Manual No.'21 • PAC-DB-394

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DATA BOOK

MICRO INVERTER PACKAGED AIR-CONDITIONERS

(Split system, air to air heat pump type)

CEILING CASSETTE-4 WAY TYPE

Twin type 250VSAWPVH 280VSAWPVH

Double twin type Triple type FDT200VSAWPVH FDT200VSAWTVH FDT200VSAWDVH 250VSAWDVH 280VSAWDVH

CEILING CASSETTE-4 WAY COMPACT TYPE

Double twin type FDTC200VSAWDVH 250VSAWDVH

DUCT CONNECTED-HIGH STATIC PRESSURE TYPE

Single type FDU200VSAWVH 250VSAWVH 280VSAWVH

DUCT CONNECTED-LOW/MIDDLE STATIC PRESSURE TYPE

Twin type Triple type FDUM200VSAWPVH FDUM200VSAWTVH 250VSAWPVH 280VSAWPVH

CEILING SUSPENDED TYPE

Twin type Triple type Double twin type FDE200VSAWPVH FDE200VSAWTVH FDE200VSAWDVH 250VSAWPVH 250VSAWDVH 280VSAWPVH 280VSAWDVH

WALL MOUNTED TYPE

Twin type SRK200VSAWPZR

V Multi System

(OUTDOOR UNIT) (INDOOR UNIT) FDC200VSA-W FDT50VH FDE50VH 250VSA-W 60VH 60VH 280VSA-W 71VH 71VH 100VH 100VH 125VH 125VH 140VH 140VH

Notes:

- (1) SRK twin type can be connected only after service code "/A" of FDC200VSA-W.
- (2) The service code "/A" is reflected from the serial number below. S/N: A0430001BF

MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.

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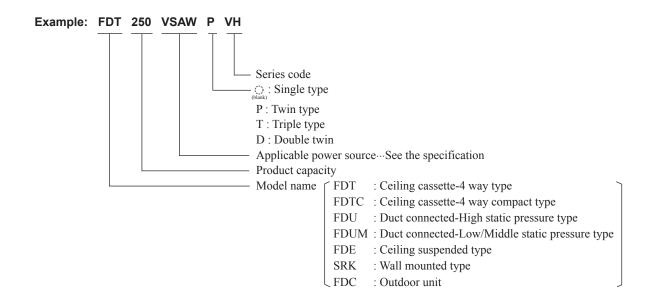
1. MICRO INVERTER PACKAGED AIR-CONDITIONERS

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■How to read the model name



1.1 SPECIFICATIONS

(1) Ceiling cassette-4 way type (FDT)

(a) Twin type

14			Model	FDT200V		
tem				Indoor unit FDT100VH (2 units)	Outdoor unit FDC200VSA-W	
Power source	T			3 Phase 380-415V		
	Nominal cooling capacity (range)		kW	20.0 [6.8(Min.) — 22.4(Max.)] 22.4 [6.6(Min.) — 25.0(Max.)]		
	Nominal heating capacity (range)	T - "	kW			
	Power consumption	Cooling		5.		
		Heating	kW	5.1		
	Max power consumption			12.		
	Running current	Cooling	_	8.7		
		Heating	A	8.3		
	Inrush current, max current			5		
Operation data	Power factor	Cooling	- %	9		
operation data	1 ower laster	Heating	,,,	9	2	
	EER	Cooling		3.0	65	
	COP	Heating		4.:	25	
	Sound power level	Cooling		62	72	
	Sound power level	Heating		02	74	
	Cound proceure lovel	Cooling	dB(A)	P-Hi: 47 Hi: 39 Me: 36 Lo: 30	58	
	Sound pressure level	Heating	dB(A)	P-Hi: 47 Hi: 39 Me: 36 Lo: 29	59	
	Silent mode	Cooling			55 /53(Normal/Silent)	
	sound pressure level	Heating		_	56 /54(Normal/Silent)	
Exterior dimension : 1:	and (Height v Width Death)			Unit 298 x 840 x 840	,	
Exterior dimensio	ons (Height x Width x Depth)		mm	Panel 35 x 950 x 950	1505×970×370	
Exterior appearar (Munsell color)	nce			Fine snow (8.0Y9.3/0.1) near equivalent	Stucco white (4.2Y7.5/1.1) near equivalent	
(RAL color)				(RAL 9003) near equivalent	(RAL 7044) near equivalent	
Net weight	-		kg	Unit 25 Panel 5	144	
Compressor type	e & Q'ty			_	GTC5150SC40MF x 1	
	or (Starting method)	-	kW	_	Direct line start	
Refrigerant oil (Ar	. 0 /		L	_	1.55(M-MB75R)	
	e, amount, pre-charge length)		kg	R32 4.3 in outdoor unit (Incl. the	, ,	
Heat exchanger	e, amount, pre onarge longtry		i.g	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant contro	rol			Electronic exp		
	OI					
an type & Q'ty			144	Turbo fan x1	Propeller fan x2	
an motor (Startii	ing method)	T = "	W	140 < Direct line start >	86x2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi: 37 Hi: 26 Me: 23 Lo: 17	148 134	
Available externa	al static pressure		Pa	0	0	
Outside air intake	9			Possible	_	
Air filter, Quality /	Quantity			Pocket plastic net x1(Washable)	_	
Shock & vibration	n absorber	,		Rubber sleeve(for fan motor)	Rubber sleeve (for fan motor & compresso	
Electric heater			W	_	20(Crank case heater)	
	Remote control		-	(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-T-5BW-E2		
	Remote control		1			
			+			
	Room temperature control			Thermostat b		
control	Room temperature control Operation display			Thermostat b	y electronics	
control	Room temperature control Operation display			Overload protection for fan mo	by electronics - tor. Frost protection thermostat	
control	Room temperature control Operation display	Liquid line		Thermostat b Overload protection for fan mo Internal thermostat for fan motor. Abnc I/U φ 9.52 (3/8") Pipe ② φ 9.52(3/8")x0.8 ① φ 9.52 I/U φ 9.52 (3/8")	y electronics - tor. Frost protection thermostat rrmal discharge temperature protection (3/8")x0.8 or φ 12.7(1/2")x0.8	
control	Room temperature control Operation display	Liquid line Gas line	mm	Thermostat b Overload protection for fan mo Internal thermostat for fan motor. Abno I/U φ 9.52 (3/8") Pipe ② φ 9.52(3/8") I/U 4 15.88 (5/8") Pipe ② φ 15.88(5/8")x1.0 ① φ 2:	y electronics tor. Frost protection thermostat rmal discharge temperature protection (3/8")x0.8 or φ 12.7(1/2")x0.8	
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ontrol Safety equipmen	Room temperature control Operation display Its Refrigerant piping size (O.D) Connecting method Attached length of piping Insulation for piping	- 1	m	Thermostat b Overload protection for fan mo Internal thermostat for fan motor. Abno I/U φ 9.52 (3/8") Pipe ②φ 9.52(3/8")x0.8 ①φ 9.52 O/U φ 9.52(3/8") I/U φ 15.88 (5/8") Pipe ②φ 15.88(5/8")x1.0 ①φ 2: φ 25.4(1")x1.0 or φ 28.58(1 1/8") Flare piping Necessary (both L	y electronics tor. Frost protection thermostat symal discharge temperature protection (3/8")x0.8 or φ 12.7(1/2")x0.8 2.22(7/8")x1.0 or x1.0 O/U φ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — .iquid & Gas lines)	
ontrol Safety equipmen	Room temperature control Operation display Its Refrigerant piping size (O.D) Connecting method Attached length of piping	- 1		Thermostat b Overload protection for fan mo Internal thermostat for fan motor. Abno I/U φ 9.52 (3/8") Pipe ② φ 9.52(3/8")x0.8 ① φ 9.52 I/U φ 15.88 (5/8") Pipe ② φ 15.88(5/8")x1.0 ① φ 2: φ 25.4(1")x1.0 or φ 28.58(1 1/8") Flare piping Necessary (both L	oy electronics tor. Frost protection thermostat tor. Frost protection thermostat control discharge temperature protection (3/8")×0.8 or φ 12.7(1/2")×0.8 2.22(7/8")×1.0 or x1.0 O/U φ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — .iquid & Gas lines)	
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Safety equipmen nstallation data Drain pump, max Recommended b L.R.A. (Locked ro	Room temperature control Operation display Its Refrigerant piping size (O.D) Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U a Drain hose If the height Oreaker size Optor ampere)	Gas line	m m m A	Thermostat b	oy electronics tor. Frost protection thermostat tor. Frost protection thermostat tor. Frost protection thermostat tor. Frost protection thermostat (3/8")x0.8 or φ 12.7(1/2")x0.8 2.22(7/8")x1.0 or x1.0 O/U φ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — .iquid & Gas lines) c.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs. —	
Control Safety equipment Installation data Drain pump, max Recommended b L.R.A. (Locked roll Interconnecting v	Room temperature control Operation display Its Refrigerant piping size (O.D) Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U a Drain hose If the height Oreaker size Optor ampere)	Gas line	m m m A	Thermostat b	y electronics - tor. Frost protection thermostat tormal discharge temperature protection (3/8")x0.8 or φ 12.7(1/2")x0.8 2.22(7/8")x1.0 or x1.0 O/U φ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — .iquid & Gas lines) .c.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs. — .0	
Operation control Safety equipmen Installation data Drain pump, max Recommended b L.R.A. (Locked ro Interconnecting v IP number Standard access	Room temperature control Operation display Its Refrigerant piping size (O.D) Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U a Drain hose (lift height breaker size obtor ampere) wires Size x Co	Gas line	m m m A	Thermostat b	y electronics - tor. Frost protection thermostat formal discharge temperature protection (3/8")x0.8 or φ 12.7(1/2")x0.8 2.22(7/8")x1.0 or x1.0 O/U φ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing iquid & Gas lines) α.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs. 0 / Terminal block (Screw fixing type)	

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

(.)	·, ···								
Item	Indoor air t	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	ISO5151-H1				

- (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.

