surroundings clean.

### Check before installation work Model name and power source

Refrigerant piping length Piping, wiring and miscellaneous small p Indoor unit installation manual

Inclination plate

Sealing plate

Sleeve

parts

Q'ty Accessories for outdoor unit ) Edging

## Drain elbow Grommet

Note as a unit designed for R410A

• Do not use any refrigerant other than R410A. R410A will rise to pressure about 1.6 times higher than that of a conventional refrigerant.

 A unit designed for 7410A has adopted a different size indoor unit service valve charge port and a different size check joint provided in the unit to prevent the charging of a wrong refrigerant by mistake.
 The processed dimension of the flared part of a refrigerant pipe and a flare nut's parallel side measurement have also been aftered to raise strength against pressure.
 Accordingly, you are required to arrange dedicated R410A tools listed in the fable on the left before installing or servicing this unit.
 Do not use a charge cylinder. The use of a charge cylinder will cause the refrigerant composition to change, which results in performance degradation.
 In obtaging refrigerant, aways take it out from a cylinder in the liquid phase.
 All indoor units must be models designed exclusively for R410A. Check connectable indoor unit models in a catalog, etc. (A wrong indoor unit, if connected into the system, will impair proper system operation) A cylinder containing R410A has a pink indication mark on the top.

# Head the following the heating operation

• In the case when this unit has stopped for a long time, heating operation may start and operate in cooling mode by 7 minutes, after that, heating operation is started. This operation keep oil quality in compressor by preventing liquid refrigerant come into compressor. If that is the case, do not suspect a unit failure.
(In this case, remote control displays "DEFROST" or "In operation for defrosting".)

# . HAULAGE AND INSTALLATION (Take particular care in carrying in or moving the unit, and always perform such an operation with two or more persons.)

When a unit is hoisted with slings for haulage, take into consideration the offset of its gravity center position. If not properly balanced, the unit can be thrown off-balance and fall. **△CAUTION** 

Deliver the unit as close as possible to the installation site before removing it from

 When you have to unpack the unit for a compelling reason before you haul it to the installation point, hoist the unit with nylon slings or ropes and protection pads so that you may not damage the unit. the packaging.





# Attach heater on a base plate on site, if there is possibility to freeze drain water. In case that the product has a corrective drainage system, the drainage paths should have suitable measure against freezing but be sure not to melt the material of drainage paths with heat.

Strong wind can cause damage of fan (fan motor), or can cause performance degradation, or can trigger anomalous stop of the unit due to rising of high pressure. (2) If the unit can be affected by strong wind, following measures are required.

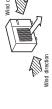
outlet air blow side of ection of wind. in a position

3.The unit should be installed on the stable and level foundation. If the foundation is not level, tie down the unit with wires.



Wind direction	Over 500 mm
to the dir	screen.
perpendic	provide a fence or a windbreak
the unit i	unit to face a wall of building, or
2.Install the	1.Install the outlet air blow side of the





ction
Wind direction
V
Linectio (



## 5) Installation space

acceptable.

Ħ 200

> 0pen 250

Open

controllers, provide a sufficient space between units so provide a 250mm or wider interval between them as a When more than one unit are installed side by side, service space. In order to facilitate servicing of

Where a danger of short-circuiting exists, install guide

intake space consciously so that short-circuiting may not When more than one unit are installed, provide sufficient

 A place where good air circulation can be secured, and enough service space can be secured for maintenance and service of the unit safely. • A place where the unit can be kept away 5m or more from TV set and/or radio receiver in order to avoid any

 A place where the unit will not be affected by electromagnetic waves and/or high-harmonic waves generated · A place where chemical substances like sulfuric gas, chloric gas, acid and alkali (including ammonia), which

• If a operation is conducted when the outdoor air temperature is -5 or lower, the outdoor unit should be

can harm the unit, will not be generated and not remain.

by other equipment.

installed at a place where it is not influenced by natural wind.

• A place where strong wind will not blow against the outlet air blow of the unit.

A place where stringent regulation of electric noises is not applicable.

Do not install the unit in places which exposed to sea breeze (e.g. coastal area) or calcium chloride (e.g. snow melting agent), exposed to ammonia substance (e.g. organic fertilizer).

(1) If the unit is installed in the area where the snow will accumulate, following measures are required.

The bottom plate of unit and intake, outlet may be blocked by snow.

Provide a snow hood to the outdoor unit on site.

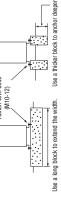
1.Install the unit on the base so that the bottom is higher than snow cover surface.

4) Caution about selection of installation location

Where piling snow can bury the outdoor unit, provide proper snow guards

### Open 100 250 The height of a wall is 1200mm or less 300 Intake 1 企業

### Fasten with bolts (M10-12) ② Notes for installation



 The protrusion of an anchor bolt on the front side must be kept within 15mm. In installing the unit, fix the unit's legs with bolts specified on the above.

Securely install the unit so that it does not fall over during earthquakes or strong winds, etc.

• Install the unit in a level area. (With a gradient of 5mm or less.) Improper installation can result in a compressor failure, broken piping within the unit and abnormal noise generation. · Refer to the above illustrations for information regarding concrete foundations.

# To run the unit for a cooling operation, when the outdoor temperature is -5°C or lower.

 When the outdoor air temperature is -5°C or lower, provide a snow hood to the outdoor unit on site.
 So that strong wind will not blow against the outdoor heat exchanger directly. Regarding outline of a snow hood, refer to our technical manual.

Walls surrounding the unit in the four sides are not

• A place where it can be free from possibility of bothering neighbors due to noise or exhaust air from the unit. • A place where it is horizontal, stable and can endure the unit weight and will not allow vibration transmittance

Be sure to select a suitable installation place in consideration of following conditions.

Selecting the installation location

ත

carrying the left hand side must hold with his right hand the handle provided on

Portage ล

the front panel of the unit and with his left hand the corner column section The right hand side of the unit as viewed from the front (Fan side) is heavier.
 person carrying the right hand side must take heed of this fact. A person

A place where drain water can be disposed without any trouble.
A place where the unit will not be affected by heat radiation from other heat source.

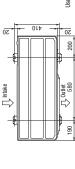
 A place where snow will not accumulate. TV set or radio receiver interference.

A place where the unit is not exposed to oil splashes.
 A place where it can be free from danger of flammable gas leakage.

 There must be a 1-meter or larger space in the above. that their top plates can be removed easily.

### 6) Installation

20 ∏ Intake (1) Anchor bolt fixed position



3.Install the unit under eaves or providen the roof on site.

Regarding outline of a snow hood, refer to our technical

Since drain water generated by defrost control may freeze, following measures are required.

• Don't execute drain piping work by using a drain elbow and drain grommets (optional parts). [Refer to Drain piping work.]

# 2. REFRIGERANT PIPING WORK

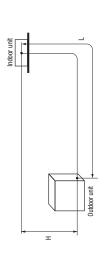
# 1) Restrictions on unit installation and use

- Check the following points in light of the indoor unit specifications and the installation site.
   Observe the following restrictions on unit installation and use. Improper installation can result in a compressor failure or performance degradation.

Rest Main pi	Elevation difference between indoor and outdoor units	Restrictions Marks appearing in the drawing on the right	Main pipe length 30m or less L	When the outdoor unit is positioned higher, 20m or less	When the outdoor unit is positioned lower, 20m or less H
-----------------	-------------------------------------------------------	----------------------------------------------------------	--------------------------------	---------------------------------------------------------	----------------------------------------------------------

**○ CAUTION** 

The use restrictions appearing in the table above are applicable to the standard pipe size combinations shown in the table below.
 Where an existing pipe system is utilized, different one-way pipe length restrictions should apply depending on its pipe size.
 For more information, see "5. UTILIZATION OF EXISTING PIPING."



Secondary side

Primary side

Taping -

Brazing must be performed under a nitrogen gas flow. Without nitrogen gas, a large quantity of foreign matters (oxidized film) are created, causing a critical failure from

перочій

capillary tube or expansion valve clogging.

# 2) Determination of pipe size

on the indoor unit specifications.

Determine refrigerant pipe size according to the following guidelines based

Liquid pipe	ø9.52 Flare	99.55	ø9.52
Gas pipe	ø15.8 Flare	ø15.8	015.8
	Outdoor unit connected	Refrigerant piping (branch pipe L)	Indoor unit connected

# 3) Refrigerant pipe wall thickness and material

- Select refrigerant pipes of the table shown on the right wall thickness and material as specified for each pipe size.
- NOTE Select pipes having a wall thickness larger than the specified minimum pipe thickness.

### 0-type pipe ø15.88 1.0 0-type pipe 09.52 0.8 Minimum pipe wall thickness [mm] Pipe diameter [mm]

\*Phosphorus deoxidized seamless copper pipe ICS 23.040.15, ICS 77.150.30

### 4) On-site piping work

**♠** IMPORTANT

First remove the five screws (X mark) of the service panel and push it down into If pipes touch internal components , abnormal sounds and/or vibrations. Take care so that installed pipes may not touch components within a unit.

the direction of the arrow mark and then remove it by pulling it toward you. Remove a knock-out plate provided on the pipe penetration to open a minimum necessary area and attach an edging material supplied as an accessory by cutting it to an appropriate length • The pipe can be laid in any of the following directions: side right, front, rear and downward. How to remove the side cover

- before laying a pipe.
- Carry out the on site piping work with the service valve fully closed.
   Give sufficient protection to a pipe end (compressed and blazed, or with an adhesive tape) so that water or foreign matters may not enter the piping.
- Flare connection is used between the unit and refrigerant pipe. Flare a pipe after engaging a flare nut onto it. Flare dimensions for R410A are different from those for conventional R407C. Although we recommend the use of flaring tools designed specifically for R410A, conventional flaring tools can also be used by adjusting the measurement of protrusion B with a protrusion control gauge. correct its form.

• Bend a pipe to a radius as large as practical (R100-R150). Do not bend a pipe repeatedly to

The pipe should be anchored every 1.5m or less to isolate the vibration. Tighten the flare joint securely with a double spanner. Do not hold the valve cap area with a spanner

Use a torque wrench. If a torque wrench is not available, fasten the flare nut manually first and then tighten it further, using the left table as a guide.

With a conventional tool 1.0 - 1.5

With an R410A tool

Copper pipe outer diameter

o \$ 013.2 19.7

Copper pipe outer diameter

09.52 ø15.88

Flared pipe end : A

0-0.5

ø15.88 09.52

In the case of a rigid (clutch) type

Sopper pipe protrusion for flaring: B

(For knock-out hole protection)

For rear connection For side right connection

For front connection

# Do not apply force beyond proper fastening torque in tightening the flare nut.

**△** CAUTION

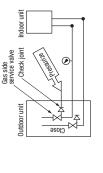
Tightening angle ( °) Recommended length of a tool handle (mm) 30—45 200 Fix both liquid and gas service valves at the valve main bodies as illustrated on the right, and then fasten them, Tightening torque (N ·m) 68-82 applying appropriate fastening torque. Service valve size (mm) ø15.88 (5/8") ø9.52 (3/8")

300 15-20

### 5) Air tightness test

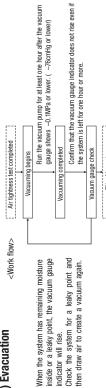
- ① Although outdoor and indoor units themselves have been tested for air tightness at the factory, check the connecting pipes after the installation work for air tightness from the service valve's check joint equipped on the outdoor unit side. While conducting a test, keep the service valve shut all the time.
  - b) Then raise the pressure to 1.5MPa, and stop. Leave it for five more minutes to see if the pressure drops. a) Raise the pressure to 0.5MPa, and then stop. Leave it for five minutes to see if the pressure drops.
- c) Then raise the pressure to the specified level (4.15MPa), and record the ambient temperature and the pressure.
- o) If no pressure drop is observed with an installation pressurated to the specified level and left for about one day, it is acceptable. When the ambient temperature fall 1°C, the pressure also fall approximately 0.01MPa. The pressure, if changed, should be compensated for.
  - e) If a pressure drop is observed in checking e) and a) d), a leak exists somewhere. Find a leak by applying bubble test liquid to welded parts and flare joints and repair it. After repair, conduct an air tightness test again.

② in conducting an air tightness test, use nitrogen gas and pressurize the system with nitrogen gas from the gas side. Do not use a medium other than nitrogen gas under any circumstances.



Compound pressure gauge Pressure gauge Cauge manifold (Designed specifically for R410A) (Designed specifically for R410A) (Designed specifically for R410A) (Vacuum pump (Designed specifically for R410A) (Vacuum pump	ut after adj ustment.	Check joint blind nut	tightening torque (N·m)	10-13	21 _ 01
-0.1MPa -0.00 Handle Lo Oldenthy Charge hase Charge hase (Designed specifically for R410).	Securely tighten the service valve cap and the check joint blind nut after adj	Service valve cap	tightening torque (N·m)	20-30	30-40
Grack joint (Liquid sub) Service valve cap Service valve cap	Securely tighten the service valv	Service valve size	(mm)	ø9.52 (3/8")	015.88 (5/8")
(Liqu					

### 6) Evacuation



# To prevent a different oil from entering, use dedicated tools, etc. to each refrigerant type. Under no circumstances must a gauge manifold and a charge hose in particular be shared with other refrigerant types (R22, R407C, etc.). Use a counterflow prevention adapter to prevent vacuum pump oil from entering the refrigerant system. Pay attention to the following points in addition to the above for the R410A and compatible machines.

Fill refrigerant

# 7) Additional refrigerant charge

(1) Calculate a required refrigerant charge volume from the following table

Additional charge volume (g)	Refrigerant volume charged	Installation 's pipe length (m)
per meter of refrigerant piping	for shipment at the factory	covered without additional
(liquid pipe ø9.52)	(kg)	refrigerant charge
90	2.55	15

 Since R410A refrigerant must be charged in the liquid phase, you should charge it keeping the container Charge refrigerant always from the liquid side service port with the service valve shut. When you find it charge refrigerant from the gas (suction) side service port, while running the unit in the cooling mode. In doing so, care must be taken so that refrigerant may be discharged from the cylinder in the liquid phase phase refrigerant into mist is used to protect the compressor, however, adjust charge conditions so that

Charging refrigerant

cylinder upside down or using a refrigerant cylinder equipped with a siphon tube

difficult to charge a required amount, fully open the outdoor unit valves on both liquid and gas sides and

all the time. When the cylinder valve is throttled down or a dedicated conversion tool to change liquid

In charging refrigerant, always charge a calculated volume by using a scale to measure the charge When refrigerant is charged with the unit being run, complete a charge operation within 30minutes

refrigerant will gasify upon entering the unit.

- This unit contains factory charged refrigerant covering 15m of refrigerant piping and additional refrigerant charge on When refrigerant piping exceeds 15m, additionally charge an amount calculated from the pipe length and the above table for the portion in excess of 15m. the installation site is not required for an installation with up to 15m refrigerant piping
- If an existing pipe system is used, required refrigerant charge volume will vary depending on the liquid pipe size. For further information, see "5. UTILIZATION OF EXISTING PIPING.
  - Formula to calculate the volume of additional refrigerant required

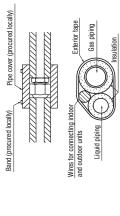
- Factory charged volume 15 (m) } x 60 (g/m) Additional charge volume (g) = { Main length (m)

Running the unit with an insufficient quantity of refrigerant for a long time ca n cause a compressor failure.

Put down the refrigerant volume calculated from the pipe length onto the caution label attached

- \* When an additional charge volume calculation result is negative, it is not necessary to charge refrigerant additionally. For an installation measuring 15m or shorter in pipe length, charge the refrigerant volume charged for shipment at the factory, when you recharge refrigerant after servicing etc.
- 8) Heating and condensation prevention

- (1) Dress refrigerant pipes (both gas and liquid pipes) for heat insulation and prevention of dew condensation.
- (2)Use a heat insulating material that can withstand 120°C or a higher temperature. Poor heat insulating capacity can cause heat insulation problems or cable · Improper heat insulation/anti-dew dressing can result in a water leak or dripping causing damage to household effects, etc.
- operation or personal injury from burns because their surface can reach quite a high temperature due to discharged gas flowing inside during a heating operation. • All gas pipes must be securely heat insulated in order to prevent damage from dripping water that comes from the condensation formed on them during a cooling
- Give heat insulation to both gas and liquid side pipes. Bundle a heat insulating material and a pipe tightly together so that no gaps may be left between them and Wrap indoor units' flare joints with heat insulating parts (pipe cover) for heat insulation (both gas and liquid pipes).
- Both gas and liquid pipes need to be dressed with 20mm or thicker heat insulation materials above the ceiling where relative humidity exceeds 70% wrap them together with a connecting cable by a dressing tape.



# 3. DRAIN PIPING WORK

- Execute drain piping by using a drain elbow and drain grommets supplied separately
  as accessories, where water drained from the outdoor unit is a problem.
- Water may drip where there is a larger amount of drain water. Seal around the drain
- elbow and drain grommets with putty or adequate caulking material.
- use a drain elbow and drain grommets. (There is a risk of drain water freezing inside Where you are likely to have several days of sub-zero temperatures in a row, do not Condensed water may flow out from vicinity of service valve or connected pipes.
- Do not use drain elbow and grommet made of plastic for drain piping when base heater for outdoor unit is used. Plastic grommet and elbow will be damaged and burnt in worst case.

and blocking the drain.)

Prepare another drain tray made of metallic material for collecting drain when base heater is used.

### Clearance · When condensed water needs to be led to a drain, etc., install the unit on a flat base (supplied separately as a locally procured part) or Then, secure space for the drain elbow and the drain hose. (Grommet, Drain elbow and Drain hose are procured on the installer's part) concrete blocks. - Drain hose Drain elbow Grommet

# ELECTRICAL WIRING WORK

For details of electrical cabling, refer to the indoor unit installation manual.

In case of faulty wiring connection, indoor unit dose not operate. Then, run lamp turns on and timer lamp blinks. Use cables for interconnection wiring to avoid loosening of the

and other cables together outside the unit. Laying them together can result in the malfunctioning or a failure of the unit due to electric noises. Do not lay electronic control cables (remote control and signaling wires) Electrical installation work must be performed by an electrical installation service provider qualified by a power provider of the country. Electrical installation work must be executed according to the technical standards and other regulations applicable to electrical installations in the country. Do not use any power cable lighter than one specified in parentheses for each type below.

- braided cord (code designation 60245 IEC 51)
- ordinary tough rubber sheathed cord (code designation 60245 IEC 53)
- flat twin tinsel cord (code designation 60227 IEC 41)
- · Ground the unit. Do not connect the grounding wire to a gas pipe, water pipe, lightning rod Use polychloroprene sheathed flexible cord (code designation 60245 IEC57) for power cables of parts of appliances for outdoor use.
  - f improperly grounded, an electric shock or malfunction may result. or telephone grounding wire.
- grounding wire longer than the power cable.

  The installation of an impulse withstanding type earth leakage breaker is necessary. A grounding wire must be connected before connecting the power cable. Provide a
- A failure to install an earth leakage breaker can result in an accident such as an electric shock or a fire.
- Do not turn on the power until the electrical work is completed.
   Do not use a condensive capacitor for power factor improvement under any circumstances.
   (It dose not improve power factor, while it can cause an abnormal overheat accident)

For power cables, use conduits.

force may work on terminal connections.

indoor-outdoor connecting wire.

Section of copper wire (mm (yellow/green) Main fuse specification 5. · In cabling, fasten cables securely with cable clamps so that no external Connect a pair bearing a common terminal number with an

One conductor of the cable is the earth conductor

Number of conductors

4or5

Stranded core

Polychloroprene rubber conductors insulation

Natural-and/or synth. rubber wire insulation

wires. CENELEC code for cables Required field cables.

H05RNR4G1.5 (Example) or 245IEC57

Harmonized cable type

300/500 volts

ж 23 ж

within the electrical component box are free of loose connector coupling

 When cables are connected, make sure that all electrical components or terminal connection and then attach the cover securely. (Improper

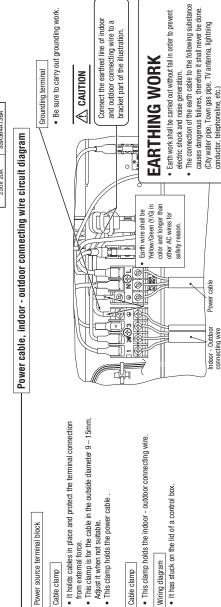
Fasten the cables so that those may not touch the piping, etc.

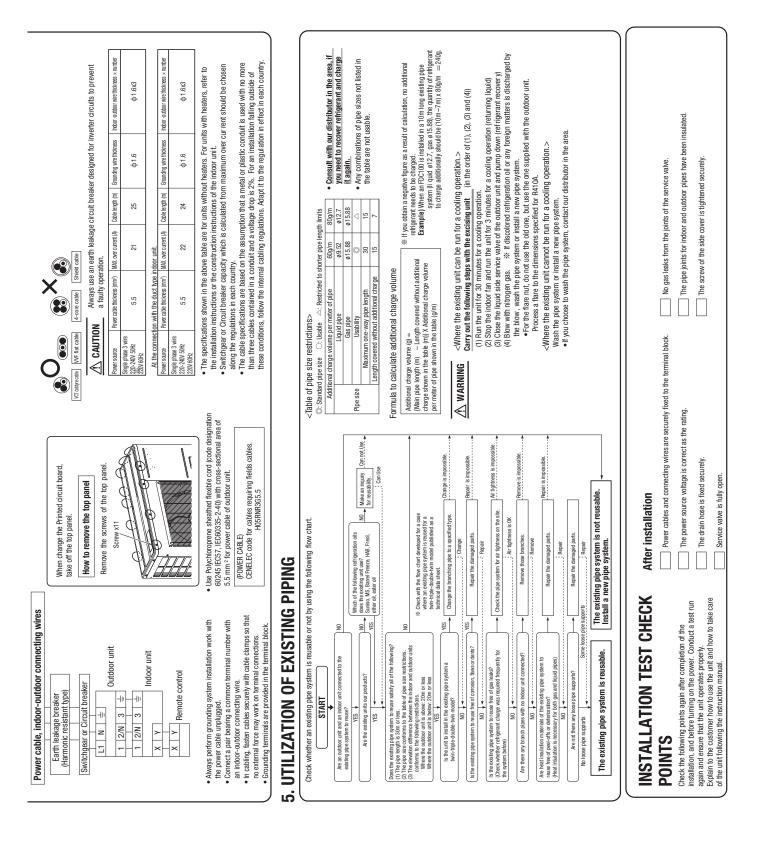
cover attachment can result in malfunctioning or a failure of the unit, if

water penetrates into the box.) Never use a shield cable Never use a shield cable.

Always use a three-core cable for an indoor-outdoor connecting cable.

SSA564A136A Part No. Specification 250V 20A





### **3.11 TECHNICAL INFORMATION**

### (1) Ceiling suspended type (FDE)

FDE71VNPVG

FDE71VNPVG Information to identify the mod Indoor unit model name	del(s) to which the information relates to	If function includes heating: Indicate the information relates to. Indicated values		
Outdoor unit model name	FDC71VNP	heating season at a time. Include at le		erage'.
Function(indicate if present)		Average(mandatory)	Yes	
cooling	Yes	Warmer(if designated)	No	
heating	Yes	Colder(if designated)	No	
Item	symbol value unit	Item	symbol value o	class
Design load	Symbol value unit	Seasonal efficiency and energy efficie		лазэ
cooling	Pdesignc 7.1 kW	cooling	SEER <b>6.35</b>	A++
heating / Average	Pdesignh 5.8 kW	heating / Average	SCOP/A <b>4.22</b>	A+
heating / Warmer	Pdesignh – kW	heating / Warmer	SCOP/W -	
heating / Colder	Pdesignh – kW	heating / Colder	SCOP/C -	unit
Declared capacity at outdoor t	emperature Tdesignh	Back up heating capacity at outdoor to		arnı
heating / Average (-10°C)	Pdh <b>5.8</b> kW	heating / Average (-10°C)		ίW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu – k	(W
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu – k	(W
Doclared capacity for cooling	at indoor temperature 27(19)°C and	Declared energy efficiency ratio, at inc	loor tomporature 27/10\°C s	and
outdoor temperature Tj	at indoor temperature 21 (19) C allu	outdoor temperature Tj	ioor temperature 21 (18) C a	ai IU
Tj=35°C	Pdc <b>7.10</b> kW	Tj=35°C	EERd <b>2.84</b> -	
Tj=30°C	Pdc <b>5.23</b> kW	Tj=30°C	EERd <b>4.43</b> -	
Tj=25°C	Pdc <b>3.37</b> kW	Tj=25°C	EERd <b>7.49</b> -	
Tj=20°C	Pdc   <b>1.55</b>  kW	Tj=20°C	EERd <b>15.50</b> -	
Declared capacity for heating	/ Average season, at indoor	Declared coefficient of performance / /	Average season, at indoor	
temperature 20°C and outdoor		temperature 20°C and outdoor temper		
Tj=-7℃	Pdh <b>5.13</b> kW	Tj=-7°C	COPd <b>2.73</b> -	
Tj=2°C	Pdh 3.12 kW	Tj=2°C	COPd 4.27 -	
Tj=7°C	Pdh <b>2.01</b> kW Pdh <b>1.02</b> kW	Tj=7°C	COPd <b>5.15</b> - COPd <b>5.96</b> -	
Tj=12°C Tj=bivalent temperature	Pdh <b>1.02</b> kW Pdh <b>5.80</b> kW	Tj=12°C Tj=bivalent temperature	COPd 5.96 - COPd 2.28 -	
Tj=operating limit	Pdh <b>5.17</b> kW	Tj=operating limit	COPd 2.26 -	
, i J				
Declared capacity for heating		Declared coefficient of performance / \		
emperature 20°C and outdoor Tj=2°C	Pdh - kW	temperature 20°C and outdoor temper	COPd	
Tj=7°C	Pdh – kW	Ti=7°C	COPd -	
Tj=12°C	Pdh - kW	Tj=12°C	COPd -	
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd	
Declared capacity for heating plemperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=7°C		Declared coefficient of performance / ( temperature 20°C and outdoor temper Tj=-7°C Tj=2°C Tj=7°C		
Tj=12℃	Pdh – kW	Tj=12°C	COPd	
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd – -	
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd – -	
Tj=-15°C	Pdh	Tj=-15°C	COPd	
Bivalent temperature		Operating limit temperature		
heating / Average	Tbiv -10 °C	heating / Average		C
heating / Warmer	Tbiv — °C	heating / Warmer		C
heating / Colder	Tbiv − °C	heating / Colder	Tol – °	C
Cycling interval capacity		Cycling interval efficiency		
for cooling	Pcycc – kW	for cooling	EERcyc	
for heating	Pcych – kW	for heating	COPcyc – -	
Degradation coefficient		Degradation coefficient		
cooling	Cdc <b>0.25</b> -	heating	Cdh <b>0.25</b> -	
Electric power input in power r off mode	modes other than 'active mode' Poff 9 W	Annual electricity consumption cooling	Qce <b>392</b> k	(Wh/a
standby mode	Psb 9 W	heating / Average		(Wh/a
thermostat-off mode	Pto 20 W	heating / Warmer		(Wh/a
crankcase heater mode	Pck 0 W	heating / colder		(Wh/a
Canacity control/indit	of three entions	Other items		
Capacity control(indicate one	or triree options)	Other items Sound power level(indoor)	Lwa 60 d	dB(A)
		Sound power level(indoor)		iB(A)
fixed	No	Global warming potential		gCO <sub>2</sub> €
	No	Rated air flow(indoor)		n <sup>3</sup> /h
staged variable	Yes	Rated air flow(indoor) Rated air flow(outdoor)		n /n n³/h
vailabic	162	Nated all HOW(OutdOOL)	- Z,100	11 /11
Contact details for obtaining more information	Name and address of the ma Mitsubishi Heavy Industries Air-Con 5 The Square, Stockley Park, Uxbrid United Kingdom		tive.	
			DEA0043	7080 A
		503 -	PFA004Z	LUOU 🗚

FDE90VNP1VG					
Information to identify the model(s) to		If function includes heating: Indicate the h			
Indoor unit model name	FDE100VG	information relates to. Indicated values sh			
Outdoor unit model name	FDC90VNP1	heating season at a time. Include at least	the heating	season 'A	verage'.
Function/indicate if present)		1 (0.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Vaa		
Function(indicate if present)	Voc	Average(mandatory)	Yes No		
cooling heating	Yes Yes	Warmer(if designated)   Colder(if designated)	No		
Heating	163	Colder(ii designated)	140		
Item	symbol value unit	Item	symbol	value	class
Design load	-,	Seasonal efficiency and energy efficiency			
cooling	Pdesignc 9.0 kW	cooling	SEER	6.63	A++
heating / Average	Pdesignh 8.2 kW	heating / Average	SCOP/A	4.25	A+
heating / Warmer	Pdesignh – kW	heating / Warmer	SCOP/W	_	_
heating / Colder	Pdesignh – kW	heating / Colder	SCOP/C	_	_
		1 -			unit
Declared capacity at outdoor temperat		Back up heating capacity at outdoor temp			TLAN
heating / Average (-10°C)	Pdh 8.2 kW	heating / Average (-10°C)	elbu	0	kW
heating / Warmer (2°C) heating / Colder (-22°C)	Pdh – kW Pdh – kW	heating / Warmer (2°C) heating / Colder (-22°C)	elbu elbu		kW kW
rieating / Colder (-22 C)	Full — KVV	fleating / Colder (-22 C)	CIDU		IV V V
Declared capacity for cooling, at indoo	r temperature 27/19\°C and	Declared energy efficiency ratio, at indoor	temneratu	re 27/19\°C	and:
outdoor temperature Tj	r temperatare 27 (10) e ana	outdoor temperature Tj	tomporata	10 21 (10) 0	una
Tj=35°C	Pdc <b>9.00</b> kW	Ti=35°C	EERd	3.27	7-
Tj=30°C	Pdc <b>6.63</b> kW	Tj=30°C	EERd	5.10	1-
Tj=25°C	Pdc <b>4.27</b> kW	Tj=25°C	EERd	8.54	1-
Tj=20°C	Pdc <b>2.20</b> kW	Tj=20°C	EERd	10.63	1-
	<u> </u>				
Declared capacity for heating / Averag		Declared coefficient of performance / Ave		n, at indoo	r
temperature 20°C and outdoor temperature 7°C		temperature 20°C and outdoor temperatu		0.00	1
Tj=-7°C	Pdh <b>7.26</b> kW Pdh <b>4.41</b> kW		COPd	2.90 4.20	
Tj=2°C Ti=7°C	Pdh <b>4.41</b> kW Pdh <b>2.84</b> kW		COPd COPd	5.30	-[
Tj=7 C Tj=12°C	Pdh <b>2.84</b> kW		COPd	5.58	1
Tj=bivalent temperature	Pdh <b>8.20</b> kW	Tj=bivalent temperature	COPd	2.60	-
Tj=operating limit	Pdh <b>7.20</b> kW	Tj=operating limit	COPd	2.31	1.
Ty operating innit	1 dii   1.20   KVV	Ty operating innit	001 u	2.01	ı
Declared capacity for heating / Warme	r season, at indoor	Declared coefficient of performance / Wa	mer seaso	n, at indoor	r
temperature 20°C and outdoor temperature	ature Tj	temperature 20°C and outdoor temperatu			_
Tj=2°C	Pdh <u>–</u> kW	Tj=2°C	COPd	_	<u> </u> -
Tj=7°C	Pdh – kW	Tj=7°C	COPd		<u> </u> -
Tj=12°C	Pdh – kW	Tj=12°C	COPd		<u> </u> -
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd		
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd	_	-
Declared capacity for heating / Colder	season at indoor	Declared coefficient of performance / Colo	der season	at indoor	
temperature 20°C and outdoor temperature		temperature 20°C and outdoor temperatu		at illuooi	
Tj=-7°C	Pdh – kW	Ti=-7°C	COPd	_	7-
Tj=2°C	Pdh – kW	∏i=2°C	COPd	_	1-
Tj=7°C	Pdh – kW	Tj=7°C	COPd	_	1-
Tj=12°C	Pdh – kW	Tj=12°C	COPd	_	1-
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd	_	]-
Tj=operating limit	Pdh — kW	Tj=operating limit	COPd	_	]-
Tj=-15°C	Pdh – kW	Tj=-15℃	COPd	_	-
Di la di		10			
Bivalent temperature heating / Average	Tbiv <b>-10</b> °C	Operating limit temperature heating / Average	Tol	-15	l℃
heating / Warmer	Tbiv – °C	heating / Warmer	Tol	-13	°C
heating / Colder	Tbiv – °C	heating / Volder	Tol		°C
	1	1		1	
Cycling interval capacity		Cycling interval efficiency			_
for cooling	Pcycc – kW	for cooling	EERcyc	_	<u> </u> -
for heating	Pcych - kW	for heating	COPcyc	_	-
		1.			
Degradation coefficient cooling	Cdc <b>0.25</b> -	Degradation coefficient heating	Cdh	0.25	1_
Cooling		neating	Ouri	0.20	<u> </u>
Electric power input in power modes o	ther than 'active mode'	Annual electricity consumption			
off mode	Poff 9 W	cooling	Qce	475	kWh/a
standby mode	Psb 9 W	heating / Average	Qhe	2,704	kWh/a
thermostat-off mode	Pto 30 W	heating / Warmer	Qhe	_	kWh/a
crankcase heater mode	Pck 0 W	heating / colder	Qhe	_	kWh/a
Oit		1 Other Henry			
Capacity control(indicate one of three	opuons)	Other items Sound power level(indoor)	Lwa	64	dB(A)
		Sound power level(indoor)  Sound power level(outdoor)	Lwa Lwa	69	dB(A)
fixed	No	Global warming potential	GWP	1,975	kgCO₂eq
		11		<u> </u>	
staged	No	Rated air flow(indoor)	-	1,920	m <sup>3</sup> /h
variable	Yes	Rated air flow(outdoor)	-	3,780	m <sup>3</sup> /h
Contact details for obtaining	Nama and address of the	aufacturer or of its authorized ************************************			
Contact details for obtaining more information Mitsu	Name and address of the mar ibishi Heavy Industries Air-Cond	nufacturer or of its authorised representative itioning Europe I td			
	e Square, Stockley Park, Uxbrid				
	ed Kingdom	- ,			
	·			PFA00	4Z080 A