Panel color	Panel model	Panel type	(Munsell color)	Remote control wireless	
Fine snow	T-PSA-5BW-E	Standard	(8.0Y9.3 / 0.1) near equivalent	RCN-T-5BW-E2	
Fille Sllow	T-PSAE-5BW-E	Draft prevention	(6.019.3 / 0.1) Hear equivalent		
Shaow black	T-PSA-5BB-E	Standard	(7.2BG2.9 / 0.6) near equivalent	RCN-T-5BB-E2	
SHAOW DIACK	T-PSAE-5BB-E	Draft prevention	(7.2BG2.9 / 0.6) Hear equivalent		

			Model	FDT250V	SAWPVH		
Item			Model	Indoor unit FDT125VH (2 units)	Outdoor unit FDC250VSA-W		
Power source					50Hz / 380V 60Hz		
	Nominal cooling capacity (range)		kW	25.0 [6.8(Min.			
	Nominal heating capacity (range)		kW	28.0 [5.7(Min.) - 31.5(Max.)]			
	Cooling			8.2			
	Power consumption	Heating	kW	7.5	37		
	Max power consumption	'		11	.2		
	D	Cooling		12.8 /	13.5		
	Running current	Heating	Α	11.7 /	12.3		
	Inrush current, max current		7	5,	20		
		Cooling	0.4	9	3		
Operation data	Power factor	Heating	- %	9	1		
	EER	Cooling		3.0	05		
	COP	Heating		3.8	80		
		Cooling		63	73		
	Sound power level	Heating	7	64	75		
		Cooling		P-Hi: 48 Hi: 41 Me: 39 Lo: 31	58		
	Sound pressure level	Heating	dB(A)	P-Hi: 48 Hi: 41 Me: 38 Lo: 31	62		
	Silent mode	Cooling	-	1 111. 40 111. 41 We. 60 Ec. 61	56 / 55 (Normal/Silent)		
	sound pressure level	Heating	-	_	59 / 58 (Normal/Silent)		
		1	+	Unit 298 × 840 × 840	` '		
Exterior dimension	ons (Height x Width x Depth)		mm	Panel 35 × 950 × 950	1505 × 970 × 370		
Exterior appearai	nce		1	Fine snow	Stucco white		
(Munsell color)				(8.0Y9.3/0.1) near equivalent	(4.2Y7.5/1.1) near equivalent		
(RAL color)				(RAL 9003) near equivalent	(RAL 7044) near equivalent		
Net weight			kg	Unit 25 Panel 5	145		
Compressor type	e & Q'tv		 	_	GTC5150SC40MF × 1		
	tor (Starting method)		kW	_	Direct line start		
Refrigerant oil (A			L	_	1.55 (M-MB75R)		
	e, amount, pre-charge length)		kg	R32 5.1 in outdoor unit (Incl. the amount for the piping of 30m)			
Heat exchanger	o, amount, pro onalgo longiny		1.19	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant contr	rol			Electronic exp			
Fan type & Q'ty				Turbo fan × 1	Propeller fan × 2		
Fan motor (Starti	ing method)		W	140 < Direct line start >	86 × 2 < Direct line start >		
	9	Cooling			148		
Air flow		Heating	m³/min	P-Hi: 38 Hi: 28 Me: 25 Lo: 18	153		
Available externa	al static pressure	1 rouning	Pa	0	0		
Outside air intake			1	Possible			
Air filter, Quality /			+	Pocket plastic net ×1 (Washable)	_		
Shock & vibration				Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)		
Electric heater	11 45501501		W	—	20 (Crank case heater)		
Licotrio ficator	Remote control		+ ''	(Option) Wired : BC-EX3A BC-E5	RCH-E3 Wireless : RCN-T-5BW-E2		
Operation	Room temperature control			Thermostat b			
control	Operation display		+	Thomostat s	-		
	Operation display			Overload protect	ion for fan motor		
				Frost protection			
Safety equipmen	S			Internal thermostat for fan motor			
				Abnormal discharge to	emperature protection		
		Liquid line		/U φ 9.52 (3/8") Pipe ② φ 9.52 (3/8") × 0.8 ① φ 12	2.7 (1/2") × 0.8		
	Refrigerant piping size (O.D)	Liquid IIII6	mm	0/0 ψ 12.7 (1/2)			
		Gas line	'''''	I/U ϕ 15.88 (5/8") Pipe ② ϕ 15.88 (5/8") × 1.0 ① ϕ 25.4 (1") × 1.0 or ϕ 28.58 (1.1)	5 22.22 (7/8") × 1.0 or		
		1	1				
	Connecting method		+	Flare piping	Liquid : Flare / Gas : Brazing		
Installation data	Attached length of piping		m	_	_		
Jiananon uald	Insulation for piping		+	Necessary (both L	•		
	Refrigerant line (one way) length		m	Max			
				Max.50 (Outdoor unit is higher &			
	Vertical height diff. between O/U a	nd I/U	m	Max.30 (Outdoor unit is higher &			
			1	Max.15 (Outdo			
	Drain hose			Hose connectable with VP25 (O.D.32)	Hole size ϕ 20 x 3 pcs.		
Drain pump, max			mm	Built-in drain pump , 850	_		
Recommended b			А	_			
L.R.A. (Locked ro	otor ampere)		A	5.	/5		
L.R.A. (Locked rotor ampere)				φ 1.6 mm x 3 cores (Including earth cable	e) / Termainal block (Screw fixing type)		
Interconnecting wires Size x Core number				φ 1.6 mm x 3 cores (Including earth cable) / Termainal block (Screw fixing ty			
Interconnecting v IP number				IPX0	IP24		
	ories			IPX0 Mounting kit, Drain hose	IP24 Connecting pipe, Edging		
IP number	sories			Mounting kit, Drain hose			

١.) The data are medeated at	The data are medealed at the fellowing conditioner							
	Item	Item Indoor air temperature			temperature	Standards			
	Operation	DB	WB	DB	WB	Staridards			
	Cooling*1	27°C	19°C	35°C	24°C	ISO5151-T1			
	Heating*2	20°C		7°C	6°C	ISO5151-H1			

- Heating 2 20 C 1/C 6C ISUS151-H1

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

 (7) Branching pipe set "DIS-WB1G"×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 φ 19.05 or larger pipes.

Panel color	Panel model	Panel type	(Munsell color)	Remote control wireless	
Fine snow	T-PSA-5BW-E	Standard	(8.0Y9.3 / 0.1) near equivalent	BCN-T-5BW-E2	
I III SHOW	T-PSAE-5BW-E	Draft prevention	(0.013.07 0.1) hear equivalent	TIOIN-1-3DW-LZ	
Shadow black	T-PSA-5BB-E	Standard	(7.2BG2.9 / 0.6) near equivalent	BCN-T-5BB-E2	
Stradow black	T-PSAE-5BB-E	Draft prevention	(7.26G2.9 / 0.0) Hear equivalent	HON-1-3BB-E2	

			Model	FDT280V	SAWPVH		
Item				Indoor unit FDT140VH (2 units)	Outdoor unit FDC280VSA-W		
Power source	-			3 Phase 380-415V	50Hz / 380V 60Hz		
	Nominal cooling capacity (range)		kW	27.0 [7.5 (Min.)) - 31.5 (Max.)]		
	Nominal heating capacity (range)		kW	30.0 [6.3 (Min.) - 33.5 (Max.)]			
	Cooling			9	11		
	Power consumption	Heating	kW	2.8	95		
	Max power consumption		7	11	.4		
	Bunning ourrent	Cooling		14.0 /	14.7		
	Running current	Heating	A	13.5 /	14.2		
	Inrush current, max current		1	5,	20		
0	D fa a tau	Cooling	0/	9.	4		
Operation data	Power factor	Heating	%	91	6		
	EER	Cooling		2.9	96		
	COP	Heating	7	3.0	35		
		Cooling		63	75		
	Sound power level	Heating	7	64	77		
		Cooling	T	P-Hi: 48 Hi: 42 Me: 39 Lo: 32	61		
	Sound pressure level	Heating	dB(A)	P-Hi: 48 Hi: 41 Me: 38 Lo: 31	63		
	Silent mode	Cooling	1		55 / 54 (Normal/Silent)		
	sound pressure level	Heating	1	-	56 / 55 (Normal/Silent)		
		, 5	+	Unit 298 × 840 × 840	·		
Exterior dimension	ons (Height x Width x Depth)		mm	Panel 35 × 950 × 950	1505 × 970 × 370		
Exterior appearar	nce		1	Fine snow	Stucco white		
(Munsell color)				(8.0Y9.3/0.1) near equivalent	(4.2Y7.5/1.1) near equivalent		
(RAL color)				(RAL 9003) near equivalent	(RAL 7044) near equivalent		
Net weight			kg	Unit 25 Panel 5	155		
Compressor type	2 & O'tv		- Kg	— — — — — — — — — — — — — — — — — — —	GTC5150SC40MF × 1		
	tor (Starting method)		kW	_	Direct line start		
Refrigerant oil (A			L	– 1.55 (M-MB75R)			
	e, amount, pre-charge length)		kg	R32 5.6 in outdoor unit (Incl. th	,		
Heat exchanger	e, amount, pre-charge length)		kg	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
			+	Electronic exp			
Refrigerant contri Fan type & Q'ty	OI		+	Turbo fan × 1	Propeller fan × 2		
	in a una abla a al\		10/		•		
Fan motor (Starti	ing method)	0	W	140 < Direct line start >	86 × 2 < Direct line start >		
Air flow		Cooling	m³/min	P-Hi: 38 Hi: 29 Me: 26 Lo: 19	136		
		Heating	+ -		140		
Available externa			Pa	0	0		
Outside air intake				Possible	_		
Air filter, Quality /	· · · · · · · · · · · · · · · · · · ·		+	Pocket plastic net ×1 (Washable)			
Shock & vibration	n absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)		
Electric heater	T=		W	_	20 (Crank case heater)		
Operation	Remote control			(Option) Wired: RC-EX3A, RC-E5,			
control	Room temperature control			Thermostat b	y electronics		
	Operation display		1		-		
				Overload protect			
Safety equipmen	nts			Frost protection			
				Internal thermostat for fan motor			
	I	1	+	Abnormal discharge temperature protection			
		Liquid line		I/U ϕ 9.52 (3/8") Pipe ② ϕ 9.52 (3/8") × 0.8 ① ϕ 12 O/U ϕ 12.7 (1/2")	2.1 (1/2) × U.0		
	Refrigerant piping size (O.D)		mm				
		Gas line		I/U ϕ 15.88 (5/8") Pipe ② ϕ 15.88 (5/8") × 1.0 ① ϕ ϕ 25.4 (1") × 1.0 or ϕ 28.58 (1.1)	1/8") × 1.0 O/U φ 22.22 (7/8")		
	Connecting method			Flare piping	Liquid : Flare / Gas : Brazing		
	Attached length of piping		m	_	_		
Installation data	Insulation for piping	-		Necessary (both L	iquid & Gas lines)		
	Refrigerant line (one way) length		m	Max			
	Sa an a (ene may, rengin		1	Max.50 (Outdoor unit is higher &			
	Vertical height diff. between O/U a	nd I/U	m	Max.30 (Outdoor unit is higher &			
				Max.15 (Outdoo			
	Drain hose		+	Hose connectable with VP25 (O.D.32)	Hole size φ 20 x 3 pcs.		
Drain pump, max			mm	Built-in drain pump , 850	ι ισιο δίζο φ 20 χ 3 μοδ.		
Recommended b				Built-in drain pump , 850	-		
			A				
L.R.A. (Locked ro			A		/5		
Interconnecting v	wires Size x Co	re number	1		e) / Termainal block (Screw fixing type)		
IP number			1	IPX0	IP24		
Standard access	ories			Mounting kit, Drain hose	Connecting pipe, Edging		
Option parts				Motion sensor	: LB-T-5BW-E		
				The nine length is 7	r		

١.) The data are mededica at	The data are medealed at the fellowing conditioner							
	Item Indoor air temperature			Item Indoor air temperature Outdoor air temperature		Standards			
	Operation	DB	WB	DB	WB	Staridards			
	Cooling*1	27°C	19°C	35°C	24°C	ISO5151-T1			
	Heating*2	20°C		7°C	6°C	ISO5151-H1			

- Heating 2 20 C 1/C 6C ISUS151-H1

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

 (7) Branching pipe set "DIS-WB1G"×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 φ 19.05 or larger pipes.

-, p-p g										
Panel color	Panel model	Panel type	(Munsell color)	Remote control wireless						
Fine snow	T-PSA-5BW-E	Standard	(8.0Y9.3 / 0.1) near equivalent	RCN-T-5BW-E2						
Fille Sllow	T-PSAE-5BW-E	Draft prevention	(8.019.37 0.1) flear equivalent							
Shadow black	T-PSA-5BB-E	Standard	(7.2BG2.9 / 0.6) near equivalent	BCN-T-5BB-E2						
SHAUOW DIACK	T-PSAE-5BB-E	Draft prevention	(7.26G2.9 / 0.0) near equivalent	NOIN-1-3BB-E2						

(b) Triple type

			Model		SAWTVH	
Item				Indoor unit FDT71VH (3 units)	Outdoor unit FDC200VSA-W	
Power source				3 Phase 380-415V	50Hz / 380V 60Hz	
	Nominal cooling capacity (range)		kW	20.0 [7.6(Min.)) — 22.4(Max.)]	
	Nominal heating capacity (range)		kW	22.4 [6.6(Min.)) — 25.0(Max.)]	
	Power consumption	Cooling		5.	56	
	Power consumption	Heating	kW	5.	27	
	Max power consumption	•		12	.00	
	B	Cooling		8.8	9.3	
	Running current	Heating	A	8.3	/ 8.7	
	Inrush current, max current			5	, 19	
		Cooling) 1	
Operation data	Power factor	Heating	- %		2	
	EER	Cooling		3.0	60	
	COP	Heating	\dashv		25	
		Cooling		59	72	
	Sound power level	Heating	\dashv	60	74	
		Cooling	_	P-Hi: 46 Hi: 34 Me: 31 Lo: 26	58	
	Sound pressure level		dB(A)		59	
		Heating	_	P-Hi: 46 Hi: 34 Me: 31 Lo: 26		
	Silent mode	Cooling		_	55 /53(Normal/Silent)	
	sound pressure level	Heating			56 /54(Normal/Silent)	
Exterior dimension	ons (Height x Width x Depth)		mm	Unit 236 × 840 × 840	1505×970×370	
Entratement			-	Panel 35 x 950 x 950	2:	
Exterior appearar (Munsell color)	ilice			Fine snow (8.0Y9.3/0.1) near equivalent	Stucco white (4.2Y7.5/1.1) near equivalent	
(RAL color)				(RAL 9003) near equivalent	(RAL 7044) near equivalent	
Net weight			lea	Unit 21 Panel 5	144	
	. 0 Olb.		kg	Unit 21 Failer 5	GTC5150SC40MF x 1	
Compressor type				_		
	tor (Starting method)		kW	-	Direct line start	
Refrigerant oil (A			L	_	1.55(M-MB75R)	
0 ()1	e, amount, pre-charge length)		kg		e amount for the piping of 30m)	
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant contr	rol			Electronic ex	pansion valve	
Fan type & Q'ty				Turbo fan x1	Propeller fan x2	
Fan motor (Starti	ing method)		W	50 < Direct line start >	86x2 < Direct line start >	
Air flow		Cooling	m³/min	P-Hi: 28 Hi: 18 Me: 15 Lo: 12	148	
All HOW		Heating	1117111111	F-111. 26 111. 10 Me. 13 Lo. 12	134	
Available externa	al static pressure		Pa	0	0	
Outside air intake	e			Possible	_	
Air filter, Quality /	/ Quantity			Pocket plastic net x1(Washable)	_	
Shock & vibration	n absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for fan motor & compressor)	
Electric heater			W	_	20(Crank case heater)	
	Remote control			(Option) Wired: RC-EX3A . RC-E5.	RCH-E3 Wireless : RCN-T-5BW-E2	
Operation	Room temperature control				by electronics	
control	Operation display		+	THOMAS A	_	
			+	Overload protection for fan mo	tor. Frost protection thermostat	
Safety equipmen	nts				ormal discharge temperature protection	
	Refrigerant piping size	Liquid line		I/U φ 9.52 (3/8") Pipe ② φ 9.52(3/8")x0.8 ① φ 9.52(3/8")x0.8 or φ 12.7(1/2")x0.8		
	(O.D)	Gas line	mm	I/U φ 15.88 (5/8") Pipe ② φ 15.88(5/8")x1.0 ① φ 25.4(1")x1.0 or φ 28.58(1 1/8")	Χ1.0 Ο/Ο φ 22.22 (1/0)	
	Connecting method			Flare piping	Liquid : Flare piping / Gas : Brazing	
	Attached length of piping		m	-	_	
Installation data	Insulation for piping			Necessary (both L	iquid & Gas lines)	
	Refrigerant line (one way) length		m	Max	x.70	
				Max.50 (Outdoor unit is higher &	Outdoor air temperature ≤ 43°C)	
	Vertical height diff. between O/U a	and I/U	m	Max.30 (Outdoor unit is higher &	Outdoor air temperature > 43°C)	
					or unit is lower)	
	Duele have			Hose connectable with VP25(O.D.32)	Hole size φ 20 x 3 pcs.	
	Drain hose				— — — — — — — — — — — — — — — — — — —	
Drain pump. max	·		mm	Built-in drain bumb . 850	_	
	x lift height		mm A	Built-in drain pump , 850		
Recommended b	x lift height breaker size		А	-	_	
Recommended b	x lift height breaker size botor ampere)	oro number		5	0	
L.R.A. (Locked ro Interconnecting v	x lift height breaker size botor ampere)	ore number	А	φ 1.6mm x 3 cores + earth cable.	.0 / Terminal block (Screw fixing type)	
Recommended b L.R.A. (Locked ro Interconnecting v IP number	x lift height breaker size otor ampere) wires Size x C	ore number	А	φ 1.6mm x 3 cores + earth cable IPX0	.0 .0 / Terminal block (Screw fixing type) IP24	
Recommended b L.R.A. (Locked ro Interconnecting v	x lift height breaker size otor ampere) wires Size x C	ore number	А	φ 1.6mm x 3 cores + earth cable. IPX0 Mounting kit, Drain hose	.0 / Terminal block (Screw fixing type)	

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	ISO5151-H1	

- (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 is three indoor units are combined and run together.
 (7) Branching pipe set "DIS-TB1G" x1(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 φ 19.05 or larger pipes.

(8) Use 1/2H pipes	naving a 1.0mi	m or tnicker wall	tor φ 19.05	or larger pipes.
				1

Panel color	Panel model	Panel type	(Munsell color)	Remote control wireless	
Fine snow	T-PSA-5BW-E	Standard	(8.0Y9.3 / 0.1) near equivalent	RCN-T-5BW-E2	
Fille Silow	T-PSAE-5BW-E	Draft prevention	(6.019.3 / 0.1) flear equivalent		
Shaow black	T-PSA-5BB-E	Standard	(7.2BG2.9 / 0.6) near equivalent	RCN-T-5BB-E2	
Snaow black	T-PSAE-5BB-E	Draft prevention	(7.26G2.9 / 0.6) flear equivalent		

(c) Double twin type

			Model	FDT200V	SAWDVH
Item				Indoor unit FDT50VH (4 units)	Outdoor unit FDC200VSA-W
Power source				3 Phase 380-415V	
1 OWEI SOUISE	Nominal cooling capacity (range)		kW	20.0 [6.8(Min.)	
	Nominal heating capacity (range)	T = "	kW	22.4 [6.6(Min.)	
	Power consumption	Cooling		5.	
		Heating	kW	5.	
	Max power consumption			12.	.00
	Dunning summer	Cooling		9.2	9.7
	Running current	Heating	Α	9.1 /	9.6
	Inrush current, max current		1	5	, 19
		Cooling		9	
Operation data	Power factor	Heating	- %	9	
	EER		-	3.	
		Cooling	4		
	COP	Heating		3.	
	Sound power level	Cooling	1	55	72
	Count power level	Heating		56	74
	0	Cooling	-ID(A)	P-Hi: 41 Hi: 33 Me: 30 Lo: 26	58
	Sound pressure level	Heating	dB(A)	P-Hi: 42 Hi: 33 Me: 28 Lo: 20	59
	Silent mode	Cooling	1		55 /53(Normal/Silent)
	sound pressure level	Heating	-	_	56 /54(Normal/Silent)
	Souria pressure level	Tieating		Unit 236 × 840 × 840	30 /34 (NOTHIAL/SHELL)
Exterior dimension	ons (Height x Width x Depth)		mm	Panel 35 x 950 x 950	1505×970×370
Futarian anna anna			-		0, 1,
Exterior appeara	rice			Fine snow	Stucco white (4.2Y7.5/1.1) near equivalent
(Munsell color)				(8.0Y9.3/0.1) near equivalent (RAL 9003) near equivalent	(4.2 Y 7.5/1.1) near equivalent (RAL 7044) near equivalent
(RAL color)					7 7
Net weight			kg	Unit 19 Panel 5	144
Compressor type				_	GTC5150SC40MF x 1
Compressor mot	or (Starting method)		kW	_	Direct line start
Refrigerant oil (A	mount, type)		L	_	1.55(M-MB75R)
Refrigerant (Type	e, amount, pre-charge length)		kg	R32 4.3 in outdoor unit (Incl. the	e amount for the piping of 30m)
Heat exchanger	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		 	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant contr	rol		+	Electronic exi	
	OI .		-		
Fan type & Q'ty				Turbo fan x1	Propeller fan x2
Fan motor (Starti	ng method)	_	W	50 < Direct line start >	86x2 < Direct line start >
Air flow		Cooling	m³/min	P-Hi: 22 Hi: 16 Me: 13 Lo: 10	148
7 (11 110)		Heating	,	1 TH. 22 TH. 10 W.C. 10 Ed. 10	134
Available externa	al static pressure		Pa	0	0
Outside air intake	9		İ	Possible	_
Air filter, Quality /	/ Quantity			Pocket plastic net x1(Washable)	
Shock & vibration			+	Rubber sleeve(for fan motor)	Rubber sleeve (for fan motor & compressor)
Electric heater	ii absorber		W	Tubber sieeve(for fair frictor)	20(Crank case heater)
LIECTIC HEATE	Domestic control		VV .	(Ontion) Winds DO EVOA DO EE	
Operation	Remote control				RCH-E3 Wireless : RCN-T-5BW-E2
control	Room temperature control			Thermostat b	by electronics
	Operation display			-	-
Safety equipmen	ıts			Overload protection for fan mo	
carety equipmen				Internal thermostat for fan motor. Abno	
		Liquid line		I/U φ 6.35 (1/4") Pipe ③② φ 9.52(3/8")x0.8 ① φ 9.	52(3/8")x0.8 or
	Refrigerant piping size	Liquid IIIIo	mm	' γ 12.7(1/2")x0.8 O/U φ 9.52(3/8"	
	(O.D)	Gas line	'''''	I/U φ 12.7 (1/2") Pipe ③ φ 12.7x0.8 ② φ 15.88x1.0	① ① φ 22.22(7/8")x1.0 or
		Jaco III 16		φ 25.4(1")Χ1.0 or φ 28.58(1 1/8")Χ	
	Connecting method			Flare piping	Liquid : Flare piping / Gas : Brazing
	Attached length of piping		m	_	_
Installation data	Insulation for piping			Necessary (both L	iquid & Gas lines)
	Refrigerant line (one way) length		m	Max.70	
				Max.50 (Outdoor unit is higher &	
	Vertical height diff hatures Caller	d 1/11		· · · · · · · · · · · · · · · · · · ·	
	Vertical height diff. between O/U an	u // U	m		Outdoor air temperature > 43°C)
				Max.15 (Outdo	,
	Drain hose			Hose connectable with VP25(O.D.32)	Hole size φ 20 x 3 pcs.
Drain pump, max	clift height		mm	Built-in drain pump , 850	_
Recommended b	oreaker size		А	-	
L.R.A. (Locked ro			Α	5	.0
Interconnecting v		e number	1		/ Terminal block (Screw fixing type)
IP number	3126 X COI	C HUITIDOI	+	Ψ 1.6Hill X 3 cores + earth cable /	IP24
Standard access	ones		1	Mounting kit, Drain hose	Connecting pipe, Edging
Option parts				Motion sensor	: LB-T-5BW-E

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

	,		5			The pipe length is 7.0m.
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	ISO5151-H1

- (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 400V 50Hz or 380V 60Hz.
 (6) Indoor unit specifications for one unit. Capacity and operation data is four indoor units are combined and run together.
 (7) Branching pipe set "DIS-WB1G"x1,"DIS-WA1G"x2 (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.