FDE100VNP1VG		The control of the co			
Information to identify the model( Indoor unit model name	s) to which the information relates to				
Outdoor unit model name	FDE100VG FDC100VNP	information relates to. Indicated value heating season at a time. Include at l			vorago!
Outdoor unit model name	FDC100VNP	Ineating season at a time. Include at i	ieasi ine nealing	season A	werage.
Eupation/indicate if present)		Average/mendatory)	Voc		
Function(indicate if present) cooling	Yes	Average(mandatory) Warmer(if designated)	Yes No		
heating	Yes	Colder(if designated)	No		
Heating	163	Colder(ii designated)	NO		
Item	symbol value unit	Item	symbol	value	class
Design load	Cymbol Value unit	Seasonal efficiency and energy effici		valuo	oldoo
cooling	Pdesignc 10.0 kW	cooling	SEER	6.73	A++
heating / Average	Pdesignh 8.1 kW	heating / Average	SCOP/A	4.44	A+
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W	_	-
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C	_	-
Ü					unit
Declared capacity at outdoor tem	perature Tdesignh	Back up heating capacity at outdoor	temperature Tde	esignh	
heating / Average (-10°C)	Pdh 8.1 kW	heating / Average (-10°C)	elbu	0	kW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu	_	kW
heating / Colder (-22°C)	Pdh - kW	heating / Colder (-22°C)	elbu	-	kW
Declared capacity for cooling, at	indoor temperature 27(19)°C and	Declared energy efficiency ratio, at in	ndoor temperatu	re 27(19)℃	and
outdoor temperature Tj		outdoor temperature Tj			_
Tj=35°C	Pdc 10.0 kW	Tj=35°C	EERd	3.76	
Tj=30°C	Pdc <b>7.37</b> kW	Tj=30°C	EERd	5.30	-
Tj=25°C	Pdc <b>4.80</b> kW	Tj=25°C	EERd	8.14	
Tj=20°C	Pdc <b>3.50</b> kW	Tj=20°C	EERd	11.67	-
Declared consolt for heading / A	and the state of	Declared coefficient of months	/ ^	m =4 !1 ·	_
Declared capacity for heating / Avtemperature 20°C and outdoor te		Declared coefficient of performance temperature 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C a		n, at indoo	ı
Tj=-7°C	Pdh <b>7.20</b> kW	Ti=-7°C	COPd	2.58	٦_
Tj=-7 C Ti=2°C	Pdh <b>7.20</b> kW	Tj=-7 C	COPd	4.44	-[
1j-2 C   Ti=7°C	Pdh <b>2.80</b> kW	Tj=2 C	COPd	5.96	+
Tj=7 C Tj=12°C	Pdh <b>2.90</b> kW	Tj=7 C	COPd	7.07	1.
Tj=bivalent temperature	Pdh <b>8.10</b> kW	Tj=12 0	COPd	2.71	-[
Tj=operating limit	Pdh <b>7.17</b> kW	Tj=operating limit	COPd	2.71	Ⅎ
rj-operating iiriit	Full 7.17 KVV	rj-operating limit	COFu	2.50	<u> </u>
Declared capacity for heating / W	armer season, at indoor	Declared coefficient of performance	/ Warmer seaso	n at indoo	r
temperature 20°C and outdoor te		temperature 20°C and outdoor temperature		ii, at iiiaoo	•
Tj=2°C	Pdh - kW	Tj=2°C	COPd	_	7-
Tj=7°C	Pdh — kW	Tj=7°C	COPd		1₋
Tj=12°C	Pdh - kW	Tj=12°C	COPd		-
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd		-
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd		┪.
ij speriimg iiiii		., -p		!	-
Declared capacity for heating / Co	older season, at indoor	Declared coefficient of performance	/ Colder season,	at indoor	
temperature 20°C and outdoor te		temperature 20°C and outdoor temperature			
Tj=-7℃	Pdh – kW	Tj=-7°C	CÓPd	_	-
Tj=2°C	Pdh – kW	Tj=2°C	COPd	_	-
Tj=7°C	Pdh – kW	Tj=7°C	COPd	_	-
Tj=12°C	Pdh – kW	Tj=12°C	COPd	_	-
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd	_	-
Tj=operating limit	Pdh — kW	Tj=operating limit	COPd	-	-
Tj=-15℃	Pdh – kW	Tj=-15°C	COPd	_	-
Bivalent temperature		Operating limit temperature			٦.
heating / Average	Tbiv -10 °C	heating / Average	Tol	-15	°C
heating / Warmer	Tbiv <u>−</u> °C	heating / Warmer	Tol	_	°C
heating / Colder	Tbiv ─ °C	heating / Colder	Tol	_	°C
Cyaling interest and "		Cyaling into 1 -ff:-:-			
Cycling interval capacity	Device	Cycling interval efficiency	EED		7
for cooling	Pcycc – kW	for cooling	EERcyc	<u> </u>	
for heating	Pcych	for heating	COPcyc		1-
Degradation coefficient		Degradation coefficient			
cooling	Cdc <b>0.25</b> -	heating	Cdh	0.25	٦_
- Coming	0.23	_ insating	Juli	0.20	1.
Electric power input in power mo	des other than 'active mode'	Annual electricity consumption			
off mode	Poff 10 W	cooling	Qce	521	kWh/a
standby mode	Psb <b>10</b> W	heating / Average	Qhe	2,556	kWh/a
thermostat-off mode	Pto <b>36</b> W	heating / Warmer	Qhe	_	kWh/a
crankcase heater mode	Pck 0 W	heating / colder	Qhe	_	kWh/a
			· · · · · · · · · · · · · · · · · · ·		
Capacity control(indicate one of t	hree options)	Other items			_
		Sound power level(indoor)	Lwa	64	dB(A)
		Sound power level(outdoor)	Lwa	70	dB(A)
fixed	No	Global warming potential	GWP	1,975	kgCO₂eq
staged	No	Rated air flow(indoor)	_	1,920	m <sup>3</sup> /h
variable	Yes	<b>⊣</b>   ` ′	-	4,500	m <sup>3</sup> /h
valiable	162	Rated air flow(outdoor)		4,500	Jui /II
Contact details for obtaining	Name and address of the mo	anufacturer or of its authorised represent	tative		
more information	Mitsubishi Heavy Industries Air-Con		ıauv€.		
oro illioiniadori	5 The Square, Stockley Park, Uxbrid				
	United Kingdom	J ,			
	Ü				
				DEAGO	47080 A

#### Models FDE71VG, 100VG

Model(s): FDE71VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	
Cooling capacity (sensible)	$P_{\text{rated,c}}$	5.6	kW	Total electric power input	P <sub>elec</sub>	0.080	ŀ
Cooling capacity (latent)	$P_{\text{rated,c}}$	1.5	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	60.0	(
Heating capacity	$P_{\text{rated},h}$	8.0	kW				
Contact details	Mitsubishi I	neavy indu	ustries the	rmal systems,LTD			

Model(s): FDE100VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	8.4	kW	Total electric power input	$P_{elec}$	0.130	kW
Cooling capacity (latent)	$P_{\text{rated,c}}$	1.6	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	64.0	dB
Heating capacity	$P_{\text{rated,h}}$	11.2	kW				
Contact details	Mitsubishi I	neavy indu	ustries the	rmal systems,LTD			

### (2) Duct connected-Low/Middle static pressure type (FDUM)

#### FDUM71VNPVF1

FDUM71VNPVF1			
	el(s) to which the information relates to		
Indoor unit model name	FDUM71VF1	information relates to. Indicated value	
Outdoor unit model name	FDC71VNP	heating season at a time. Include at le	east the neating season 'Average'.
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
		<u> </u>	1 -
Item	symbol value unit	Item	symbol value class
Design load		Seasonal efficiency and energy efficie	
cooling	Pdesignc 7.1 kW	cooling	SEER 5.73 A+
heating / Average	Pdesignh 5.7 kW	heating / Average	SCOP/A 4.00 A+
heating / Warmer	r doolgiiii kvv	heating / Warmer	3001700
heating / Colder	Pdesignh – kW	heating / Colder	SCOP/C unit
Declared capacity at outdoor te	mnerature Tdesignh	Back up heating capacity at outdoor to	
heating / Average (-10°C)	Pdh <b>5.70</b> kW	heating / Average (-10°C)	elbu <b>0</b> kW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu – kW
heating / Colder (-22°C)	Pdh — kW	heating / Colder (-22°C)	elbu – kW
	<u> </u>		
Declared capacity for cooling, a	at indoor temperature 27(19)°C and	Declared energy efficiency ratio, at inc	door temperature 27(19)°C and
outdoor temperature Tj		outdoor temperature Tj	
Tj=35°C	Pdc <b>7.10</b> kW	Tj=35°C	EERd <b>2.70</b> -
Tj=30°C	Pdc <b>5.20</b> kW	Tj=30°C	EERd 4.30 -
Tj=25°C	Pdc <b>3.40</b> kW	Tj=25°C	EERd <b>7.40</b> -
Tj=20°C	Pdc <b>1.50</b> kW	Tj=20°C	EERd <b>9.80</b> -
Declared capacity for heating /	Average season at indoor	Declared coefficient of performance /	Average season of indoor
temperature 20°C and outdoor		temperature 20°C and outdoor tempe	
Tj=-7°C	Pdh <b>5.00</b> kW	Ti=-7°C	COPd <b>2.50</b> -
Tj=2°C	Pdh <b>3.00</b> kW	Tj=2°C	COPd 3.90 -
Tj=7°C	Pdh <b>2.00</b> kW	Tj=7°C	COPd <b>5.40</b> -
Tj=12°C	Pdh <b>1.40</b> kW	Tj=12°C	COPd <b>6.00</b> -
Tj=bivalent temperature	Pdh <b>5.70</b> kW	Tj=bivalent temperature	COPd <b>2.40</b> -
Tj=operating limit	Pdh <b>5.10</b> kW	Tj=operating limit	COPd <b>2.10</b> -
Declared capacity for heating /		Declared coefficient of performance /	
temperature 20°C and outdoor		temperature 20°C and outdoor tempe	
Tj=2°C	Pdh – kW	Tj=2°C	COPd – -
Tj=7°C	Pdh – kW	Tj=7°C	COPd –
Tj=12°C	Pdh – kW	Tj=12°C	COPd –
Tj=bivalent temperature	Pdh	Tj=bivalent temperature	COPd – -
Tj=operating limit	Pdh	Tj=operating limit	COPd – -
Declared capacity for heating /	Colder season, at indoor	Declared coefficient of performance /	Colder season at indoor
temperature 20°C and outdoor		temperature 20°C and outdoor tempe	
Tj=-7°C	Pdh – kW	Ti=-7°C	COPd
Tj=2℃	Pdh – kW	Ti=2°C	COPd
Tj=7°C	Pdh – kW	Tj=7°C	COPd – -
Tj=12°C	Pdh – kW	Tj=12°C	COPd – -
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd – -
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Tj=-15℃	Pdh - kW	Tj=-15℃	COPd
	<u> </u>	1.5	
Bivalent temperature	This 40 100	Operating limit temperature	T-1 45 00
heating / Average	Tbiv -10 °C	heating / Average	Tol -15 °C
heating / Warmer	Tbiv — °C	heating / Warmer	Tol – °C
heating / Colder	Tbiv – °C	heating / Colder	Tol − °C
Cycling interval capacity		Cycling interval efficiency	
for cooling	Pcycc - kW	for cooling	EERcyc
for heating	Pcych – kW	for heating	COPcyc
-			
Degradation coefficient		Degradation coefficient	
cooling	Cdc <b>0.25</b> -	heating	Cdh <b>0.25</b> -
Electric account to	and an allow the surface of	Annual de déside	
Electric power input in power m		Annual electricity consumption	000 424 134/5/-
off mode	Poff 10 W Psb 10 W	cooling	Qce <b>434</b> kWh/a Qhe <b>1.995</b> kWh/a
standby mode		heating / Average	,
thermostat-off mode crankcase heater mode	Pto <b>25</b> W Pck <b>0</b> W	heating / Warmer heating / colder	Qhe – kWh/a Qhe – kWh/a
Cialinease Healer Houe	I CR   U	ricating / colder	Gue I — IvvvII/a
Capacity control(indicate one o	f three options)	Other items	
	/	Sound power level(indoor)	Lwa <b>65</b> dB(A)
		Sound power level(outdoor)	Lwa 67 dB(A)
fixed	No	Global warming potential	GWP <b>1,975</b> kgCO <sub>2</sub> eq.
		<b>⊣</b> I	
staged	No Yes	Rated air flow(indoor)	,
variable	Yes	Rated air flow(outdoor)	- <b>2,160</b> m <sup>3</sup> /h
Contact details for abtaining	Name and address of the	anufacturar or of its suthariand annual and	ativo
Contact details for obtaining more information	Name and address of the ma Mitsubishi Heavy Industries Air-Con	anufacturer or of its authorised representa	auve.
more implifiation	5 The Square, Stockley Park, Uxbrid		
	United Kingdom	ago,aaiooox, OD 11 1E1,	
	- ··g		
			PJG000Z466 ▲

Information to identify the model(s) Indoor unit model name Outdoor unit model name	FDUM100VF2 FDC90VNP1	If function includes heating: Indicate t information relates to. Indicated value heating season at a time. Include at least of the control of	es should relate	to one
Function/indicate if present\		Average (mandatan)	Vaa	
Function(indicate if present) cooling	Yes	Average(mandatory) Warmer(if designated)	Yes No	
heating	Yes	Colder(if designated)	No	
-	•		•	
Item	symbol value unit	Item	symbol	value class
Design load cooling	Pdesignc 9.0 kW	Seasonal efficiency and energy efficiency cooling	ency class SEER	6.56 A+
heating / Average	Pdesignic 9.0 kW	heating / Average	SCOP/A	3.98 A
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W	
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C	
-	<u> </u>			unit
Declared capacity at outdoor temper		Back up heating capacity at outdoor t		
heating / Average (-10°C)	Pdh <b>8.10</b> kW Pdh <b>–</b> kW	heating / Average (-10°C)	elbu elbu	0 kW - kW
heating / Warmer (2°C) heating / Colder (-22°C)	Pdh — kW Pdh — kW	heating / Warmer (2°C) heating / Colder (-22°C)	elbu	– kW kW
rieating / Colder (-22 C)	T GIT	Heating / Colder (-22 C)	eibu	KVV
Declared capacity for cooling, at inc	door temperature 27(19)°C and	Declared energy efficiency ratio, at in-	door temperatur	e 27(19)°C and
outdoor temperature Tj		outdoor temperature Tj		
Tj=35°C	Pdc <b>9.00</b> kW	Tj=35°C	EERd	3.35 -
Tj=30°C	Pdc 6.60 kW	Tj=30°C	EERd	5.05 -
Tj=25°C Tj=20°C	Pdc <b>4.30</b> kW Pdc <b>2.20</b> kW	Tj=25°C Tj=20°C	EERd EERd	7.97 - 11.75 -
1,1-20 0	1 GC   2.20  KVV		EERU	11./0 -
Declared capacity for heating / Ave	rage season, at indoor	Declared coefficient of performance /	Average season	n, at indoor
temperature 20°C and outdoor temp	perature Tj	temperature 20°C and outdoor tempe	rature Tj	
Tj=-7°C	Pdh <b>7.10</b> kW	Tj=-7°C	COPd	2.69 -
Tj=2°C	Pdh 4.30 kW	Tj=2°C	COPd	3.93 -
Tj=7°C Tj=12°C	Pdh <b>2.70</b> kW Pdh <b>1.80</b> kW	Tj=7°C Ti=12°C	COPd COPd	5.12 - 5.25 -
Tj=12 C Tj=bivalent temperature	Pdh <b>1.80</b> kW	Tj=12 C	COPd	2.50 -
Ti=operating limit	Pdh <b>7.10</b> kW	Tj=operating limit	COPd	2.36
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / Coloemperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	Perature Tj Pdh	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance / temperature 20°C and outdoor tempe Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature	COPd COPd COPd COPd COPd COPd	at indoor
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd	
Tj=-15℃	Pdh – kW	Tj=-15°C	COPd	
Bivalent temperature		Operating limit temperature		
heating / Average	Tbiv -10 °C	heating / Average	Tol	-15 °C
heating / Warmer	Tbiv — °C	heating / Warmer	Tol	_ °C
heating / Colder	Tbiv − °C	heating / Colder	Tol	_ ℃
Cycling interval capacity		Cycling interval efficiency		
for cooling	Pcycc – kW	for cooling	EERcyc	
for heating	Pcych - kW	for heating	COPcyc	
Degradation coefficient		Degradation coefficient		
ooling	Cdc <b>0.25</b> -	heating	Cdh	0.25 -
lectric power input in power mode		Annual electricity consumption		
off mode	Poff 8 W	cooling	Qce	2.848 kWh/a
standby mode thermostat-off mode	Psb <b>8</b> W Pto <b>50</b> W	heating / Average heating / Warmer	Qhe Qhe	2,848 kWh/a
crankcase heater mode	Pck 0 W	heating / warmer	Qhe	- kWh/a
	1 1***		۵٥	1 1000100
Capacity control(indicate one of three	ee options)	Other items		
		Sound power level(indoor)	Lwa	<b>65</b> dB(A)
		Sound power level(outdoor)	Lwa	<b>69</b> dB(A)
fixed	No	Global warming potential	GWP	<b>1,975</b> kgCO
staged	No	Rated air flow(indoor)	-	<b>2,160</b> m <sup>3</sup> /h
variable	Yes	Rated air flow(outdoor)	-	<b>3,780</b> m <sup>3</sup> /h
5	Name and address of the ma litsubishi Heavy Industries Air-Cond The Square, Stockley Park, Uxbric nited Kingdom		ative.	
"				

#### FDUM100VNP1VF2

FDUM100VNP1VF2			
	el(s) to which the information relates to:	If function includes heating: Indicate the	
Indoor unit model name	FDUM100VF2	information relates to. Indicated value	
Outdoor unit model name	FDC100VNP	heating season at a time. Include at le	east the neating season 'Average'.
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
			•
Item	symbol value unit	Item	symbol value class
Design load	D. J	Seasonal efficiency and energy efficie	
cooling heating / Average	Pdesignc 10.0 kW Pdesignh 8.1 kW	cooling heating / Average	SEER 6.36 A++ SCOP/A 4.13 A+
heating / Warmer	Pdesignh — kW	heating / Average	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
ricating / Coldor	r deolgrini   KVV	Trouting / Colder	unit
Declared capacity at outdoor to	emperature Tdesignh	Back up heating capacity at outdoor to	
heating / Average (-10°C)	Pdh <b>8.10</b> kW	heating / Average (-10°C)	elbu <b>0</b> kW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu – kW
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu – kW
		115	07/40\00
outdoor temperature Tj	at indoor temperature 27(19)°C and	Declared energy efficiency ratio, at incoutdoor temperature Tj	door temperature 27(19) C and
Tj=35°C	Pdc <b>10.00</b> kW	Tj=35°C	EERd <b>3.33</b> -
Tj=30°C	Pdc 7.37 kW	Tj=30°C	EERd <b>4.75</b> -
Tj=25°C	Pdc 4.74 kW	Tj=25°C	EERd <b>8.03</b> -
Tj=20°C	Pdc <b>3.50</b> kW	Tj=20°C	EERd 11.67 -
		· · · · · · · · · · · · · · · · · · ·	
Declared capacity for heating /		Declared coefficient of performance /	
temperature 20°C and outdoor		temperature 20°C and outdoor temper	
Tj=-7°C	Pdh 7.17 kW	Tj=-7°C	COPd 2.79 -
Tj=2°C	Pdh <b>4.36</b> kW	Tj=2°C	COPd 4.04 -
Tj=7°C Tj=12°C	Pdh <b>2.83</b> kW Pdh <b>2.90</b> kW	Tj=7°C Tj=12°C	COPd 5.34 - COPd 6.17 -
Tj=bivalent temperature	Pdh <b>8.10</b> kW	Tj=12 0	COPd <b>2.52</b> -
Tj=operating limit	Pdh <b>7.15</b> kW	Tj=operating limit	COPd 2.38 -
., speramy		ij speraang min	33. 4 2.00
Declared capacity for heating /	Warmer season, at indoor	Declared coefficient of performance /	Warmer season, at indoor
temperature 20°C and outdoor		temperature 20°C and outdoor temper	
Tj=2°C	Pdh – kW	Tj=2°C	COPd – -
Tj=7°C	Pdh – kW	Tj=7°C	COPd – -
Tj=12°C	Pdh – kW	Tj=12°C	COPd –
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd –
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd – -
Declared capacity for heating /	Colder season, at indoor	Declared coefficient of performance /	Colder season, at indoor
temperature 20°C and outdoor		temperature 20°C and outdoor temper	
Tj=-7℃	Pdh – kW	Tj=-7°C	COPd – -
Tj=2°C	Pdh – kW	Tj=2°C	COPd – -
Tj=7°C	Pdh – kW	Tj=7°C	COPd – -
Tj=12°C	PdhkW	Tj=12°C	COPd
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd – -
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd –
Tj=-15°C	Pdh – kW	Tj=-15°C	COPd
Bivalent temperature		Operating limit temperature	
heating / Average	Tbiv -10 °C	heating / Average	Tol <b>-15</b> ℃
heating / Warmer	Tbiv − °C	heating / Warmer	Tol − °C
heating / Colder	Tbiv − °C	heating / Colder	Tol − °C
Cycling interval capacity	Poves - LAW	Cycling interval efficiency for cooling	EEPoyo
for cooling for heating	Pcycc – kW Pcych – kW	for heating	EERcyc — - COPcyc — -
ioi neading	royon   -  KVV	I lor ricating	
Degradation coefficient		Degradation coefficient	
cooling	Cdc <b>0.25</b> -	heating	Cdh <b>0.25</b> -
	nodes other than 'active mode'	Annual electricity consumption	000
off mode	Poff 10 W	cooling	Qce 551 kWh/a
standby mode	Psb 10 W	heating / Warmer	Qhe <b>2,746</b> kWh/a Qhe <b>-</b> kWh/a
thermostat-off mode crankcase heater mode	Pto <b>50</b> W	heating / Warmer heating / colder	Qhe
orannoase neater mode	1 01/   0   1/1/	I L Heating / colder	CITC   INVVII/A
Capacity control(indicate one of	of three options)	Other items	
, , ,	. ,	Sound power level(indoor)	Lwa <b>65</b> dB(A)
		Sound power level(outdoor)	Lwa <b>70</b> dB(A)
fixed	No	Global warming potential	GWP <b>1,975</b> kgCO <sub>2</sub> eq.
staged	No	Rated air flow(indoor)	- <b>2,160</b> m <sup>3</sup> /h
variable	Yes	Rated air flow(outdoor)	- <b>4,500</b> m <sup>3</sup> /h
	1	(	1 -3   /
Contact details for obtaining		nufacturer or of its authorised representa	itive.
more information	Mitsubishi Heavy Industries Air-Cond		
	5 The Square, Stockley Park, Uxbrid	ge, Middlesex, UB11 1ET,	
	United Kingdom		
			PJG000Z466 A

#### Models FDUM71VF1, 100VF2

Model(s): FDUM71VF1										
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit			
Cooling capacity (sensible)	Prated,c	5.8	kW	Total electric power input	Pelec	0.200	kW			
Cooling capacity (latent)	Prated,c	1.3	kW	Sound power level (per speed setting,if applicable)	LWA	65.0	dB			
Heating capacity	Prated,h	8.0	kW							
Contact details	Mitsubishi h	neavy indi	ustries the	rmal systems,LTD						

Model(s): FDUM100VF2							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	Prated,c	7.7	kW	Total electric power input	Pelec	0.290	kW
Cooling capacity (latent)	Prated,c	2.3	kW	Sound power level (per speed setting,if applicable)	LWA	65.0	dB
Heating capacity	Prated,h	11.2	kW				
Contact details	Mitsubishi h	eavy indu	ustries thern	nal systems,LTD			

PJG000Z466 🛦

### (3) Duct connected-High static pressure type (FDU)

FDU71VNPVF1

Information to identify the model(s) to	which the information FDU71VF1	relates to:	If function includes heating: Indicate the		
Indoor unit model name Outdoor unit model name	FDC71VNP		information relates to. Indicated values heating season at a time. Include at le		
Function(indicate if present)		1	Average(mandatory)	Yes	
cooling	Yes		Warmer(if designated)	No	
heating	Yes		Colder(if designated)	No	
Item Design load	symbol value	unit	Item Seasonal efficiency and energy efficiency	symbol ncv class	value class
cooling	Pdesignc 7.1	kW	cooling	SEER	5.73 A+
heating / Average	Pdesignh 5.7	kW	heating / Average	SCOP/A	4.00 A+
heating / Warmer	Pdesignh -	kW	heating / Warmer	SCOP/W	
heating / Colder	Pdesignh -	kW	heating / Colder	SCOP/C	<u> </u>
Declared capacity at outdoor temperate	ure Tdesignh		Back up heating capacity at outdoor to	emperature Tde	unit esianh
heating / Average (-10°C)	Pdh <b>5.70</b>	kW	heating / Average (-10°C)	elbu	0.00 kW
heating / Warmer (2°C)	Pdh -	kW	heating / Warmer (2°C)	elbu	- kW
heating / Colder (-22°C)	Pdh —	kW	heating / Colder (-22°C)	elbu	– kW
Declared capacity for cooling, at indoor	r tomporaturo 27/10\°	Cand	Declared energy efficiency ratio, at ind	loor tomporatu	ro 27(10)°C and
outdoor temperature Tj	temperature 27 (19)	Canu	outdoor temperature Tj	ioor terriperatur	ie 27 (19) C and
Tj=35°C	Pdc <b>7.10</b>	kW	Tj=35°C	EERd	2.70 -
Tj=30℃	Pdc <b>5.20</b>	kW	Tj=30°C	EERd	4.30 -
Tj=25°C	Pdc <b>3.40</b>	kW	Tj=25°C	EERd	7.40 -
Tj=20°C	Pdc <b>1.50</b>	kW	Tj=20°C	EERd	9.80 -
Declared capacity for heating / Average	e season at indoor	1	Declared coefficient of performance / /	Average seaso	n. at indoor
temperature 20°C and outdoor tempera			temperature 20°C and outdoor temper		, at maoor
Tj=-7°C	Pdh <b>5.00</b>	kW	Tj=-7°C	CÓPd	2.50 -
Tj=2°C	Pdh <b>3.00</b>	kW	Tj=2°C	COPd	3.90 -
Tj=7°C	Pdh <b>2.00</b>	kW	Tj=7°C	COPd	5.40 -
Tj=12°C	Pdh 1.40	kW	Tj=12°C	COPd	6.00 -
Tj=bivalent temperature Tj=operating limit	Pdh <b>5.70</b> Pdh <b>5.10</b>	kW kW	Tj=bivalent temperature Tj=operating limit	COPd COPd	2.40 -
1j-operating innit	1 dii   0.10	IX V V	1j-operating limit	001 u	2.10
Declared capacity for heating / Warme	r season, at indoor		Declared coefficient of performance / \	Warmer seaso	n, at indoor
temperature 20°C and outdoor tempera		ا ا	temperature 20°C and outdoor temper		
Tj=2°C	Pdh –	kW	Tj=2°C	COPd	<del>-</del> -
Tj=7°C Tj=12°C	Pdh — Pdh —	kW kW	Tj=7°C Tj=12°C	COPd COPd	<del>  </del> -
Tj=12 C Tj=bivalent temperature	Pdh —	kW	Tj=bivalent temperature	COPd	<del></del> -
Tj=operating limit	Pdh -	kW	Tj=operating limit	COPd	
Declared capacity for heating / Colder			Declared coefficient of performance / 0		at indoor
temperature 20°C and outdoor tempera		71.34/	temperature 20°C and outdoor temper		
I II 7°C	Ddb —		Ti- 7°C	COD4	_
Tj=-7°C	Pdh –	kW	Tj=-7°C	COPd	
Tj=2°C	Pdh —	kW	Tj=2°C	COPd	<u> </u>
	Pdh —				
Tj=2°C Tj=7°C	Pdh – Pdh –	kW kW	Tj=2°C Tj=7°C	COPd COPd	<u>-</u> -
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh —	kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	COPd COPd COPd COPd COPd	- - - -
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh —	kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	COPd COPd COPd COPd	
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh —	kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C	COPd COPd COPd COPd COPd	
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh —	kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature	COPd COPd COPd COPd COPd COPd	   
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh —	kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C	COPd COPd COPd COPd COPd	   
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Tbiv — 10	kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average	COPd COPd COPd COPd COPd COPd	
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh —	kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder	COPd COPd COPd COPd COPd COPd	
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh —	kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency	COPd COPd COPd COPd COPd COPd Tol Tol	
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pcycc — Pcycc — Pdh — Pdh — Pdh — Pcycc — Pdh —	kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling	COPd COPd COPd COPd COPd COPd Tol Tol	
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh —	kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency	COPd COPd COPd COPd COPd COPd Tol Tol	
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh —	kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient	COPd COPd COPd COPd COPd COPd Tol Tol Tol COPd COPd COPd	
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pcycc — Pcycc — Pdh — Pdh — Pdh — Pcycc — Pdh —	kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating	COPd COPd COPd COPd COPd COPd Tol Tol	
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pcycc — Pcych — Pcych — Pcych — Pcych — Pdh — Pdh — Pcycc — Pcych — Pcych — Pdh — Pdh — Pcycc — Pcych — Pcych — Pcych — Pdh — Pdh — Pdh — Pdh — Pcycc — Pcych — Pc	kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating	COPd COPd COPd COPd COPd COPd Tol Tol Tol COPd COPd COPd	
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pcycc — Pcych — Pcych — Pcych — Pcych — Pdh — Pdh — Pcycc — Pcych — Pcych — Pdh — Pdh — Pcycc — Pcych — Pcych — Pcych — Pdh — Pdh — Pdh — Pdh — Pcycc — Pcych — Pc	kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient	COPd COPd COPd COPd COPd COPd Tol Tol Tol COPd COPd COPd	
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power modes of off mode standby mode	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh —	kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average	COPd COPd COPd COPd COPd COPd Tol Tol Tol COPcyc Cdh	
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling Electric power input in power modes of off mode standby mode thermostat-off mode	Pdh	kW kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer	COPd COPd COPd COPd COPd COPd Tol Tol Tol COPcyc COPcyc	
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power modes of off mode standby mode	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh —	kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average	COPd COPd COPd COPd COPd COPd Tol Tol Tol COPcyc Cdh	
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power modes of off mode standby mode thermostat-off mode crankcase heater mode	Pdh — — — — — — — — — — — — — — — — — — —	kW kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder	COPd COPd COPd COPd COPd COPd Tol Tol Tol COPcyc COPcyc	
Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling Electric power input in power modes of off mode standby mode thermostat-off mode	Pdh — — — — — — — — — — — — — — — — — — —	kW kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer	COPd COPd COPd COPd COPd COPd Tol Tol Tol COPcyc COPcyc	
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power modes of off mode standby mode thermostat-off mode crankcase heater mode	Pdh — — — — — — — — — — — — — — — — — — —	kW kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items	COPd COPd COPd COPd COPd COPd Tol Tol Tol COPcyc Cdh  Qce Qhe Qhe Qhe Qhe	
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power modes of off mode standby mode thermostat-off mode crankcase heater mode	Pdh — — — — — — — — — — — — — — — — — — —	kW kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor)	COPd COPd COPd COPd COPd COPd Tol Tol Tol COPcyc COPcyc Cdh  Qce Qhe Qhe Qhe Qhe Qhe	
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling Electric power input in power modes of off mode standby mode thermostat-off mode crankcase heater mode	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pcycc — Pcych — Pcych — Pcych — Pdf	kW kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / colder  Other items Sound power level(indoor) Sound power level(outdoor)	COPd COPd COPd COPd COPd COPd COPd Tol Tol Tol COPcyc COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe Qhe Lwa Lwa	
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling Electric power input in power modes of off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three of	Pdh	kW kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential	COPd COPd COPd COPd COPd COPd COPd Tol Tol Tol COPcyc COPcyc  Cdh  Qce Qhe Qhe Qhe Qhe Qhe Qhe Lwa Lwa	
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power modes of off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three of fixed staged variable	Pdh	kW kW kW kW kW kW kW	Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Odder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(outdoor)	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power modes of off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three of fixed staged variable  Contact details for obtaining	Pdh	kW kW kW kW kW kW kW kW kW kW kW kW kW k	Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power modes of off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three of fixed staged variable  Contact details for obtaining more information  Mitsu	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pcycc — Pcych — Pcych — Pcych — Pcych — Pcych — Poff — 10 Psb — 10 Pto — 25 Pck — 0 Pptions)  No No Yes  Name and address bishi Heavy Industrie	kW kW kW kW kW kW kW kW kW kW kW kW kW k	Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Other  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power modes of off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three of fixed staged variable  Contact details for obtaining more information  Mitsu 5 The	Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pdh — Pcycc — Pcych — Pcych — Pcych — Pcych — Pcych — Poff — 10 Psb — 10 Pto — 25 Pck — 0 Pptions)  No No Yes  Name and address bishi Heavy Industrie	kW kW kW kW kW kW kW kW kW kW kW kW kW k	Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power modes of off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of three of fixed staged variable  Contact details for obtaining more information  Mitsu 5 The	Pdh	kW kW kW kW kW kW kW kW kW kW kW kW kW k	Tj=2°C Tj=7°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Other  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	COPd COPd COPd COPd COPd COPd COPd COPd	