Panel color	Panel model	Panel type	(Munsell color)	Remote control wireless	
Fine snow	T-PSA-5BW-E	Standard	(8.0Y9.3 / 0.1) near equivalent	RCN-T-5BW-E2	
Fille Show	T-PSAE-5BW-E	Draft prevention	(6.019.3 / 0.1) flear equivalent	NOIN-1-3BW-E2	
Shaow black	T-PSA-5BB-E	Standard	(7.2BG2.9 / 0.6) near equivalent	RCN-T-5BB-E2	
SHAOW DIACK	T-PSAE-5BB-E	Draft prevention	(7.2BG2.9 / 0.0) flear equivalent	NON-1-300-E2	

			Model		/SAWDVH	
Item				Indoor unit FDT60VH (4 units)	Outdoor unit FDC250VSA-W	
Power source				3 Phase 380-415	/ 50Hz / 380V 60Hz	
	Nominal cooling capacity (range)		kW	25.0 [7.2(Mir	n.) - 28.0(Max.)]	
	Nominal heating capacity (range)		kW	28.0 [5.2(Mir	n.) - 31.5(Max.)]	
		Cooling			.30	
	Power consumption	Heating	kW		.80	
	Max power consumption	1 3			1.2	
	max perior concumption	Cooling			/ 12.0	
	Running current	Heating	A		/ 11.4	
	Invide direct may direct	ricating	⊣ ^		, 20	
	Inrush current, max current	Caslina			·	
Operation data	Power factor	Cooling	- %		93	
		Heating			91	
	EER	Cooling			.42	
	COP	Heating		4	.12	
	Sound power level	Cooling		58	73	
	Souria power level	Heating		59	75	
		Cooling		P-Hi: 44 Hi: 34 Me: 30 Lo: 27	58	
	Sound pressure level	Heating	dB(A)	P-Hi: 44 Hi: 34 Me: 30 Lo: 23	62	
	Silent mode	Cooling	-		56 / 55 (Normal/Silent)	
	sound pressure level	Heating	-	_	59 / 58 (Normal/Silent)	
	Journa pressure level	I leauliy		Linit 026 040 040	39 / 30 (NOTHIAI/SHEIR)	
Exterior dimension	ons (Height x Width x Depth)		mm	Unit 236 × 840 × 840	1505 × 970 × 370	
			_	Panel 35 × 950 × 950	<u> </u>	
Exterior appeara	nce			Fine snow	Stucco white	
(Munsell color)				(8.0Y9.3/0.1) near equivalent	(4.2Y7.5/1.1) near equivalent	
(RAL color)				(RAL 9003) near equivalent	(RAL 7044) near equivalent	
Net weight		<u> </u>	kg	Unit 21 Panel 5	145	
Compressor type	e & Q'ty			_	GTC5150SC40MF × 1	
	tor (Starting method)		kW	_	Direct line start	
Refrigerant oil (A			L	_	1.55 (M-MB75R)	
	e, amount, pre-charge length)			D22 5 1 in outdoor unit (Incl. t	he amount for the piping of 30m)	
	e, amount, pre-charge length)		kg		· · · · · · · · · · · · · · · · · · ·	
Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant contr	rol				rpansion valve	
Fan type & Q'ty			Turbo fan x 1	Propeller fan × 2		
Fan motor (Starti	ing method)		W	50 < Direct line start >	86 x 2 < Direct line start >	
A ! fl		Cooling	3 /!	D 15: 00 15: 47 May 44 1 av 44	148	
Air flow		Heating	m³/min	P-Hi: 26 Hi: 17 Me: 14 Lo: 11	153	
Available externa	al static pressure		Pa	0	0	
Outside air intake				Possible	_	
Air filter, Quality				Pocket plastic net ×1 (Washable)	_	
Shock & vibration				Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)	
	il absorber		10/	nubber sieeve (for fait friotor)		
Electric heater	T=		W	_	20 (Crank case heater)	
Operation	Remote control				, RCH-E3 Wireless : RCN-T-5BW-E2	
control	Room temperature control			Thermostat	by electronics	
	Operation display					
		·		Overload protect	tion for fan motor	
Safety equipmen	ate.			Frost protect	ion thermostat	
carety equipmen	110			Internal thermo	stat for fan motor	
				Abnormal discharge	temperature protection	
		Liquid line		I/U φ 6.35 (1/4") Pipe ③② φ 9.52 (3/8") × 0.8 ① α	⊅ 12.7 (1/2") × 0.8	
	Refrigerant piping size (O.D)	Liquiu iirie	mm			
	Tionigerant piping Size (O.D)	Gas line] '''''	I/U φ 12.7 (1/2") Pipe 3 φ 12.7 × 0.8 ② φ 15.88	× 1.0 ① φ 22.22 (7/8") × 1.0 or	
		Gas ille		ϕ 12.7 (1/2) ϕ 25.4 (1") × 1.0 or ϕ 28.58 (1.1)	/8") × 1.0 O/U φ 22.22 (7/8")	
	Connecting method			Flare piping	Liquid : Flare / Gas : Brazing	
	Attached length of piping		m	_	_	
Installation data	Insulation for piping				Liquid & Gas lines)	
	Refrigerant line (one way) length		m	* 1	ax.70	
	gorano (one way) length				R Outdoor air temperature ≤ 43°C)	
	Vertical height diff. between O/U	and I/II		, ,	& Outdoor air temperature > 43°C)	
	vertical neight diff. between 0/0	and I/U	m			
				,	por unit is lower)	
	Drain hose			Hose connectable with VP25 (O.D.32)	Hole size φ 20 x 3 pcs.	
Drain pump, max	k lift height		mm	Built-in drain pump , 850	_	
Recommended b	oreaker size	<u> </u>	A		_	
L.R.A. (Locked ro			А		5/5	
Interconnecting		ore number			ble) / Termainal block (Screw fixing type)	
IP number	1 S.26 X O.		+	IPX0	IP24	
			_			
Standard access	sories			Mounting kit, Drain hose	Connecting pipe, Edging	
Option parts				Motion senso	or : LB-T-5BW-E	
N (4) T.		1111			· · · · · · · · · · · · · · · · · · ·	

١.	,					
	Item Indoor a		Indoor air temperature		temperature	Standards
	Operation	DB	WB	DB	WB	Staridards
	Cooling*1	27°C	19°C	35°C	24°C	ISO5151-T1
	Heating*2	20	20°C		6°C	ISO5151-H1

- Heating*2 20°C 7°C 6°C ISO5151-H1

 (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 specifications for one unit. Capacity and operation data is two indoor units are 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 φ 19.05 or larger pipes.

Panel color	Panel model	Panel type	(Munsell color)	Remote control wireless	
Fine snow	T-PSA-5BW-E	Standard	(8.0Y9.3 / 0.1) near equivalent	RCN-T-5BW-E2	
I life Show	T-PSAE-5BW-E	Draft prevention	(8.019.37 0.1) flear equivalent	HOIN-1-3DW-E2	
Shadow black	T-PSA-5BB-E	Standard	(7.2BG2.9 / 0.6) near equivalent	RCN-T-5BB-E2	
SHAUOW DIACK	T-PSAE-5BB-E	Draft prevention	(7.26G2.9 / 0.0) near equivalent	noiv-1-3BB-E2	