FDU90VNP1VF2					
nformation to identify the mod					
Indoor unit model name	FDU100VF2		information relates to. Indicated valu	ies should relate	to one
Outdoor unit model name	FDC90VNP1		heating season at a time. Include at	least the heating	g season 'Average
	•		_		
Function(indicate if present)			Average(mandatory)	Yes	
cooling	Yes		Warmer(if designated)	No	
heating	Yes		Colder(if designated)	No	
tem	symbol value	unit	Item	symbol	value class
Design load			Seasonal efficiency and energy efficiency		
cooling	Pdesignc 9.0		cooling	SEER	6.56 A+
heating / Average	Pdesignh 8.1		heating / Average	SCOP/A	3.98 A
heating / Warmer	Pdesignh —		heating / Warmer	SCOP/W	
heating / Colder	Pdesignh -	kW	heating / Colder	SCOP/C	-   -
			_		unit
Declared capacity at outdoor to	emperature Tdesignh		Back up heating capacity at outdoor	temperature Tde	esignh
heating / Average (-10°C)	Pdh <b>8.1</b>	<b>0</b> kW	heating / Average (-10°C)	elbu	<b>0</b> kW
heating / Warmer (2°C)	Pdh —	kW	heating / Warmer (2°C)	elbu	- kW
heating / Colder (-22°C)	Pdh -	kW	heating / Colder (-22°C)	elbu	- kW
		•	- •		•
Declared capacity for cooling,	at indoor temperature 27(1	l9)℃ and	Declared energy efficiency ratio, at i	ndoor temperatu	re 27(19)°C and
outdoor temperature Tj			outdoor temperature Tj	•	
Tj=35°C ່	Pdc 9.0	0 kW	Tj=35°C '	EERd	3.35 -
Tj=30°C	Pdc <b>6.6</b>	<b>0</b> kW	Tj=30°C	EERd	5.05 -
Tj=25°C	Pdc <b>4.3</b>		Tj=25°C	EERd	7.97 -
Tj=20°C	Pdc 2.2		Tj=20°C	EERd	11.75 -
., ====	1 40 2.2	- 1		LLING	
Declared capacity for heating /	Average season, at indoo	ır	Declared coefficient of performance	/ Average seaso	n at indoor
emperature 20°C and outdoor		"	temperature 20°C and outdoor temp		ni, at iliuoul
Ti=-7°C	Pdh 7.1	0 kW	Tj=-7°C	COPd	2.69 -
,					
Tj=2°C	Pdh 4.3		Tj=2°C	COPd	3.93 -
Tj=7°C	Pdh <b>2.7</b>		Tj=7°C	COPd	5.12 -
Tj=12°C	Pdh <b>1.8</b>		Tj=12°C	COPd	5.25 -
Tj=bivalent temperature	Pdh <b>8.1</b>		Tj=bivalent temperature	COPd	2.50 -
Tj=operating limit	Pdh <b>7.1</b>	<b>0</b> kW	Tj=operating limit	COPd	2.36 -
	•				•
Declared capacity for heating /		r	Declared coefficient of performance		n, at indoor
temperature 20°C and outdoor	temperature Tj		temperature 20°C and outdoor temp		
Tj=2°C	Pdh —	kW	Tj=2°C	COPd	<b>–</b>  -
			T: 700	COPd	
Tj=7°C	Pdh —	kW	Tj=7°C	COPa	
,					
Tj=12℃	Pdh —	kW	Tj=12°C	COPd	<u> </u>
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / temperature 20°C and outdoor	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp	COPd COPd COPd / Colder season, erature Tj	
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=tochological temperature	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	COPd COPd COPd / Colder season, erature Tj COPd COPd COPd COPd	
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	COPd COPd COPd / Colder season, erature Tj COPd COPd COPd COPd COPd COPd COPd	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=tochological temperature	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature	COPd COPd COPd / Colder season, erature Tj COPd COPd COPd COPd	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit	COPd COPd COPd / Colder season, erature Tj COPd COPd COPd COPd COPd COPd COPd	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW kW kW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C	COPd COPd COPd / Colder season, erature Tj COPd COPd COPd COPd COPd COPd COPd	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW kW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average	COPd COPd COPd  / Colder season, erature Tj COPd COPd COPd COPd COPd COPd COPd COPd	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW kW kW kW kW kW k	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature	COPd COPd COPd / Colder season, erature Tj COPd COPd COPd COPd COPd COPd COPd	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW kW kW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 20°C Tj=2°C Tj=7°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer	COPd COPd COPd  / Colder season, erature Tj COPd COPd COPd COPd COPd COPd COPd Tol Tol	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW kW kW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 20°C Tj=2°C Tj=7°C Tj=7°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer	COPd COPd COPd  / Colder season, erature Tj COPd COPd COPd COPd COPd COPd COPd Tol Tol	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder	COPd COPd COPd  / Colder season, erature Tj COPd COPd COPd COPd COPd COPd COPd Tol Tol	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 20°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency	COPd COPd COPd  / Colder season, erature Tj COPd COPd COPd COPd COPd COPd Tol Tol Tol	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW kW kW kW kW kW k	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 20°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling	COPd COPd COPd COPd  / Colder season, erature Tj COPd COPd COPd COPd COPd COPd Tol Tol Tol Tol Tol	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 20°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling	COPd COPd COPd COPd  / Colder season, erature Tj COPd COPd COPd COPd COPd COPd Tol Tol Tol Tol Tol	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating	COPd COPd COPd COPd  / Colder season, erature Tj COPd COPd COPd COPd COPd COPd Tol Tol Tol Tol Tol	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW kW kW kW kW kW k	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating	COPd COPd COPd  / Colder season, erature Tj COPd COPd COPd COPd COPd Tol Tol Tol EERcyc COPcyc	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW kW kW kW kW kW k	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C Tj=7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating	COPd COPd COPd  / Colder season, erature Tj COPd COPd COPd COPd COPd Tol Tol Tol EERcyc COPcyc	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling	COPd COPd COPd  / Colder season, erature Tj COPd COPd COPd COPd COPd Tol Tol Tol EERcyc COPcyc	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Average heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C Tj=7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption	COPd COPd COPd COPd  / Colder season, erature Tj COPd COPd COPd COPd COPd Tol Tol Tol Tol Tol COPd COPcyc	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Average heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power no	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling	COPd COPd COPd COPd COPd COPd COPd COPd	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Dycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power in off mode standby mode	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating Degradation coefficient heating  Annual electricity consumption cooling heating / Average	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power in off mode standby mode thermostat-off mode	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Average heating / Average heating / Average heating / Average heating / Average heating / Warmer	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating Degradation coefficient cooling  Electric power input in power in off mode standby mode thermostat-off mode crankcase heater mode	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Average heating / Average heating / Average heating / Average heating / Average heating / Warmer	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Average heating / Colder  Cycling interval capacity for cooling for heating Degradation coefficient cooling  Electric power input in power in off mode standby mode thermostat-off mode crankcase heater mode	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Annual electricity consumption cooling heating / Average heating / Average heating / Average heating / Warmer heating / Other items	COPd COPd COPd COPd COPd COPd COPd COPd	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Average heating / Colder  Cycling interval capacity for cooling for heating Degradation coefficient cooling  Electric power input in power in off mode standby mode thermostat-off mode crankcase heater mode	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor)	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling Electric power input in power in off mode standby mode thermostat-off mode crankcase heater mode	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating Degradation coefficient heating Annual electricity consumption cooling heating / Average heating / Average heating / Average heating / Average heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor)	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power in off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential	COPd COPd COPd COPd COPd COPd COPd COPd	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / temperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling Electric power input in power in off mode standby mode thermostat-off mode crankcase heater mode	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating Degradation coefficient heating Annual electricity consumption cooling heating / Average heating / Average heating / Average heating / Average heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor)	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power in off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C Tj=2°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential	COPd COPd COPd COPd COPd COPd COPd COPd	at indoor
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Sivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power n off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Other theating / Other  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor)	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power in off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of fixed staged variable	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	KW   KW   KW   KW   KW   KW   KW   KW	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Colder  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power in off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of fixed staged variable  Contact details for obtaining	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW kW kW kW kW kW k	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Average heating / Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Declared capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power in off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of fixed staged variable	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW kW kW kW kW kW k	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 21°C Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Other theating / Other  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Cycling interval capacity for cooling for heating  Degradation coefficient cooling Electric power input in power in off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of fixed staged variable  Contact details for obtaining	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW kW kW kW kW kW k	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temp Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Average heating / Average heating / Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	COPd COPd COPd COPd COPd COPd COPd COPd	
Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared capacity for heating / emperature 20°C and outdoor Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Bivalent temperature heating / Average heating / Warmer heating / Colder  Declared capacity for cooling for heating  Degradation coefficient cooling  Electric power input in power in off mode standby mode thermostat-off mode crankcase heater mode  Capacity control(indicate one of fixed staged variable  Contact details for obtaining	Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	kW kW kW kW kW kW kW kW kW kW kW kW kW k	Tj=12°C Tj=bivalent temperature Tj=operating limit  Declared coefficient of performance temperature 20°C and outdoor temperature 21°C Tj=-7°C Tj=2°C Tj=12°C Tj=bivalent temperature Tj=operating limit Tj=-15°C  Operating limit temperature heating / Average heating / Warmer heating / Colder  Cycling interval efficiency for cooling for heating  Degradation coefficient heating  Annual electricity consumption cooling heating / Average heating / Warmer heating / Other theating / Other  Other items Sound power level(indoor) Sound power level(outdoor) Global warming potential Rated air flow(indoor) Rated air flow(outdoor)	COPd COPd COPd COPd COPd COPd COPd COPd	

#### FDU100VNP1VF2

FDU100VNP1VF2			
	el(s) to which the information relates to:	If function includes heating: Indicate	
Indoor unit model name	FDU100VF2	information relates to. Indicated value	
Outdoor unit model name	FDC100VNP	heating season at a time. Include at I	least the heating season 'Average'.
		, l	
Function(indicate if present)	г	Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
la m	armahal rahua rimit	lta un	armahal valua alaas
Item	symbol value unit	Item Seasonal efficiency and energy efficiency	symbol value class
Design load cooling	Pdesignc 10.0 kW	cooling	SEER 6.36 A++
heating / Average	Pdesignh 8.1 kW	heating / Average	SCOP/A 4.13 A+
heating / Warmer	Pdesignh — kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
rieating / Colder	i designin	Heating / Colder	unit
Declared capacity at outdoor te	mnerature Tdesignh	Back up heating capacity at outdoor	
heating / Average (-10°C)	Pdh 8.10 kW	heating / Average (-10°C)	elbu 0.00 kW
heating / Warmer (2°C)	Pdh – kW	heating / Warmer (2°C)	elbu – kW
heating / Colder (-22°C)	Pdh – kW	heating / Colder (-22°C)	elbu – kW
			5.24
Declared capacity for cooling a	at indoor temperature 27(19)°C and	Declared energy efficiency ratio, at in	ndoor temperature 27(19)°C and
outdoor temperature Tj	a massi temperatare 27 (10) e ana	outdoor temperature Tj	1455. tomporataro 2. (15) 5 and
Tj=35°C	Pdc <b>10.00</b> kW	Tj=35°C	EERd <b>3.33</b> -
Tj=30°C	Pdc <b>7.37</b> kW	Ti=30°C	EERd <b>4.75</b> -
Tj=25°C	Pdc <b>4.74</b> kW	Tj=25°C	EERd <b>8.03</b> -
Tj=20°C	Pdc <b>3.50</b> kW	Ti=20°C	EERd 11.67 -
., 200	. 55   0100   1117	., ., -, -	11101
Declared capacity for heating /	Average season, at indoor	Declared coefficient of performance /	Average season, at indoor
temperature 20°C and outdoor		temperature 20°C and outdoor temperature	
Tj=-7°C	Pdh <b>7.17</b> kW	Tj=-7°C	COPd <b>2.79</b> -
Tj=2°C	Pdh <b>4.36</b> kW	Tj=2°C	COPd <b>4.04</b> -
Tj=7°C	Pdh <b>2.83</b> kW	Tj=7°C	COPd <b>5.34</b> -
Tj=12℃	Pdh <b>2.90</b> kW	Tj=12°C	COPd <b>6.17</b> -
Tj=bivalent temperature	Pdh <b>8.10</b> kW	Tj=bivalent temperature	COPd <b>2.52</b> -
Tj=operating limit	Pdh <b>7.15</b> kW	Tj=operating limit	COPd <b>2.38</b> -
, , ,	, ,		· · · · · · · · · · · · · · · · · · ·
Declared capacity for heating /	Warmer season, at indoor	Declared coefficient of performance /	Warmer season, at indoor
temperature 20°C and outdoor	temperature Tj	temperature 20°C and outdoor temperature	erature Tj
Tj=2℃	Pdh – kW	Tj=2°C	COPd – -
Tj=7℃	Pdh – kW	Tj=7°C	COPd – -
Tj=12°C	Pdh – kW	Tj=12°C	COPd – -
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd
	·		
Declared capacity for heating /		Declared coefficient of performance /	
temperature 20°C and outdoor	temperature Tj	temperature 20°C and outdoor temperature	erature Tj
Tj=-7℃	Pdh – kW	Tj=-7°C	COPd – -
Tj=2℃	Pdh – kW	Tj=2°C	COPd – -
Tj=7℃	Pdh — kW	Tj=7°C	COPd – -
Tj=12°C	Pdh — kW	Tj=12°C	COPd – -
Tj=bivalent temperature	Pdh – kW	Tj=bivalent temperature	COPd – -
Tj=operating limit	Pdh – kW	Tj=operating limit	COPd – -
Tj=-15°C	Pdh – kW	Tj=-15°C	COPd – -
	•		•
Bivalent temperature		Operating limit temperature	
heating / Average	Tbiv <u>-10</u> ℃	heating / Average	Tol <u>-15</u> °C
heating / Warmer	Tbiv°C	heating / Warmer	Tol – °C
heating / Colder	Tbiv – °C	heating / Colder	Tol − °C
		110 11 11 11 11	
Cycling interval capacity	Dovos Lian	Cycling interval efficiency	EEDove
for cooling	Pcycc – kW	for cooling	EERcyc — -
for heating	Pcych – kW	for heating	COPcyc
Dogradation coefficient		Dogradation coefficient	
Degradation coefficient cooling	Cdc <b>0.25</b> -	Degradation coefficient heating	Cdh <b>0.25</b> -
Cooming	Ouc   0.23  -	Incaming	Ouri   0.20  -
Electric power input in power m	indes other than 'active mode'	Annual electricity consumption	
off mode	Poff 10 W	cooling	Qce <b>551</b> kWh/a
standby mode	Psb 10 W	heating / Average	Qhe <b>2,746</b> kWh/a
thermostat-off mode	Pto 50 W	heating / Warmer	Qhe
crankcase heater mode	Pck 0 W	heating / warmer	Qhe
oranicado ficatel filode	. 512	I Todaing / Golder	WAALI\Q
Capacity control(indicate one o	f three options)	Other items	
Sapaon, commontmidicate one o	opilolio,	Sound power level(indoor)	Lwa <b>65</b> dB(A)
		Sound power level(inddor)	Lwa <b>70</b> dB(A)
fixed	No	Global warming potential	GWP 1,975 kgCO <sub>2</sub> eq
		-  I	
staged	No	Rated air flow(indoor)	- <b>2,160</b> m <sup>3</sup> /h
variable	Yes	Rated air flow(outdoor)	- <b>4,500</b> m <sup>3</sup> /h
Contact details for obtaining		nufacturer or of its authorised represent	ative.
more information	Mitsubishi Heavy Industries Air-Cond		
	5 The Square, Stockley Park, Uxbrid	ge, Middlesex, UB11 1ET,	
	United Kingdom		
			PJG000Z462 A

#### Models FDU71VF1, 100VF2

Model(s): FDU71VF1								
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit	
Cooling capacity (sensible)	P <sub>rated,c</sub>	5.8	kW	Total electric power input	P <sub>elec</sub>	0.250	kW	
Cooling capacity (latent)	P <sub>rated,c</sub>	1.3	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	65.0	dB	
Heating capacity	$P_{rated,h}$	8.0	kW					
Contact details	Mitsubishi I	Mitsubishi heavy industries thermal systems,LTD						

Model(s): FDU100VF2								
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit	
Cooling capacity (sensible)	$P_{\text{rated,c}}$	7.7	kW	Total electric power input	P <sub>elec</sub>	0.350	kW	
Cooling capacity (latent)	P <sub>rated,c</sub>	2.3	kW	Sound power level (per speed setting,if applicable)	$L_WA$	65.0	dB	
Heating capacity	P <sub>rated,h</sub>	11.2	kW					
Contact details	Mitsubishi heavy industries thermal systems,LTD							

PJG000Z462 ▲

## 4. V MULTI SYSTEM

### **TABLE OF CONTENTS**

4.1 HYPER INVERTER PACKAGED AIR-CONDITIONERS	. 515
4.2 MICRO INVERTER PACKAGED AIR-CONDITIONERS	. 533

## **4.1 HYPER INVERTER PACKAGED AIR-CONDITIONERS**

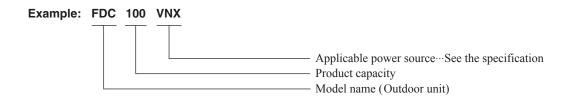
### **CONTENTS**

4.1.1 GENERAL INFORMATION	516
(1) How to read the model name	516
(2) Table of models	516
(3) Table of system combinations	516
4.1.2 SPECIFICATIONS	517
(1) Indoor units	517
(2) Outdoor units	521
(3) Operation chart	528
4.1.3 EXTERIOR DIMENSIONS	531
4.1.4 ELECTRICAL WIRING	531
4.1.5 NOISE LEVEL	531
4.1.6 TEMPERATURE AND VELOCITY DISTRIBUTION	531
4.1.7 PIPING SYSTEM	531
4.1.8 RANGE OF USAGE & LIMITATIONS	531
4.1.9 SELECTION CHART	
I.1.10 APPLICATION DATA	531
I.1.11 TECHNICAL INFORMATION	532

#### **4.1.1 GENERAL INFORMATION**

#### (1) How to read the model name





#### (2) Table of models

Model Capacity	40	50	60	71
Ceiling suspended type (FDE)	0	0	0	0
Outdoor unit to be combined (FDC)	(3 Horse Power) FI	DC100VSX FDC	125VNX FDC140VN 125VSX FDC140VS orse Power) (6 Horse Power)	X

#### (3) Table of system combinations

Outdoor unit	Туре	Indoor unit assembly capacity	Branch pipe set (Option)	
FDC71VNX		40+40		
FDC100VNX FDC100VSX	Twin	50+50	DIS-WA1	
FDC125VNX FDC125VSX		60+60 50+71		
FDC140VNX	Twin	71+71		
FDC140VSX	Triple	50+50+50	DIS-TA1 or DIS-WA1×2set	

- Notes(1) Always use the branch piping set (option) at branches in the refrigerant piping.

  (2) If wireless specifications are used, use 1 wireless indoor unit in combination with wired indoor units.
  - (3) The combinations except the above table forbids.

# 4.1.2 SPECIFICATIONS (1) Indoor units

Mod Item Mod			Model	FDE40VG		
Power sour	rce			1 Phase 220-240V 50Hz / 220V 60Hz		
	Nominal cooling capacity	/	kW	4.0		
Nominal heating capacity		kW	4.5			
Operation data	Sound power level	Cooling Heating		60		
data	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 46 Hi: 38 Me: 36 Lo: 31		
	Silent mode sound press	ure level		_		
Exterior din	nensions (Height x Width x	Depth)	mm	210 × 1,070 × 690		
Exterior ap	pearance			Plaster white		
( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent		
Net weight			kg	28		
Heat excha	ınger			Louver fin & inner grooved tubing		
Fan type &	Q'ty			Centrifugal fan ×2		
Fan motor	(Starting method)		W	30 < Direct line start >		
Air flow	Air flow Cooling Heating		m³/min	P-Hi:13 Hi:10 Me:9 Lo:7		
Available ex	xternal static pressure		Pa	0		
Outside air	intake			Not possible		
Air filter, Qu	uality / Quantity			Pocket plastic net ×2(Washable)		
Shock & vil	oration absorber			Rubber sleeve(for fan motor)		
Electric hea	ater		W	_		
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3		
control	Room temperature contr	ol		Thermostat by electronics		
CONTROL	Operation display			_		
Safety equi	ipments			Overload protection for fan motor Frost protection thermostat		
	Refrigerant piping size (	O.D. )	mm	Liquid line: φ 6.35 (1/4")  Gas line: φ 12.7 (1/2")		
Installation Connecting method			Flare piping			
data Attached length of piping		m	— — — — — — — — — — — — — — — — — — —			
Insulation for piping			Necessary (both Liquid & Gas lines)			
Drain hose			Hose connectable VP20(O.D.26)			
Drain pumr			mm	_		
IP number	, <del>.</del>			IPX0		
Standard a	ccessories			Mounting kit, Drain hose		
Option part		,		Motion sensor : LB-E		
- 12 1. 2 1. pan	-					

Item	Indoor air t	emperature	Outdoor air	Standards	
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

<sup>(2)</sup> This air-conditioner is manufactured and tested in conformity with the ISO.

<sup>(3)</sup> Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
(4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

Item	Item			FDE50VG
Power sour	rce			1 Phase 220-240V 50Hz / 220V 60Hz
	Nominal cooling capacity	/	kW	5.0
	Nominal heating capacity	y	kW	5.4
Operation data	Sound power level	Cooling Heating		60
uaia	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 46 Hi: 38 Me: 36 Lo: 31
	Silent mode sound press	sure level		_
Exterior din	mensions (Height x Width >	( Depth)	mm	210 × 1,070 × 690
Exterior ap	pearance			Plaster white
( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent
Net weight			kg	28
Heat excha	anger			Louver fin & inner grooved tubing
Fan type &	Q'ty			Centrifugal fan ×2
Fan motor	(Starting method)		W	30 < Direct line start >
Air flow	Cooling		m³/min	P-Hi:13 Hi:10 Me:9 Lo:7
Available ex	xternal static pressure		Pa	0
Outside air	intake			Not possible
Air filter, Qu	uality / Quantity			Pocket plastic net ×2(Washable)
Shock & vil	bration absorber			Rubber sleeve(for fan motor)
Electric hea	ater		W	-
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3
control	Room temperature contr	ol		Thermostat by electronics
CONTROL	Operation display			-
Safety equi	ipments			Overload protection for fan motor Frost protection thermostat
	Refrigerant piping size (	O.D. )	mm	Liquid line: φ 6.35 (1/4")  Gas line: φ 12.7 (1/2")
Installation Connecting method			Flare piping	
data Attached length of piping		m	— — — — — — — — — — — — — — — — — — —	
Insulation for piping			Necessary (both Liquid & Gas lines)	
Drain hose			Hose connectable VP20(O.D.26)	
Drain pumr	Drain pump, max lift height		mm	_
IP number	-,			IPX0
Standard a	ccessories			Mounting kit, Drain hose
Option part		i.		Motion sensor : LB-E
- partingary	-			

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
  (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

  (4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

Power source 1 Phase 220-240V 50Hz / 220V 60Hz Power source 5.6 Nominal cooling capacity Nominal heating capacity RW 5.6 Sound power level Cooling Heating Silent mode sound pressure level Peter Pete			Model	FDE60VG		
Nominal cooling capacity   Nominal heating cap	Item				FDEOOVQ	
Nominal heating capacity   Sound power level   Cooling Heating   Sound pressure level   Gooling Heating   Sound pressure level   Gooling Heating   Silent mode sound pressure level   Full Heating   Silent mode sound pressure level   Gooling Heating   Full Heat	Power sour	ce			1 Phase 220-240V 50Hz / 220V 60Hz	
Sound power level					***	
Sound pressure level   Heating   Sound pressure level   Heating   Silent mode sound pressure level   Heating   Silent mode sound pressure level		Nominal heating capacit		kW	6.7	
Sound pressure level   Cooling   Silent mode sound pressure level   Exterior dimensions (Height x Width x Depth)   mm   210 x 1,320 x 690	Operation   Sound power level			60		
Exterior dimensions (Height x Width x Depth) mm  210 x 1,320 x 690  Exterior appearance (Munsell color) Plaster white (6.8Y8.9/0.2) near equivalent  Net weight kg 33  Heat exchanger Double (Starting method) Cooling Heating Part (Starting method) Prince (Starting method)	data	·	Heating	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	
Exterior appearance (Munsell color) (6.8Y8.9/0.2) near equivalent  Net weight kg 33  Heat exchanger Louver fin & inner grooved tubing  Fan type & O'ty Centrifugal fan ×4  Fan motor (Starting method) W 50 < Direct line start >  Air flow Cooling Heating Marinin P-Hi: 20 Hi: 16 Me: 13 Lo: 10  Available external static pressure Pa 0  Outside air intake Not possible  Air filter, Quality / Quantity Pocket plastic net ×2(Washable)  Shock & vibration absorber Rubber sleeve(for fan motor)  Electric heater W —  Operation Control Room temperature control Coperation display —  Safety equipments Parining size (O.D.) Marining fan motor  Frost protection thermostat by electronics  Overload protection for fan motor  Frost protection thermostat  Liquid line: \$\phi 6.35 (1/4")\$  Gas line: \$\phi 1.7 (1/2")\$  Connecting method Flare piping  Attached length of piping m —  Drain hose Mounting kit, Drain hose  Standard accessories Mounting kit, Drain hose		Silent mode sound press	sure level		<del>-</del>	
(Munsell color)         (6.8Y8.9/0.2) near equivalent           Net weight         kg         33           Heat exchanger         Louver fin & inner grooved tubing           Fan type & Q*ty         Centrifugal fan x4           Fan motor (Starting method)         W         50 < Direct line start >           Air flow         Cooling Heating Heating         P-Hi : 20 Hi : 16 Me : 13 Lo : 10           Available external static pressure         Pa         0           Outside air intake         Not possible           Air filter, Quality / Quantity         Pocket plastic net ×2(Washable)           Shock & vibration absorber         Rubber sleeve(for fan motor)           Electric heater         W         —           Operation control         Remote control         (Option) Wired : RC-EX3, RC-E5, RCH-E3 Wireless : RCN-E-E3           Room temperature control control         Thermostat by electronics           Operation display         —           Safety equipments         Overload protection for fan motor           Frost protection for fan motor         Frost protection thermostat           Liquid line: φ6.35 (1/4*)         Gas line: φ12.7 (1/2*)           Connecting method         Flare piping           Attached length of piping         m         —           Drain hose	Exterior din	nensions (Height x Width	x Depth)	mm	210 × 1,320 × 690	
Net weight	Exterior app	pearance			Plaster white	
Heat exchanger Fan type & Q'ty Fan motor (Starting method)  Air flow Cooling Heating Fan type & Q'ty Fan motor (Starting method)  Available external static pressure Outside air intake Available external static pressure Pa Outside air intake Fan motor (Starting method)  Available external static pressure Pa Outside air intake Fan motor (Starting method)  Available external static pressure Pa Outside air intake Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan motor (Starting method) Fan piping Fan type & Overload protection for fan motor (Frost protection thermostat) Fan piping Fan piping Fan motor (Starting method) Fan piping Fa	( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent	
Fan type & Q'ty Fan motor (Starting method)  Air flow    Cooling Heating     Heating     Available external static pressure     Outside air intake     Air filter, Quality / Quantity     Shock & vibration absorber     Electric heater     Operation control     Operation control     Operation control     Operation control     Operation control     Operation display     Safety equipments     Refrigerant piping size (O.D.)     Installation data     Are filter, public     Are filter, public     Are filter, quality / Quantity     Pa	Net weight			kg	33	
Fan motor (Starting method)  Air flow    Cooling   Heating     Heating   Heating     Available external static pressure     Outside air intake   Not possible     Air filter, Quality / Quantity   Pocket plastic net ×2(Washable)     Shock & vibration absorber   Rubber sleeve(for fan motor)     Electric heater   W	Heat excha	inger				
Air flow    Cooling Heating   Heating   M³/min   P-Hi : 20 Hi : 16 Me : 13 Lo : 10	Fan type &	Q'ty			Centrifugal fan ×4	
Available external static pressure  Outside air intake  Air filter, Quality / Quantity  Shock & vibration absorber  Electric heater  Operation control  Operation data  Refrigerant piping size ( O.D. )  Installation data  Arailable external static pressure  Pa  Outside air intake  Not possible  N	Fan motor	(Starting method)		W	50 < Direct line start >	
Outside air intake  Air filter, Quality / Quantity  Shock & vibration absorber  Electric heater  Operation control  Operation data  Refrigerant piping size ( O.D. )  Installation data  Attached length of piping Drain pump, max lift height  Installard of piping Drain pump, max lift height  Installard of Attached length of piping Drain pump, max lift height  Installard of Attached length of piping Drain pump, max lift height  Installard of Attached length of piping Drain pump, max lift height  Installard of Attached length of piping Drain pump, max lift height  Installard of Attached length of piping Drain pump, max lift height  Installard of Attached length of piping Drain pump, max lift height  Installard of Attached length of piping Drain pump, max lift height  Installard of Attached length of piping Drain pump, max lift height  Installard of Attached length of Piping Drain pump, max lift height  Installard of Attached length of Piping Drain pump, max lift height  Installard of Attached length of Piping Drain pump, max lift height  Installard of Attached length of Piping Drain pump, max lift height  Installard of Attached length of Piping Drain pump, max lift height  Installard of Attached length of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lift height  Installard of Piping Drain pump, max lif	Ι Διr flow		m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10		
Air filter, Quality / Quantity Shock & vibration absorber Electric heater Operation control  Remote control Operation display  Safety equipments  Refrigerant piping size ( O.D. ) Installation data  Refrigerant piping Air filter, Quality / Quantity  Remote control Operation (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  Overload protection for fan motor Frost protection thermostat  Frost protection thermostat  Refrigerant piping size ( O.D. )  Installation data  Refrigerant piping size ( O.D. )  Thermostat by electronics  Overload protection for fan motor Frost protection thermostat  Frost protection thermostat  Gas line: \$\phi 6.35 (1/4")\$  Connecting method  Attached length of piping  Drain hose  Drain pump, max lift height  Mm  -  IP number  Standard accessories  Mounting kit, Drain hose	Available ex	xternal static pressure		Pa	0	
Shock & vibration absorber  Electric heater	Outside air	intake			Not possible	
Electric heater W (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  Operation control Remote control (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  Thermostat by electronics  Overload protection for fan motor Frost protection thermostat  Liquid line: \$\phi 6.35 (1/4")\$  Connecting method Attached length of piping m Drain hose  Drain pump, max lift height  IP number  Standard accessories  W (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3, RC-E5, RCH-E3  (Option) Wired: RC-EX3,	Air filter, Qu	uality / Quantity			Pocket plastic net ×2(Washable)	
Operation control Poperation control Remote control Room temperature control Operation display Poperation di	Shock & vit	oration absorber			Rubber sleeve(for fan motor)	
Room temperature control   Thermostat by electronics	Electric hea	ater		W	_	
Refrigerant piping size ( O.D. )   mm   Connecting method   Race   Properties   P	Operation	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3	
Operation display		Room temperature conti	rol		Thermostat by electronics	
Sarety equipments    Frost protection thermostat	Control	Operation display			<del>-</del>	
Installation data  Refrigerant piping size ( O.D. ) mm	Safety equi	nmente				
Herrigerant piping size (O.D.)   mm   Gas line: φ 12.7 (1/2")	Calety equi	prilerits				
Installation data		Pofrigorant piping size (	O D )	mm		
Connecting method			111111			
Attached length of piping m — — — — — — — — — — — — — — — — — —	Connecting method			Flare piping		
Drain pump, max lift height mm — IP number IPX0 Standard accessories Mounting kit, Drain hose	Attached length of piping		m	-		
IP number IPX0 Standard accessories Mounting kit, Drain hose	Drain hose			Hose connectable VP20(O.D.26)		
Standard accessories Mounting kit, Drain hose	Drain pump	o, max lift height		mm	<u> </u>	
	IP number					
Option parts Motion sensor : LB-E	Standard a	ccessories				
	Option part	ts			Motion sensor : LB-E	

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
  (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
  (4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model	FDE71VG
Item				1 2 2 1 1 1 1
Power sour				1 Phase 220-240V 50Hz / 220V 60Hz
	Nominal cooling capacity		kW	7.1
	Nominal heating capacity	/ (range)	kW	8.0
Operation data	Sound power level	Cooling Heating		60
uata	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32
	Silent mode sound press	ure level		_
Exterior din	nensions (Height x Width x	Depth)	mm	210 × 1,320 × 690
Exterior app	pearance			Plaster white
( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent
Net weight			kg	33
Heat excha	inger			Louver fin & inner grooved tubing
Fan type &	Q'ty			Centrifugal fan ×4
Fan motor	(Starting method)		W	50 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi:20 Hi:16 Me:13 Lo:10
Available ex	xternal static pressure		Pa	0
Outside air	intake			Not possible
Air filter, Qu	uality / Quantity			Pocket plastic net ×2(Washable)
Shock & vik	oration absorber			Rubber sleeve(for fan motor)
Electric hea	ater		W	-
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3
control	Room temperature contr	ol		Thermostat by electronics
CONTROL	Operation display			_
Safety equi	inments			Overload protection for fan motor
Salety equi	prilerits			Frost protection thermostat
	Refrigerant piping size (	D.D. )	mm	Liquid line: φ 9.52 (3/8")  Gas line: φ 15.88 (5/8")
Installation	Connecting method			Flare piping
data	Attached length of piping	1	m	——————————————————————————————————————
	Insulation for piping	,		Necessary (both Liquid & Gas lines)
	Drain hose			Hose connectable VP20(O.D.26)
Drain pump	o, max lift height		mm	_ ` '
IP number	·			IPX0
Standard a	ccessories			Mounting kit, Drain hose
Option part				Motion sensor : LB-E
, . p.				* * * * * * * * * * * * * * * * * * * *

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
  (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

  (4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

#### (2) Outdoor units

Item			Model	FDC71VNX		
Power sour	ce			1 Phase 220-240V 50Hz / 220V 60Hz		
Nominal cooling capacity (range)		kW	7.1 [ 3.2(Min.)-8.0(Max.)]			
	Nominal heating capacity	(range)	kW	8.0 [ 3.6(Min.)-9.0(Max.)]		
Operation	Sound power level	Cooling Heating		66		
data	C	Cooling	dB(A)	51		
	Sound pressure level	Heating	1	48		
	Silent mode sound pressu	ire level	1 [			
Exterior din	nensions (Height x Width x	Depth)	mm	750×880(+88)×340		
Exterior app	pearance			Stucco white		
( Munsell co				( 4.2Y7.5/1.1 ) near equivalent		
Net weight			kg	60		
Compresso	or type & Q'ty			RMT5118MDE2( Twin rotary type )×1		
Compresso	or motor (Starting method)		kW	Direct line start		
Refrigerant	oil (Amount, type)		Q	0.675 (M-MA68)		
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 2.95kg in outdoor unit (Incl. the amount for the piping of : 30m)		
Heat exchanger			M shape fin & inner grooved tubing			
Refrigerant				Electronic expansion valve		
Fan type &	Q'ty			Propeller fan ×1		
Fan motor	(Starting method)		W	86 < Direct line start >		
Air flow		Cooling	m³/min	60		
		Heating	111 /111111	50		
Shock & vik	oration absorber			Rubber sleeve(for compressor)		
Electric hea	ater		W	20(Crank case heater)		
Safety equi	pments			Internal thermostat for fan motor Abnormal discharge temperature protection		
	Refrigerant piping size ( C	).D. )	mm	Liquid line: φ 9.52 (3/8")  Gas line: φ 15.88 (5/8")		
	Connecting method			Flare piping		
Installation	Attached length of piping		m	<del>-</del>		
data Insulation for piping			Necessary (both Liquid & Gas lines)			
	Refrigerant line (one way	) length	m	Max.50m		
	Vertical height diff. between O		m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)		
	Drain hose			Hole size φ20 x 3 pcs		
IP number				IP24		
Standard a	ccessories			<del>-</del>		
Option part	S					
N				W 7		

Notes (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

  (4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

Item			Model	FDC100VNX	
Power sour	Power source			1 Phase 220-240V 50Hz / 220V 60Hz	
	Nominal cooling capacity	(range)	kW	10.0 [ 4.0(Min.)-11.2(Max.)]	
	Nominal heating capacity	(range)	kW	11.2 [ 4.0(Min.)-12.5(Max.)]	
Operation	Sound power level	Cooling Heating		70	
data	C	Cooling	dB(A)	48	
	Sound pressure level	Heating		50	
	Silent mode sound pressu	ire level		-	
Exterior dim	nensions (Height x Width x	Depth)	mm	1300×970×370	
Exterior app	pearance			Stucco white	
( Munsell co				(4.2Y7.5/1.1) near equivalent	
Net weight	•		kg	105	
Compresso	or type & Q'ty		Ĭ	RMT5134MDE2( Twin rotary type )×1	
Compresso	or motor (Starting method)		kW	Direct line start	
	oil (Amount, type)		Q.	0.9 (M-MA68)	
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 4.5kg in outdoor unit (Incl. the amount for the piping of : 30m)	
Heat excha	nger		Ĭ	M shape fin & inner grooved tubing	
Refrigerant	control			Electronic expansion valve	
Fan type &	Q'ty			Propeller fan ×2	
Fan motor (	(Starting method)		W	86 x 2 < Direct line start >	
Air flow		Cooling Heating	m³/min	100	
Shock & vib	oration absorber			Rubber sleeve(for compressor)	
Electric hea	iter		W	20(Crank case heater)	
Safety equip	nmente			Internal thermostat for fan motor	
Salety equi	pments			Abnormal discharge temperature protection	
	Refrigerant piping size ( O	D )	mm	Liquid line: φ9.52 (3/8")	
				Gas line: $\phi$ 15.88 (5/8")	
	Connecting method			Flare piping	
Installation Attached length of piping			m	<u> </u>	
data Insulation for piping			Necessary (both Liquid & Gas lines)		
	Refrigerant line (one way)		m	Max.100m	
Vertical height diff. between O/U		/U and I/U	m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)	
	Drain hose			Hole size $\phi$ 20 x 3 pcs	
IP number				IP24	
Standard ad				Edging	
Option parts	S			<del>-</del>	

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB WB		Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

<sup>(2)</sup> This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat

higher due to ambient conditions.

(4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

Item			Model	FDC100VSX	
Power sour	ce			3 Phase 380-415V 50Hz / 380V 60Hz	
	Nominal cooling capacity	(range)	kW	10.0 [ 4.0(Min.)-11.2(Max.)]	
	Nominal heating capacity	(range)	kW	11.2 [ 4.0(Min.)-16.0(Max.)]	
Operation	Sound power level	Cooling Heating		70	
data	0 1 1	Cooling	dB(A)	48	
	Sound pressure level	Heating		50	
	Silent mode sound pressu	ire level		_	
Exterior dim	nensions (Height x Width x	Depth)	mm	1300×970×370	
Exterior app	pearance			Stucco white	
( Munsell co	olor)			( 4.2Y7.5/1.1 ) near equivalent	
Net weight			kg	105	
Compresso	or type & Q'ty			RMT5134MDE3( Twin rotary type )×1	
Compresso	or motor (Starting method)		kW	Direct line start	
Refrigerant	oil (Amount, type)		Q	0.9 (M-MA68)	
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 4.5kg in outdoor unit (Incl. the amount for the piping of : 30m)	
Heat excha	inger			M shape fin & inner grooved tubing	
Refrigerant	control			Electronic expansion valve	
Fan type &	Q'ty			Propeller fan ×2	
Fan motor (	(Starting method)		W	86 x 2 < Direct line start >	
Air flow		Cooling Heating	m³/min	100	
Shock & vib	oration absorber			Rubber sleeve(for compressor)	
Electric hea	ater		W	20(Crank case heater)	
Safety equi	nmonto			Internal thermostat for fan motor	
Salety equi	priierits			Abnormal discharge temperature protection	
	Refrigerant piping size ( O	ID )	mm	Liquid line: φ 9.52 (3/8")	
		·.D. )	111111	Gas line: $\phi$ 15.88 (5/8")	
	Connecting method			Flare piping	
Installation Attached length of piping			m	<u> </u>	
data Insulation for piping			Necessary (both Liquid & Gas lines)		
	Refrigerant line (one way)		m	Max.100m	
	Vertical height diff. between O/U and I/U		m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)	
	Drain hose			Hole size $\phi$ 20 x 3 pcs	
IP number				IP24	
Standard ad				Edging	
Option part	s			<del>-</del>	

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C 6°C		1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

  (4) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

Item			Model	FDC125VNX	
Power sour	Power source			1 Phase 220-240V 50Hz / 220V 60Hz	
Nominal cooling capacity (range)		kW	12.5 [ 5.0(Min.)-14.0(Max.)]		
	Nominal heating capacity	(range)	kW	14.0 [ 4.0(Min.)-17.0(Max.)]	
Operation data	Sound power level	Cooling Heating		70	
uata	0	Cooling	dB(A)	48	
	Sound pressure level	Heating		50	
	Silent mode sound pressu	ire level		=	
Exterior dim	nensions (Height x Width x	Depth)	mm	1300×970×370	
Exterior app	pearance			Stucco white	
( Munsell co				(4.2Y7.5/1.1) near equivalent	
Net weight			kg	105	
Compresso	r type & Q'ty		Ĭ	RMT5134MDE2( Twin rotary type )×1	
Compresso	r motor (Starting method)		kW	Direct line start	
Refrigerant	oil (Amount, type)		Q	0.9 (M-MA68)	
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 4.5kg in outdoor unit (Incl. the amount for the piping of : 30m)	
Heat excha	nger			M shape fin & inner grooved tubing	
Refrigerant	control			Electronic expansion valve	
Fan type &	Q'ty			Propeller fan ×2	
Fan motor (	Starting method)		W	86 x 2 < Direct line start >	
Air flow		Cooling Heating	m³/min	100	
Shock & vib	oration absorber			Rubber sleeve(for compressor)	
Electric hea	iter		W	20(Crank case heater)	
Safety equip	nmonto			Internal thermostat for fan motor	
Salety equi	prinerits			Abnormal discharge temperature protection	
	Refrigerant piping size ( O	D )	mm	Liquid line: $\phi$ 9.52 (3/8")	
	heirigerant piping size (O	.D. )	'''''	Gas line: φ15.88 (5/8")	
	Connecting method			Flare piping	
Installation Attached length of piping			m	<del>-</del>	
data Insulation for piping			Necessary (both Liquid & Gas lines)		
	Refrigerant line (one way)		m	Max.100m	
	Vertical height diff. between O/	/U and I/U	m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)	
	Drain hose			Hole size $\phi$ 20 x 3 pcs	
IP number				IP24	
Standard ad				Edging	
Option parts	S			<del>-</del>	

Item	Indoor air te	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

<sup>(2)</sup> This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat

higher due to ambient conditions.

(4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

Item	Item			FDC125VSX	
Power sour	ce			3 Phase 380-415V 50Hz / 380V 60Hz	
Nominal cooling capacity (range)		kW	12.5 [ 5.0(Min.)-14.0(Max.)]		
	Nominal heating capacity	(range)	kW	14.0 [ 4.0(Min.)-18.0(Max.)]	
Operation	Sound power level	Cooling Heating		70	
data	6	Cooling	dB(A)	48	
	Sound pressure level	Heating		50	
	Silent mode sound pressu	ire level		=	
Exterior dim	nensions (Height x Width x	Depth)	mm	1300×970×370	
Exterior app	pearance			Stucco white	
( Munsell co				(4.2Y7.5/1.1) near equivalent	
Net weight	,		kg	105	
Compresso	or type & Q'ty		- J	RMT5134MDE3 (Twin rotary type)×1	
Compresso	or motor (Starting method)		kW	Direct line start	
Refrigerant	oil (Amount, type)		Q	0.9 (M-MA68)	
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 4.5kg in outdoor unit (Incl. the amount for the piping of : 30m)	
Heat excha	nger			M shape fin & inner grooved tubing	
Refrigerant	control			Electronic expansion valve	
Fan type &	Q'ty			Propeller fan ×2	
Fan motor (	(Starting method)		W	86 x 2 < Direct line start >	
Air flow		Cooling Heating	m³/min	100	
Shock & vib	oration absorber			Rubber sleeve(for compressor )	
Electric hea	nter		W	20(Crank case heater)	
Safety equip	nmonto			Internal thermostat for fan motor	
Salety equi	pinents			Abnormal discharge temperature protection	
	Refrigerant piping size ( O	D )	mm	Liquid line: φ 9.52 (3/8")	
	_ ,, ,	.D. )		Gas line: φ 15.88 (5/8")	
	Connecting method			Flare piping	
Installation Attached length of piping		m	<del>-</del>		
data Insulation for piping				Necessary (both Liquid & Gas lines)	
	Refrigerant line (one way)		m	Max.100m	
	Vertical height diff. between O/U ar		m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)	
	Drain hose			Hole size $\phi$ 20 x 3 pcs	
IP number				IP24	
Standard ad				Edging	
Option part	S			<del>-</del>	

Item	Indoor air te	emperature	Outdoor air	- Standards	
Operation	DB	WB	DB WB		
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

<sup>(2)</sup> This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat

higher due to ambient conditions.

(4) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

Item			Model	FDC140VNX		
Power sour	ce			1 Phase 220-240V 50Hz / 220V 60Hz		
	Nominal cooling capacity	/ (range)	kW	14.0 [ 5.0(Min.)-16.0(Max.)]		
	Nominal heating capacity		kW	16.0 [ 4.0(Min.)-18.0(Max.)]		
Operation	Sound power level	Cooling		72		
data	0	Cooling	dB(A)	49		
	Sound pressure level	Heating		52		
	Silent mode sound press	ure level		_		
Exterior din	nensions (Height x Width x	Depth)	mm	1300×970×370		
Exterior ap	pearance			Stucco white		
( Munsell co	olor)			1300×970×370		
Net weight			kg	105		
Compresso	or type & Q'ty					
Compresso	or motor (Starting method)	Starting method) kW Direct line start		Direct line start		
Refrigerant	oil (Amount, type)		Q	0.9 (M-MA68)		
Refrigerant	(Type, amount, pre-charg	e length)	kg	R410A 4.5kg in outdoor unit (Incl. the amount for the piping of : 30m)		
Heat excha	inger			M shape fin & inner grooved tubing		
Refrigerant	control			Electronic expansion valve		
Fan type &	Q'ty					
Fan motor	(Starting method)		W	86 x 2 < Direct line start >		
Air flow		Cooling Heating	m³/min	100		
Shock & vik	oration absorber			Rubber sleeve(for compressor)		
Electric hea	ater		W	20(Crank case heater)		
Safety equi	nmonte			Internal thermostat for fan motor		
Salety equi	pinents			Abnormal discharge temperature protection		
	Refrigerant piping size ( 0	O.D. )	mm	Liquid line: φ 9.52 (3/8")  Gas line: φ 15.88 (5/8")		
	Connecting method			Flare piping		
Installation	Attached length of piping	1	m	—		
data	Insulation for piping			Necessary (both Liquid & Gas lines)		
	Refrigerant line (one way	/) length	m	Max.100m		
	Vertical height diff. between C		m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)		
	Drain hose			Hole size $\phi$ 20 x 3 pcs		
IP number	,			IP24		
Standard a	ccessories			Edging		
Option part	'S			_		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB	WB	Staridards	
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat
- higher due to ambient conditions.

  (4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

Item			Model	FDC140VSX		
Power sour	ce			3 Phase 380-415V 50Hz / 380V 60Hz		
	Nominal cooling capacity	(range)	kW	14.0 [ 5.0(Min.)-16.0(Max.)]		
	Nominal heating capacity	(range)	kW	16.0 [ 4.0(Min.)-20.0(Max.)]		
Operation data	Sound power level	Cooling Heating		72		
uala	Sound pressure level	Cooling Heating	dB(A)	49 52		
	Silent mode sound pressu	ire level		_		
Exterior dim	nensions (Height x Width x	Depth)	mm	1300×970×370		
Exterior app	pearance	,		Stucco white		
( Munsell co	olor)			(4.2Y7.5/1.1) near equivalent		
Net weight			kg	105		
Compresso	r type & Q'ty			RMT5134MDE3( Twin rotary type )×1		
Compresso	ompressor motor (Starting method)		kW	Direct line start		
Refrigerant	oil (Amount, type)		Q	0.9 (M-MA68)		
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 4.5kg in outdoor unit (Incl. the amount for the piping of : 30m)		
Heat exchai	nger			M shape fin & inner grooved tubing		
Refrigerant	control			Electronic expansion valve		
Fan type &	Q'ty			Propeller fan ×2		
Fan motor (	Starting method)		W	86 x 2 < Direct line start >		
Air flow		Cooling Heating	m³/min	100		
Shock & vib	oration absorber			Rubber sleeve(for compressor)		
Electric hea	iter		W	20(Crank case heater)		
Safety equip	pments			Internal thermostat for fan motor Abnormal discharge temperature protection		
	Refrigerant piping size ( O	D.D.)	mm -	Liquid line: φ 9.52 (3/8")  Gas line: φ 15.88 (5/8")		
	Connecting method			Flare piping		
Installation	Attached length of piping		m	——————————————————————————————————————		
data	Insulation for piping			Necessary (both Liquid & Gas lines)		
	Refrigerant line (one way)	length	m	Max.100m		
	Vertical height diff. between O	/U and I/U	m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)		
	Drain hose			Hole size $\phi$ 20 x 3 pcs		
IP number				IP24		
Standard ad	ccessories			Edging		
Option parts	s			-		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

#### (3) Operation chart

The V Multi is a system that allows for different models and capacities of indoor units to be connected so the individual operating characteristics of the indoor and outdoor are provided. Use the procedure shown in item (c) to calculate the combined operating characteristics.

#### (a) Operating characteristic of outdoor unit

(220-240V 50Hz/220V 60Hz)

Item	Model	FDC71VNX	FDC100VNX	FDC125VNX	FDC140VNX
Cooling power consumption	kW	1.95	2.33	3.11	4.02
Heating power consumption	K VV	1.85	2.41	3.26	4.03
Cooling running current		8.5/8.9	10.3/10.8	13.7/14.3	17.6/18.4
Heating running current	А	8.1/8.5	10.6/11.1	14.3/15.0	17.6/18.4
Inrush current <max. current="" running=""> A</max.>		5 <17>	5 <24>	5 <	<26>

(380-415V 50Hz/380V 60Hz)

Item	Model	FDC100VSX	FDC125VSX	FDC140VSX		
Cooling power consumption	LW/	2.33	3.11	4.02		
Heating power consumption	kW	2.41	3.26	4.03		
Cooling running current	Α.	5.9/6.2	7.9/8.3	10.1/10.7		
Heating running current	A	6.1/6.4	8.2/8.7	10.1/10.7		
Inrush current <max. current="" running=""></max.>	A	5 <15>				

Note(1) This packaged air-conditioner is manufactured and tested in conformity with the following standard. ISO5151-T1 "UNITARY AIR-CONDITIONERS"

#### (b) Operating characteristic of indoor unit

(220-240V 50Hz/220V 60Hz)

Item	Model	FDE40VG	FDE50VG	FDE60VG	FDE71VG
Cooling power consumption	$\frac{1}{kW}$	0.05/0.05	0.05/0.05	0.08/0.08	0.08/0.08
Heating power consumption	T KW	0.05/0.05	0.05/0.05	0.08/0.08	0.08/0.08
Cooling running current		0.50/0.50	0.50/0.50	0.75/0.75	0.75/0.75
Heating running current	A	0.50/0.50	0.50/0.50	0.75/0.75	0.75/0.75

Notes(1) This packaged air-conditioner is manufactured and tested in conformity with the following standard. ISO5151-T1 "UNITARY AIR-CONDITIONERS"

<sup>(2)</sup> The values shown in the above table are common to both cooling and heating operations.

#### (c) Calculation of total operation characteristics

Since the operation characteristics of V Multi system depend on combination of indoor unit, calculate the total operation characteristics of the system by using the formulas below according to speciations of each indoor unit or outdoor unit.

#### 1) 1 Phase models

#### a) Total power consumption

Total power consumption (kW) = Power consumption of outdoor unit +  $\sum$  (Power consumption of indoor unit)

#### b) Total running current

Total running current (A) = Running current of outdoor unit +  $\Sigma$  (Running current of indoor unit)

#### c) Total power factor

Total power factor (%) = [Total power consumption (W) / Total running current (A)  $\times$  Power source]  $\times$  100 Total operation characteristics = Operation characteristic value of outdoor unit + Operation characteristic value of indoor unit

[Example]

(Conditions) Operation Voltage · · · · · Indoor unit: 220 V, 50 Hz

Outdoor unit: 220 V, 50 Hz

Operation mode · · · · Cooling and Heating

Unit····· Outdoor unit: FDC140VNX × 1 unit

Indoor unit: FDE71VG × 2 units

#### Operation characteristics of each unit

(Cooling/Heating)

Item Model	FDC140VNX	FDE71VG
Power consumption (kW)	4.02/4.03	0.08/0.08
Running current (A)	17.6/17.6	0.75/0.75

#### ① Total power consumption (kW)

(Cooling) 
$$4.02 + (0.08 \times 2) = 4.18$$

(Heating) 
$$4.03 + (0.08 \times 2) = 4.19$$

#### 2 Total running current (A)

(Cooling) 
$$17.6 + (0.75 \times 2) = 19.1$$

(Heating) 
$$17.6 + (0.75 \times 2) = 19.1$$

#### 3 Total power factor (%)

(Cooling) 
$$\frac{4.18 \times 1000}{19.1 \times 220} \times 100 = 99 \%$$

(Heating) 
$$\frac{4.19 \times 1000}{19.1 \times 220} \times 100 = 99 \%$$

#### 2) 3 Phase models

#### a) Total power consumption

Total power consumption (kW) = Power consumption of outdoor unit +  $\Sigma$  (Power consumption of indoor unit)

#### b) Total running current

Total running current (A) = Running current of outdoor unit +  $[\Sigma(Running current of indoor unit) \times 1/3]$ 

#### c) Total power factor

Total power factor (%) = [Total power consumption (W) /  $\sqrt{3}$  × Total running current (A) × Power source] × 100

Total operation characteristics = Operation characteristic value of outdoor unit + Operation characteristic value of indoor unit

[Example]

(Conditions) Operation Voltage ...... Indoor unit: 220 V, 50 Hz

Outdoor unit: 380 V, 50 Hz

Operation mode ..... Cooling and Heating

Unit----- Outdoor unit: FDC125VSX × 1 unit

Indoor unit: FDE50VG × 1 unit, FDE71VG × 1 unit

#### Operation characteristics of each unit

(Cooling/Heating)

Item Model	FDC125VSX	FDE50VG	FDE71VG
Power consumption (kW)	3.11/3.26	0.05/0.05	0.08/0.08
Running current (A)	7.9/8.2	0.50/0.50	0.75/0.75

① Total power consumption (kW)

(Cooling) 
$$3.11 + 0.05 + 0.08 = 3.24$$
 (kW)

(Heating) 
$$3.26 + 0.05 + 0.08 = 3.39$$
 (kW)

② Total running current (A)

(Cooling) 
$$7.9 + \left[ (0.50 + 0.75) \times \frac{1}{3} \right] = 8.3 \text{ (A)}$$
  
(Heating)  $8.2 + \left[ (0.50 + 0.75) \times \frac{1}{3} \right] = 8.6 \text{ (A)}$ 

3 Total power factor (%)

(Cooling) 
$$\frac{3.24 \times 1000}{\sqrt{3} \times 8.3 \times 380} \times 100 = 59 \%$$

(Heating) 
$$\frac{3.39 \times 1000}{\sqrt{3} \times 8.6 \times 380} \times 100 = 60 \%$$

(1) Indoor units	
(O) Outdoor with	See page 48.
(2) Outdoor units	See page 56
(3) Remote controller (Option parts)	See page 59
4.1.4 ELECTRICAL WIRING	
(1) Indoor units	See page 62.
(2) Outdoor units	.See page 68
4.1.5 NOISE LEVEL	
(1) Indoor units	. See page 72.
(2) Outdoor units	.See page 74.
4.1.6 TEMPERATURE AND VELOCITY DISTRIBUTION	. See page 83.
4.1.7 PIPING SYSTEM	. See page 87.
A 4 0 DANGE OF HOAGE 0 LIMITATIONS	Coo nogo 00
4.1.8 RANGE OF USAGE & LIMITATIONS	. See page 90.
4.1.9 SELECTION CHART	
4.1.9 SELECTION CHART	. See page 94.
4.1.9 SELECTION CHART4.1.10 APPLICATION DATA	See page 94.
4.1.9 SELECTION CHART4.1.10 APPLICATION DATA  (1) Installation of indoor unit	See page 94. See page 122. See page 137.
4.1.9 SELECTION CHART4.1.10 APPLICATION DATA  (1) Installation of indoor unit	See page 94. See page 122. See page 137.
4.1.9 SELECTION CHART	See page 94. See page 122. See page 137. See page 141.
4.1.9 SELECTION CHART	See page 122. See page 137. See page 141. See page 157.

### **4.1.11 TECHNICAL INFORMATION**

Models FDE40VG, 50VG, 60VG, 71VG

Model(s): FDE40VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	3.4	kW	Total electric power input	$P_{elec}$	0.050	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	0.6	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	60.0	dB
Heating capacity	$P_{rated,h}$	4.5	kW				
Contact details	Mitsubishi heavy industries thermal systems,LTD						

Model(s): FDE50VG								
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit	
Cooling capacity (sensible)	$P_{rated,c}$	3.8	kW	Total electric power input	$P_{elec}$	0.050	kW	
Cooling capacity (latent)	P <sub>rated,c</sub>	1.2	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	60.0	dB	
Heating capacity	$P_{\text{rated,h}}$	5.4	kW					
Contact details	Mitsubishi h	Mitsubishi heavy industries thermal systems,LTD						

Model(s): FDE60VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	U
Cooling capacity (sensible)	$P_{\text{rated,c}}$	5.0	kW	Total electric power input	$P_{elec}$	0.080	k۱
Cooling capacity (latent)	$P_{\text{rated,c}}$	0.6	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	60.0	dE
Heating capacity	$P_{\text{rated},h}$	6.7	kW				
Contact details	Mitsubishi h	Mitsubishi heavy industries thermal systems,LTD					

Model(s): FDE71VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	5.6	kW	Total electric power input	$P_{elec}$	0.080	kW
Cooling capacity (latent)	$P_{\text{rated,c}}$	1.5	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	60.0	dB
Heating capacity	$P_{rated,h}$	8.0	kW				
Contact details	Mitsubishi heavy industries thermal systems,LTD						

PFA004Z080 A

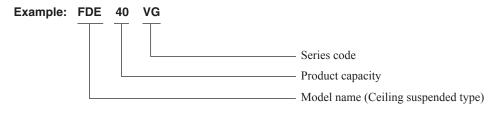
## **4.2 MICRO INVERTER PACKAGED AIR-CONDITIONERS**

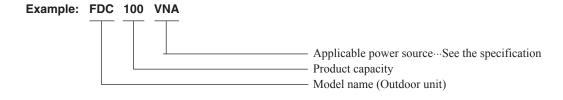
### **CONTENTS**

4.2.1 GENERAL INFORMATION	533
(1) How to read the model name	533
(2) Table of models	534
(3) Table of system combinations	534
4.2.2 SPECIFICATIONS	535
(1) Indoor units	535
(2) Outdoor units	540
(3) Operation chart	548
4.2.3 EXTERIOR DIMENSIONS	551
4.2.4 ELECTRICAL WIRING	551
4.2.5 NOISE LEVEL	551
4.2.6 TEMPERATURE AND VELOCITY DISTRIBUTION	551
4.2.7 PIPING SYSTEM	551
4.2.8 RANGE OF USAGE & LIMITATIONS	551
4.2.9 SELECTION CHART	551
I.2.10 APPLICATION DATE	551
I.2.11 TECHNICAL INFORMATION	552

#### **4.2.1 GENERAL INFORMATION**

(1) How to read the model name





#### (2) Table of models

Model	50	60	71	100	125
Ceiling suspended type (FDE)	0	0	0	0	0
	FDC100VNA FDC100VSA (4 Horse Power)	FDC125VNA FDC125VSA (5 Horse Power)	FDC140VNA FDC140VSA (6 Horse Power)		FDC250VSA (10 Horse Power)

#### (3) Table of system combinations

Outdoor unit	Туре	Indoor unit assembly capacity	Branch pipe set (Option)	
FDC100VNA FDC100VSA	Twin	50+50		
FDC125VNA FDC125VSA	I WIII	60+60 50+71	DIS-WA1	
	Twin	71+71		
FDC140VNA FDC140VSA	Triple	50+50+50	DIS-TA1 or DIS-WA1×2set	
	Twin	100+100	DIS-WB1	
	1 WIII	71+125	DIS-WB1	
FDC200VSA	Triple	71+71+71	DIS-TB1 or DIS-WA1×1set DIS-WB1×1set	
	Double twin	50+50+50+50	DIS-WA1×2set DIS-WB1×1set	
	Twin	125+125	DIS-WB1	
FDC250VSA		60+60+125	DIS-TB1 or	
	Triple	71+71+100	DIS-WA1×1set DIS-WB1×1set	
	Double twin	60+60+60+60	DIS-WA1×2set DIS-WB1×1set	

Notes(1) Always use the branch piping set (option) at branches in the refrigerant piping.

(2) If wireless specifications are used, use 1 wireless indoor unit in combination with wired indoor units.

(3) The combinations except the above table forbids.

# 4.2.2 SPECIFICATIONS (1) Indoor units

			Model	
Item				FDE50VG
Power sour	Power source			1 Phase 220-240V 50Hz / 220V 60Hz
Operation	Sound power level	Cooling Heating		60
data	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 46 Hi: 39 Me: 36 Lo: 31
	Silent mode sound pressi	ure level		_
Exterior dim	nensions (Height × Width ×	Depth)	mm	210 × 1,070 × 690
Exterior app	pearance			Plaster white
( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent
Net weight			kg	28
Heat excha				Louver fin & inner grooved tubing
Fan type &				Centrifugal fan ×2
Fan motor (	(Starting method)		W	30 < Direct line start >
Air flow	Air flow Cooling Heating		m³/min	P-Hi:13 Hi:10 Me:9 Lo:7
Available ex	kternal static pressure		Pa	0
Outside air intake			Not possible	
	ality / Quantity			Pocket plastic net ×2 (Washable)
Shock & vib	oration absorber			Rubber sleeve (for fan motor)
Electric hea	iter		W	_
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3
control	Room temperature contro	ol		Thermostat by electronics
CONTROL	Operation display			_
Safety equi	nments			Overload protection for fan motor
ourory oqui	pmonto			Frost protection thermostat
	Refrigerant piping size ( C	ו ח (	mm	Liquid line: φ 6.35 (1/4")
	<u> </u>			Gas line: $\phi$ 12.7 (1/2")
	Installation Connecting method			Flare piping
data Attached length of piping		m		
Insulation for piping			Necessary (both Liquid & Gas lines)	
Drain hose			Hose connectable VP20 (O.D.26)	
	, max lift height		mm	
IP number				IPX0
Standard ad				Mounting kit, Drain hose
Option part	S			Motion sensor : LB-E

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

<sup>(2)</sup> This air-conditioner is manufactured and tested in conformity with the ISO.
(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
(4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

Model						
Item	Item			FDE60VG		
Power sour	ce			1 Phase 220-240V 50Hz / 220V 60Hz		
Operation	Sound power level Cooling Heating			60		
data	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32		
	Silent mode sound pressu	ıre level		_		
Exterior din	nensions (Height × Width ×	Depth)	mm	210 × 1,320 × 690		
Exterior app	pearance			Plaster white		
( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent		
Net weight			kg	33		
Heat excha				Louver fin & inner grooved tubing		
Fan type &				Centrifugal fan ×4		
Fan motor	(Starting method)		W	50 < Direct line start >		
Air flow	Air flow Cooling Heating		m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10		
Available ex	Available external static pressure		Pa	0		
Outside air intake			Not possible			
Air filter, Qu	Air filter, Quality / Quantity			Pocket plastic net ×2 (Washable)		
Shock & vib	oration absorber			Rubber sleeve (for fan motor)		
Electric hea			W	_		
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3		
control	Room temperature contro	ol		Thermostat by electronics		
	Operation display			_		
Safety equi	inments			Overload protection for fan motor		
		.,		Frost protection thermostat		
	Refrigerant piping size (C	).D. )	mm	Liquid line: φ 6.35 (1/4")		
l	0 11 0 1			Gas line: $\phi$ 12.7 (1/2")		
Installation				Flare piping		
data Attached length of piping		m	— — — — — — — — — — — — — — — — — — —			
Insulation for piping			Necessary (both Liquid & Gas lines)			
Drain hose Drain pump, max lift height		100.100	Hose connectable VP20 (O.D.26)			
IP number	ο, max iiπ neignτ		mm	— IPX0		
Standard a	conservice			Mounting kit, Drain hose		
Option part				Motion sensor : LB-E		
	) The data are massived at					

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

<sup>(2)</sup> This air-conditioner is manufactured and tested in conformity with the ISO.

<sup>(3)</sup> Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

(4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

Model				
Item	Item			FDE71VG
Power sour	ce			1 Phase 220-240V 50Hz / 220V 60Hz
Operation	Sound power level Cooling Heating			60
data	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32
	Silent mode sound pressu	ıre level		_
Exterior dim	nensions (Height × Width ×	Depth)	mm	210 × 1,320 × 690
Exterior app	pearance			Plaster white
( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent
Net weight			kg	33
Heat excha				Louver fin & inner grooved tubing
Fan type &				Centrifugal fan ×4
Fan motor (	Starting method)		W	50 < Direct line start >
Air flow	Air flow Cooling Heating		m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10
Available ex	Available external static pressure		Pa	0
Outside air intake			Not possible	
Air filter, Qu	Air filter, Quality / Quantity			Pocket plastic net ×2 (Washable)
Shock & vib	oration absorber			Rubber sleeve (for fan motor)
Electric hea	iter		W	_
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3
control	Room temperature contro	ol		Thermostat by electronics
CONTROL	Operation display			_
Safety equi	nments			Overload protection for fan motor
ouroty oqui	, , , , , , , , , , , , , , , , , , ,			Frost protection thermostat
	Refrigerant piping size ( C	).D. )	mm	Liquid line: φ 9.52 (3/8")
	0 11 0 (			Gas line: φ 15.88 (5/8")
Installation Connecting method			Flare piping	
data Attached length of piping		m	<del>-</del>	
Insulation for piping			Necessary (both Liquid & Gas lines)	
Drain hose			Hose connectable VP20 (O.D.26)	
	, max lift height		mm	
IP number				IPX0
Standard ad				Mounting kit, Drain hose
Option part	The data are massured at			Motion sensor : LB-E

Item	Indoor air temperature		Outdoor air	temperature	0
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
  (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

Model				
Item	Item			FDE100VG
Power sour	ce			1 Phase 220-240V 50Hz / 220V 60Hz
Operation	Sound power level Cooling Heating			64
data	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 48 Hi: 43 Me: 38 Lo: 34
	Silent mode sound pressu	ıre level		_
Exterior din	nensions (Height × Width ×	Depth)	mm	250 × 1,620 × 690
Exterior app	pearance			Plaster white
( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent
Net weight			kg	43
Heat excha				Louver fin & inner grooved tubing
Fan type &				Centrifugal fan ×4
Fan motor (	(Starting method)		W	80 < Direct line start >
Air flow	Air flow Cooling Heating		m³/min	P-Hi: 32 Hi: 26 Me: 21 Lo: 16.5
Available ex	Available external static pressure		Pa	0
Outside air intake			Not possible	
Air filter, Qu	Air filter, Quality / Quantity			Pocket plastic net ×2 (Washable)
Shock & vib	oration absorber			Rubber sleeve (for fan motor)
Electric hea	iter		W	-
Operation	Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3
control	Room temperature contro	ol		Thermostat by electronics
CONTROL	Operation display			_
Safety equi	nments			Overload protection for fan motor
Caroty oqui				Frost protection thermostat
	Refrigerant piping size ( C	).D. )	mm	Liquid line: φ 9.52 (3/8")
	0 11 0 (			Gas line: φ 15.88 (5/8")
Installation				Flare piping
data Attached length of piping		m		
Insulation for piping			Necessary (both Liquid & Gas lines)	
Drain hose			Hose connectable VP20 (O.D.26)	
	Drain pump, max lift height		mm	-
IP number				IPX0
Standard a		-		Mounting kit, Drain hose
Option part	S The data are measured at			Motion sensor : LB-E

Item	Indoor air temperature		Outdoor air temperature		Standards	
Operation	DB	WB	DB	WB	Staridards	
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

  (4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model			
Item				FDE125VG		
Power source				1 Phase 220-240V 50Hz / 220V 60Hz		
Operation data	Sound power level	Cooling Heating		64		
	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 48 Hi: 45 Me: 40 Lo: 35		
	Silent mode sound pressu	ent mode sound pressure level		<del>-</del>		
Exterior dimensions (Height × Width × Depth)			mm	250 × 1,620 × 690		
Exterior appearance				Plaster white		
( Munsell co	olor)			( 6.8Y8.9/0.2 ) near equivalent		
Net weight			kg	43		
Heat excha				Louver fin & inner grooved tubing		
Fan type &				Centrifugal fan ×4		
Fan motor (	(Starting method)		W	80 < Direct line start >		
Air flow Cooling Heating		m³/min	P-Hi: 32 Hi: 29 Me: 23 Lo: 17			
Available external static pressure		Pa	0			
Outside air	intake			Not possible		
Air filter, Quality / Quantity				Pocket plastic net ×2 (Washable)		
Shock & vibration absorber			Rubber sleeve (for fan motor)			
Electric heater		W				
Operation Remote control			(Option) Wired: RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E-E3			
control Room temperature control Operation display		ol		Thermostat by electronics		
			<u> </u>			
Safety equipments				Overload protection for fan motor		
				Frost protection thermostat		
	Refrigerant piping size ( O.D. )		mm	Liquid line: φ 9.52 (3/8")		
				Gas line: φ 15.88 (5/8")		
Installation Connecting method			Flare piping			
data	Attached length of piping		m			
	Insulation for piping			Necessary (both Liquid & Gas lines)		
	Drain hose			Hose connectable VP20 (O.D.26)		
Drain pump, max lift height		mm	— IDVO			
IP number			IPX0			
Standard accessories				Mounting kit, Drain hose  Motion sensor : LB-E		
Option parts  Notes (1) The data are measured at the following						

Item	Indoor air temperature		Outdoor air temperature		Standards	
Operation	DB	WB	DB	WB	Standards	
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1505151-11	

<sup>(2)</sup> This air-conditioner is manufactured and tested in conformity with the ISO.
(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

<sup>(4)</sup> The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

#### (2) Outdoor units

			Model	FDC100VNA		
Item				4 DI		
Power sour	7	,	1111	1 Phase 220-240V 50Hz / 220V 60Hz		
	Nominal cooling capacity (range)		kW	10.0 [ 4.0(Min.)-11.2(Max.)]		
	Nominal heating capacity	<del>`                                    </del>	kW	11.2 [ 4.0(Min.)-12.5(Max.)]		
Operation data	Sound power level	Cooling Heating		70		
uaia	Cound processes level	Cooling	dB(A)	54		
	Sound pressure level	Heating	Γ	56		
	Silent mode sound pressu	ire level		50/44 (Normal/Silent)		
Exterior din	nensions (Height × Width ×	Depth)	mm	845×970×370		
Exterior ap	pearance			Stucco white		
( Munsell co	olor )			( 4.2Y7.5/1.1) near equivalent		
Net weight			kg	80		
Compresso	or type & Q'ty			RMT5126MCE3( Twin rotary type )×1		
	or motor (Starting method)		kW	Direct line start		
	oil (Amount, type)		Q	0.9 (M-MA68)		
	(Type, amount, pre-charge	lenath)	kg	R410A 3.8kg in outdoor unit (Incl. the amount for the piping of : 30m)		
Heat excha		<u> </u>		Straight fin & inner grooved tubing		
Refrigerant				Electronic expansion valve		
Fan type &				Propeller fan ×1		
	(Starting method)		W	86 < Direct line start >		
	. ,	Cooling	34 .	75		
Air flow		Heating	m³/min –	73		
Shock & vit	oration absorber			Rubber sleeve (for compressor)		
Electric hea	ater		W	20 (Crank case heater)		
				Internal thermostat for fan motor		
Safety equi	pments			Abnormal discharge temperature protection		
				Liquid line: φ 9.52 (3/8")		
	Refrigerant piping size (O	.D. )	mm	Gas line: <i>φ</i> 15.88 (5/8")		
	Connecting method			Flare piping		
Installation	Attached length of piping		m	——————————————————————————————————————		
data Insulation for piping			Necessary (both Liquid & Gas lines)			
	Refrigerant line (one way)	length	m	Max.50m		
	Vertical height diff. between O/		m	Max.50m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)		
	Drain hose			Hole size $\phi 20 \times 3$ pcs		
IP number				IP24		
Standard a	ccessories			<u> </u>		
Option part				<u>-</u>		
	The data are measured at	the fellowi	na sanditi	The pine length is 7.5m		

Notes (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
  (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

  (4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model			
Item				FDC100VSA		
Power sour	rce			3 Phase 380-415V 50Hz / 380V 60Hz		
	Nominal cooling capacity (range)		kW	10.0 [ 4.0(Min.)-11.2(Max.)]		
	Nominal heating capacity		kW	11.2 [ 4.0(Min.)-12.5(Max.)]		
Operation	Sound power level	Cooling Heating		70		
data	Sound pressure level	Cooling	dB(A)	54 56		
		Heating		<del>_</del>		
	Silent mode sound pressu	ire ievei		50/44 (Normal/Silent)		
Exterior din	mensions (Height × Width ×	Depth)	mm	845×970×370		
Exterior ap				Stucco white		
( Munsell co				( 4.2Y7.5/1.1) near equivalent		
Net weight			kg	82		
Compresso	or type & Q'ty			RMT5126MCE4 (Twin rotary type)×1		
Compresso	or motor (Starting method)		kW	Direct line start		
Refrigerant	oil (Amount, type)		Q	0.9 (M-MA68)		
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 3.8kg in outdoor unit (Incl. the amount for the piping of : 30m)		
Heat excha	anger			Straight fin & inner grooved tubing		
Refrigerant	control			Electronic expansion valve		
Fan type &	Q'ty			Propeller fan ×1		
Fan motor	(Starting method)		W	86 < Direct line start >		
A: £1		Cooling	m³/min –	75		
Air flow		Heating	m /min	73		
Shock & vil	bration absorber			Rubber sleeve (for compressor)		
Electric hea	ater		W	20 (Crank case heater)		
0-6-4	·					Internal thermostat for fan motor
Safety equi	ipments			Abnormal discharge temperature protection		
	D (: /o	D.)		Liquid line: φ9.52 (3/8")		
	Refrigerant piping size (O	.D. )	mm –	Gas line: $\phi$ 15.88 (5/8")		
	Connecting method			Flare piping		
Installation			m	_		
data	Insulation for piping			Necessary (both Liquid & Gas lines)		
	Refrigerant line (one way)	length	m	Max.50m		
	Vertical height diff. between O/		m	Max.50m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)		
	Drain hose			Hole size $\phi 20 \times 3$ pcs		
IP number				IP24		
Standard a	ccessories					
Option part						
	) The data are measured at	the followi	na conditi	ons. The pipe length is 7.5m.		
	t		0			

Item Indoor air temperature Outdoor air temperature Standards WB DB WB DB Operation 24°C 35°C 19°C Cooling ISO5151-T1 7°C 6°C

Heating 20°C (2) This air-conditioner is manufactured and tested in conformity with the ISO.