Marine.			Model	FDT280V	SAWDVH
Item				Indoor unit FDT71VH (4 units)	Outdoor unit FDC280VSA-W
Power source				3 Phase 380-415V	50Hz / 380V 60Hz
	Nominal cooling capacity (range)		kW	27.0 [7.5 (Min.)	
	Nominal heating capacity (range)		kW	30.0 [6.3 (Min.)	
ŀ		Cooling	1	7.	
	Power consumption	Heating	kW	8.6	
ŀ	Max power consumption	Tributing		11	
	Iviax power consumption	Cooling	_	11.9 /	
	Running current		_ ,		
		Heating	A	13.0 /	
	Inrush current, max current			5,	
Operation data	Power factor	Cooling	- %	9	4
operation data	l ower lactor	Heating	/ /	9	6
	EER	Cooling		3.4	47
ŀ	COP	Heating	\neg	3.4	49
		Cooling		59	75
ŀ	Sound power level	Heating	-	60	77
		Cooling	\dashv	- 00	61
ŀ	Sound pressure level		dB(A)	P-Hi: 46 Hi: 34 Me: 31 Lo: 26	
		Heating			63
	Silent mode	Cooling	\dashv	_	55 / 54 (Normal/Silent)
	sound pressure level	Heating			56 / 55 (Normal/Silent)
vterior dimensis	ons (Height x Width x Depth)		mm	Unit 236 × 840 × 840	1505 × 970 × 370
ALGITOL GITTERISIC	one (neight a width a Depth)		"""	Panel 35 x 950 x 950	1303 x 910 x 310
xterior appearar	nce			Fine snow	Stucco white
Munsell color)				(8.0Y9.3/0.1) near equivalent	(4.2Y7.5/1.1) near equivalent
RAL color)				(RAL 9003) near equivalent	(RAL 7044) near equivalent
let weight			kg	Unit 21 Panel 5	155
			, ky	Unit 21 Failers	
ompressor type				_	GTC5150SC40MF × 1
	tor (Starting method)		kW	_	Direct line start
efrigerant oil (Ar	mount, type)		L	_	1.55 (M-MB75R)
efrigerant (Type	e, amount, pre-charge length)		kg	R32 5.6 in outdoor unit (Incl. th	e amount for the piping of 30m)
leat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant contr	rol	,		Electronic exp	pansion valve
an type & Q'ty				Turbo fan × 1	Propeller fan × 2
an motor (Starti	ing mathad)		W	50 < Direct line start >	86 × 2 < Direct line start >
an motor (Startii	ing method)	0 11	VV	50 < Direct line start >	
ir flow		Cooling	m³/min	P-Hi: 28 Hi: 18 Me: 15 Lo: 12	136
		Heating			140
vailable externa	al static pressure		Pa	0	0
utside air intake	е			Possible	_
ir filter, Quality /	/ Quantity			Pocket plastic net ×1 (Washable)	_
hock & vibration	n absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)
lectric heater			W	_	20 (Crank case heater)
Tourio ricator	Remote control		+ ''-	(Option) Wired: RC-EX3A, RC-E5,	` ,
peration			_		
ontrol	Room temperature control			Thermostat b	by electronics
	Operation display			_	-
				Overload protect	
	nts			Frost protection	
afety equipmen				Internal thermos	
afety equipmen				Abnormal discharge to	emperature protection
afety equipmen			-		
Safety equipmen		Liquid line			
afety equipmen	Refrigerant piping size (O.D)	Liquid line	mm	I/U ϕ 9.52 (3/8") Pipe ③② ϕ 9.52 (3/8") × 0.8 ① ϕ	12.7 (1/2") × 0.8
afety equipmen	Refrigerant piping size (O.D)	Liquid line Gas line	mm	I/U ϕ 9.52 (3/8") Pipe ③② ϕ 9.52 (3/8") × 0.8 ① ϕ 0/U ϕ 12.7 (1/2")	12.7 (1/2") × 0.8
afety equipmen			mm	$ \begin{array}{c} \text{I/U} \ \phi \ 9.52 \ (3/8") \stackrel{\text{Pipe}}{\sim} \ (3/8") \times 0.8 \textcircled{1} \ \phi \\ \text{O/U} \ \phi \ 12.7 \ (1/2") \\ \text{I/U} \ \phi \ 15.88 \ (5/8") \stackrel{\text{Pipe}}{\sim} \ \textcircled{3} \ \textcircled{2} \ \phi \ 15.88 \times 1.0 \textcircled{1} \ \phi \ 22.4 \ (1") \times 1.0 \ \text{or} \ \phi \ 28.58 \ (1.2") \\ \end{array} $	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or //8") × 1.0 O/U φ 22.22 (7/8")
afety equipmen	Refrigerant piping size (O.D) Connecting method		mm	I/U ϕ 9.52 (3/8") Pipe ③② ϕ 9.52 (3/8") × 0.8 ① ϕ 0/U ϕ 12.7 (1/2")	12.7 (1/2") × 0.8
			mm m	$ \begin{array}{c} \text{I/U} \ \phi \ 9.52 \ (3/8") \stackrel{\text{Pipe}}{\sim} \ (3/8") \times 0.8 \textcircled{1} \ \phi \\ \text{O/U} \ \phi \ 12.7 \ (1/2") \\ \text{I/U} \ \phi \ 15.88 \ (5/8") \stackrel{\text{Pipe}}{\sim} \ \textcircled{3} \ \textcircled{2} \ \phi \ 15.88 \times 1.0 \textcircled{1} \ \phi \ 22.4 \ (1") \times 1.0 \ \text{or} \ \phi \ 28.58 \ (1.2") \\ \end{array} $	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or //8") × 1.0 O/U φ 22.22 (7/8")
	Connecting method			$\begin{split} \text{I/U} & \phi \ 9.52 \ (3/8") \overset{\text{Pipe}}{O} \ (3/2) \phi \ 9.52 \ (3/8") \times 0.8 & \textcircled{1} \phi \\ \text{O/U} & \phi \ 12.7 \ (1/2") \\ \text{I/U} & \phi \ 15.88 \ (5/8") \overset{\text{Pipe}}{O} \ (3/2) \phi \ 15.88 \times 1.0 & \textcircled{1} \phi \ 22.58 \times 1.0 \\ \text{Flare piping} \end{split}$	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing —
	Connecting method Attached length of piping Insulation for piping	Gas line		I/U φ 9.52 (3/8") Pipe ③② φ 9.52 (3/8") × 0.8 ① φ O/U φ 12.7 (1/2") I/U φ 15.88 (5/8") Pipe ③② φ 15.88 × 1.0 ① φ 22 φ 25.4 (1") × 1.0 or φ 28.58 (1 1 Flare piping —	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or //8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — .iquid & Gas lines)
	Connecting method Attached length of piping	Gas line	m	I/U φ 9.52 (3/8") Pipe ③② φ 9.52 (3/8") × 0.8 ① φ O/U φ 12.7 (1/2") I/U φ 15.88 (5/8") Pipe ③② φ 15.88 × 1.0 ① φ 22 φ 25.4 (1") × 1.0 or φ 28.58 (1.7 Flare piping	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or .//8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — .iquid & Gas lines)
	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length	Gas line	m m	I/U φ 9.52 (3/8") Pipe ③ ② φ 9.52 (3/8") × 0.8 ① φ O/U φ 12.7 (1/2") I/U φ 15.88 (5/8") Pipe ③ ② φ 15.88 × 1.0 ① φ 22 φ 25.4 (1") × 1.0 or φ 28.58 (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — .iquid & Gas lines) 6.60 Outdoor air temperature ≤ 43°C)
	Connecting method Attached length of piping Insulation for piping	Gas line	m	I/U φ 9.52 (3/8") Pipe ③② φ 9.52 (3/8") × 0.8 ① φ O/U φ 12.7 (1/2") I/U φ 15.88 (5/8") Pipe ③② φ 15.88 × 1.0 ① φ 22 φ 25.4 (1") × 1.0 or φ 28.58 (1 Flare piping — Necessary (both L Max Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher &	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — .iquid & Gas lines) .60 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C)
	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U	Gas line	m m	I/U φ 9.52 (3/8") Pipe ③② φ 9.52 (3/8") × 0.8 ① φ O/U φ 12.7 (1/2") I/U φ 15.88 (5/8") Pipe ③② φ 15.88 × 1.0 ① φ 22 φ 25.4 (1") × 1.0 or φ 28.58 (1 Telare piping — Necessary (both L Max Max.50 (Outdoor unit is higher & Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdoor unit 5) (Outdoor unit 6) I/U φ 9.52 (3/8") × 0.8 ② φ 9.52 (3/8") × 0.8 ② φ 25.4 (1") × 1.0 or φ 28.58 (1 Telare piping — Necessary (both L Max Max.50 (Outdoor unit is higher & Max.15 (Outdoor unit 5) I/U φ 9.52 (3/8") × 0.8 ② φ 9.52 (3/8") × 0.8 ② φ 9.52 (3/8") × 0.8 ③ φ 25.58 (1 Telare piping — Necessary (both L Max.50 (Outdoor unit is higher & Max.15 (Outdoor unit 5) I/U φ 15.88 (5/8") Pipe ③② φ 9.52 (3/8") × 0.8 ④ φ 25.4 (1") × 0.8 Φ 25	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — .iquid & Gas lines) .60 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower)
istallation data	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose	Gas line	m m m	I/U φ 9.52 (3/8") Pipe ③② φ 9.52 (3/8") × 0.8 ① φ O/U φ 12.7 (1/2") I/U φ 15.88 (5/8") Pipe ③② φ 15.88 × 1.0 ① φ 22 φ 25.4 (1") × 1.0 or φ 28.58 (1 Telam piping — Necessary (both L Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdoor Hose connectable with VP25 (O.D.32)	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or ./8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — .iquid & Gas lines) .6.60 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C)
istallation data	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose x lift height	Gas line	m m	I/U φ 9.52 (3/8") Pipe ③② φ 9.52 (3/8") × 0.8 ① φ O/U φ 12.7 (1/2") I/U φ 15.88 (5/8") Pipe ③② φ 15.88 × 1.0 ① φ 22 φ 25.4 (1") × 1.0 or φ 28.58 (1 Telare piping — Necessary (both L Max Max.50 (Outdoor unit is higher & Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdoor unit 5) (Outdoor unit 6) I/U φ 9.52 (3/8") × 0.8 ② φ 9.52 (3/8") × 0.8 ② φ 25.4 (1") × 1.0 or φ 28.58 (1 Telare piping — Necessary (both L Max Max.50 (Outdoor unit is higher & Max.15 (Outdoor unit 5) I/U φ 9.52 (3/8") × 0.8 ② φ 9.52 (3/8") × 0.8 ② φ 9.52 (3/8") × 0.8 ③ φ 25.58 (1 Telare piping — Necessary (both L Max.50 (Outdoor unit is higher & Max.15 (Outdoor unit 5) I/U φ 15.88 (5/8") Pipe ③② φ 9.52 (3/8") × 0.8 ④ φ 25.4 (1") × 0.8 Φ 25	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — .iquid & Gas lines) .60 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower)
istallation data	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose x lift height	Gas line	m m m	I/U φ 9.52 (3/8") Pipe ③② φ 9.52 (3/8") × 0.8 ① φ O/U φ 12.7 (1/2") I/U φ 15.88 (5/8") Pipe ③② φ 15.88 × 1.0 ① φ 22 φ 25.4 (1") × 1.0 or φ 28.58 (1 Telam piping — Necessary (both L Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdoor Hose connectable with VP25 (O.D.32)	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — .iquid & Gas lines) 60 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 × 3 pcs. —
stallation data rain pump, max ecommended b	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose k lift height breaker size	Gas line	m m	I/U φ 9.52 (3/8") Pipe ③② φ 9.52 (3/8") × 0.8 ① φ O/U φ 12.7 (1/2") I/U φ 15.88 (5/8") Pipe ③② φ 15.88 × 1.0 ① φ 22 φ 25.4 (1") × 1.0 or φ 28.58 (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — .iquid & Gas lines) 60 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs. —
stallation data rain pump, max ecommended b R.A. (Locked ro	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose k lift height breaker size botor ampere)	Gas line	m m m A	I/U φ 9.52 (3/8") Pipe ③② φ 9.52 (3/8") × 0.8 ① φ O/U φ 12.7 (1/2") I/U φ 15.88 (5/8") Pipe ③② φ 15.88 × 1.0 ① φ 22 φ 25.4 (1") × 1.0 or φ 28.58 (1 Flare piping — Necessary (both L Max Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Out	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or ./8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — .iquid & Gas lines) .6.60 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 × 3 pcs.
orain pump, max Recommended b R.A. (Locked ronterconnecting v	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose k lift height breaker size botor ampere)	Gas line and I/U	m m m A	I/U φ 9.52 (3/8") Pipe ③② φ 9.52 (3/8") × 0.8 ① φ O/U φ 12.7 (1/2") I/U φ 15.88 (5/8") Pipe ③② φ 15.88 × 1.0 ① φ 22 φ 25.4 (1") × 1.0 or φ 28.58 (1 π Flare piping — Necessary (both L Max Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdoor Unit is higher) & Max.15 (Outdoor Unit is higher) & Max.1	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or ./8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — .iquid & Gas lines) .6.60 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs. — ./5 e) / Termainal block (Screw fixing type)
orain pump, max decommended b R.A. (Locked rotterconnecting v	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose k lift height breaker size otor ampere) wires Size x C	Gas line and I/U	m m m A	I/U φ 9.52 (3/8") Pipe ③② φ 9.52 (3/8") × 0.8 ① φ O/U φ 12.7 (1/2") I/U φ 15.88 (5/8") Pipe ③② φ 15.88 × 1.0 ① φ 22 φ 25.4 (1") × 1.0 or φ 28.58 (1 Telare piping — Necessary (both L Max Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdoor Unit is higher & Max.30 (Ou	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or ./8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — .iquid & Gas lines) .60 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs. —/5 e) / Termainal block (Screw fixing type) IP24
parain pump, max Recommended burker. (Locked ronterconnecting v P number Standard accessed option parts	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose k lift height breaker size otor ampere) wires Size x C	Gas line and I/U	m m m A	I/U φ 9.52 (3/8") Pipe ③② φ 9.52 (3/8") × 0.8 ① φ O/U φ 12.7 (1/2") I/U φ 15.88 (5/8") Pipe ③② φ 15.88 × 1.0 ① φ 22 φ 25.4 (1") × 1.0 or φ 28.58 (1 Tear piping — Necessary (both L Max Max.50 (Outdoor unit is higher & Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outd	12.7 (1/2") × 0.8 .22 (7/8") × 1.0 or ./8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — .iquid & Gas lines) .6.60 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs. — ./5 e) / Termainal block (Screw fixing type)

٧.	, mo data are moderno at	The pipe length is 7.011.					
	Item	Indoor air temperature		erature Outdoor air temperature		Standards	
	Operation	DB	WB	DB	WB	Staridards	
	Cooling*1	27°C	19°C	35°C	24°C	ISO5151-T1	
	Heating*2	20°C		7°C	6°C	ISO5151-H1	

- Heating*2 20°C 7°C 6°C ISO5151-H1

 (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 specifications for one unit. Capacity and operation data is two indoor units are 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 φ 19.05 or larger pipes.