<sup>(3)</sup> Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

(4) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

			Model			
Item				FDC125VNA		
Power sour	ce			1 Phase 220-240V 50Hz / 220V 60Hz		
	Nominal cooling capacity (range)		kW	12.5 [ 5.0(Min.)-14.0(Max.)]		
	Nominal heating capacity	(range)	kW	14.0 [ 4.0(Min.)-16.0(Max.)]		
Operation	Sound power level	Cooling		71		
data		Cooling	dB(A)	55		
	Sound pressure level	Heating	1	57		
	Silent mode sound pressu	ure level		51/45 (Normal/Silent)		
Exterior din	nensions (Height × Width ×	Depth)	mm	845×970×370		
Exterior app	pearance			Stucco white		
( Munsell co	olor )			( 4.2Y7.5/1.1) near equivalent		
Net weight			kg	80		
Compresso	or type & Q'ty			RMT5126MCE3 (Twin rotary type )×1		
Compresso	or motor (Starting method)		kW	Direct line start		
Refrigerant	oil (Amount, type)		Q.	0.9 (M-MA68)		
	(Type, amount, pre-charge	e length)	kg	R410A 3.8kg in outdoor unit (Incl. the amount for the piping of : 30m)		
Heat excha	inger			Straight fin & inner grooved tubing		
Refrigerant	control			Electronic expansion valve		
Fan type &	Q'ty			Propeller fan ×1		
Fan motor (	(Starting method)		W	86 < Direct line start >		
Air flow	-	Cooling	m³/min	75		
Air flow		Heating	1 m /min	73		
Shock & vik	oration absorber			Rubber sleeve (for compressor)		
Electric hea	ater		W	20 (Crank case heater)		
0 ( )				Internal thermostat for fan motor		
Safety equi	pments			Abnormal discharge temperature protection		
	B (: (c	\ D \		Liquid line: φ 9.52 (3/8")		
	Refrigerant piping size (C	).D. )	mm -	Gas line: $\phi$ 15.88 (5/8")		
	Connecting method			Flare piping		
Installation	9		m	<u> </u>		
data Insulation for piping			Necessary (both Liquid & Gas lines)			
	Refrigerant line (one way	) length	m	Max.50m		
	Vertical height diff. between O		m	Max.50m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)		
	Drain hose			Hole size $\phi 20 \times 3$ pcs		
IP number				IP24		
Standard a	ccessories			<del>-</del>		
Option part	ts			_		
	The data are measured at	the fellowi		ions The pine length is 7.5m		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1909191-11

<sup>(2)</sup> This air-conditioner is manufactured and tested in conformity with the ISO.

(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

(4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model			
Item				FDC125VSA		
Power sour	ce			3 Phase 380-415V 50Hz / 380V 60Hz		
	Nominal cooling capacity (range)		kW	12.5 [ 5.0(Min.)-14.0(Max.)]		
	Nominal heating capacity	(range)	kW	14.0 [ 4.0(Min.)-16.0(Max.)]		
Operation	Sound power level	Cooling		71		
data		Cooling	dB(A)	55		
	Sound pressure level	Heating	1	57		
	Silent mode sound pressu	ire level	ĺ	51/45 (Normal/Silent)		
Exterior din	nensions (Height × Width ×	Depth)	mm	845×970×370		
Exterior app	pearance			Stucco white		
( Munsell co	olor )			( 4.2Y7.5/1.1) near equivalent		
Net weight			kg	82		
Compresso	or type & Q'ty		Ĭ	RMT5126MCE4 (Twin rotary type )×1		
Compresso	or motor (Starting method)		kW	Direct line start		
Refrigerant	oil (Amount, type)		Q	0.9 (M-MA68)		
	(Type, amount, pre-charge	e length)	kg	R410A 3.8kg in outdoor unit (Incl. the amount for the piping of : 30m)		
Heat excha	inger	<u> </u>	Ť	Straight fin & inner grooved tubing		
Refrigerant	control			Electronic expansion valve		
Fan type &	Q'ty			Propeller fan ×1		
Fan motor (	(Starting method)		W	86 < Direct line start >		
Air flow	-	Cooling	m³/min	75		
Air flow		Heating	T m /min	73		
Shock & vik	oration absorber			Rubber sleeve (for compressor)		
Electric hea	ater		W	20 (Crank case heater)		
0 ( )				Internal thermostat for fan motor		
Safety equi	pments			Abnormal discharge temperature protection		
	B (: (c	\D \		Liquid line: φ 9.52 (3/8")		
	Refrigerant piping size (C	).D. )	mm -	Gas line: $\phi$ 15.88 (5/8")		
	Connecting method			Flare piping		
Installation Attached length of piping		m	<u> </u>			
data Insulation for piping			Necessary (both Liquid & Gas lines)			
	Refrigerant line (one way	) length	m	Max.50m		
	Vertical height diff. between O		m	Max.50m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)		
	Drain hose			Hole size $\phi 20 \times 3$ pcs		
IP number	1			IP24		
Standard a	ccessories			——————————————————————————————————————		
Option part				<u>-</u>		
	The data are measured at	the fellowi		The pine length is 7.5m		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

<sup>(2)</sup> This air-conditioner is manufactured and tested in conformity with the ISO.

(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

(4) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

Model			Model	FDC140VNA		
Power sour	ce			1 Phase 220-240V 50Hz / 220V 60Hz		
	Nominal cooling capacity	(range)	kW	13.6 [ 5.0(Min.)-14.5(Max.)]		
	Nominal heating capacity	(range)	kW	15.5 [ 4.0(Min.)-16.5(Max.)]		
Operation	Sound power level	Cooling Heating		73		
data		Cooling	dB(A)	57		
	Sound pressure level	Heating		59		
	Silent mode sound pressu	re level		53/47 (Normal/Silent)		
Exterior din	nensions (Height × Width ×	Depth)	mm	845×970×370		
Exterior app	pearance			Stucco white		
Munsell co	olor)			( 4.2Y7.5/1.1) near equivalent		
Net weight			kg	80		
Compresso	or type & Q'ty			RMT5126MCE3 (Twin rotary type)×1		
Compresso	or motor (Starting method)		kW	Direct line start		
Refrigerant	oil (Amount, type)		Q	0.9 (M-MA68)		
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 3.8kg in outdoor unit (Incl. the amount for the piping of : 30m)		
Heat excha	inger			Straight fin & inner grooved tubing		
Refrigerant	control			Electronic expansion valve		
an type &	Q'ty			Propeller fan ×1		
an motor (	(Starting method)		W	86 < Direct line start >		
Air flow		Cooling	m³/min	75		
AII IIOW		Heating	1111 / 11111111	73		
Shock & vib	oration absorber			Rubber sleeve (for compressor)		
Electric hea	ater		W	20 (Crank case heater)		
		,		Internal thermostat for fan motor		
Safety equi	pments			Abnormal discharge temperature protection		
	B-file-set sision size ( O	D )		Liquid line: φ9.52 (3/8")		
	Refrigerant piping size (O	.D. )	mm –	Gas line: $\phi$ 15.88 (5/8")		
	Connecting method			Flare piping		
nstallation	Attached length of piping		m	<del>-</del>		
data	Insulation for piping			Necessary (both Liquid & Gas lines)		
	Refrigerant line (one way)	length	m	Max.50m		
	Vertical height diff. between O/	U and I/U	m	Max.50m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)		
	Drain hose			Hole size $\phi$ 20 × 3 pcs		
P number	•			IP24		
Standard a	ccessories			_		
Option part	'S			_		
Notes (1)	The data are measured at	the followi	na conditio	ons. The pipe length is 7.5m.		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1903131-11

<sup>(2)</sup> This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

(4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.

			Model			
Item				FDC140VSA		
Power sour	ce			3 Phase 380-415V 50Hz / 380V 60Hz		
	Nominal cooling capacity (range)		kW	13.6 [ 5.0(Min.)-14.5(Max.)]		
	Nominal heating capacity	(range)	kW	15.5 [ 4.0(Min.)-16.5(Max.)]		
Operation	Sound power level	Cooling		73		
data		Cooling	dB(A)	57		
	Sound pressure level	Heating	1	59		
	Silent mode sound pressu	ire level		53/47 (Normal/Silent)		
Exterior din	nensions (Height × Width ×	Depth)	mm	845×970×370		
Exterior app	pearance			Stucco white		
( Munsell co	olor )			( 4.2Y7.5/1.1) near equivalent		
Net weight			kg	82		
Compresso	or type & Q'ty			RMT5126MCE4 (Twin rotary type )×1		
Compresso	or motor (Starting method)		kW	Direct line start		
Refrigerant	oil (Amount, type)		Q.	0.9 (M-MA68)		
	(Type, amount, pre-charge	e length)	kg	R410A 3.8kg in outdoor unit (Incl. the amount for the piping of : 30m)		
Heat excha	inger	<u> </u>		Straight fin & inner grooved tubing		
Refrigerant	control			Electronic expansion valve		
Fan type &	Q'ty			Propeller fan ×1		
	(Starting method)		W	86 < Direct line start >		
Air flow		Cooling	3, .	75		
Air flow		Heating	m³/min	73		
Shock & vib	oration absorber			Rubber sleeve (for compressor)		
Electric hea	ater		W	20 (Crank case heater)		
0 ( )				Internal thermostat for fan motor.		
Safety equi	pments			Abnormal discharge temperature protection.		
	B (: (c	\D \		Liquid line: φ 9.52 (3/8")		
	Refrigerant piping size (C	).D. )	mm -	Gas line: $\phi$ 15.88 (5/8")		
	Connecting method			Flare piping		
Installation	<u> </u>		m	_		
data Insulation for piping			Necessary (both Liquid & Gas lines)			
	Refrigerant line (one way	) length	m	Max.50m		
	Vertical height diff. between O		m	Max.50m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)		
	Drain hose			Hole size $\phi 20 \times 3$ pcs		
IP number	1			IP24		
Standard a	ccessories			<del>-</del>		
Option part				<u>-</u>		
	The data are measured at	the fellowi		The pine length is 7.5m		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

<sup>(2)</sup> This air-conditioner is manufactured and tested in conformity with the ISO.
(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
(4) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

			Model		
Item				FDC200VSA	
Power sour	rce			3 Phase 380-415V 50Hz / 380V 60Hz	
	Nominal cooling capacity (range)		kW	19.0 [ 5.2(Min.)-22.4(Max.)]	
	Nominal heating capacity	(range)	kW	22.4 [ 3.3(Min.)-25.0(Max.)]	
0		Cooling		72	
Operation	Sound power level	Heating		74	
data		Cooling	dB(A)	58	
	Sound pressure level	Heating	` ´	59	
	Silent mode sound pressu	ire level		52	
Exterior din	nensions (Height × Width ×	Depth)	mm	1,300×970×370	
Exterior ap	pearance			Stucco white	
( Munsell co				( 4.2Y7.5/1.1) near equivalent	
Net weight			kg	115	
	or type & Q'ty			RMT5134MDE3 (Twin rotary type )×1	
	or motor (Starting method)		kW	Direct line start	
	oil (Amount, type)		Q.	0.9 (compressor) + 0.6 (unit) (M-MA32R)	
	(Type, amount, pre-charge	length)	kg	R410A 5.6kg in outdoor unit (Incl. the amount for the piping of : 30m)	
	Heat exchanger			M shape fin & inner grooved tubing	
Refrigerant	control			Electronic expansion valve	
Fan type &	Q'ty			Propeller fan ×2	
Fan motor	(Starting method)		W		
Air flow	, ,	Cooling Heating	m³/min	135	
Shock & vil	bration absorber			Rubber sleeve (for compressor)	
Electric hea	ater		W	20 (Crank case heater)	
0-6-4	·			Internal thermostat for fan motor.	
Safety equi	ipments			Abnormal discharge temperature protection.	
	Defile and disinguished (O	D )		Liquid line: φ9.52 (3/8")	
	Refrigerant piping size (O	.D. )	mm	Gas line: φ 22.22 (7/8")	
	Connecting method			Liquid line : Flare / Gas : Brazing	
Installation	Attached length of piping		m	<del>-</del>	
data	Insulation for piping			Necessary (both Liquid & Gas lines)	
uala	Petrigorent line (one was)	longth	m	Max.70m (Liquid piping : $\phi$ 12.7, Gas piping $\phi$ 25.4 or $\phi$ 28.58),	
	Refrigerant line (one way)	iength	m	Max.40m (Liquid piping : $\phi$ 9.52, Max.35m (Gas piping : $\phi$ 22.22),	
	Vertical height diff. between O/	U and I/U	m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)	
	Drain hose			Hole size $\phi 20 \times 3$ pcs	
IP number	•			IP24	
Standard a	ccessories			Connecting pipe, Edging	
Option part	ts			<del>-</del>	
Notes (1)	The data are massived at	ula a da Harrid		The pine length is 7 Fm	

` '		0			11 9
Item	Indoor air t	emperature	Outdoor air temperature		Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- (4) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

			Model	
Item				FDC250VSA
Power sour	ce			3 Phase 380-415V 50Hz / 380V 60Hz
	Nominal cooling capacity	(range)	kW	24.0 [ 6.9(Min.)-28.0(Max.)]
	Nominal heating capacity	(range)	kW	27.0 [ 5.5(Min.)-31.5(Max.)]
Operation	Sound power level	Cooling		73
	Sourid power level	Heating	ĺ	75
data	6	Cooling	dB(A)	59
	Sound pressure level	Heating	i [	62
	Silent mode sound pressu	ure level		54
Exterior din	nensions (Height × Width ×	ns (Height × Width × Depth) mm 1,505×970×370		1,505×970×370
Exterior app	pearance			Stucco white
( Munsell co	olor)			( 4.2Y7.5/1.1) near equivalent
Net weight			kg	143
Compresso	or type & Q'ty			GTC5150NC40KF ( Scroll type )×1
Compresso	sor motor (Starting method) kW Direct line start		Direct line start	
	Refrigerant oil (Amount, type)		l	1.45 (M-MA32R)
Refrigerant	rigerant (Type, amount, pre-charge length)		kg	R410A 7.2kg in outdoor unit (Incl. the amount for the piping of : 30m)
Heat excha	nger			M shape & inner grooved tubing
Refrigerant	control			Electronic expansion valve
Fan type &	Q'ty			Propeller fan ×2
Fan motor (	(Starting method)		W	86x2 < Direct line start >
Air flow		Cooling	m³/min	143
	_	Heating	111 / 11 1111	151
Shock & vib	oration absorber			Rubber sleeve (for compressor)
Electric hea	iter		W	20 (Crank case heater)
Safety equi	nments			Internal thermostat for fan motor.
Caroty oqui				Abnormal discharge temperature protection.
	Refrigerant piping size ( C	ו חו	mm	Liquid line: φ 12.7 (1/2")
		,.D. )		Gas line: $\phi$ 22.22 (7/8")
	Connecting method			Liquid line : Flare / Gas : Brazing
Installation	Attached length of piping		m	<u> </u>
data	Insulation for piping			
	Refrigerant line (one way) length		m	Max.70m (Gas piping : $\phi$ 25.4 or $\phi$ 28.58, Max.35m (Gas piping : $\phi$ 22.22)
	Vertical height diff. between O/U and I/U m Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lo			
	Drain hose			Hole size $\phi 20 \times 3$ pcs
IP number				IP24
Standard ad				Connecting pipe, Edging
Option part	S			<u> </u>

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

<sup>(2)</sup> This air-conditioner is manufactured and tested in conformity with the ISO.
(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

(4) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.

#### (3) Operation chart

The V Multi is a system that allows for different models and capacities of indoor units to be connected so the individual operating characteristics of the indoor and outdoor are provided. Use the procedure shown in item (c) to calculate the combined operating characteristics.

#### (a) Operating characteristic of outdoor unit

(220-240V 50Hz/220V 60Hz)

Item	Model	FDC100VNA	FDC125VNA	FDC140VNA
Cooling power consumption	kW	2.60/2.62	3.91/3.91	4.70/4.70
Heating power consumption	K VV	2.51/2.51	3.60/3.60	4.29/4.29
Cooling running current		12.8-11.7/12.8	18.5-16.9/18.5	21.6-19.8/21.6
Heating running current	A	12.5-11.4/12.5	17.2-15.8/17.2	19.4-17.8/19.4
Inrush current (L.R.A) < Max. running current>	A		5 < 24 >	•

(380-415V 50Hz/380V 60Hz)

Item	Model	FDC100VSA	FDC125VSA	FDC140VSA
Cooling power consumption	kW	2.60/2.62	3.91/3.91	4.70/4.70
Heating power consumption	K VV	2.51/2.51	3.60/3.60	4.29/4.29
Cooling running current	4	3.8-3.5/3.8	5.9-5.4/5.9	7.2-6.6/7.2
Heating running current	Α	3.7-3.3/3.7	5.4-4.9/5.4	6.8-6.2/6.8
Inrush current (L.R.A) <max. current="" running=""></max.>	A		5 <15>	

(380-415V 50Hz/380V 60Hz)

Item	Model	FDC200VSA	FDC250VSA
Cooling power consumption	kW	7.05/7.05	8.22/8.16
Heating power consumption	K VV	7.02/7.02	7.42/7.38
Cooling running current		10.2/10.5	11.8/12.3
Heating running current	A	10.0/10.5	10.8/11.2
Inrush current (L.R.A) < Max. running current>	A	5 < 20>	5 < 21 >

Note(1) This packaged air-conditioner is manufactured and tested in conformity with the following standard. ISO-T1 "UNITARY AIR-CONDITIONERS"

#### (b) Operating characteristic of indoor unit

**FDE Series** (220-240V 50Hz/220V 60Hz)

Model		FDE50VG	FDE60VG	FDE71VG	FDE100VG	FDE125VG	
Cooling power consumption	kW	0.05-0.06/0.06	0.10-0.11/0.11	0.11-0.12/0.14	0.13/0.13	0.13/0.13	
Heating power consumption	K VV	0.05-0.06/0.06	0.09-0.10/0.10	0.10-0.11/0.13	0.13/0.13	0.13/0.13	
Cooling running current		0.25-0.26/0.29	0.46-0.48/0.50	0.50-0.53/0.67	1.20/1.20	1.20/1.20	
Heating running current	A	0.23-0.25/0.28	0.42-0.44/0.46	0.46-0.48/0.63	1.20/1.20	1.20/1.20	

Notes(1) This packaged air-conditioner is manufactured and tested in conformity with the following standard. ISO-T1 "UNITARY AIR-CONDITIONERS"

<sup>(2)</sup> The values shown in the above table are common to both cooling and heating operations.

#### (c) Calculation of total operation characteristics

Since the operation characteristics of V Multi system depend on combination of indoor unit, calculate the total operation characteristics of the system by using the formulas below according to speciations of each indoor unit or outdoor unit.

#### (i) 1 Phase models

#### 1) Total power consumption

Total power consumption (kW) = Power consumption of outdoor unit +  $\Sigma$  (Power consumption of indoor unit)

#### 2) Total running current

Total running current (A) = Running current of outdoor unit +  $\Sigma$  (Running current of indoor unit)

#### 3) Total power factor

Total power factor (%) = [Total power consumption (W) / Total running current (A)  $\times$  Power source]  $\times$  100 Total operation characteristics = Operation characteristic value of outdoor unit + Operation characteristic value of indoor unit

[Example]

(Conditions) Operation Voltage · · · · · Indoor unit: 220 V, 50 Hz

Outdoor unit: 220 V, 50 Hz

Operation mode · · · · · · Cooling and Heating

Unit·····Outdoor unit: FDC140VNA  $\times$  1 unit

Indoor unit: FDE71VG × 2 units

#### Operation characteristics of each unit

(Cooling/Heating)

Item Model	FDC140VNA	FDE71VG
Power consumption (kW)	4.70/4.29	0.08/0.08
Running current (A)	21.6/19.4	0.75/0.75

#### 1 Total power consumption (kW)

(Cooling) 
$$4.70 + (0.08 \times 2) = 4.86$$

(Heating) 
$$4.29 + (0.08 \times 2) = 4.45$$

#### 2 Total running current (A)

(Cooling) 
$$21.6 + (0.75 \times 2) = 23.1$$

(Heating) 
$$19.4 + (0.75 \times 2) = 20.9$$

#### 3 Total power factor (%)

(Cooling) 
$$\frac{4.86 \times 1000}{23.1 \times 220} \times 100 = 96 \%$$

(Heating) 
$$\frac{4.45 \times 1000}{20.9 \times 220} \times 100 = 97 \%$$

#### (ii) 3 Phase models

#### 1) Total power consumption

Total power consumption (kW) = Power consumption of outdoor unit +  $\Sigma$  (Power consumption of indoor unit)

#### 2) Total running current

Total running current (A) = Running current of outdoor unit +  $[\Sigma (Running current of indoor unit) \times 1/3]$ 

#### 3) Total power factor

Total power factor (%) = [Total power consumption (W) /  $\sqrt{3}$  × Total running current (A) × Power source] × 100 Total operation characteristics = Operation characteristic value of outdoor unit + Operation characteristic value of indoor unit [Example]

Operation Voltage · · · · · Indoor unit: 220 V, 50 Hz (Conditions)

Outdoor unit: 380 V, 50 Hz

Operation mode · · · · · · Cooling and Heating

Unit·····Outdoor unit: FDC200VSA × 1 unit

Indoor unit: FDE71VG × 1 unit, FDE125VG × 1 unit

#### Operation characteristics of each unit

(Cooling/Heating)

Item Model	FDC200VSA	FDE71VG	FDE125VG
Power consumption (kW)	7.05/7.02	0.11/0.10	0.13/0.13
Running current (A)	10.2/10.0	0.50/0.46	1.20/1.20

① Total power consumption (kW)

(Cooling) 
$$7.05 + 0.11 + 0.13 = 7.29$$
 (kW)

(Heating) 
$$7.02 + 0.10 + 0.13 = 7.25$$
 (kW)

2 Total running current (A)

(Cooling) 
$$10.2 + \left[ (0.50 + 1.20) \times \frac{1}{3} \right] = 10.8 \text{ (A)}$$

(Cooling) 
$$10.2 + \left[ (0.50 + 1.20) \times \frac{1}{3} \right] = 10.8 \text{ (A)}$$
  
(Heating)  $10.0 + \left[ (0.46 + 1.20) \times \frac{1}{3} \right] = 10.6 \text{ (A)}$ 

3 Total power factor (%)

(Cooling) 
$$\frac{7.29 \times 1000}{\sqrt{3} \times 10.8 \times 380} \times 100 = 99\%$$

(Cooling) 
$$\frac{7.29 \times 1000}{\sqrt{3} \times 10.8 \times 380} \times 100 = 99 \%$$
(Heating) 
$$\frac{7.25 \times 1000}{\sqrt{3} \times 10.6 \times 380} \times 100 = 99 \%$$

4.2.3 EXTERIOR DIMENSIONS	
(1) Indoor units	See page 292
(2) Outdoor units	See page 293
(3) Remote control (Option parts)	See page 295
4.2.4 ELECTRICAL WIRING	
(1) Indoor units	See page 296
(2) Outdoor units	See page 297
4.2.5 NOISE LEVEL	
(1) Indoor units	See page 301
(2) Outdoor units	See page 301
4.2.6 TEMPERATURE AND VELOCITY DISTRIBUTION	See page 303
4.2.7 PIPING SYSTEM	See page 304
4.2.8 RANGE OF USAGE & LIMITATIONS	See page 311
4.2.9 SELECTION CHART	See page 315
4.2.10 APPLICATION DATA	
(1) Installation of indoor unit	See page 343
(2) Electric wiring work installation	See page 348
(3) Installation of wired remote control (Option parts)	See page 348
(4) Installation of outdoor unit	
(a) Models FDC100-140VNA,100-140VSA	See page 348
(b) Models FDC200,250VSA	See page 357
(c) Method for connecting the accessory pipe	
(Models FDC200,250VSA)	See page 365
(5) Instructions for branching pipe set (DIS-WA1,WB1,TA1,TB1)	

#### **4.2.11 TECHNICAL INFORMATION**

Models FDE50VG, 60VG, 71VG, 100VG, 125VG

Model(s): FDE50VG									
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	U		
Cooling capacity (sensible)	$P_{rated,c}$	3.8	kW	Total electric power input	P <sub>elec</sub>	0.050	k۱		
Cooling capacity (latent)	$P_{\text{rated,c}}$	1.2	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	60.0	dl		
Heating capacity	$P_{rated,h}$	5.4	kW						
Contact details	Mitsubishi I	Mitsubishi heavy industries thermal systems,LTD							

Model(s): FDE60VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	5.0	kW	Total electric power input	$P_{elec}$	0.080	kW
Cooling capacity (latent)	$P_{\text{rated,c}}$	0.6	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	60.0	dB
Heating capacity	$P_{rated,h}$	6.7	kW				
Contact details	Mitsubishi heavy industries thermal systems,LTD						

Model(s): FDE71VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	5.6	kW	Total electric power input	$P_{elec}$	0.080	kW
Cooling capacity (latent)	$P_{rated,c}$	1.5	kW	Sound power level (per speed setting,if applicable)	$L_WA$	60.0	dB
Heating capacity	$P_{rated,h}$	8.0	kW				
Contact details	Mitsubishi h	Mitsubishi heavy industries thermal systems,LTD					

Model(s): FDE100VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{\text{rated,c}}$	8.4	kW	Total electric power input	$P_{elec}$	0.130	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	1.6	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	64.0	dB
Heating capacity	P <sub>rated,h</sub> 11.2 kW						
Contact details	Mitsubishi heavy industries thermal systems,LTD						

Model(s): FDE125VG							
Item	Symbol	Vaiue	Unit	Item	Symbol	Vaiue	Unit
Cooling capacity (sensible)	$P_{rated,c}$	9.3	kW	Total electric power input	$P_{elec}$	0.130	kW
Cooling capacity (latent)	$P_{\text{rated,c}}$	3.2	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	64.0	dB
Heating capacity	P <sub>rated,h</sub> 14.0 kW						
Contact details	Mitsubishi heavy industries thermal systems,LTD						

PFA004Z080 A

## **5. OPTION PARTS**

### **CONTENTS**

5.1 WIRELESS KIT	554
5.1.1 FDE series (RCN-E-E3)	554
5.1.2 FDUM,FDU series (RCN-KIT4-E2)	562
5.2 MOTION SENSOR KIT	570
5.2.1 FDE series (LB-E)	570
5.2.2 FDUM,FDU series (LB-KIT)	574
5.2.3 USER'S MANUAL (FDE,FDUM,FDU series)	580
5.3 CURRENT AND NEW MODELS COMPATIBILITY	582
5.4 SIMPLE WIRED REMOTE CONROL (RCH-E3)	587
5.5 FILTER KIT (FDUM series)	593
5.6 BASE HEATER KIT (CW-H-E1)	595
5.7 INTERFACE KIT (SC-BIKN2-E)	601
5.8 SUPERLINK E BOARD (SC-ADNA-E)	605

#### **5.1 WIRELESS KIT**

5.1.1 FDE series (RCN-E-E3)

PFA012D635

### Safety precautions

•Please read this manual carefully before starting installation work to install the unit properly. Every one of the followings is important information to be observed strictly.

MARNING Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc.

⚠CAUTION Failure to follow these instructions properly may cause injury or property damage. It could have serious consequences depending on the circumstances.

•The following pictograms are used in the text.

 $\bigcirc$ 

Never do.



Always follow the instructions given.

• Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, this manual should be given to a new owner.

### **WARNING**



• Consult your dealer or a professional contractor to install the unit.

Improper installation made on your own may cause electric shocks, fire or dropping of the unit.



• Installation work should be performed properly according to this installation manual. Improper installation work may result in electric shocks, fire or break-down.



• Be sure to use accessories and specified parts for installation work.

Use of unspecified parts may result in drop, fire or electric shocks.



• Install the unit properly to a place with sufficient strength to hold the weight. If the place is not strong enough, the unit may drop and cause injury.



• Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit. Power source with insufficient and improper work can cause electric shock and fire.



• Shut OFF the main power source before starting electrical work. Otherwise, it could result in electric shocks, break-down or malfunction.



• Do not modify the unit.

It could cause electric shocks, fire, or break-down.



• Be sure to turn OFF the power circuit breaker before repairing/inspecting the unit.

Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.



• Do not install the unit in appropriate environment or where inflammable gas could generate, flow in, accumulate or leak.

If the unit is used at places where air contains dense oil mist, steam, organic solvent vapor, corrosive gas (ammonium, sulfuric compound, acid, etc) or where acidic or alkaline solution, special spray, etc. are used, it could cause electric shocks, break-down, smoke or fire as a result of significant deterioration of its performance or corrosion.



• Do not install the unit where water vapor is generated excessively or condensation occurs. It could cause electric shocks, fire, or break-down.



• Do not use the unit in a place where it gets wet, such as laundry room. It could cause electric shocks, fire, or break-down.



• Do not operate the unit with wet hands. It could cause electric shocks.

#### **⚠ WARNING**



• Do not wash the unit with water.

It could cause electric shocks, fire, or break-down.



• Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces.

Improper connections or fixing could cause heat generation, fire, etc.



When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.

It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.



Do not leave the remote control with its PCB case removed.

If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

#### **!**\CAUTION

- Do not install the wireless kit at the following places in order to avoid malfunction. It could cause break-down or deformation of remote control.
  - (1) Places exposed to direct sunlight
  - (2) Places near heat devices

  - (3) High humidity places
  - generate condensation
  - (5) Places exposed to oil mist or steam directly (10) Places where some object may obstruct the
  - (6) Uneven surface
- (8) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight.
  - (4) Hot surface or cold surface enough to (9) Places where the receiver is affected by infrared rays of any other communication devices.
    - communication with the remote control
  - (7) Places affected by the direct air flow of the AC unit.

### 1 Accessories

Please make sure that you have all of the following accessories.

① Receiver	B.:	1	
② Parts set		1	_
③ Installation manual		1	
④ Wiring		1	

•			
-	① Wireless remote control		1
	② Remote control holder		1
	3 Screw for holder	\$	2
	④ AAA dry cell battery (LR03)	6	2
	⑤ User's manual		1

### (2) Preparation before installation

#### Setting on site

PCB on the receiver has the following switches to set the function.

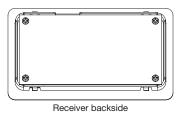
Default setting is shown with mark.

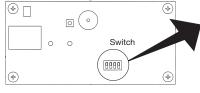
SW1	Prevents interference during plural setting	ON : Normal OFF : Customized
SW2	Receiver master/slave setting	ON : Master OFF : Slave
SW3	Buzzer	ON : Valid OFF : Invalid
SW4	Auto restart	ON : Valid OFF : Invalid

### (2) Preparation before installation (continued)

#### To change setting

- 1. Remove four screws located on the back of the receiver and detach the board.
- 2. Change the setting by the switch on PCB.







Master/Slave setting when using plural remote controls

Up to two receiver or wired remote OFF control can be installed in one Default settings indoor unit group. When two receiver or wired remote control are used, it is necessary to change SW on the PCB to set it as slave.

3. When SW1 is turned to OFF position, change the wireless remote control setting. For the method of changing the setting, refer to Setting to avoid mixed communication of (5) Wireless remote control

\*The receivable area of the signal refer to 6 Receiver

### (3) How to install the receiver

The receiver can be installed by replacing with a cover of the panel. CAUTION: When installing the receiver after unit has been fixed, injury due to falling may result because of working at high place.

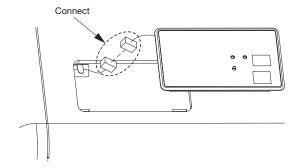
1 Remove the cover

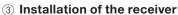
Insert a flat-blade screwdriver into the dented part (2 places), and wrench slightly so as not to damage panel surface.

(2) Connect the wiring

Connect wiring of the receiver to the wiring in the back.

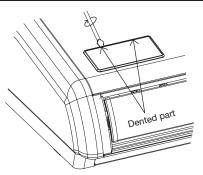
ATTENTION: Do not remove the clamp fixed the wiring.

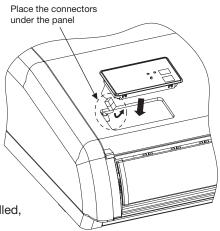




Check direction of the receiver, and fix to the panel.

CAUTION: Connect the connectors before installing the receiver. In case of connecting after the receiver had been installed, it will be necessary to remove the panel.



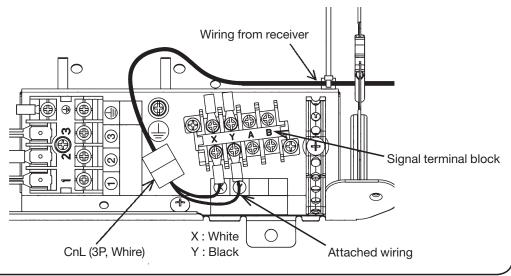


### 4 How to connect the wiring for control box

Connect the attached wiring to the signal terminal block primary side XY (for grill side) in the control box, and connect to the CNL connector (3P white) from the receiver .

\* This installation is unnecessary for indoor unit that have wiring is already connected from the signal

terminal block to the receiver.

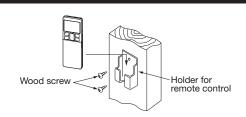


### (5) Wireless remote control

#### Installation tips for the remote control holder

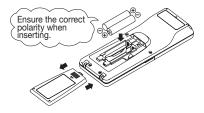
Fix the remote control holder using the screws supplied with this product.

- \* Precautions for installing the holder
- Adjust the position so that it is upright.
- Ensure that the screw heads are not protruding.
- Do not attach the holder on plaster wall.



#### How to insert batteries

- 1. Detach the back lid.
- 2. Insert the batteries. (two AAA batteries)
- 3. Reattach the back lid.



#### Setting to avoid mixed communication

- 1. Detach the back lid, and remove the batteries.
- 2. Cut off the switching wire in the battery compartment using nippers.
- 3. Insert the batteries, and attach the back lid.



#### Changing the remote control setting

How to change the Auto Run setting

The Auto Run mode is not available on the building air conditioning and gas heat pump series (excluding the cooling/heating free multi system).

When using the remote control to operate those models, set the remote control to disable the Auto Run mode.

To disable the Auto Run mode, press the ACL switch while holding down the MODE button, or insert batteries while holding down the MODE button.

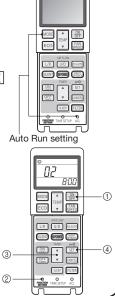
\* Note: Once the batteries are removed, the setting is reset to the factory default.

When the batteries are removed, repeat the steps described above.

#### Indoor function settings

- 1. How to set indoor functions
  - ① Press the ON/OFF button to stop the unit.
  - Press the desired one of the buttons shown item 2. while holding down the FUNCTION SETTING switch.
  - ③ Use the selection buttons, ▲ and ▼, to change the setting.
  - (4) Press the SET button.

The buzzer on the remote control signal receiver beeps twice, and the LED lamp flashes four times at two-second intervals.



# **5 Wireless remote control (continued)**

2. Setting details
The following functions can be set.

Button	Number indicator	Function setting				
	00	Fun speed setting : Standard				
FAN SPEED	01	Fun speed setting : Setting 1 *				
	02	Fun speed setting: Setting 2 *				
	00	Room heating temperature adjustment : Disable				
MODE	01	om heating temperature adjustment : +1°C				
MODE	02	om heating temperature adjustment : +2°C				
	03	Room heating temperature adjustment : +3°C				
	00	Filter sign display: OFF				
	01	Filter sign display: 180 hours				
FILTER	02	Filter sign display: 600 hours				
	03	Filter sign display: 1000 hours				
	04	Filter sign display: Operation stop after 1000 hours have elapsed				
U/P	00	Anti draft setting : Disable				
(Up/Down)	01	Anti draft setting: Enable				
SILENT	00	Infrared sensor setting (Motion sensor setting) : Disable				
SILEIVI	01	Infrared sensor setting (Motion sensor setting) : Enable				
	00	Infrared sensor control (Motion sensor control) : Disable				
HI POWER	01	Infrared sensor control (Motion sensor control) : Power control only				
HIPOWER	02	Infrared sensor control (Motion sensor control) : Auto OFF only				
	03	Infrared sensor control (Motion sensor control) : Power control + Auto OFF				
	00	Cooling fan residual-period running : Disable				
ON TIMER	01	Cooling fan residual-period running: 0.5 hours				
ON TIMER	02	Cooling fan residual-period running : 2 hours				
	03	Cooling fan residual-period running : 6 hours				
	00	Heating fan residual-period running : Disable				
OFF TIMER	01	Heating fan residual-period running : 0.5 hours				
OFF HIMER	02	Heating fan residual-period running : 2 hours				
	03	Heating fan residual-period running : 6 hours				
NICHT	00	Remote control signal receiver LED : Brightness High				
NIGHT SETBACK	01	Remote control signal receiver LED : Brightness Low				
OLIDAUN	02	Remote control signal receiver LED : OFF				

<sup>\*</sup> Refer to technical data.