Panel color	Panel model	Panel type	(Munsell color)	Remote control wireless
Fine snow	T-PSA-5BW-E	Standard	(8.0Y9.3 / 0.1) near equivalent	RCN-T-5BW-E2
I life Show	T-PSAE-5BW-E Draft prevention		(8.019.37 0.1) flear equivalent	HON-1-3BW-L2
Shadow black	T-PSA-5BB-E	Standard	(7.2BG2.9 / 0.6) near equivalent	RCN-T-5BB-E2
SHAUOW DIACK	T-PSAE-5BB-E	Draft prevention	(7.26G2.9 / 0.0) near equivalent	noiv-1-3BB-E2

(2) Ceiling cassette-4 way compact type (FDTC)

(a) Double twin type

			Model	FDTC200\	/SAWDVH	
Item			Model	Indoor unit FDTC50VH (4 units) Outdoor unit FDC200V		
Power source				3 Phase 380-415V 50Hz / 380V 60Hz		
	Nominal cooling capacity (range)		kW	20.0 [7.1(Min.)	- 22.4(Max.)]	
	Nominal heating capacity (range)		kW		- 25.0(Max.)]	
		Cooling	1		92	
	Power consumption	Heating	kW	6.		
	Marrantina	Treating	- ~~			
	Max power consumption	To "			.00	
	Running current	Cooling	_		/ 11.6	
		Heating	A		/ 16.3	
	Inrush current, max current			5	, 19	
Operation data	Power factor	Cooling	- %	9	1	
Operation data	Fower factor	Heating	70	9	2	
	EER	Cooling		2.	89	
	COP	Heating	7	3.	52	
		Cooling			72	
	Sound power level	Heating	1	59	74	
		Cooling	-		58	
	Sound pressure level		dB(A)	P-Hi: 44 Hi: 40 Me: 35 Lo: 27		
		Heating	-		59	
	Silent mode	Cooling	_	_	55 /53(Normal/Silent)	
	sound pressure level	Heating			56 /54(Normal/Silent)	
Exterior dimension	ons (Height x Width x Depth)		mm	Unit 248 × 570 × 570	1505×970×370	
				Panel 10 x 620 x 620	100000100010	
Exterior appearar	nce			Fine snow	Stucco white	
(Munsell color)				(8.0Y9.3/0.1) near equivalent	(4.2Y7.5/1.1) near equivalent	
(RAL color)				(RAL 9003) near equivalent	(RAL 7044) near equivalent	
Net weight			kg	Unit 13.5 Panel 2.5	144	
Compressor type	& Q'ty			_	GTC5150SC40MF x 1	
Compressor mot	or (Starting method)		kW	_	Direct line start	
Refrigerant oil (Ar	mount, type)		L	_	1.55(M-MB75R)	
	e, amount, pre-charge length)		kg	B32 4.3 in outdoor unit (Incl. th	e amount for the piping of 30m)	
Heat exchanger	s, amount, pre onarge length		i iig	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant contr	ol.		+		pansion valve	
	OI .			'		
Fan type & Q'ty				Turbo fan x1	Propeller fan x2	
Fan motor (Starti	ng method)		W	50 < Direct line start >	86x2 < Direct line start >	
Air flow		Cooling	m³/min	P-Hi: 13 Hi: 11 Me: 9 Lo: 7	148	
7 til 110 W		Heating	,	1 111. 10 111. 11 W.C. 0 Ec. 1	134	
Available externa	l static pressure		Pa	0	0	
Outside air intake	•			Possible	_	
Air filter, Quality /	Quantity			Pocket plastic net x1(Washable)	_	
Shock & vibration				Rubber sleeve(for fan motor)	Rubber sleeve (for fan motor & compressor)	
Electric heater	1 42501201		w		20(Crank case heater)	
Licotilo ficatoi	Remote control		- **	(Option) Wired : DC EVAA DC EE		
Operation				(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-TC-5AW-E3		
control	Room temperature control			Thermostat by electronics		
	Operation display				-	
Safety equipmen	ts				tor. Frost protection thermostat ormal discharge temperature protection	
	5 (Liquid line		$1/(1 + 6.35)(1/4)$ Pipe ③② ϕ 9.52(3/8")x0.8 ① ϕ 9.	52(3/8")x0.8 or	
	Refrigerant piping size (O.D)		mm	φ 12.7(1/2")X0.8		
		Gas line		I/U ϕ 12.7 (1/2") Pipe $\bigcirc \phi$ 12.7 x0.6 $\bigcirc \phi$ 13.66x1.6 ϕ 25.4(1")x1.0 or ϕ 28.58(1 1/8")x		
	Connecting method			Flare piping	Liquid : Flare piping / Gas : Brazing	
	Attached length of piping		m	_	_	
Installation data	Insulation for piping			Necessary (both I	iquid & Gas lines)	
	Refrigerant line (one way) length		m		k.70	
	goran mie (Silo Way) longin	-	 		Outdoor air temperature ≤ 43°C)	
	Vertical baimbt diff baturage O/LL on	al I/I I		· · · · · · · · · · · · · · · · · · ·		
	Vertical height diff. between O/U an	u 1/U	m	· · · · · · · · · · · · · · · · · · ·	Outdoor air temperature > 43°C)	
			1		or unit is lower)	
	Drain hose		1	Hose connectable with VP20(O.D.26)	Hole size φ 20 x 3 pcs.	
Drain pump, max			mm	Built-in drain pump , 850	_	
Recommended b	reaker size		Α	-	-	
L.R.A. (Locked ro	otor ampere)		А	5	.0	
Interconnecting v	vires Size x Cor	e number		φ 1.6mm x 3 cores + earth cable	/ Terminal block (Screw fixing type)	
IP number		-	1	IPX0	IP24	
Standard access	ories			Mounting kit, Drain hose	Connecting pipe, Edging	
Option parts			+	<u> </u>	D-E , Motion sensor : LB-TC-5W-E	
option parts			1	UA OPACEI . 10-0A0-LZ , 10-0A	L, MOUOH SCHSOL, LD-10-3W-L	

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

,		5			The pipe length is 7.0m.
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	ISO5151-H1

- (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.

- (4) Select the oreaker size according to the own hational 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 is four indoor units are 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 φ 19.05 or larger pipes.

Grille type	Panel model	Panel type	Panel color (Munsell color)	Remote control wireless
Honeycomb	TC-PSA-5AW-E	Standard		
Honeycomb	TC-PSAE-5AW-E	Draft prevention	(0.0)(0.0, (0.1) ====================================	BCN-TC-5AW-E3
Grid	TC-PSAG-5AW-E	Standard	(8.0Y9.3 / 0.1) near equivalent	NON-TO-SAW-ES
Grid	TC-PSAGE-5AW-E	Draft prevention		

			Model	FDTC250\	/SAWDVH		
Item				Indoor unit FDTC60VH (4 units)	Outdoor unit FDC250VSA-W		
Power source				3 Phase 380-415V	50Hz / 380V 60Hz		
	Nominal cooling capacity (range)		kW	25.0 [7.1(Min.) - 28.0(Max.)]		
	Nominal heating capacity (range)		kW	28.0 [5.2(Min.	<u>, </u>		
	Tronmarrieding edpacity (range)	Cooling			. · · · · · · · · · · · · · · · · · · ·		
	Power consumption	Heating	kW		9.43 8.75		
	May navyay aspaymentian	Treating	- NVV	11			
	Max power consumption	Caslina	+	1			
	Running current	Cooling	_	14.7			
		Heating	Α	13.9			
	Inrush current, max current			5,	20		
	Dawer factor	Cooling	0/	9	3		
Operation data	Power factor	Heating	- %	9	1		
	EER	Cooling	1	2.0			
	COP	Heating	\dashv	3.3			
	COP		-	3			
	Sound power level	Cooling		60	73		
		Heating			75		
	Sound pressure level	Cooling	dB(A)	P-Hi: 46 Hi: 42 Me: 38 Lo: 31	58		
	Sourid pressure level	Heating	UB(A)	F-III. 40 III. 42 IVIE. 36 LO. 31	62		
	Silent mode	Cooling	7		56 / 55 (Normal/Silent)		
	sound pressure level	Heating	╗	_	59 / 58 (Normal/Silent)		
		1	+	Unit 248 × 570 × 570	,		
exterior dimension	ons (Height x Width x Depth)		mm	Panel 10 × 620 × 620	1505 × 970 × 370		
Exterior appeara	nce			Fine snow	Stucco white		
Munsell color)				(8.0Y9.3/0.1) near equivalent	(4.2Y7.5/1.1) near equivalent		
RAL color)				(RAL 9003) near equivalent	(RAL 7044) near equivalent		
			l.m	Unit 13.5 Panel 2.5			
Net weight	0 Olt		kg		145		
Compressor type				_	GTC5150SC40MF x 1		
Compressor mot	or (Starting method)		kW	_	Direct line start		
Refrigerant oil (A	mount, type)		L	_	1.55 (M-MB75R)		
Refrigerant (Type	e, amount, pre-charge length)		kg	R32 5.1 in outdoor unit (Incl. th	ne amount for the piping of 30m)		
leat exchanger	7, 2 2 3 7		 	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant contr	ral				pansion valve		
	01						
an type & Q'ty				Turbo fan × 1	Propeller fan × 2		
an motor (Starti	ng method)		W	50 < Direct line start >	86 x 2 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi: 14 Hi: 12 Me: 10 Lo: 8	148 153		
Available ovtore	al static pressure	1 rouning	Pa	0	0		
			Fa	-			
Outside air intake				Possible	_		
Air filter, Quality /				Pocket plastic net ×1 (Washable)	_		
Shock & vibration	n absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)		
Electric heater			W	0	20 (Crank case heater)		
	Remote control			(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-TC-5AW-E3			
Operation	Room temperature control			Thermostat by electronics			
ontrol	Operation display		+	Thomostat L	_		
	Operation display		+	Output and 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ion for fan matar		
				Overload protect			
Safety equipmen	ts			Frost protection			
				Internal thermos			
	T	_	+		emperature protection		
		Liquid line		I/U ϕ 6.35 (1/4") Pipe ③② ϕ 9.52 (3/8") × 0.8 ① ϕ O/U ϕ 12.7 (1/2")	12.7 (1/2") × 0.8		
	Refrigerant piping size (O.D)		mm	V φ 12.7 (1/2")	x 1.0 ① d 22.22 (7/8") x 1.0 or		
		Gas line		φ 23.4 (1) x 1.0 01 φ 26.36 (1 1/	(8") × 1.0 O/U φ 22.22 (7/8")		
	Connecting method			Flare piping	Liquid : Flare / Gas : Brazing		
	Attached length of piping		m	_	_		
nstallation data	Insulation for piping			Necessary (both L	Liquid & Gas lines)		
	Refrigerant line (one way) length		m	Max			
	rionigerant line (one way) leftgtt		+ '''	I .	Outdoor air temperature ≤ 43°C)		
	.,			` ` `			
	Vertical height diff. between O/U a	na I/U	m	Max.30 (Outdoor unit is higher &			
				Max.15 (Outdo	or unit is lower)		
	Drain hose			Hose connectable with VP25 (O.D.32)	Hole size φ 20 x 3 pcs.		
rain pump, max			mm	Built-in drain pump , 850	_		
ecommended b			A	- Built in drain pump , ccc			
.R.A. (Locked ro			A		/5		
nterconnecting v	wires Size x Co	re number	1		e) / Termainal block (Screw fixing type)		
P number				IPX0	IP24		
Standard access	ories			Mounting kit, Drain hose	Connecting pipe, Edging		
Option parts				-	D-E , Motion sensor : LB-TC-5W-E		
			1	OA OPACEI . TO-OAG-LZ , TO-OAI	L , MOUDI SOUSOI . LD-10-3VV-L		