### (6) Receiver

#### 1 Control plural indoor units with one remote control

Up to 16 indoor units can be connected.

- 1. Connect the XY terminal with 2 cores wire. As for the size, refer to the following note.
- For Packaged air conditioner series, set the indoor unit address with SW2 on the indoor unit PCB from [1] to [F] so as not to duplicate.

Restrictions on the thickness and length of wire (Maximun total extension 600m.)

Standard Within 0.3 mm<sup>2</sup> × 100m

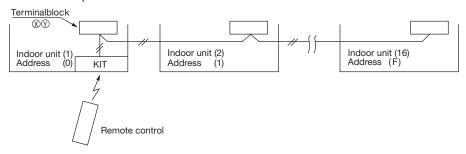
Within 0.5 mm<sup>2</sup> × 200m

Within  $0.75 \text{mm}^2 \times 300 \text{m}$ 

Within 1.25mm<sup>2</sup> × 400m Within 2.0 mm<sup>2</sup> × 600m

#### For the shop series

For VRF series, set the indoor unit address with SW1, SW2 and SW5-2 on the indoor unit PCB from [000] to [127] so as not to duplicate.

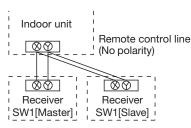


#### For the building air-conditioning and gas heat pump series

Set the indoor unit and outdoor unit numbers by manually specifying the addresses. Use the rotary switches SW1 and SW2 provided on the indoor unit PCB (printed circuit board) to set the indoor unit numbers so that they are not duplicated.

#### Master/Slave setting when using plural remote control

Up to two receivers can be installed in one indoor unit group.



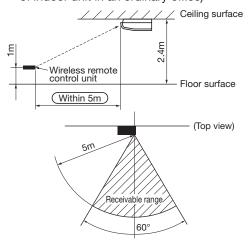
Switch	Setting	Function
SW2	ON	Master
3002	OFF	Slave

### (6) Receiver (continued)

#### Wireless remote control's operable area

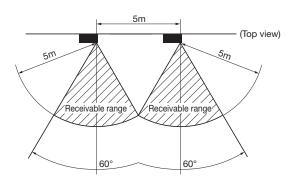
1. Standard signal receiving range [Condition]

Illuminance at the receiver area: 300 lux. (When no lighting fixture is located within 1m of indoor unit in an ordinary office)



2. Points for attention in connecting a plural number of indoor units [Condition]

Illuminance at the receiver area: 300 lux.



#### Backup switch

A backup switch is provided on the receiver section of the panel surface.

When operation from the wireless remote control unit is not possible (due to flat batteries, a mislaid unit, a unit failure), you can use it as an emergency means. You should operate this switch manually.

1. If pressed while the air-conditioner is in a halt, it will cause the air-conditioner to start operation in the automatic mode (in the case of cooling only, in the cooling mode).

Louver: horizontal.

Wind speed: Hi fan, Temperature setting: 23°C,



TIMER

CHECK

0\_

RUN

Backup switch

2. If pressed while the air-conditioner is in operation, it will stop the air-conditioner.

#### Cooling test run operation

- After safety confirmation, turn on the power.
- Transmit a cooling operation command with the wireless remote control unit, while the backup switch on the receiver is depressed.
- If the backup switch on the receiver is pressed during a test run, it will end the test run.
- If you cannot operate the unit properly during a test run, please check wiring by consulting with inspection guides.

#### How to read the two-digit display

A two-digit indicator (7-segment indicator) is provided on the receiver section.

- 1. An indication will be displayed for one hour after power on.
- An indication appears for 3.5 seconds when a "Stop" command is sent from the wireless remote control unit while the air-conditioner is not running.
- An indication appearing in (1) or (2) above will go off as soon as the unit starts operation.
- 4. When there are no error records to indicate, addresses are displayed for all of the connected units.
- 5. When there are some error records remaining, the error records are displayed.
- 6. Error records can be cleared by transmitting a "Stop" command from the wireless remote control unit, while the backup switch is depressed.

#### 5.1.2 FDUM, FDU series (RCN-KIT4-E2)

PJZ012D112A

### Safety precautions

- •Please read this manual carefully before starting installation work to install the unit properly. Every one of the followings is important information to be observed strictly.
- MARNING Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc.
- <u>^</u>CAUTION Failure to follow these instructions properly may cause injury or property damage. It could have serious consequences depending on the circumstances.
- •The following pictograms are used in the text.

$\mathcal{O}$

Never do.



Always follow the instructions given.

•Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, this manual should be given to a new owner.

### **MARNING**



• Consult your dealer or a professional contractor to install the unit.

Improper installation made on your own may cause electric shocks, fire or dropping of the unit.



• Installation work should be performed properly according to this installation manual. Improper installation work may result in electric shocks, fire or break-down.



• Be sure to use accessories and specified parts for installation work.

Use of unspecified parts may result in drop, fire or electric shocks.



• Install the unit properly to a place with sufficient strength to hold the weight. If the place is not strong enough, the unit may drop and cause injury.



• Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit. Power source with insufficient and improper work can cause electric shock and fire.



• Shut OFF the main power source before starting electrical work.

Otherwise, it could result in electric shocks, break-down or malfunction.



• Do not modify the unit.

It could cause electric shocks, fire, or break-down.



• Be sure to turn OFF the power circuit breaker before repairing/inspecting the unit.

Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.



• Do not install the unit in appropriate environment or where inflammable gas could generate, flow in, accumulate or leak.

If the unit is used at places where air contains dense oil mist, steam, organic solvent vapor, corrosive gas (ammonium, sulfuric compound, acid, etc) or where acidic or alkaline solution, special spray, etc. are used, it could cause electric shocks, break-down, smoke or fire as a result of significant deterioration of its performance or corrosion.



• Do not install the unit where water vapor is generated excessively or condensation occurs. It could cause electric shocks, fire, or break-down.



• Do not use the unit in a place where it gets wet, such as laundry room. It could cause electric shocks, fire, or break-down.



• Do not operate the unit with wet hands. It could cause electric shocks.

### **⚠ WARNING**



Do not wash the unit with water.

It could cause electric shocks, fire, or break-down.



• Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces.

Improper connections or fixing could cause heat generation, fire, etc.



When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises. It could cause malfunction or break-down due to hazardous effects on the inverter, private

power generator, high frequency medical equipment, radio communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.



• Do not leave the remote control with its PCB case removed.

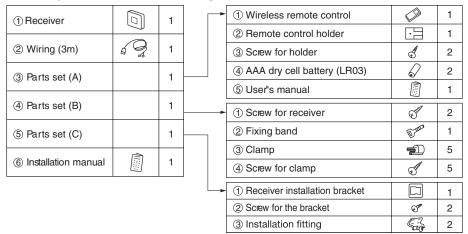
If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

#### **⚠** CAUTION

- Do not install the wireless kit at the following places in order to avoid malfunction. It could cause break-down or deformation of remote control.
  - (1) Places exposed to direct sunlight
  - (2) Places near heat devices
  - (3) High humidity places
  - (4) Hot surface or cold surface enough to (9) Places where the receiver is affected by infrared generate condensation
  - (5) Places exposed to oil mist or steam directly (10) Places where some object may obstruct the
  - (6) Uneven surface
  - (7) Places affected by the direct air flow of the AC unit
- (8) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight
  - rays of any other communication devices
- - communication with the remote control

### ① Accessories

Please make sure that you have all of the following accessories.



### 2 Preparation before installation

#### Setting on site

PCB on the receiver has the following switches to set the function. Default setting is shown with mark.

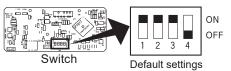
SW1	Prevents interference during plural setting	ON : Normal	OFF : Customized
SW2	Receiver master/ slave setting	ON : Master	OFF : Slave
SW3			
SW4	Auto restart	ON : Valid	OFF : Invalid

### ② Preparation before installation (continued)

#### To change setting

- Remove one screws located on the under of the receiver and detach the board.
- 2. Change the setting by the switch on PCB.





3. When SW1 is turned to OFF position, change the wireless remote control setting.

For the method of changing the setting, refer to Setting to avoid mixed communication of Wireless remote control.

\*The receivable area of the signal refer to (5) Receiver

# Master/Slave setting when using plural remote controls

Up to two receiver or wired remote control can be installed in one indoor unit group.

When two receiver or wired remote control are used, it is necessary to change SW on the PCB to set it as slave.

### (3) How to install the receiver

The following two methods can be used to install the receiver onto a ceiling or a wall. Select a method according to the installation position.

<Installation position>

- (A) Direct installation onto the ceiling with wood screws.
- (B) Installation with accessory's bracket

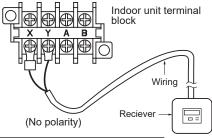
#### (1) Drilling of the ceiling (ceiling opening)

Drill the receiver installation holes with the dimensions shown right at the ceiling position where wires can be connected.



(A) Direct installation onto the ceiling with wood screws.	88mm(H)×101mm(W)
(B) Installation with enclosed bracket	108mm(H)×108mm(W)

#### (2) Wiring connection of receiver



### **↑** Caution

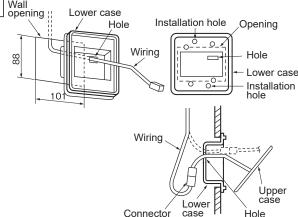
Do not connect the wiring to the power source of the terminal block. If it is connected, printed board will be damaged.

#### (3) Installation of the receiver

Remove the screw on the side of the receiver and sprit it into the upper case and lower case. Install the receiver with one of the two installation methods (A) to (C) shown below.

#### (A) Direct installation onto the ceiling with screws

- Use this installation method when the ceiling is wooden, and there is no problem for strength in installing directly with wood screws.
- ① Put through the wiring from the back side to the hole of the lower case.
- ② Fit the lower case into the ceiling opening. Make sure that the clearance between the convex part of the back of the lower case and the ceiling opening must be as equal as possible on both sides.
- ③ Using the two installation holes shown right, fix the lower case onto the ceiling with the enclosed wood screws. (The other four holes are not used.)
- 4 Connect the wiring with the wiring from the upper case by the connector.

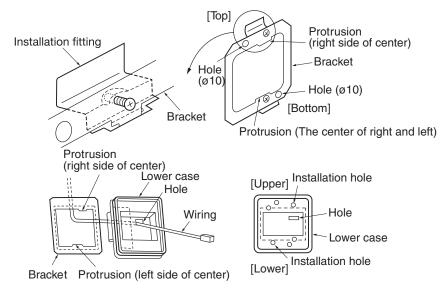


### ③ How to install the receiver(continued)

- 5 Take out the connector to the backside from the hole of the lower case putting through the wiring at 1.
- 6 Fit the upper case and the lower case, and tighten the screws.

#### (B) Installation with enclosed bracket

Use this method when installaing onto a gypsum board (7 to 18mm), etc.

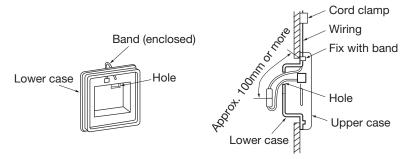


- ① Catch the two protrusion of the enclosed bracket onto the fitting as shown above, and temporarily fix with the screws. (The bracket has an Upper/Lower and front/back orientation. Confirm the Upper/Lower protrusion positions and the positional relation of the ø10 holes on the bracket and the installation hole on the lower case with the above drawing.)
- ② Insert the end of the installation fitting into the back of the ceiling from the opening, and tighten the screws to fix the bracket onto the ceiling.
- ③ Pass the wiring from the rear side through the hole on the lower case.
- 4 Fit the lower case onto the bracket, and fix the lower case to the bracket using the two installation holes shown above. (The other four holes are not used.)
- 5 Follow step 1 to 6 for (A) to complete the installation.

### ③ How to install the receiver (continued)

#### (C) Exposed installation

Use the following procedure when installing the case with the wiring exposed.



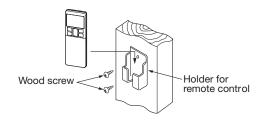
- ① Cut off the thin section on the side of the upper case with a pair of nippers or a knife, and remove the burrs with a file, etc. (The wiring is passed through this section.)
- ② Pass the enclosed band through the wiring outlet hole on the lower case.
- ③ Use on of the light detection adaptor installation methods (A) or (B) explained in section 3, and fix the lower case onto the wall. Do not pass the wiring through the hole on the lower case.
- 4 Fix the wiring using the band while leaving the wiring length from the band fixing section to the end of the wiring connector at 100mm or more.
- (5) Connect the wiring with the wiring protruding front the upper case using a connector.
- (6) Pass the connected connector and the excess wiring through the hole on the lower case.
- Tit the upper case onto the lower case, and tighten the screws.
- Adequately fix the wiring with the enclesed cord clamp.

### (4) Wireless remote control

#### Installation tips for the remote control holder

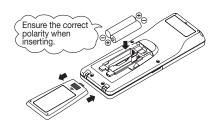
Fix the remote control holder using the screws supplied with this product.

- \* Precautions for installing the holder
- Adjust the position so that it is upright.
- Ensure that the screw heads are not protruding.
- Do not attach the holder on plaster wall.



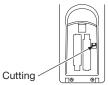
#### How to insert batteries

- 1. Detach the back lid.
- 2. Insert the batteries. (two AAA batteries)
- 3. Reattach the back lid.



#### Setting to avoid mixed communication

- 1. Detach the back lid, and remove the batteries.
- 2. Cut off the switching wire in the battery compartment using nippers.
- 3. Insert the batteries, and attach the back lid.



### 4 Wireless remote control (continued)

#### Changing the wireless remote control setting

How to change the Auto Run setting

The Auto Run mode is not available on the building air-conditioner and gas heat pump series (excluding the cooling/heating free multi system).

When using the wireless remote control to operate those models, set the wireless remote control to disable the Auto Run mode.

To disable the Auto Run mode, press the ACL switch while holding down the MODE button, or insert batteries while holding down the MODE button.

\* Note: Once the batteries are removed, the setting is reset to the factory default. When the batteries are removed, repeat the steps described above.

#### Indoor function settings

- 1. How to set indoor functions
  - 1) Press the ON/OFF button to stop the unit.
  - ② Press the desired one of the buttons shown below while holding down the FUNCTION SETTING switch.
  - ③ Use the selection buttons, ▲ and ▼, to change the setting.

Infrared sensor control (Motion sensor control): Disable

Infrared sensor control (Motion sensor control):

Infrared sensor control (Motion sensor control):

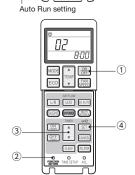
Infrared sensor control (Motion sensor control):

(4) Press the SET button.

The buzzer on the wireless remote control signal receiver beeps twice, and the LED lamp flashes four times at two-second intervals.

2. Setting details

The following functions can be set.



					<del></del>
Button	Number indicator	Function setting	Button	Number indicator	Function setting
FAN SPEED	00	Fun speed setting : Standard		00	Cooling fan residual-period running : Disable
	01	Fun speed setting : Setting 1 *	ON TIMER	01	Cooling fan residual-period running: 0.5 hours
	02	Fun speed setting : Setting 2 *	ON TIMER	02	Cooling fan residual-period running : 2 hours
	00	Room heating temperature adjustment : Disable	1	03	Cooling fan residual-period running : 6 hours
	01	Room heating temperature adjustment : +1°C	OFF TIMER	00	Heating fan residual-period running : Disable
	02	Room heating temperature adjustment : +2°C		01	Heating fan residual-period running: 0.5 hours
	03	Room heating temperature adjustment : +3°C	OFF HIMER	02	Heating fan residual-period running : 2 hours
	00	Filter sign display : OFF	1	03	Heating fan residual-period running : 6 hours
	01	Filter sign display : 180 hours	NICHT	00	Remote control signal receiver LED : Brightness High
FILTER	02	Filter sign display : 600 hours	NIGHT SETBACK	01	Remote control signal receiver LED : Brightness Low
FILTER	03	Filter sign display : 1000 hours	GETBAOK	02	Remote control signal receiver LED : OFF
	04	Filter sign display :	* Refer to technical data.		
		Operation stop after 1000 hours have elapsed			
U/P	00	Anti draft setting : Disable			
	01	Anti draft setting : Enable			
SILENT	00	Infrared sensor setting (Motion sensor setting) : Disable			
	01	Infrared sensor setting (Motion sensor setting) : Enable			

### **(5)** Receiver

HI POWER

#### 1 Control plural indoor units with one remote control

Power control only

Power control and Auto OFF

Auto OFF only

Up to 16 indoor units can be connected.

00

01

02

03

- 1. Connect the XY terminal with 2 cores wire. As for the size, refer to the following note.
- 2. For Packaged air-conditioner series, set the indoor unit address with SW2 on the indoor unit PCB from [0] to [F] so as not to duplicate.

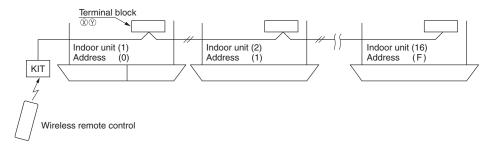
Restrictions on the thickness and length of wire (Maximun total extension 600m.)

Standard Within  $0.3 \text{ mm}^2 \times 100 \text{m}$  Within  $0.5 \text{ mm}^2 \times 200 \text{m}$  Within  $0.75 \text{mm}^2 \times 300 \text{m}$  Within  $1.25 \text{mm}^2 \times 400 \text{m}$  Within  $2.0 \text{ mm}^2 \times 600 \text{m}$ 

### **5** Receiver (continued)

#### For the shop series

For VRF series, set the indoor unit address with SW1, SW2 and SW5-2 on the indoor unit PCB from [000] to [127] so as not to duplicate.

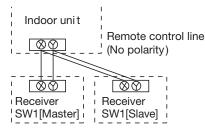


### For the building air-conditioner and gas heat pump series

Set the indoor unit and outdoor unit numbers by manually specifying the addresses. Use the rotary switches SW1 and SW2 provided on the indoor unit PCB (printed circuit board) to set the indoor unit numbers so that they are not duplicated.

#### Master/Slave setting when using plural remote control

Up to two receivers can be installed in one indoor unit group.

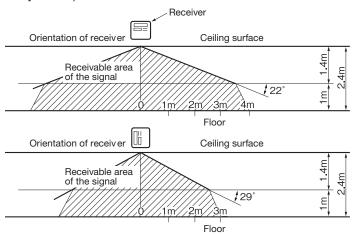


Switch	Setting	Function		
SW2	ON	Master		
3002	OFF	Slave		

#### When installed on ceiling

1. Standard reachable area of the signa

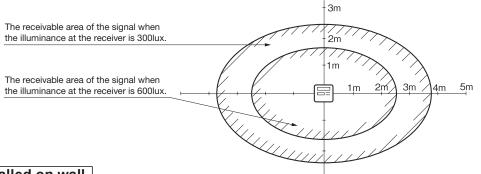
[Condition] Illuminance at the receiver : **300lux** (when no lighting is installed within 1m of the receiver in an ordinary office.)



2. Correlation between illuminance at the receiver and reachable area of the signal in a plain view.

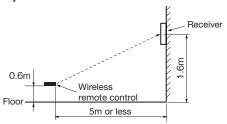
[Condition] Correlation between the reachable area of the signal and illuminance at the receiver when the wireless remote control is operated at 1m high under the condition of ceiling height of 2.4m. When the illuminance becomes double, the area is narrowed down to two third.

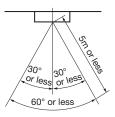
### **(5)** Receiver (continued)



#### When installed on wall

[Condition] Illuminance at the receiver: 800lux.

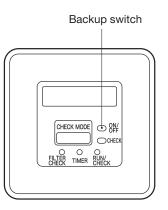




#### **Backup switch**

A backup switch is provided on the receiver section of the panel surface. When operation from the wireless remote control unit is not possible (due to flat batteries, a mislaid unit, a unit failure), you can use it as an emergency means. You should operate this switch manually.

- 1. If pressed while the air-conditioner is in a halt, it will cause the air-conditioner to start operation in the automatic mode (in the case of cooling only, in the cooling mode). Wind speed: Hi fan, Temperature setting: 23°C, Louver: horizontal
- If pressed while the air-conditioner is in operation, it will stop the airconditioner.



#### Cooling test run operation

- After safety confirmation, turn on the power.
- Transmit a cooling operation command with the wireless remote control unit, while the backup switch on the receiver is depressed.
- If the backup switch on the receiver is pressed during a test run, it will end the test run.
- If you cannot operate the unit properly during a test run, please check wiring by consulting with inspection guides.

#### How to read the 6-digit display

A 6-digit indicator (7-segment indicator) is provided on the receiver section.

- 1. An indication will be displayed for one hour after power on.
- 2. An indication appears for 3.5 seconds when a "Stop" command is sent from the wireless remote control unit while the air-conditioner is not running.
- 3. An indication appearing in (1) or (2) above will go off as soon as the unit starts operation.
- 4. When there are no error records to indicate, addresses are displayed for all of the connected units.
- 5. When there are some error records remaining, the error records are displayed.
- 6. Error records can be cleared by transmitting a "Stop" command from the wireless remote control unit, while the backup switch is depressed.

### 5.2 MOTION SENSOR KIT

PFA012D633 ▲

#### 5.2.1 FDE series (LB-E)

### **↑** WARNING

 Connect the wiring to the PCB in the control box on the indoor unit and hold the wiring securely so as not to apply unexpected stress on the PCB. Loose connection or hold will cause abnormal heat generation or fire.



Make sure the power source is turned off when electric wiring work. Otherwise, electric shock, malfunction and improper running may occur.



### **⚠ CAUTION**

- Do not install the motion sensor kit at the following places in order to avoid malfunction.
  - (1) Places exposed to direct sunlight
  - (2) Places near heat devices
  - (3) High humidity places
  - (4) Hot surface or cold surface enough to generate condensation

  - (6) Places affected by the direct air flow of the Indoor unit
  - Places where the motion sensor is influenced by the fluorescent lamp or sunlight
- (8) Places where the motion sensor is affected by infrared rays of any other communication devices
- (9) Places where some object may obstruct the motion sensor



- (5) Places exposed to oil mist or steam directly (10) Place that the motion sensor have a shock
  - (11) Place with the strong radio wave or Static electricity
  - (12) Place that motion sensor lens become tainted or have damaged. Dusty place
- Do not leave the motion sensor without the cover. In case the cover needs to be detached, protect the motion sensor with a packaging or bag. In order to keep it away from water and dust.



#### Attention

- · This manual describes how to install the motion sensor kit.
- Instruct the customer how to operate it correctly referring to the instruction manual.
- For the installation method of the air-conditioner itself, refer to the installation manual enclosed in the package.

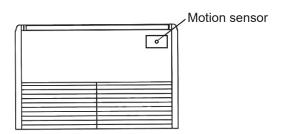
# 1 Accessories

Please make sure that all components are in the package.

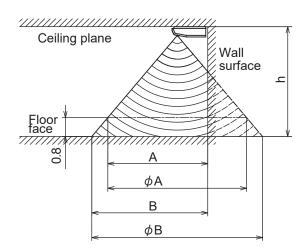
Motion sensor (\*) Manual Attached wiring to the motion sensor kit \* Wiring from the motion sensor and the attached wiring to the motion sensor kit have been connected when shipped from the factory. Remove the connector at the position of  $\bigcirc$  mark and connect it to the attached wiring to the indoor unit before use.

# 2 Installing the motion sensor

- It is possible to install the motion sensor by replacing the indoor unit.
- The recommended height is lower than 4000 mm for motion sensor. When the installation height is higher, motion detection accuracy might be reduced.
- Sensor will detect the object with a different temperature from the surrounding.
- Sensor may not detect small children or infants with little motion.
- Use the separate motion sensor so that person's activity can be detected when the detectable area differs from the person's activity area.
- Use the separate motion sensor when using both wireless remote control and motion sensor together.



### The detectable area



Height of the ceiling	h (m)	2.7	3.5	4.0
Detectable area	A (m)	2.9	3.9	4.5
Detectable area	$\phi$ A (m)	4.5	6.4	7.6
Detectable area	B (m)	3.9	4.8	5.4
Detectable area	φ B (m)	6.4	8.3	9.5

### Installing the motion sensor (before installing the unit)

Motion sensor can be installed by replacing with a cover of the panel.

**CAUTION**: Install the motion sensor before installing the unit.

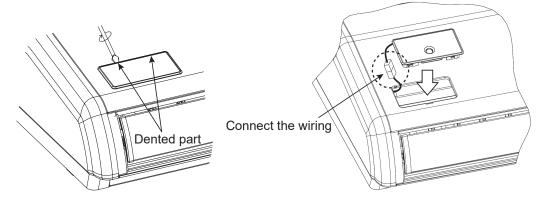
When installing the motion sensor after unit has been fixed, in ury due to falling may result because of working at high place.

① Remove the connector that connects the motion sensor and the wiring.



- ② Insert a tool into the dented part (2 places) of the panel cover, and wrench slightly not to damage the paintwork of the panel to remove the cover.
- ③ Connect the wiring from the panel's hole (attached to the indoor unit, color of the wiring: white, red and black, connector: 3P, white) to the wiring from the motion sensor. Make sure to install the motion sensor in the correct direction.

**CAUTION**: Do not remove the clamp fixed the wiring.



(4) Install the motion sensor

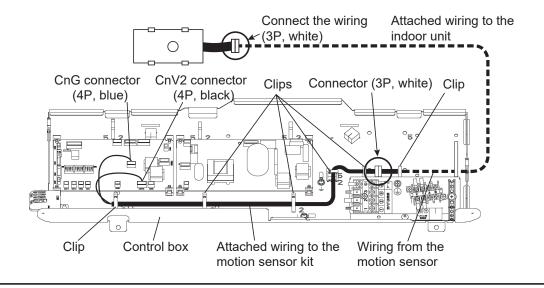
Place the connector under the panel and install it to the panel with careful attention to the direction of the motion sensor.

**CAUTION**: Connect the connectors before installing the motion sensor.

In case of connecting after the motion sensor has been installed, it will be necessary to remove the panel.

### Wiring connection in the control box

- ① Connect the wiring from the motion sensor (attached to the indoor unit, color of the wiring: white, red and black, connector: 3P, white) to the attached wiring to the motion sensor kit.
- ② Fix the wiring with clips (6 places).
- 3 Connect CnG connector (4P, blue) to the PCB.
- 4 Connect CnV2 connector (4P, black) to the PCB.



# 3 Setting the motion sensor

The motion sensor will not function if it is only installed.

Set the function of the motion sensor by the wired or wireless remote control. Refer to the manual instruction of each remote control for the setting procedure.

Note: It is not possible to set by the following remote control models or older.

Wired:RC-EX1A, RC-E5, RCH-E3

Wireless: RCN-E1R

#### 5.2.2 FDUM, FDU series (LB-KIT)

PJZ012D122 🗥

### **⚠ WARNING**

Connect the wiring to the PCB in the control box on the indoor unit and hold the wiring securely so as not to apply unexpected stress on the PCB.

Loose connection or hold will cause abnormal heat generation or fire.



Make sure the power source is turned off when electric wiring work.
 Otherwise, electric shock, malfunction and improper running may occur.



### **A** CAUTION

- Do not install the motion sensor kit at the following places in order to avoid malfunction.
- (1) Places exposed to direct sunlight
- (2) Places near heat devices
- (3) High humidity places
- (4) Hot surface or cold surface enough to generate condensation
- (5) Places exposed to oil mist or steam directly
- (6) Places affected by the direct air flow of the Indoor unit
- (7) Places where the motion sensor is influenced by the fluorescent lamp or sunlight
- (8) Places where the motion sensor is affected by infrared rays of any other communication devices
- (9) Places where some object may obstruct the motion sensor



- (10) Place that the motion sensor have a shock
- (11) Place with the strong radio wave or Static electricity
- (12) Place that motion sensor lens become tainted or have damaged. Dusty place
- (13) Place where it runs in parallel with strong voltage lines such as power source wiring
- Do not leave the motion sensor without the cover.
   In case the cover needs to be detached, protect the motion sensor with a packaging or bag.
   In order to keep it away from water and dust.



#### Attention

- · This manual describes how to install the motion sensor kit.
- Instruct the customer how to operate it correctly referring to the instruction manual.
- For the installation method of the air-conditioner itself, refer to the installation manual enclosed in the package.

# 1 Accessories

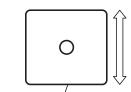
Please make sure that all components are in the package.

Motion sensor	Wiring <1>	Wiring <2>	2 screws	Manual
0	In case of CnL connector on the indoor unit PCB (FDT/FDK/FDTC)	In case of CnL connector is not on the indoor unit PCB	OD OD	

\* Please prepare a relay wiring for connecting the motion sensor and indoor unit on site. (0.2 mm<sup>2</sup> or thicker, triplex (red, white and black) cable for communication, with the maximum length of 8 m.)

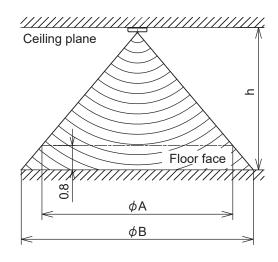
## 2 Installing the motion sensor

- The recommended height is lower than 4000 mm for motion sensor. When the installation height is higher, motion detection accuracy might be reduced.
- · Sensor will detect the object with a different temperature from the surrounding.
- Motion sensor is more sensitive to motions in the direction of  $\langle \neg \rangle$  mark.
- Sensor may not detect small children or infants with little motion.
- · Although motion sensor can be installed on a wall, it is recommended to install it on the ceiling plane.
- If the sensor is installed on the wall, the sensing distance in the front direction is about 5 m, covering the angle of about 100 degrees.



Side of screws for fixing the case

#### The detectable area



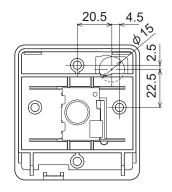
Height of the ceiling	h (m)	2.7	3.5	4.0
Detectable area	$\phi$ A (m)	4.5	6.4	7.6
Detectable area	$\phi$ B (m)	6.4	8.3	9.5

### Installing the motion sensor

There are the following 3 methods to install the motion sensor on the ceiling plane or wall surface (hereinafter called "ceiling plane"). Select the method according to the installation position.

#### <How to install>

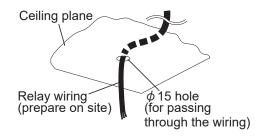
- (A) Direct installation by screws to the ceiling plane with the wiring in the ceiling space.
- (B) Direct installation by screws to the ceiling plane with the wiring in the room.
- (C) Installation with switch box (prepare at the site)

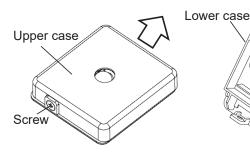


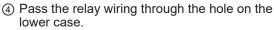
Positional relation for pulling out relay wiring hole and installing holes.

#### Option (A)

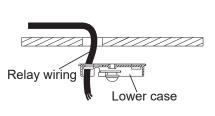
- ► Select this method if the ceiling plane has sufficien strength to install the motion sensor directly with screws.
- ① Prepare a relay wiring on site and lay out the wiring in advance.
- ② Remove the screw at the side of the motion sensor and slide the upper case in the direction of the arrow.
- (3) Pull the wiring of the motion sensor as below.

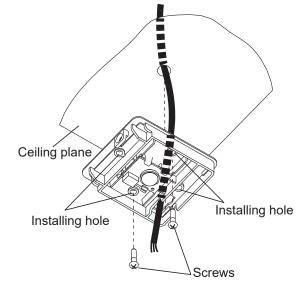






When fixing the lower case to the ceiling plane tighten it in 2 locations of the installing holes (4 locations) with the attached screws.





(6) Using a crimping terminal, etc., connect the same color to the relay wiring (prepare on site) and the wiring of motion sensor.



- Place the connecting part inside of the ceiling space.
- Seal the wiring hole on the lower case with putty.
- (9) Taking care not to pinch the wirings, slip the upper case into the lower case, and tighten the screws.

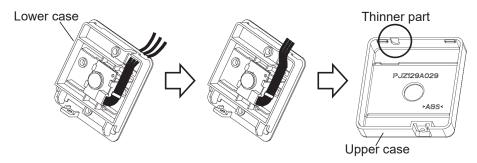


#### Caution:

In order to prevent tracking, be sure to perform construction so as not to clog up the connecting part with dust, etc.

#### Option (B)

- ► Select this method if the ceiling plane has sufficient strength to install t e motion sensor directly with screws.
- ① Remove the screw at the side of the motion sensor and slide the upper case in the direction of the arrow. (The same as ② of Option (A))
- (2) Pull the wiring of the motion sensor toward the side. Cut off the thinner part of the upper case.



- ③ When fixing the lower case to the ceiling plane, tighten i in 2 locations of the installing holes (4 locations) with the attached screws. (The same as ⑤ of Option (A))
- 4 Using a crimping terminal, etc., connect the same color to the relay wiring (prepare on site) and the wiring of motion sensor.
  - (The same as ⑥ of Option (A))
- (5) Taking care not to pinch the wirings, slip the upper case into the lower case, and tighten the screws.

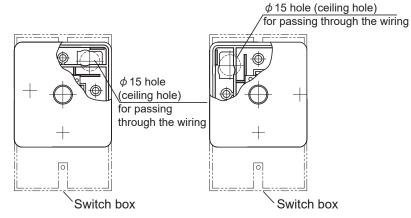
  (The same as (9) of Option (A))
- 6 Seal the cut part at Step 2 with putty.



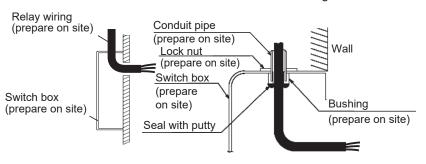
#### Option (C)

 Set up the switch box and relay wiring (prepare on site) in advance.
 Seal the relay wiring inlet with

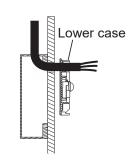
Seal the relay wiring inlet with putty.

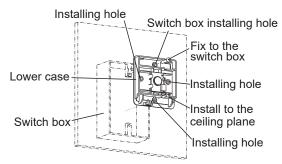


Positional relation for the switch box and installing holes



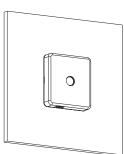
- ② Remove the screw at the side of the motion sensor and slide the upper case in the direction of the arrow. (The same as ② of Option (A))
- ③ Pull the wiring of the motion sensor. (The same as ③ of Option (A))
- (4) Pass the relay wiring through the hole on the lower case from switch box.
- (5) Fix the lower case to switch box using the installing hole (1 place).





- © Connect the same color to the relay wiring (prepare on site) and the wiring of motion sensor.(The same as ⑥ of Option (A))
- Place the connecting part between switch box and the hole of the lower case through passed the wiring at step (4).
- Taking care not to pinch the wirings, slip the upper case into the lower case, and tighten the screws. (The same as (9) of Option (A))





## Wiring connection in the control box of indoor unit

**CAUTION**: Attached wirings to the motion sensor vary depending on the model of the indoor unit. Make sure your model before installing.

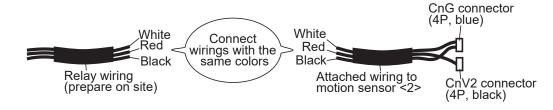
#### <In case of the CnL connector is on the indoor unit PCB (FDT/FDK/FDTC)>

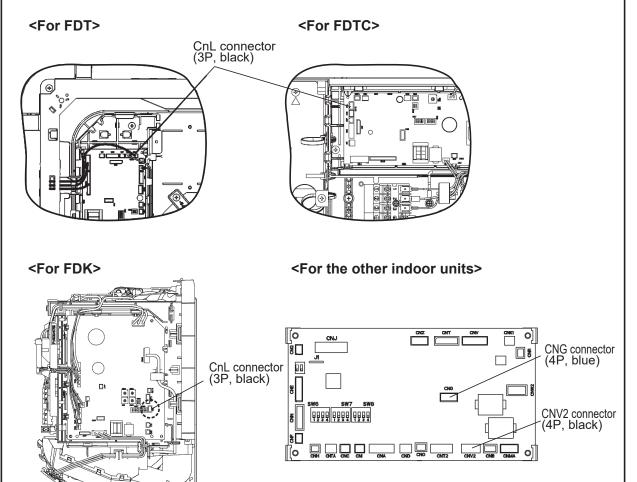
- ① Connect the same color to the relay wiring (prepare on site) and the attached wiring <1>.
- 2 Remove the control box cover from the indoor unit.
- 3 Connect CnL connector (3P, black) to the PCB.



#### <Incase of the CnL connector is not on the indoor unit PCB>

- ① Connect the same color to the relay wiring (prepare on site) and the attached wiring <2>.
- 2 Remove the control box cover from the indoor unit.
- 3 Connect CnG connector (4P, blue) to the PCB.
- 4 Connect CnV2 connector (4P, black) to the PCB.





# 3 Setting the motion sensor

The motion sensor will not function if it is only installed.

Set the function of the motion sensor by the wired or wireless remote control. Refer to the manual instruction of each remote control for the setting procedure.

Note: It is not possible to set by the following remote control models or older.

Wired:RC-EX1A, RC-E5, RCH-E3

Wireless: RCN-E1R

# 5.2.3 USER'S MANUAL (FDE, FDUM, FDU series)

PJZ012A164

# SAFETY PRECAUTIONS

### **⚠ WARNING**

If a child, person with disease or other persons needed for assist uses this product, people around the person should take sufficient care.



A halt of the air-conditioner due to abnormal situation or motion sensor's control may cause a feeling of sickness or accident.

#### **ATTENTION**

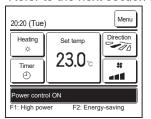
- The sensor may not detect a person near the border of detection range.
- Installation near an object with a different temperature from the surrounding may cause a false detection of human.
- Due to correction of temperature setting, some people may feel chilly.

This product uses infrared sensor to detect person's activity level to support control of air-conditioner. Please set the control you like from the remote control.

Indoor unit control	Detective situation	Description of control	Display of eco touch remote control
① Power control	Activity level is large	Lower the indoor temperature setting for comfort.	Power control ON
Tower control	Activity level is small	Raise the indoor temperature setting for energy-saving.	Power control ON
② Auto-off	No one is detected for 1 hour	Stop operation and stand by	In auto-off mode
② Auto-on	No one is detected for 12 hours	Stop operation	-
1 + 2	Any combination of the above	Any of the above	Any of the above
All disabled (default setting)	-	Standard control	-

If the sensor is disconnected or defective, the control will be set as if it no detects (or less) activity level.

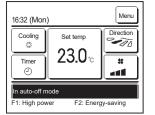
Refer to the next section for setting method.



• When power control is enabled

The amount of human motion is detected by a motion sensor to adjust the Set temp.

During power control, "Power control ON" will be displayed on the message display.



When auto-off is enabled

The unit will enter the "Operation wait" state when an hour has elapsed since the last time a human presence was detected and will be in "Complete stop" state after another 12 hours.

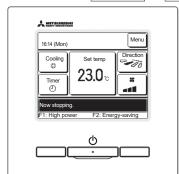
"Operation wait"...The unit stops but will resume operation when human presence is detected. When the unit is in "Complete stop", "In auto-off mode" will be displayed on the message display.

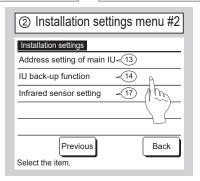
"Complete stop"...When auto-off is enabled, the unit stops. The unit will not resume operation even when human presence is detected.

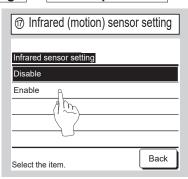
The message "In auto-off mode" will disappear from the message display, and the operation lamp will turn off.

# **Control setting (from eco touch remote control)**

Refer to the installation manual for eco touch remote control to activate the infrared sensor (motion sensor).
 TOP screen Menu ⇒ Service setting ⇒ Installation settings ⇒ Service password

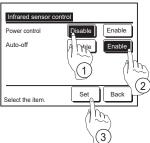






- Refer to the installation manual for eco touch remote control to set control mode.
- Infrared sensor (motion sensor) control (for IUs with motion sensors)

  Presence of humans and the amount of motion are detected by a motion sensor to perform various controls.
- When the R/C is set as the sub R/C, the infrared sensor (motion sensor) control cannot be set.



Tap the Menu button on the TOP screen and select Energy-saving setting ⇒ Infrared sensor control or Motion sensor control.

The Infrared sensor control screen and contents of the current settings are displayed.

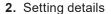
- 1) Enable/disable power control.
- ② Enable/disable auto-off.
- 3 After you set each item, tap the Set button. The display returns to the Energy-saving setting menu screen.

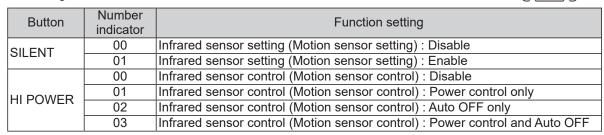
# **Control setting (from wireless remote control)**

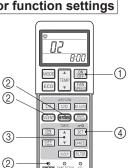
Refer to the installation manual for wireless remote control to enable motion sensor in Indoor function settings

#### Indoor function settings

- 1. How to set indoor functions
  - 1) Press the ON/OFF button to stop the unit.
  - ② Press the desired one of the buttons shown item 2. while holding down the FUNCTION SETTING switch.
  - ③ Use the selection buttons, ▲ and ▼, to change the setting.
  - 4) Press the SET button.
    - The buzzer on the remote control signal receiver beeps twice, and the LED lamp flashes four times at two-second intervals.







# **5.3 CURRENT AND NEW MODELS COMPATIBILITY**

(Indoor unit, FDE wireless kit, Motion sensor kit)

#### (1) New model code/service code

#### (a) Indoor unit

PAC indoor unit with motion sensor function control will have the service code "/F".

#### **PAC**

Current model	New model	Compatibility	Remark
FDU71VF1/1	FDU71VF1/F	Fig. 1	Change service code to "/F"
FDU100VF2/1	FDU100VF2/F		
FDU125VF/1	FDU125VF/F		① Change PCB(CTR)
FDU140VF/1	FDU140VF/F		
FDU200VG/1	FDU200VG/F		
FDU250VG/1	FDU250VG/F		
FDUM40VF/C	FDUM40VF/F		
FDUM50VF/C	FDUM50VF/F		
FDUM60VF/C	FDUM60VF/F		
FDUM71VF1/1	FDUM71VF1/F		
FDUM100VF2/1	FDUM100VF2/F		
FDUM125VF/C	FDUM125VF/F		
FDUM140VF/C	FDUM140VF/F		
FDE40VG/E	FDE40VG/F	Fig. 2	Change service code to "/F"
FDE50VG/E	FDE50VG/F		
FDE60VG/E	FDE60VG/F		① Change PCB(CTR)
FDE71VG/E	FDE71VG/F		② Wiring specification changed
FDE100VG/E	FDE100VG/F		
FDE125VG/E	FDE125VG/F		
FDE140VG/E	FDE140VG/F		

#### (b) FDE wireless kit

FDE wireless kit model code will change.

Current model	New model	Compatibility	Remark
RCN-E-E2/1	RCN-E-E3/1	Fig. 2	New model code

#### (2) Compatibility

There is no compatibility between new Indoor unit and current wireless kit, since the details of the reason was shown in attached appendix.

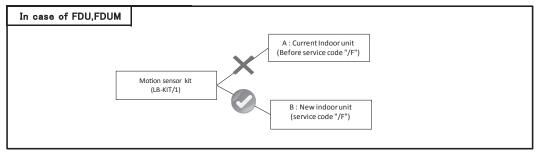


Fig. 1

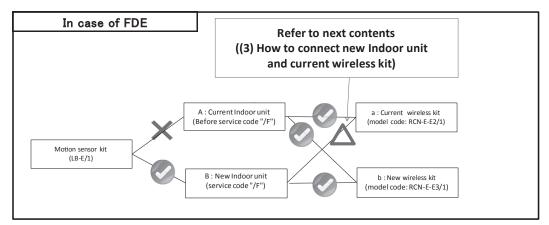
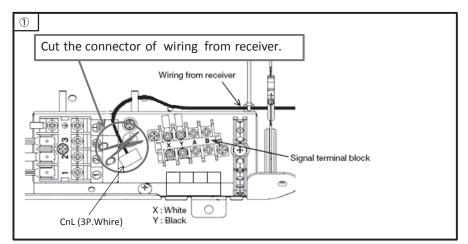


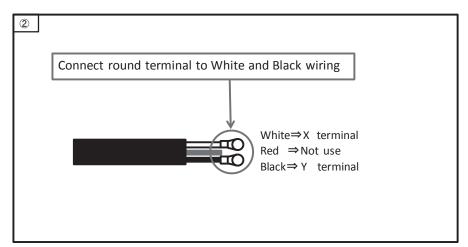
Fig. 2

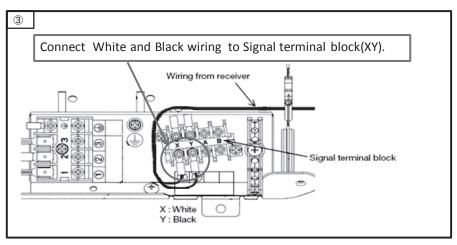
(3) How to connect new Indoor unit (FDE—VG/F) and current wireless kit (RCN-E-E2/1) When connecting new Indoor unit (FDE—VG/F) and current wireless kit (RCN-E-E2/1), Please use wiring kit ((WR-RCN-E/1). (Refer to appendix)

In case of connection with a new Indoor unit (FDE--VG/F) and current wireless kit (RCN-E-E2/1) without wiring kit (WR-RCN-E/1), please use the following method.

- ① Cut off the CnL connector of the wiring from the receiver. 3P, white)
- ② Connect round terminals to the WHITE and BLACK wiring.※ Don't connect the RED wiring, make it safe by taping it up.
- ③ Connect the white and black wiring to the XY terminals. White wiring is to X terminal. Black wiring is to Y terminal.

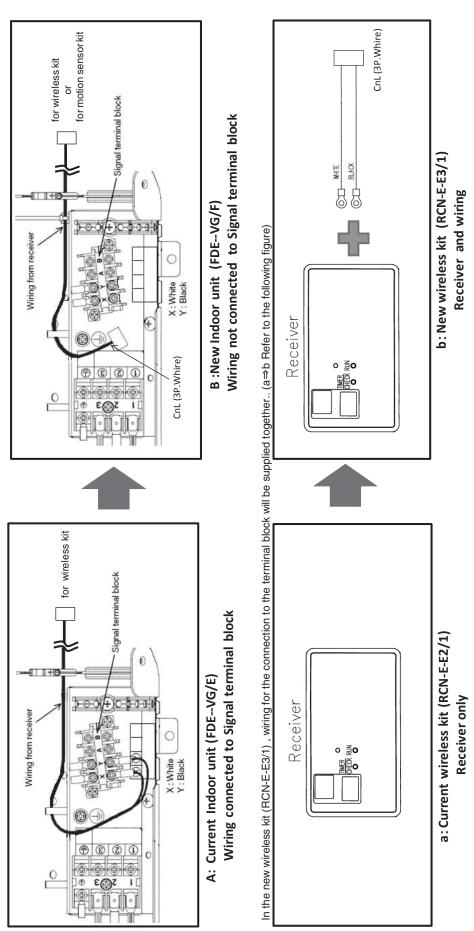






# **Appendix**

The cable in the FDE wireless kit will be changed to make it common for both wireless kit and motion sensor kit. (A⇒B, Please refer to the following figure) (The cable in the FDE will be changed with service code. Please refer to Section 2 below.)



# **Appendix**

Because of this charge, additional wining kit (WR-RCN-E/1, c in below figure) is needed, in case of connecting NBW Indoor unit (FDE-VG/F) and current wireless kit (RCN-E-E2/1).

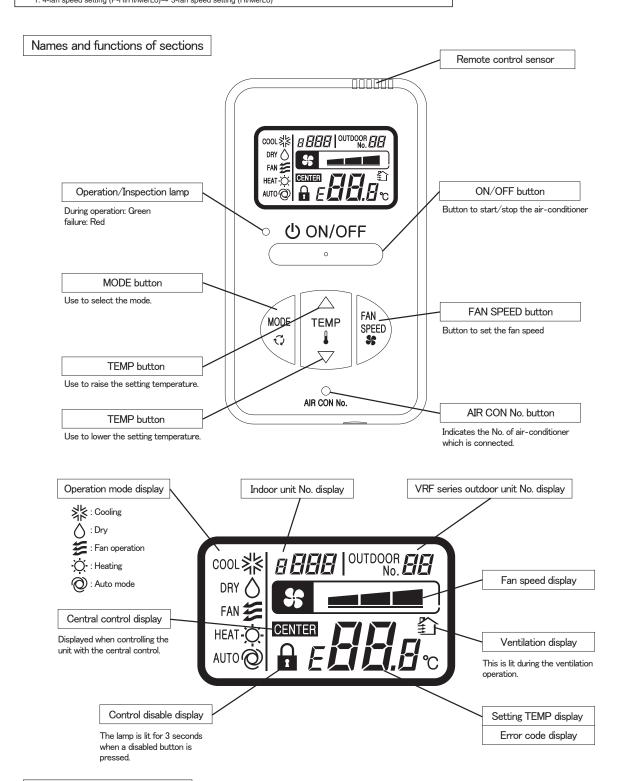
B: New Indoor unit (FDE--VG/F) and a: current wireless kit can be connected. CnL (3P.Whire) c : wiring kit (WR-RCN-E/1) a: Current wireless kit (RCN-E-E2/1) Receiver only Receiver B :New Indoor unit (FDE--VG/F) Wiring not connected to signal terminal block CnL (3P.Whire)

# 5.4 SIMPLE WIRED REMOTE CONTROL (RCH-E3)

Note

Following functions of FDU indoor unit series are not able to be set with this simple wired remote control (RCH-E3).

1. 4-fan speed setting (P-Hi/Hi/Me/Lo)→ 3-fan speed setting (Hi/Me/Lo)



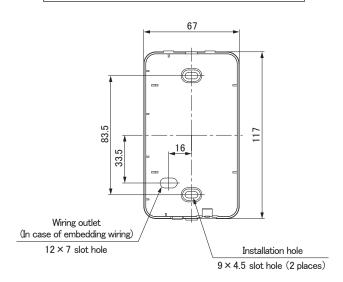
#### Installation of remote control

Do not install the remote control at the following places in order to avoid malfunction.

- (1) Places exposed to direct sunlight
- (2) Places near heat devices
- (3) High humidity places
- (4) Hot surface or cold surface enough to generate condensation
- (5) Places exposed to oil mist or steam directly
- (6) Uneven surface

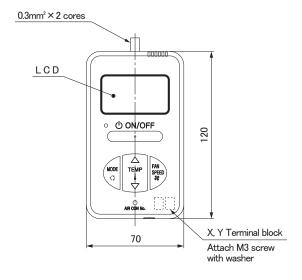
PJZ000Z272

#### Remote control installation dimensions

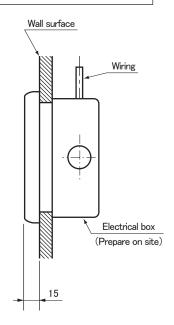


Note: Installation screw for remote control M4 screw (2 pieces)

#### In case of exposing wiring

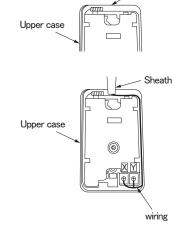


#### In case of embedding wiring



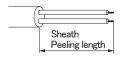
The remote control wiring can be extracted from the upper center. After the thin part in the upper side of the remote control upper case is scraped with a nipper or knife, remove burr with a file.

Thin part



The peeling length of each wiring is as follows:

X wiring : 160mm Y wiring : 150mm



#### Wiring specifications

- (1) Wiring of remote control should use 0.3mm $^2$   $\times$  2 cores wires or cables. (on–site configuration)
- (2) Maximum prolongation of remote control wiring is  $600 \mathrm{m}$ .

If the prolongation is over 100m, change to the size below.

But, the wiring in the remote control case should be 0.3mm $^2$  (recommended) to 0.5mm $^2$ .

Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire

connecting section. Be careful about contact failure.

Length	Wiring thickness
100 to 200m	0.5mm² × 2 cores
Under 300m	0.75mm² × 2 cores
Under 400m	1.25mm <sup>2</sup> × 2 cores
Under 600m	2.0mm <sup>2</sup> × 2 cores

Unit:mm

Adapted to RoHS directive

#### **Simple Remote Control Installation Manual**

PJZ012D069 A

Read together with indoor unit's installation manual.

#### **⚠WARNING**

- Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal. Loose connection or hold will cause abnormal heat generation or fire.
- Make sure the power source is turned off when electric wiring work.
- Otherwise, electric shock, malfunction and improper running may occur.

#### **⚠** CAUTION

- Do not install the remote control at the following places in order to avoid malfunction.
- (1) Places exposed to direct sunlight
- (4) Hot surface or cold surface enough to generate condensation
- (2) Places near heat devices (3) High humidity places
- (5) Places exposed to oil mist or steam directly
- (6) Uneven surface
- Do not leave the remote control without the upper case.
- In case the upper cace needs to be detached, protect the remote control with a packaging box or bag in order to keep it away from water and dust.



Accessories	Remote control, wood screw ( $\phi$ 3.5 × 16) 2 pieces		
Prepare on site	Remote control cord (2 cores) (Refer to [2. Installation and wiring of remote control]) [In case of embedding cord] Electrical box, M4 screw (2 pieces)		
	[In case of exposing cord] Cord clamp (if needed)		

#### 1. Installation procedure

#### In case of embedding cord

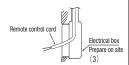
 $(1) \quad \underline{\text{Make certain to remove}} \text{ the screw on the bottom}$ surface of the remote control.



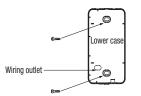
(2) Remove the upper case of the remote control. Insert a flat-blade screwdriver to a concave portion of the bottom surface of the remote control and slightly twist it, and the case is

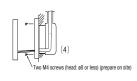


(3) Pre-bury the electrical box and remote control cord.



(4) Prepare two M4 screws (recommended length: 12 - 16mm), and install the lower case to the electrical box. Do not use a screw whose screw head is larger than the height of the wall around the screw hole.





- (5) Connect the remote control cord to the terminal block. Connect the terminals (X and Y) of the remote control and the terminals (X and Y) of the indoor unit. (No polarity of X and Y)
- Mount the upper case for restoring to its former state so as not to crimp the remote control cord, and secure with the removed screw.

#### In case of exposing cord

Make certain to remove a screw on the bottom surface of the



(2) Remove the upper case of the remote control. Insert a flat-blade screwdriver to a concave portion of the bottom surface of the remote control and slightly twist it and the case is removed.

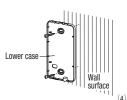


(3) The remote control cord can be extracted from the upper center.

After the thin part in the upper side of the remote control upper case is scraped with a nipper or knife, remove burr with a file.



(4) The lower case of the remote control is mounted to a flat wall with two accessory wood screws.



Connect the remote control cord to the terminal block Connect the terminals (X and Y) of the remote control and the terminals (X and Y) of the indoor unit. (No polarity of X and

The wiring route is as shown in the right.



The wiring in the remote control case should be 0.3 mm<sup>2</sup> (recommended) to 0.5 mm<sup>2</sup> at maximum.

Further, peel off the sheath.

The peeling length of each wiring is as follows:

X wiring: 160mm Y wiring: 150mm



- (6) Mount the upper case for restoring to its former state so as not to crimp the remote control cord, and secure with the removed screw.
- In the case of exposing installation, secure the remote control cord to the wall surface with a cord clamp so as not to loosen the remote control cord.

#### 2. Installation and wiring of remote control

- (1) Wiring of remote control should use 0.3mm<sup>2</sup> × 2 cores wires or cables. (on-site configuration)
- (2) Maximum prolongation of remote control wiring is 600 m.

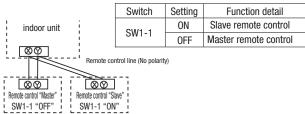
If the prolongation is over 100m, change to the size below.

But, the wiring in the remote control case should be 0.3mm<sup>2</sup> (recommended) to 0.5mm<sup>2</sup>. Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire

connecting section. Be careful about contact failure. 100 - 200m · · · · · · · · · · 0.5mm<sup>2</sup> × 2 cores Under 400m······1.25mm² × 2 cores Under  $600m \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot 2.0mm^2 \times 2$  cores

#### 3. Master/ slave setting when more than one remote control are used

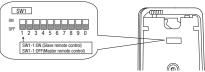
(1) Up to two remote controls can be connected to one unit (or one group) of indoor unit.



(2) Set the switch SW1-1 of the slave remote control is "Slave" (ON). The factory default is set as "Master" (OFF). (Note) • The remote control thermistor enabled setting can be set only to the master remote control.

• Install the master remote control at the position to detect room temperature.

The air-conditioner operation follows the last operation of the remote control in case of the master / slave setting.



#### 4. The indication when power source is supplied

 At the time of turning the power source on, after the light is on for the first 2 seconds, the display becomes as shown below.

The number displayed on the upper side of LCD in the remote control is the software number, and this is not an excess code.

and this is not an error code.



Software number

(The number in the left is one example. Another number may be shown.)

(2) Then, "88.0 °C" blinks on the remote control until the communication between the remote control and the indoor unit is established.

(3) In the case of connecting one remote control with one unit (or one group) of indoor unit, make certain to set the master remote control (factory default).

If the slave remote control is set a communication cannot be

If the slave remote control is set, a communication cannot be established.

If a state where the communication between the remote

4) If a state where the communication between the remote control and the indoor unit cannot be established continues about for 30 minutes, "E" is displayed. Confirm the wiring of the indoor unit and the outdoor unit and master/slave setting of the remote control.



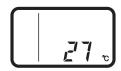
#### 5. Confirmation method for return air temperature

Return air temperature can be confirmed by the remote control operation.

(1) Press AIR CON No. button for over 5 seconds.

"88" blinks on the temperature setting indicator.

("88" blinks for approximately 2 seconds while data is read.)



Then, the return air temperature is displayed. (Example) return air temperature: "27 °C" (blinking)

(Note) For the return air temperature, in the normal case, the return air temperature of the indoor unit is displayed; however, in the case that the remote control thermistor is effective, <u>detected temperature</u> by the remote control thermistor is displayed.

(2) Press ON/OFF button.

[In the case that the remote thermistor is ineffective and plural indoor units are connected to one remote control ]

(1) Press AIR CON No. button for over 5 seconds. indoor unit No. indicator: "U 000" (blinking) (Among the connected indoor units, the lowest number is displayed.)



(2) Press TEMP or TEMP button. Select the indoor unit No.

(3) Press 🖸 MODE button.

Dectder the indoor unit No.

(Example) indoor unit No. indicator: "U 000"

"88" blinks on the temperature setting indicator. (blinking for approximately 2 to 10 seconds while data is read) Then, the return air temperature is displayed. When AIR CON No. is pressed, return to the indoor unit selection display (example, "U 000").

(4) Press ON/OFF button. End.

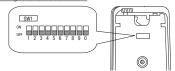
#### 6. Function setting

Each function of the remote control and the indoor unit is automatically set to the initial setting, which is the standard use, on the occasion of connecting the remote control with the indoor unit. In the case of the standard use, the setting change is unnecessary. However, if you whould like to change the initial setting "o", change the setting for only the item of the function number. Record the setting contents and stored them.

#### $(1) \quad \hbox{Function setting item by switch on PCB}$

П	Switch No.	Setting	Setting detail	Initial setting
П	SW1-1	ON	Slave remote control	
П	3W 1-1	0FF	Master remote control	0
	SW1-2	ON	Remote control thermistor enabled	
	3W 1-2	0FF	Remote control thermistor disabled	0
П	SW1-3	ON	"MODE" button prohibited	
П	3W 1-3	0FF	"MODE" button enabled	0
	SW1-4 ON "ON/OFF" button prohibited			
l	3W1-4	0FF	"ON/OFF" button enabled	0

Switch No.	Setting	Setting detail	Initial setting
SW1-5 ON		"TEMP" button prohibited	
3W1-0	0FF	"TEMP" button enabled	0
SW1-6	ON	"FAN SPEED" button prohibited	* Note 1
SW1-6	0FF	"FAN SPEED" button enabled	፠ Note 1
SW1-7	ON	Auto restart function enabled	
3W1-7	0FF	Auto restart function disabled	0
SW1-8, 9, 0	ON	Not used	
3w1-0, 9, 0	0FF	INOT USCU	



- As for the slave remote control, function setting is impossible other than SW1-1.
- In the indoor unit with only one fan speed, "FAN SPEED" button cannot be enabled.

#### $(2) \quad \hbox{Function setting item by button operation} \\$

Classification	Function No.	Function	Setting No.	Setting	Initial setting	Remarks
			01	Fan speed: three steps	፠ Note 1	The fan speed is three steps, * === - * = .
	01		02	Fan speed: two steps (Hi-Lo)	፠ Note 1	The fan speed is two steps, * ■■■ - * ■.
	01	Indoor unit fan speed	03	Fan speed: two steps (Hi-Me)		The fan speed is two steps, * ■■■ - * ■■.
			04	Fan: one step	※ Note 1	The fan speed is fixed to one step.
			01	Remote control thermistor: no offset	0	
			02	Remote control thermistor: +3.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at +3.0°C.
		Remote control	03	Remote control thermistor: +2.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at +2.0°C.
	03	thermistor at the time	04	Remote control thermistor: +1.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at +1.0°C.
		of cooling	05	Remote control thermistor: -1.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at -1.0°C.
			06	Remote control thermistor: -2.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at -2.0°C.
Remote			07	Remote control thermistor: -3.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offsett temperature at -3.0°C.
control			01	Remote control thermistor: no offset	0	
function			02	Remote control thermistor: +3.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at +3.0°C.
		Remote control	03	Remote control thermistor: +2.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at +2.0°C.
	04	thermistor at the time	04	Remote control thermistor: +1.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at +1.0°C.
		of heating	05	Remote control thermistor: -1.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at -1.0°C.
			06	Remote control thermistor: -2.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at -2.0°C.
			07	Remote control thermistor: -3.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at -3.0°C.
			01	No ventilator connection	0	
	05	Ventilation setting	02	Ventilator links air-conditioner		In case of Single split series, by connecting ventilation device to CNT of the indoor printed circuit board (in case of VRF series, by connecting it to CND of the indoor printed circuit board), the operation of ventilation device is linked with the operation of indoor unit.
	06	"Auto" operation	01	"Auto" operation enabled	※ Note 1	
	00	setting	02	"Auto" operation disabled	※ Note 1	"Auto" operation disabled
	07	Operation permission/	01	Disabled	0	
	08	prohibition  External input	02	Enabled		Operation permission/prohibition control is enabled.
			01	Level input	0	
		Fan speed setting	02	Pulse input		
			01	Standard	Note2	
	09		02	High speed 1	Note2	
			03	High speed 2	Note2	
		Fan remaining	01	No remaining operation	0	After cooling stopped, no fan remaining operation
	10	operation at the time	02	0.5 hours		After cooling stopped, fan remaining operation for 0.5 hours
		of cooling	03	1 hour		After cooling stopped, fan remaining operation for 1 hour
			04	6 hours		After cooling stopped, fan remaining operation for 6 hours
		Fan remaining operation at the time of heating	01	No remaining operation	0	After heating stopped or after heating thermostat OFF, no fan remaining operation
	11		02	0.5 hours		After heating stopped or after heating thermostat OFF, fan remaining operation for 0.5 hours
			03	2 hours		After heating stopped or after heating thermostat OFF, fan remaining operation for 2 hours
Indoor unit			04	6 hours		After heating stopped or after heating thermostat OFF, fan remaining operation for 6 hours
function		Setting temperature	01	No offset	0	7
	12	offset at the time of	02	Setting temperature offset + 3.0 °C		The setting temperature at the time of heating is offset by +3.0 °C.
		heating	03 04	Setting temperature offset + 2.0 °C		The setting temperature at the time of heating is offset by +2.0 °C.
				Setting temperature offset + 1.0 °C	35. 11. 1. 4	The setting temperature at the time of heating is offset by +1.0 °C.
			01 02	Low fan speed	※ Note 1	At the time of heating thermostat OFF, operate with low fan speed.
	13	Heating fan controller	02	Setting fan speed	≫ Note 1	At the time of heating thermostat OFF, operate with the setting fan speed.  At the time of heatingr thermostat OFF, intermittently operate.
	13	ricating fair controller		Intermittent operation	≫ Note i	
			04	Fan off		At the time of heating thermostat OFF, a fan will be stopped. When the remote control thermistor is enabled, automatically set to "Fan off". Do not set at the time of the indoor unit thermistor.
			01	No offset	0	
			02	Return air temperature offset +2.0 °C		Offset the return air temperature of the indoor unit by +2.0 °C.
	۱	Return air temperature	03	Return air temperature offset +1.5 °C		Offset the return air temperature of the indoor unit by +1.5 °C.
	14	offset	04	Return air temperature offset +1.0 °C		Offset the return air temperature of the indoor unit by +1.0 °C.
			05	Return air temperature offset -1.0 °C		Offset the return air temperature of the indoor unit by -1.0 °C.
			06	Return air temperature offset -1.5 °C		Offset the return air temperature of the indoor unit by -1.5 °C.
			07	Return air temperature offset -2.0 °C	1	Offset the return air temperature of the indoor unit by -2.0 °C.

Note 1: The symbol " \* " in the initial setting varies depending upon the indoor unit and the outdoor unit to be connected, and this is automatically determined as follows:

automatically determined as follows:					
Swith No. Function No.	Function	Setting	Product model		
	"FAN SPEED"	"FAN SPEED" button prohibited	Product model whose indoor fan speed is only one step		
SW1-6	button	"FAN SPEED" button enabled	Product model whose indoor fan speed is two steps or three steps		
		Fan speed: three steps	Product model whose indoor unit fan speed is three steps		
Remote control function 01	Indoor unit fan speed	Fan speed: two steps (Hi-Lo)	Product model whose indoor unit fan speed is two steps		
Remote control function of		Fan speed: two steps (Hi-Me)			
	.,	Fan: one step	Product model whose indoor unit fan speed is only one step		
Remote control function 06	"Auto" operation	"Auto" operation enabled	Product model where "Auto" mode is selectable		
hemote control function of	setting	"Auto" operation disabled	Product model without "Auto" mode		
Indoor unit function 13	Heating fan	Low fan speed	Product model except FDUS		
muoor unit iunction 13	control	Intermittent operation	FDUS		

Note 2: Fan speed of "High speed" setting

	Note 2.1 tall opeca of Tright opeca Cottang					
Γ.	Fon annual potting	Indoor unit fan speed setting				
	Fan speed setting	St am III - St am - St a	30 mmm - 30 m	20 mm = 20 mm		
	Standard	Hi — Mid — Lo	Hi — Lo	Hi — Mid		
	High speed 1 · 2	UHi — Hi — Mid	UHi — Mid	UHi — Hi		

Initial setting of some indoor unit is "High speed"

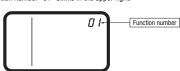
Note 3: As for plural indoor unit, set indoor functions to each master and slave indoor unit.

But only master indoor unit is received the setting change of indoor unit function "07 Operation permission/prohibition" and "08 External input".

#### 7. How to set functions by button operation

Stop air-conditioner, and simultaneously press AIR CON No. and 7 MODE buttons at the same time for over three seconds

The function number "01" blinks in the upper right.



 $(2) \quad \hbox{Press $ \overline{ \text{TEMP} \triangle } $ or $ \overline{ \text{TEMP} \nabla } $ button. }$ Select the function number

(3) Press MODE button. Decide the function number.

#### (4) [In the case of selecting the remote control function (01-06)]

1) The current setting number of the selected function number blinks

Function number: "01" (lighting) Setting number: "01" (blinking)



- ② Press TEMP△ or TEMP▽ button. Select the setting number
- ③ Press MODE button.

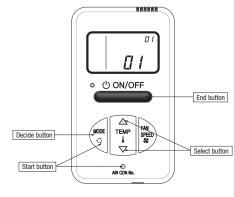
The setting is completed.

Light is on for approximately 3 to 20 seconds while data of the decided function No. and setting No. is transmitted. (Example)

Function number: "01" (lighting for 3 to 20 seconds) Setting number: "01" (lighting for 3 to 20 seconds)



Then, the screen goes back to the function number blinking indication (1), if the setting is sequentially conducted, continue with the same procedures. If the setting is finished, proceed to (5) .



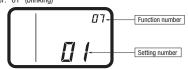
[In the case of selecting the indoor unit function (07-14)]

#### ① "88" blinks on the temperature setting indicators.

(blinking for approximately 2 to 10 seconds while data are read)

After that, the current setting number of the selected function number blinks. (Example)

Function number: "07" (lighting) Setting number: "01" (blinking)



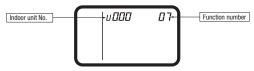
Proceed to (2)

#### [Note]

a. In the case of connecting one remote control to plural indoor units, the display will be as follows

Indoor unit No. display: "U 000" (blinking)

(Display the lowest number among the connected indoor units.)



b. Press  $\boxed{\mathsf{TEMP} \triangle}$  or  $\boxed{\mathsf{TEMP} \nabla}$  button.

Select the indoor unit No. to be set.

If "U ALL" is selected, the same setting can be set to all units.

#### c. Press 📆 MODE button.

Decide the indoor unit No.

"88" blinks on the temperature setting indicators. (blinking for 2 to 10 seconds while data

When AIR CON No. button is pressed, go back to the indoor unit selection display (for

Select the setting number

#### 3 Press MODE button.

The setting is completed.

Light is on for approximately 3 to 20 seconds while data of the decided function No. and setting No. is transmitted.

(Example)

Indoor unit No.: "U 000" (lighting for 3 to 20 seconds) Function number: "07" (lighting for 3 to 20 seconds) Setting number: "01" (lighting for 3 to 20 seconds)



Then, the screen goes back to the function number blinking indication (1), if the setting is sequentially conducted, continue with the same procedures. If the setting is finished, proceed to (5)

(5) Press ON/OFF button.

The setting is completed.

• Even if ON/OFF button is pressed during setting, the setting is ended. However, any details where the setting has not been completed will be ineffective.

The setting contents are stored in the control, and even if the power failure occur, this will not be lost.

[Confirmation method for current setting]

According to the operation, the "setting number" displayed first after selecting "function number" and pressing TMODE button is the currently set content. (However, in the case of selecting "U ALL" (all units), the setting number of the lowest number among the indoor units is displayed.)

# 5.5 FILTER KIT (FDUM series)

PJZ012D076A

This manual contains installation points and operating instructions for the filter kit manufactured by MHI. Carry out the work following the instructions below.

This manual also contains information on the usage after installation, so keep this manual properly with USER'S MANUAL provided with the indoor unit.

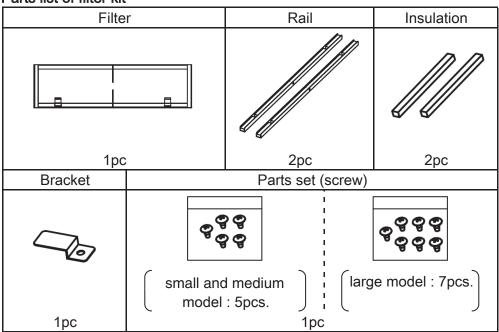
# /!\ CAUTION

- · After unpacking, carry out this work on the ground.
- Do not carry out the work during operation, or there is a danger of being entangled in the rotating parts and getting injured.
- · Clean the air filter regularly.
- Be sure to entrust qualified serviceman to performance on the air filter.
- · Be sure to cut off the power and stop the unit before performing maintenance.