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	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	ISO5151-H1

- Heating 20 7 C 6 C ISO5151-H1

 (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 specifications for one unit. Capacity and operation data is two indoor units are combined and run together.
 (7) Branching pipe set "DIS-WB1G"x1, "DIS-WB1G"x2(Option). Pipe ①: O/U-Branch, ②: Branch-Branch, ③: Branch-I/U

Grille type	Panel model	Panel type	Panel color (Munsell color)	Remote control wireless
Llamay, aamab	TC-PSA-5AW-E	Standard		
Honey comb	TC-PSAE-5AW-E	Draft prevention	(8.0Y9.3 / 0.1) near equivalent	BCN-TC-5AW-E3
Cuid	TC-PSAG-5AW-E	Standard	(8.019.3 / 0.1) near equivalent	HUN-10-SAW-ES
Grid	TC-PSAGE-5AW-E	Draft prevention		

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

Operation data Ru Inr Operation data Ru Inr Operation data EE CC Sc Sc Silva Silva Exterior appearance (Munsell color) Net weight Compressor type & C Compressor motor (S Refrigerant (Type, ar Heat exchanger Refrigerant control Fan type & Q'ty Fan motor (Starting r Air flow Available external sta Outside air intake Air filter, Quality / Qu Shock & vibration ab Electric heater	Q'ty (Starting method)	Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Heating Cooling Heating	kW kW kW A A G G G G G G G G G G G G G G G G G	20.0 [7.2(Min.) 22.4 [6.5(Min.) 22.4 [6.5(Min.) 6. 5. 12 9.87 8.9 5 9 9 3. 3. 78 P-Hi: 52 Hi: 50 Me: 47 Lo: 45 P-Hi: 52 Hi: 50 Me: 47 Lo: 44 379×1600×893	Outdoor unit FDC200VSA-W / 50Hz / 380V 60Hz) - 22.4(Max.)]) - 25.0(Max.)] 1.15 6.67 2.0 / 10.3 / 9.4 , 23 2.1 2.2 2.5 9.5 - 72 - 74 - 58 - 59 - 55 /53(Normal/Silent) - 56 /54(Normal/Silent) - 1505×970×370 - Stucco white (4.2Y7.5/1.1) near equivalent
Departion data Poperation data Ru Inr Departion data Ru Inr Departion data Ru Inr Complete Complet	lominal heating capacity (range) Power consumption Max power consumption Running current Power factor EER EXOP Sound power level Sound pressure level Sillent mode ound pressure level Sillent Width x Depth) Se CO'ty (Starting method) Dunt, type)	Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Cooling Cooling Cooling Cooling Cooling Cooling	kW	20.0 [7.2(Min.) 22.4 [6.5(Min.) 22.4 [6.5(Min.) 6. 5. 12 9.87 8.9 5 9 9 3. 3. 78 P-Hi: 52 Hi: 50 Me: 47 Lo: 45 P-Hi: 52 Hi: 50 Me: 47 Lo: 44 379×1600×893) — 22.4(Max.)]) — 25.0(Max.)] .15 .67 .20 .710.3 .79.4 .72 .74 .72 .74 .74 .75 .75 .75 .75 .75 .76 .75 .76 .76 .76 .77 .77 .77 .78 .78 .78 .78 .78 .78 .78
Department of the state of the	lominal heating capacity (range) Power consumption Max power consumption Running current Power factor EER EXOP Sound power level Sound pressure level Sillent mode ound pressure level Sillent Width x Depth) Se CO'ty (Starting method) Dunt, type)	Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Cooling Cooling Cooling Cooling Cooling Cooling	kW	22.4 [6.5(Min.) 6. 5. 12 9.8/ 8.9/ 5 9 9 3. 3. 78 P-Hi: 52 Hi: 50 Me: 47 Lo: 45 P-Hi: 52 Hi: 50 Me: 47 Lo: 44) — 25.0(Max.)] .15 .67 .20 .710.3 .79.4 ., 23 .91 .92 .25 .95 .72 .74 .58 .59 .55 /53(Normal/Silent) .56 /54(Normal/Silent) .1505x970x370 .Stucco white
Deparation data Ru Inr Deparation data EE CC Sc Sc Sc Exterior dimensions of Exterior appearance Munsell color) Net weight Compressor type & C Compressor motor (S Refrigerant oil (Amou. Refrigerant control - F Ean type & Q'ty - an motor (Starting r Available external starting r Outside air intake Available external starting r Coutside air intake Air filter, Quality / Qu Shock & vibration ab Electric heater	Power consumption Max power consumption Running current Power factor EER EXOP Sound power level Sound pressure level Sillent mode ound pressure level Sillent width x Depth) Depth Sillent width x Depth Sillent	Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Cooling Cooling Cooling Cooling Cooling Cooling	kW	6. 5. 12 9.8 / 8.9 / 5 9 9 3. 3. 78 P-Hi: 52 Hi: 50 Me: 47 Lo: 45 P-Hi: 52 Hi: 50 Me: 47 Lo: 44 379×1600×893	.115 .67 .2.0 .7 (10.3) .7 (9.4) .7 (23) .81 .82 .82 .85 .85 .85 .85 .85 .85 .85 .85 .85 .85
Departion data Poperation data Poperation data Poperation data EEE CC Sc	Max power consumption tunning current tunning current, max current thrush	Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Cooling Cooling Cooling Cooling Cooling Cooling	A %	5. 12 9.8 / 8.9 / 8.9 / 8.9 / 8.9 / 9 / 3. 3. 78 P-Hi: 52 Hi: 50 Me: 47 Lo: 45 P-Hi: 52 Hi: 50 Me: 47 Lo: 44 — 379×1600×893 —	.67 2.0 710.3 79.4 , 23 31 32 25 .95 72 74 58 59 55/53(Normal/Silent) 56/54(Normal/Silent) 1505x970x370 Stucco white
Department of the state of the	Running current Power factor EER COP Sound power level Sound pressure level Sillent mode ound pressure level 6 (Height x Width x Depth) 9 O'ty (Starting method) punt, type)	Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Cooling Cooling Cooling Cooling	A %	12 9.8/ 8.9/ 5 9 9 3. 78 P-Hi: 52 Hi: 50 Me: 47 Lo: 45 P-Hi: 52 Hi: 50 Me: 47 Lo: 44 379×1600×893	2.0 /10.3 / 9.4 , 23 31 32 .25 .95
Department of the second of th	Running current Power factor EER COP Sound power level Sound pressure level Sillent mode ound pressure level 6 (Height x Width x Depth) 9 O'ty (Starting method) punt, type)	Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Cooling Cooling Cooling Cooling Cooling	%	9.8 / 8.9 / 5 / 5 / 9 / 9 / 9 / 3	/ 10.3 / 9.4 , 23 21 22 25 .95 .72 .74 .58 .59 .55 /53(Normal/Silent) .56 /54(Normal/Silent) .1505x970x370 .51 .52 .53 .54 .55 .55 .55 .55 .55 .55 .55
Departion data Poperation data EE CC Sc Sc Sc Sil Sil Sc Exterior dimensions of exterior appearance Munsell color) let weight Compressor motor (Sc Tefrigerant oil (Amou. Tefrigerant control Scan type & Q'ty Tean motor (Starting r Tear type & C Tear ty	roush current, max current rower factor EER COP Sound power level Sound pressure level Silent mode ound pressure level s (Height x Width x Depth) e C'ty (Starting method) ount, type)	Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Cooling Cooling Cooling Cooling Cooling	%	8.9 ; 5 9 9 3	/ 9.4 , 23 31 32 25 95 72 74 58 59 55/53(Normal/Silent) 56/54(Normal/Silent) 1505x970x370 Stucco white
Departion data Poperation data EE CC Sc Sc Sc Sil Sil Exterior dimensions (Exterior appearance Munsell color) let weight Compressor motor (Sc Refrigerant oil (Amou. Refrigerant control Ean type & Q'ty Ean motor (Starting r Exterior speaker) Ean type & C Event Sc Exterior dimensions of the color of t	roush current, max current rower factor EER COP Sound power level Sound pressure level Silent mode ound pressure level s (Height x Width x Depth) e C'ty (Starting method) ount, type)	Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Cooling	%	5 9 9 3. 3. 78 P-Hi: 52 Hi: 50 Me: 47 Lo: 45 P-Hi: 52 Hi: 50 Me: 47 Lo: 44 — 379×1600×893	, 23 91 92 95 97 72 74 58 59 55/53(Normal/Silent) 56/54(Normal/Silent) 1505x970x370 Stucco white
Departion data PC EE CC Sc Sc Sci Sci Sci Sci Sci S	Power factor EER COP Sound power level Sound pressure level Silent mode ound pressure level 6 (Height x Width x Depth) e Q'ty (Starting method) ount, type)	Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Cooling	dB(A)	9 9 3. 3. 78 P-Hi: 52 Hi: 50 Me: 47 Lo: 45 P-Hi: 52 Hi: 50 Me: 47 Lo: 44 — 379×1600×893	91 92 25 95 72 74 58 59 55/53(Normal/Silent) 56/54(Normal/Silent) 1505x970x370 Stucco white
EE CC Sc Sc Sc Sc Sc Sc Sc Sc Sc	COP Sound power level Sound pressure level Sillent mode ound pressure level Sillent width x Depth) God'ty (Starting method) ount, type)	Heating Cooling Heating Cooling Heating Cooling Heating Cooling Heating Cooling Cooling	dB(A)	9 3. 3. 78 P-Hi: 52 Hi: 50 Me: 47 Lo: 45 P-Hi: 52 Hi: 50 Me: 47 Lo: 44 - 379×1600×893	92 25 95 72 74 58 59 55/53(Normal/Silent) 56/54(Normal/Silent) 1505×970×370 Stucco white
EE CC Sc	COP Sound power level Sound pressure level Sillent mode ound pressure level Sillent width x Depth) God'ty (Starting method) ount, type)	Cooling Heating Cooling Heating Cooling Heating Cooling Cooling Cooling	dB(A)	3. 78 P-Hi: 52 Hi: 50 Me: 47 Lo: 45 P-Hi: 52 Hi: 50 Me: 47 Lo: 44 379×1600×893	.25 .95 .72 .74 .58 .59 .55 /53(Normal/Silent) .56 /54(Normal/Silent) .1505×970×370 .Stucco white
Science of	cope Sound power level Sound pressure level Silent mode ound pressure level 6 (Height x Width x Depth) 9 O'ty (Starting method) ount, type)	Heating Cooling Heating Cooling Heating Cooling Cooling	mm	3. 78 P-Hi: 52 Hi: 50 Me: 47 Lo: 45 P-Hi: 52 Hi: 50 Me: 47 Lo: 44 - 379×1600×893	95 72 74 58 59 55/53(Normal/Silent) 56/54(Normal/Silent) 1505×970×370 Stucco white
Science of	Sound power level Sound pressure level Sillent mode Ound pressure level Sillent x Width x Depth) Sillent x Width x Depth	Cooling Heating Cooling Heating Cooling	mm	78 P-Hi: 52 Hi: 50 Me: 47 Lo: 45 P-Hi: 52 Hi: 50 Me: 47 Lo: 44	72 74 58 59 55/53(Normal/Silent) 56/54(Normal/Silent) 1505x970x370 Stucco white
Science of the second of the s	Cound pressure level silent mode ound pressure level s (Height x Width x Depth) e O'ty (Starting method) ount, type)	Heating Cooling Heating Cooling	mm	P-Hi: 52 Hi: 50 Me: 47 Lo: 45 P-Hi: 52 Hi: 50 Me: 47 Lo: 44 - 379×1600×893	74 58 59 55/53(Normal/Silent) 56/54(Normal/Silent) 1505x970x370 Stucco white
Science of the second of the s	Cound pressure level silent mode ound pressure level s (Height x Width x Depth) e O'ty (Starting method) ount, type)	Cooling Heating Cooling	mm	P-Hi: 52 Hi: 50 Me: 47 Lo: 45 P-Hi: 52 Hi: 50 Me: 47 Lo: 44 - 379×1600×893	58 59 55 /53(Normal/Silent) 56 /54(Normal/Silent) 1505×970×370 Stucco white
Sill so Exterior dimensions is exterior appearance Munsell color) Net weight Compressor type & Compressor motor (\$ Refrigerant oil (Amou. Refrigerant (Type, and leat exchanger Refrigerant control fan motor (Starting run) and the second serior (Starting run) available external starting runs was a control fan motor (Starting run) available external starting runs filter, Quality / Question ab Electric heater	Glient mode ound pressure level (Height x Width x Depth) (Height x Width x Width x Depth) (Height x Width x	Heating Cooling	mm	P-Hi: 52 Hi: 50 Me: 47 Lo: 44 - 379×1600×893 -	59 55 /53(Normal/Silent) 56 /54(Normal/Silent) 1505×970×370 Stucco white
Sill so sexterior dimensions is exterior appearance whensell color) let weight compressor type & Compressor motor (\$ defrigerant oil (Amou. Refrigerant (Type, an leat exchanger Refrigerant control an type & Q'ty an motor (Starting rush flow wailable external starting rush flow rush flow wailable external starting rush flow rush fl	Glient mode ound pressure level (Height x Width x Depth) (Height x Width x Width x Depth) (Height x Width x	Cooling	mm	_ 379×1600×893 _	55 /53(Normal/Silent) 56 /54(Normal/Silent) 1505×970×370 Stucco white
so Exterior dimensions in Exterior appearance Munsell color) Net weight Compressor type & Compressor motor (Sefrigerant oil (Amounteringerant (Type, and eat exchanger and type & Q'ty ean motor (Starting rushing flow available external step would be a compressor motor (Starting rushing flow available external step would be a compressor motor (Starting rushing flow available external step would be a compressor motor (Starting rushing flow available external step would be a compressor motor (Starting rushing flow available external step would be a compressor motor (Starting rushing flow available external step would be a compressor motor (Starting rushing flow available external step would be a compressor motor (Starting rushing flow available external step would be a compressor motor (Starting rushing flow available external step would be a compressor motor (Starting rushing flow available external step would be a compressor motor (Starting rushing flow available external step would be a compressor motor (Starting rushing flow available external step would be a compressor motor (Starting rushing flow available external step would be a compressor motor (Starting rushing flow available external step would be a compressor flow available external step would be a com	ound pressure level s (Height x Width x Depth) e Q'ty (Starting method) bunt, type)	Cooling		-	56 /54(Normal/Silent) 1505×970×370 Stucco white
so exterior dimensions in exterior appearance Munsell color) Munsell color) Munsell color) Munsell color in exterior appearance Munsell color in exterior in exter	ound pressure level s (Height x Width x Depth) e Q'ty (Starting method) bunt, type)			-	56 /54(Normal/Silent) 1505×970×370 Stucco white
exterior dimensions in exterior appearance whensell color) let weight compressor type & Compressor motor (\$ defrigerant oil (Amoutefrigerant (Type, an leat exchanger lefrigerant control an type & Q'ty an motor (Starting rushished external state) wailable external state in filter, Quality / Question ab lectric heater	G (Height x Width x Depth) e Q'ty (Starting method) bunt, type)	, 5		-	1505×970×370 Stucco white
exterior appearance Munsell color) let weight Compressor type & C Compressor motor (S Refrigerant oil (Amou. Refrigerant control Frant type, ar Leat exchanger Refrigerant control Frant type & Q'ty Frant type & Q'ty Frant type & C F	Q'ty (Starting method) punt, type)			-	Stucco white
Munsell color) Jet weight Compressor type & C Compressor motor (S Refrigerant oil (Amou. Refrigerant control Fan type & Q'ty Fan motor (Starting r Available external sta Living of the color of the color Living	Q'ty (Starting method) bunt, type)		kg	_	
compressor type & Compressor motor (Stefrigerant oil (Amou. Refrigerant (Type, and leat exchanger Refrigerant control from type & Q'ty from motor (Starting refrigerant control from type & Q'ty from motor (Starting refrigerant control from type & Q'ty from motor (Starting refrigerant control from type & Q'ty from type & Q'type	(Starting method) punt, type)		kg	00	
Compressor motor (Sefrigerant oil (Amou- tefrigerant (Type, and eleat exchanger eleat exchanger eleat exchanger eleat exchanger eleater) and type & Q'ty ean motor (Starting ruinflow exception eleater) and electric heater eleater e	(Starting method) punt, type)			88	144
Refrigerant oil (Amou Refrigerant (Type, ar leat exchanger Refrigerant control ann type & Q'ty an motor (Starting r six flow available external stat butside air intake sir filter, Quality / Qu Shock & vibration ab Electric heater	ount, type)			_	GTC5150SC40MF x 1
Refrigerant (Type, ar leat exchanger Refrigerant control can type & Q'ty ann motor (Starting r lar flow available external status of the starting r lar flow available external status of the starting r lar flow a lar flow			kW	_	Direct line start
Refrigerant (Type, ar leat exchanger Refrigerant control can type & Q'ty ann motor (Starting r lar flow available external status of the starting r lar flow available external status of the starting r lar flow a lar flow			L	_	1.55(M-MB75R)
Refrigerant control an type & Q'ty an motor (Starting r Air flow Available external sta Dutside air intake Air filter, Quality / Qu Shock & vibration ab			kg	R32 4.3kg in outdoor unit (Incl. t	the amount for the piping of 30m)
Refrigerant control can type & Q'ty can motor (Starting r car flow available external sta butside air intake car filter, Quality / Qu chock & vibration ab electric heater				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
an type & Q'ty an motor (Starting r Air flow Available external sta Dutside air intake Air fliter, Quality / Qu Shock & vibration ab			+	-	pansion valve
an motor (Starting r Available external sta Available air intake Air filter, Quality / Qu Shock & vibration ab Electric heater				Centrifugal fan ×3	Propeller fan ×2
Air flow Available external sta Dutside air intake Air filter, Quality / Qu Shock & vibration ab Electric heater	method)		W	130+350 < Direct line start >	86×2 < Direct line start >
available external state Outside air intake Air filter, Quality / Qu Ahock & vibration ab Electric heater	monouj	Cooling	**	100+000 \ Direct III ie Start >	148
Outside air intake air filter, Quality / Qu shock & vibration ab dectric heater		Heating	m³/min	P-Hi: 80 Hi: 72 Me: 64 Lo: 56	134
Air filter, Quality / Qu Shock & vibration ab Electric heater	tatic pressure		Pa	Standard : 72, Max : 200	0
Shock & vibration ab lectric heater				Possible	_
lectric heater	uantity			Procure locally	-
	bsorber			Rubber sleeve(for fan motor)	Rubber sleeve (for Compressor)
			W	– 20(Crank case heater)	
, I ME	Remote control	-	1	(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-KIT4-E2	
peration Ro	Room temperature control	-		Thermostat by electronics	
ontroi ⊨—	Operation display		+		<u></u>
			+	Overload protection for fan mo	tor, Frost protection thermostat
Safety equipments					ormal discharge temperature protection
_	Action and atotal and	Liquid line		I/U φ 9.52 (3/8") Pipe φ 9.52(3/8")x0.8 or φ	
	Refrigerant piping size O.D)	Gas line	mm	I/U φ 25.4 (1") Pipe φ 22.22(7/8")x1.0 or φ Ο/U φ 22.22 (7/8")	
Cc	Connecting method	1		0/0 φ 22.22 (7/8) Brazing	Liquid : Flare / Gas : Brazing
	Attached length of piping		m		— Elquid : Flatery Gate : Brazing
Ins	nsulation for piping				Liquid & Gas lines)
nstallation data			+ +		Gas piping: φ 25.4 or φ 28.58),
Re	Refrigerant line (one way) length		m	Max.40(Liquid piping: φ 9.52)), Max.35(Gas piping: φ 22.22)
					Outdoor air temperature ≤ 43°C)
Ve	ertical height diff. between O/U and	d I/U	m	· · · · · · · · · · · · · · · · · · ·	Outdoor air temperature > 43°C)
					por unit is lower)
Dr	Prain hose			Hose connectable VP25 (I.D.25, O.D.32)	Hole size φ 20 x 3 pcs.
rain pump, max lift	t height		mm	_	-
ecommended breal			A	-	_
R.A. (Locked rotor			A		5/5
nterconnecting wires					/ Terminal block (Screw fixing type)
number		e number	+	Ψ 1.0Hill X 3 Cores + earth cable :	IP24
Standard accessorie		e number		Mounting kit	IF24
Option parts	es Size x Core	e number	+		Connecting pipe, Edging