#### 1. Table of filter kit parts No. and corresponding object models

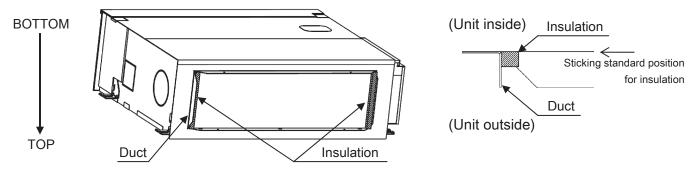
	Small model	Medium model	Large model
Single type	40, 50	60, 71	100 - 140
Multi type	22 - 56	71, 90	112 - 160
Filter Kit	UM-FL1EF	UM-FL2EF	UM-FL3EF

#### 2. Parts list of filter kit

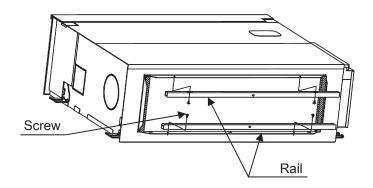


#### 3. Installation Points

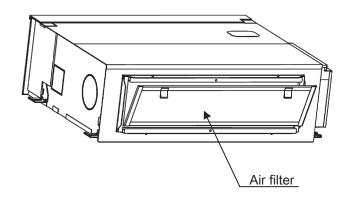
(1) Stick the insulation on both inner sides of the duct, leaving no space up and down.



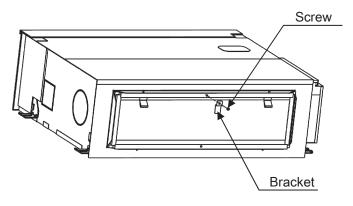
- (\*) After unpacking, bottom side of the unit is located at the upper side.
- (2) Install the rail on both inner sides of the duct with the screw.

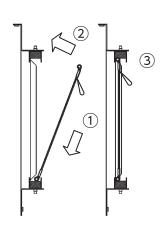


(3) Install the air filter on the rails.



(4) Install the bracket on the rail with the screw.





Installation procesure

(\*\*) When the unit is installed, bottom side of the unit is located at the lower side.

# 5.6 BASE HEATER KIT (CW-H-E1)

PCZ012D007AA

Model Name: CW-H-E1

#### **⚠ WARNING**

- Follow the instruction and installation manual for outdoor unit when installing the heater.
- This heater must be installed by authorized personnel.
- Turn off the power source when the kit is installed.
- Failure to follow the above will result in serious accident like electrical shock or fire.

#### **AREAS TO BE APPLIED**

This kit is to be used in an area where the lowest temperature drops below zero.

⚠Caution: In case the heater is not applied on the unit which is installed in an area mentioned above, it may be regarded as installation failure and warranty may not be given.

#### **⚠** CAUTION

- Follow the law or regulation of the country where it is installed.
- Do not alter the heater.
- Lay down the heater so that the edge of the sheet metal does not damage the heater.
- Bending radius must be bigger than 25mm.
- Do not use the heater near flammable substances.
- Be sure to check the electrical insulation before
  use
- Be sure to check the drain is not trapped by the heater.
- Do not leave refrigerant oil on the base.

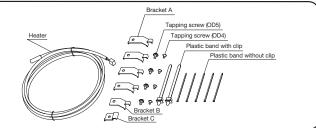
#### Components

Heater : 1pcBracket A : 4pcs

Bracket B : 1pcs
Bracket C : 1pcs
Tapping screw (OD5) : 4pcs

Tapping screw (OD3) : 4pcs
Tapping screw (OD4) : 4pcs
Plastic band with clip : 2pcs

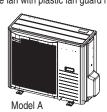
• Plastic band : 5pcs



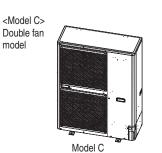
# Applicable model

This heater kit is applicable for 3 different models.

<Model A> Single fan with plastic fan guard model

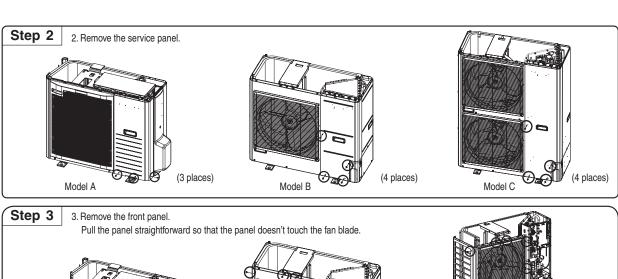


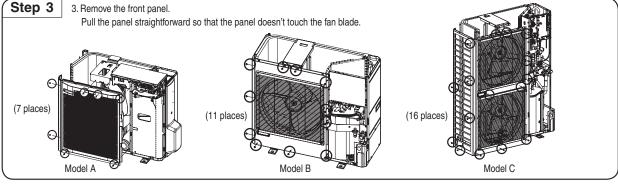


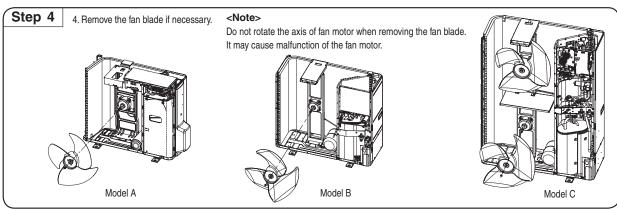


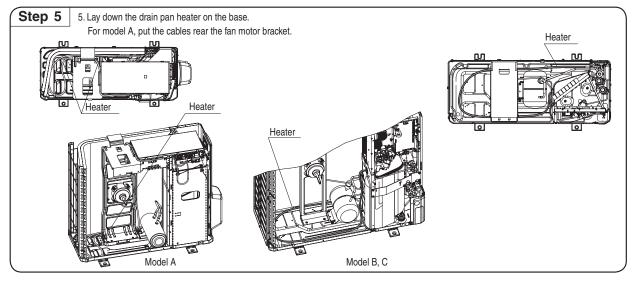
# Installation procedure

# 1. Remove the top panel of the outdoor unit. (6 places) (6 places) Model A Model B (11 places) Model C

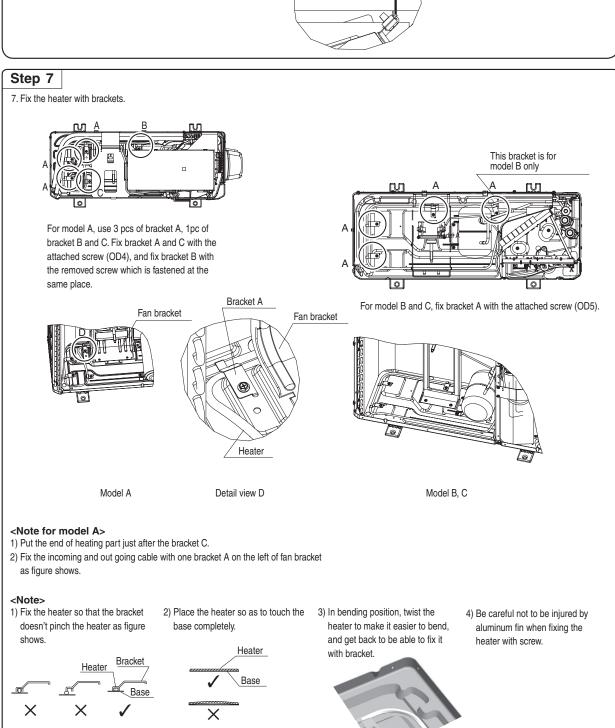


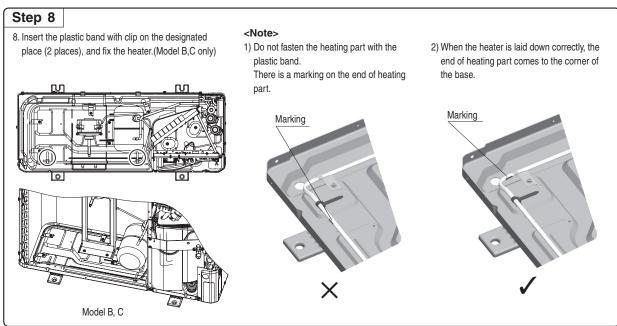


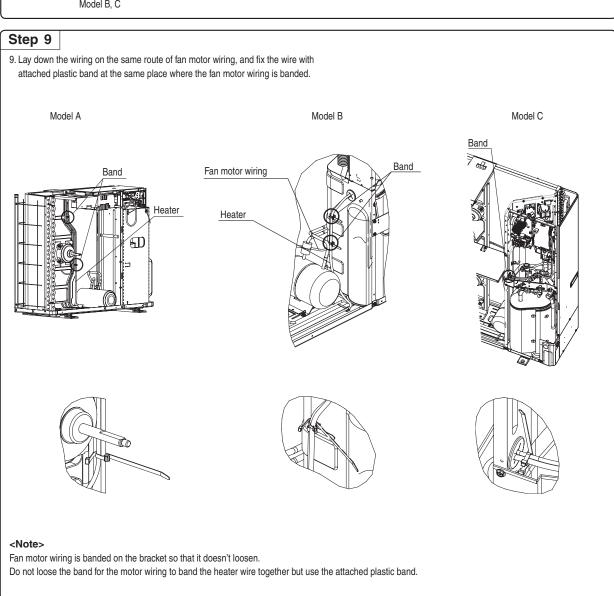


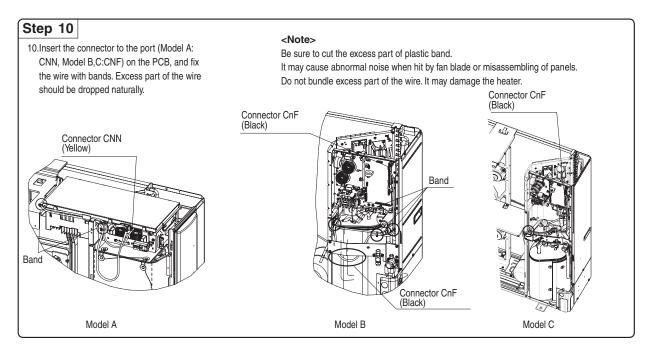


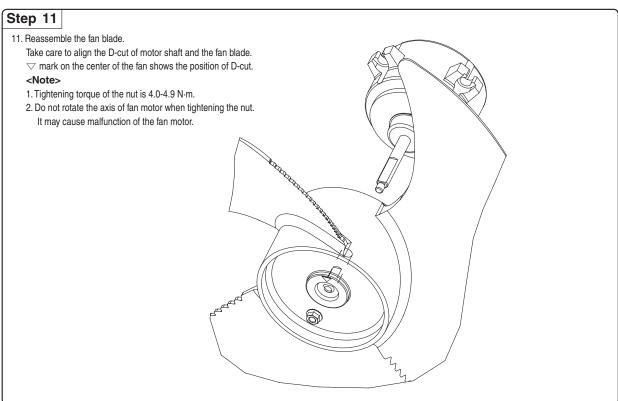
# Step 6 6. Put the heater underneath the heat exchanger and align the end of heater with the end plate of heat exchanger. End of heater End plate of heat exchanger





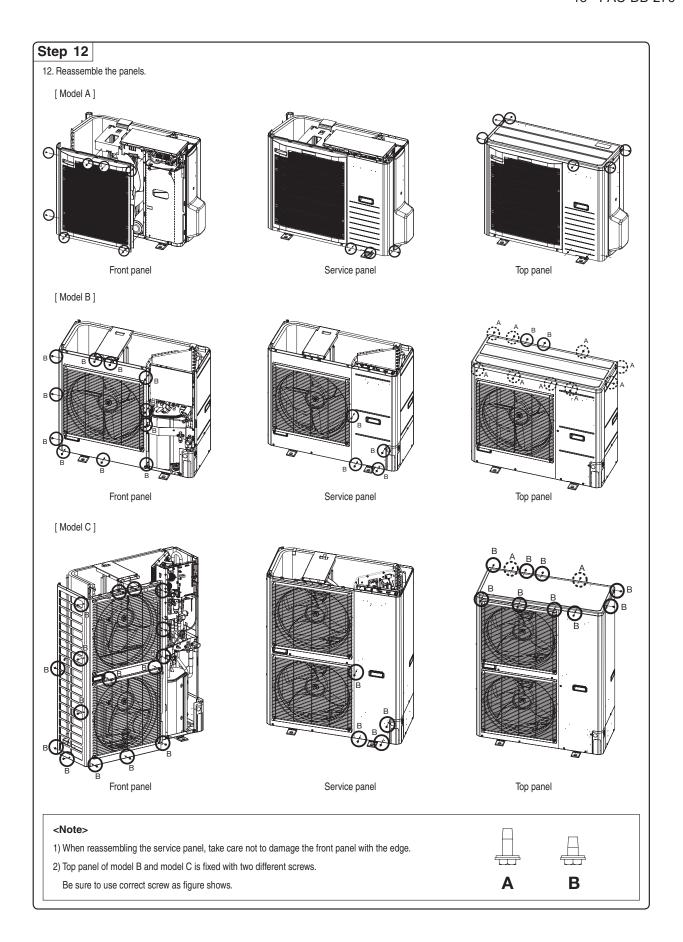






#### <Note>

- This heater should have bending radius of at least 25mm including non-heating part. Do not bundle the excess part of the wire. It may cause
  disconnection of the heater or insufficient capacity.
- Be sure to prevent the heater from touching any refrigerant piping.
   Especially, pay close attention not to make it touch with pipes which are close to the wiring route such as suction pipe, check valve and check joint.



## 5.7 INTERFACE KIT (SC-BIKN2-E)

\* When RC-EX3 is connected, please use SC-BIKN2-E by all means.

RKZ012A099

#### Accessories included in package

Be sure to check all the accessories included in package.

No.	Part name	Quantity			
1	Indoor unit's connection cable (cable length: 1.8m)	1			
2	Wood screws (for mounting the interface: ø4x 25)				
3	Tapping screws (for the cable clump and the interface mounting bracket)				
4	Interface mounting bracket				
(5)	Cable clamp (for the indoor unit's connection cable)				
6	CnT terminal connection cable (total cable length: 0.5m)	1			

#### Safety precautions

Before use, please read these Safety precautions thoroughly before installation.

• All the cautionary items mentioned below are important safety related items to be taken into consideration, so be sure to observe them at all times.

⚠Warning Incorrect installation could lead to serious consequences such as death, major injury or environmental destruction.

Symbols used in these precautions



Always go along these instruction.

After completed installation, carry out trial operation to confirm no anomaly, and ask the user to keep this installation manual in a good place for future reference.

#### $\dot{\mathbb{N}}$

### Warnings



● Installation must be carried out by a qualified installer.

If you install it by yourself, it may cause an electric shock, fire and personal injury, as a result of a system malfunction.

● Install it in full accordance with the installation manual.

Incorrect installation may cause an electric shock, fire and personal injury.

 Electrical work must be carried out by a qualified electrician in accordance with the technical standard for electrical equipment, the indoor wiring standard and this installation manual.

Incorrect installation may cause an electric shock, fire and personal injury.

• Use the specific cables for wiring. And connect all the cables to terminals or connectors securely and clamp them with cable clamps in order for external forces not to be transmitted to the terminals directly.

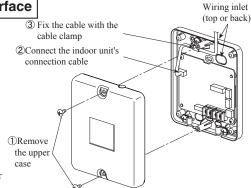
Incomplete connection may cause malfunction, and lead to heat generation and fire.

• Use the original accessories and specified components for installation.

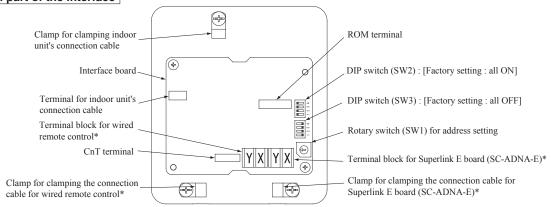
If the parts other than those prescribed by us are used, it may cause an electric shock, fire and sersonal injury.

#### Connecting the indoor unit's connection cable to the interface

- ①Remove the upper case of the interface.
  - Remove 2 screws from the interface casing before removal of upper casing.
- ②Connect the indoor unit's connection cable to the interface.
  - Connect the connector of the indoor unit connection cable to the connector on the interface's circuit board.
- 3Fix the indoor unit's connection cable with the cable clamp.
  - Cable can be brought in from the top or from the back.
  - Cut out the punch-outs for the connection cables running into the casing with cutter.
- (4) Connect the indoor unit's connection cable to the indoor control PCB.
  - Connect the indoor unit's connection cable to the indoor control PCB securely.
  - Clamp the connection cable to the indoor control box securely with the cable clamp provided as an accessory.
  - Regarding the cable connection to the indoor unit, refer to the installation manual for indoor unit.



#### Name of each part of the interface



\*Either the connection cables of Superlink E board (SC-ADNA-E) or of wired remote control is connectable.

Switch	Setting	Function	Switch	Setting	Function
SW2-1	ON**	CnT level input	SW2-3	ON**	External input (CnT input)
SW2-1	OFF	CnT pulse input	3 W 2-3	OFF	Operation permission/prohibition (CnT input)
SW2-2	ON**	Wired remote control : Enable	SW2-4	ON**	Annual cooling : Enable***
SW2-2	OFF Wired remote control : Disable		5 W 2-4	OFF	Annual cooling : Disable***

<sup>\*\*</sup> Factory setting

\*\*\* Indoor fan control at low outdoor air temperature in cooling

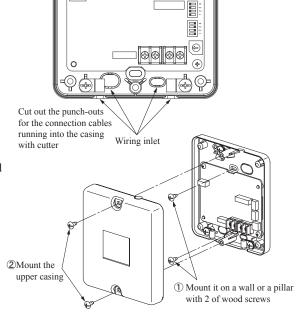
Wiring inlet

#### Installation of the interface

- Install the interface within the range of the connection cable length (approximately 1.3m) from the indoor unit.
- Be sure not to extend the connection cable on site. If the connection cable is extended, malfunction may occur.
- Fix the interface on the wall, pillar or the like.
- Don't install the interface and wired remote control at the following places.
  - OPlaces exposed to direct sunlight
  - OPlaces near heating devices
  - OHigh humidity places
  - OSurfaces where are enough hot or cold to generate condensation
  - OPlaces exposed to oil mist or steam directly
  - OUneven surface

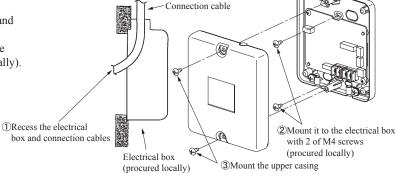
#### Mounting the interface directly on a wall

- ①Mount the lower casing of the interface on a flat surface with wood screws provided as standard accessory.
- 2 Mount the upper casing.



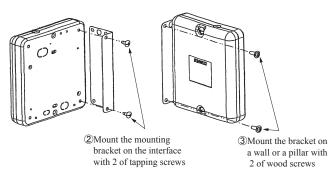
#### Recessing the interface in the wall

- ①Recess the electrical box (procured locally) and connection cables in the wall.
- ②Mount the lower casing of the interface to the electrical box with M4 screws (procured locally).
- 3 Mount the upper casing.



#### Mounting the interface with the mounting bracket

- ①Mount the upper casing.
- ②Mount the mounting bracket to the interface with tapping screws provided as standard accessory.
- 3Mount the mounting bracket on wall or the like with wood screws provided as standard accessory.



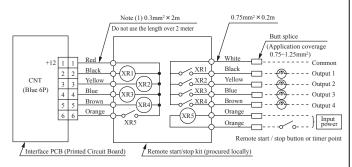
#### Installation check items

- ☐ Are the connection cables connected securely to the terminal blocks and connectors?
- ☐ Are the thickness and length of the connection cables conformed with the standard?

#### **Functions of CnT connector**

It is available to operate the air-conditioner and to monitor the operation status with the external control unit (remote display) by sending the input/output signal through CnT connector on the indoor control PCB.

- ①Connect a external remote control unit (procured locally) to CnT terminal.
- ②In case of the pulse input, switch OFF the DIP switch SW2-1 on the interface PCB.
- 3When setting operation permission/prohibition mode, switch OFF the DIP switch SW2-3 on the interface PCB.

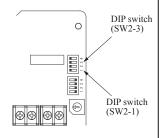


Input/	F 4:	Output signal		0 1 1
Output	Function	Relay	ON/OFF	Content
Output 1	Operation output	XR1	ON	During air-conditioner operation
Output 2	Heating output	XR2	ON	During heating operation
Output 3	Compressor operation output	XR3	ON	During compressor running
Output 4	Malfunction output	XR4	ON	During anomalous stop

- ■XR<sub>1-4</sub> are for the DC 12V relay
- ■XR5 is a DC 12/24V or AC 220-240V relay
- CnT connector (local) maker, model

Connector	Molex	5264-06
Terminals	Molex	5263T

Immut/	Function	SW2-1			SW2-3			Air-	Operation by
Input/ Output		Setting		Catting	Input signal		Contont	conditioner	remote control
Output				Setting	Level/Pulse	XR5	Content	Conditioner	Terriote control
				ON*		OFF→ON	External input	ON	
		external ontrol put	Level input		Level	$\text{ON} {\rightarrow} \text{OFF}$	1	OFF	Allowed
	External			OFF		OFF→ON	Operation permission	OFF	
Input						ON→OFF	Operation prohibition	OFF	Not allowed
	input		OFF Pulse input	ON*	Pulse	OFF→ON	r	OFF→ON	
								ON→OFF	Allowed
				OFF	т 1	OFF→ON	Operation permission	ON	
				OFF	Level	ON→OFF	Operation prohibition	OFF	Not allowed
	* Factory setting								



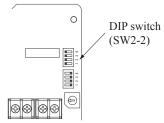
In case of the remote control (RC-EX3 or later model), the external outputs (1-4) and the external input can be changed using the function setting of remote control. For the setting method, refer to the installation manual. Also refer to the technical manual to know how it is adapted to the function setting for the external outputs and input, at the indoor unit side.

#### Connection of Superlink E board

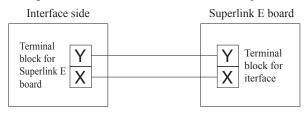
Regarding the connection of Superlink E board, refer to the installation manual of Superlink E board. For electrical work, power source for all of units in the Superlink system

must be turned OFF. ①Switch ON the DIP switch SW2-2 (Factory setting: ON) on the interface PCB.

Caution: Wireless remote control attached to the indoor unit can be used in parallel, after connecting the wired remote control. However, some of functions other than the basic functions such as RUN/STOP, temperature setting, etc. may not work properly and may have a mismatch between the display and the actual behavior.



2 Wiring connection between the interface and the Superlink E board.



Within 200 m	$0.5 \text{ mm}^2 \times 2 \text{ cores}$
Within 300 m	$0.75 \text{ mm}^2 \times 2 \text{ cores}$
Within 400 m	$1.25 \text{ mm}^2 \times 2 \text{ cores}$
Within 600 m	$1.0 \text{ mm}^2 \times 2 \text{ cores}$

3Clamp the connection cables with cable clamps.

Names of recommended signal wires No. Shielded wire 2 Vinyl cabtyre round cord Vinyl cabtyre round cable Vinyl insulated wire vinyl sheathed cable for control

-603 -

Factory setting

0

DIP suitch

(SW2-2)

#### Connection of wired remote control

Regarding the connection of wired remote control, refer to the installation manual of wired remote control.

①Switch ON the DIP switch SW2-2 (Factory setting: ON) on the interface PCB.

Caution: Wireless remote control attached to the indoor unit can be used in parallel, after connecting the wired remote control. However, some of functions other than the basic functions such as RUN/STOP, temperature setting, etc. may not work properly and may have a mismatch between the display and the actual behavior.

②Wiring connection between the interface and the wired remote control.

#### Installation and wiring of wired remote control

- (A) Install the wired remote control with reference to the attached installation manual of wired remote control.
- $\bigcirc 0.3$  mm<sup>2</sup>  $\times$  2 cores cable should be used for the wiring of wired remote control.
- © Maximum length of wiring is 600m.

If the length of wiring exceeds 100m, change the size of cable as mentioned below.

100m-200m:  $0.5\text{mm}^2\times2$  cores, 300m or less:  $0.75\text{mm}^2\times2$  cores, 400m or less:  $1.25\text{mm}^2\times2$  cores, 600m or less:  $2.0\text{mm}^2\times2$  cores However, cable size connecting to the terminal of wired remote control should not exceed  $0.5\text{mm}^2$ . Accordingly if the size of connection cable exceeds  $0.5\text{mm}^2$ , be sure to downsize it to  $0.5\text{mm}^2$  at the nearest section of the wired remote control and waterproof treatment should be done at the connecting section in order to avoid contact failure.

- Don't use the multi-core cable to avoid malfunction.
- (E) Keep the wiring of wired remote control away from grounding (Don't touch it to any metal frame of building, etc.).
- © Connect the connection cables to the terminal blocks of the wired remote control and the interface securely (No polarity).
- 3 Clamp the connection cables with cable clamps.

#### Control of multiple units by a single wired remote control

Multiple units (up to 16) can be controlled by a single wired remote control. In this case, all units connected with a single wired remote control will operate under the same mode and same setting temperature.

- ①Connect all the interface with 2 cores cables of wired remote control line.
- ②Set the address of indoor unit for remote control communication from "0" to "F" with the rotary switch SW1 on the interface PCB.
- ③ After turning the power ON, the address of indoor unit can be displayed by pressing AIR CON No. button on the wired remote control.

  Make sure all indoor units connected are displayed in order by pressing

  or □ button.

#### Master/Slave setting wired when 2 of wired remote control are used

Maximum two wired remote control can be connected to one indoor unit (or one group of indoor units)

①Set the DIP switch SW1 on the wired remote control to "Slave" for the slave remote control. (Factory setting: Master)

O Caution: Remote control sensor of the slave remote control is invalid.

• When using the wireless remote control in parallel with the wired remote control; Since temperature setting range of wired remote control is different from that of wireless remote control, please adjust the setting range of wired remote control to be the same setting range of wireless remote control by following procedure. (The set temperature may not be displayed correctly on the wireless remote control, unless change of temperature setting range is done.)
Changing procedure of temperature setting range is as follows.

#### How to set upper and lower limit of temperature setting range

- Stop the air-conditioner, and press (SET) and (MODE) button at the same time for 3 seconds or more.
  - The indication changes to "FUNCTION SET ▼"
- 2. Press ▼button once, and change to the "TEMP RANGE ▲" indication.
- 3. Press (SET) button, and enter the temperature range setting mode.
- 4. Confirm that the "Upper limit ▼" is shown on the display.
- 5. Press (SET) button to fix.
- 6. ①Indication: "ⓑ∨∧SET UP"→"UPPER 28°C ∨∧"
  - ②Select the upper limit value 30°C with temperature setting button △."UPPER30°C∨" (blinking)
  - ③Press (SET) button to fix. "UPPER 30°C" (Displayed for two seconds)

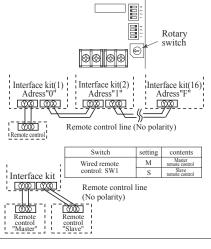
    After the fixed upper limit value displayed for two seconds, the indication will returm to "UPPER LIMIT ▼".
- 7. Press button once, "LOWER LIMIT ▲ " is selected, press (SET) button to fix.

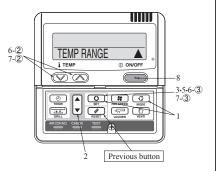
  ①Indication: "♠∨ ∧ SET UP" → "LOWER 20°C ∨ ∧"
  - ②Select the lower limit value 18°C with temperature setting button ☑."LOWER18°C ∧" (blinking)
  - ③Press (SET) button to fix. "LOWER 18°C" (Displayed for two seconds)

    After the fixed lower limit value displayed for two seconds, the indication will returm to "LOWER LIMIT▼"
- 8. Press ON/OFF button to finish.

Temperature setting range

Mode	Temperature setting range
Cooling, Heating, Dry, Auto	18-30°C





- It is possible to quit in the middle by pressing ON/OFF button, but the change of setting is incompleted.
- During setting, if pressing (RESET) button, it returns to the previous screen.

# **5.8 SUPERLINK E BOARD (SC-ADNA-E)**

PJZ012D029K 🔥

- Read and understand the instructions completely before starting installation.
- Refer to the instructions for both indoor and outdoor units.

#### Safety precautions

- Carefully read "Safety precautions" first, Follow the instructions for installation.
- Precautions are grouped into "Warning \( \Lambda \) and "Caution \( \Lambda \). The "Warning \( \Lambda \) group includes items that may lead to serious injury or death if not observed. The items included
- in the "Caution \( \triangle \) "group also may lead to serious results under certain conditions. Both groups are crucial for safety installation. Read and understand them carefully.

  After installation, conduct the test operation of the device to check for any abnormalities. Describe how to operate the device to the customer following the installation instruction manual. Instruct the customer to keep this installation instruction for future reference

#### **∴Warning**

- This device should be installed by the dealer where you purchase the device or a licensed professional shop. If the device is incorrectly installed by the
- customer, it may result in electric shock or fire.

  Install the device carefully following the installation instruction. If the device is incorrectly installed, it may result in electric shock or fire.
- Use the accessory parts and specified parts for installation. If any parts that do not match the specifications are used, it may result in electric shock or fire.
- A person with the electrical service certification should conduct the service based on the "Technical standards for electrical facilities", "Electrical Wiring Code", and the installation instruction. If the work is done incorrectly, it may result in electric shock or fire.
- Wiring should be securely connected using the specified types of wire. No external force on the wire should be applied to any terminals. If a secure connection is not achieved, it may result in electric shock or fire.

#### 1 Application

Indoor-to-outdoor three core communication specification type 3 (since October 2007)

#### Accessories

SL E board	Metal box	Metal cover	Screw for ground
	/0/	•	M4×8L 2 pieces
Pan head screws	Locking supports	Binding band	Grommet
ø4x8L 2 pieces	To secure the print board and the metal box Made of nylon 4 pieces	83	

#### 3 Function

Allowing the center console SL1N-E, SL2N-E, and SL3N-AE/BE to control and monitor the commercial air-conditioner unit.

#### Control switching

Settings can be changed by the switch SW3 on the SL E board as in the following.

Switch	Symbol	Switch	Remarks
		ON	Master
	'	OFF (default)	Slave
		ON	Fixed previous protocol
	2	OFF (default)	Automatic adjustment of Superlink protocol
SW3	3	ON	Indicates the forced operation stop when abnormality has occurred.
	3	OFF (default)	Indicates the status of running/stop as it is, when abnormality has occurred.
	4	ON	The hundredth address activated "1"
	4	OFF (default)	The hundredth address activated "0"

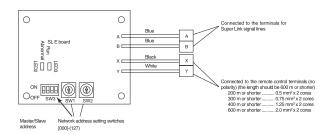
#### **∴** Caution

- Provide ground connection.
- The ground line should never be connected to the gas supply piping, the water supply piping, the lightning conductor rod, nor the telephone ground. If the grounding is improper, it may result in electric shock.
- Do not install the device in the following locations.
  - 1.Where there is mist/spray of oil or steam such as kitchens. 2.Where there is corrosive gases such as sulfurous acid gas.
- 3. Where there is a device generating electromagnetic waves
- These may interfere with the control system resulting in the device becoming
- 4. Where flammable volatile materials such as paint thinner and gasoline may exist or where they are handled. This may cause a fire

#### 5 Connection Outline

Note for setting the address

- Set the address between 00 and 47 for the previous Superlink connection and between 000 and 127 for the new Superlink connection. (\*1)
- Do not set the address overlapping with those of the other devices in the network. (The default is 000)



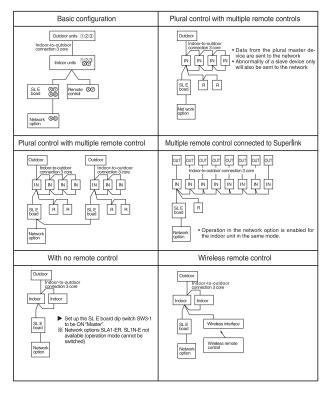
(\*1) Whether the actual link is either the new Superlink or the previous Superlink depends on the models of the connected outdoor and indoor units. Consult the agent or the dealer.

#### Signal line specification

Communication method	Previous Superlink	New Superlink
Line type	MVVS	MVVS
Line diameter	0.75 - 1.25mm <sup>2</sup>	0.75/1.25mm <sup>2</sup>
Signal line (total length)	up to 1000m	up to 1500/1000m (*2)
Signal line (maximum length)	up to 1000m	up to 1000m

- (\*2) Up to 1500 m for  $0.75 \text{ mm}^2$ , and up to 1000 m for  $1.25 \text{ mm}^2$ . Do not use 2.0 mm<sup>2</sup>. It may cause an error.
- (\*3) Connect grounding on both ends of the shielding wire For the grounding method, refer to the section "[6] Installation".

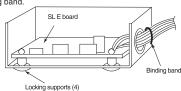
- Set the Superlink network address with SW1 (tens place), SW2 (ones place), and SW3 (hundreds place).
- (2) Set the SL E board SW3-1 to be ON (Master) when using this without any remote control (no wired remote controller nor wireless remote control).
- (3) Set up the plural master/slave device using the dip switches on the indoor unit board.
- (4) Set up the remote control master/slave device using the slide switch on the remote control board.
- (5) Set up "0" to "F" using the address rotary switch on the indoor unit board when controlling the indoor unit with the multiple remote control.



#### 6 Installation

- 1. When using the metal box (mounted on the indoor unit / mounted on the back of the remote control):
  - (1) Mount the SL E board in the metal box using the locking supports.
  - (2) Wiring should go through the provided grommet since then through the wiring to the hole on the Metal box.

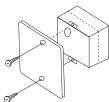
Secure the grommet after inserting the grommet into the Metal box as shown in below figure, then tie the wiring at the outlet of the unit using a binding band.



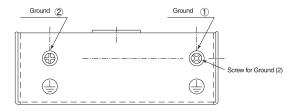
▲ When installed outside the indoor unit, put the metal cover on.



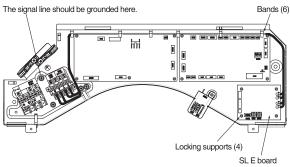
▲ When installed on the back of the remote control, mount it directly on the remote control bottom case.



Connect grounding. Connect grounding for the power line to Ground 1, and grounding for the signal line to Ground 2 or to the Ground on the indoor unit control box.



- 2. When connecting to the indoor unit control box (ceiling-concealed type and FDT type only):
  - (1) Mount the SL E board in the control box using the locking supports.
  - (2) Remove 6 bands from the box and put the wiring through the bands to be secured.



Electrical shock hazard! Make sure to turn the power off for servicing. Be cautious so that no abnormal force should be applied to the wiring. Do not let the SL E board hung by the wiring. Do not damage the board with a screw driver.

The board is sensitive to static electricity. Release the static electricity of your body before servicing.

(you can do this by touching the control board which is grounded).

#### Location of installation

Install the device at the location where there are no electromagnetic waves nor where there is water and dust. The specified temperature range of the device is 0 to 40°C. Install the device at the location where the ambient temperature stays within the range. If it exceeds the specification, make sure to provide solution such as installing a cooling fan. When used outside of the range, it may cause abnormal operation.

#### 7 Indicator display

Check the LED 3 (green) and LED 2 (red) on the SL E board for flashing.

SL E boa	ard LEDs		Display on the
Red	Green	Inspection mode	integrated network control device
Off	Flashing	Normal communication	
Off	Off	Disconnection in the remote control communication line (X or Y) Short-circuit in the remote control communication line (between X and Y) Faulty indoor unit remote control power Faulty remote control communication circuit Faulty CPU on SL E board	No corresponding unit number
One flash	Flashing	Disconnection in the Superlink signal line (A or B)     Short-circuit in the Superlink signal line (between A and B)     Faulty Superlink signal circuit	
Two flashes	Flashing	Faulty address setting for the SL E board (Set up the address for previous SL E board : more than 48 new SL E board : more than 128)	
Three flashes	Flashing	SL E board parent not set up when used without a remote control     Faulty remote control communication circuit	E1
Four flashes	Flashing	Address overlapping for the SL E board and the Superlink network connected indoor unit	E2
Off	Flashing	Number of connected devices exceeds the specification for the multiple indoor unit control	E10

#### **INVERTER PACKAGED AIR-CONDITIONERS**



#### MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.

16-5 Konan 2-chome, Minato-ku, Tokyo, 108-8215, Japan http://www.mhi-mth.co.jp/en/