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	72Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	12Fa	ISO5151-H1

- (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) 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-EX3A,RC-EXZ3A and RC-E5 only)
 (7) Use 1/2H pipes having a 1.0mm or thicker wall for \$\phi\$ 19.05 or larger pipes.

			Model	EDI 1250	VSAWVH
Item			Model	Indoor unit FDU250VH	Outdoor unit FDC250VSA-W
Power source					750Hz / 380V 60Hz
	Nominal cooling capacity (range)		kW		.) - 28.0(Max.)]
	Nominal heating capacity (range)		kW	28.0 [6.7(Min	.) - 31.5(Max.)]
		Cooling		- '	25
	Power consumption	Heating	kW		55
	Max power consumption	1	┤ '''		1.2
	wax power consumption	Cooling			/ 13.3
	Running current	Heating	A		/ 12.2
	Inrush current, max current	Treating	-l ^ l		25
	midsir current, max current	Cooling			25 04
Operation data	Power factor		- %	-	93
	FED	Heating		-	,
	EER COP	Cooling	-		03 75
	COP	Heating		3.	1
	Sound power level	Cooling	-	78	73
		Heating	-		75
	Sound pressure level	Cooling	dB(A)	P-Hi: 52 Hi: 50 Me: 47 Lo: 45	58
		Heating	J ```	P-Hi: 52 Hi: 50 Me: 47 Lo: 44	62
	Silent mode	Cooling	_	_	56 / 55 (Normal/Silent)
	sound pressure level	Heating			59 / 58 (Normal/Silent)
Exterior dimension	ons (Height x Width x Depth)		mm	379 × 1600 × 893	1505 × 970 × 370
Exterior appeara	nce				Stucco white
Munsell color)				_	(4.2Y7.5/1.1) near equivalent
RAL color)					(RAL 7044) near equivalent
Net weight			kg	88	145
Compressor type	e & Q'tv		1 1	_	GTC5150SC40MF x 1
. ,,	empressor motor (Starting method)		kW	_	Direct line start
Refrigerant oil (A			L	_	1.55 (M-MB75R)
	e, amount, pre-charge length)		kg	R32 5.1 in outdoor unit (Incl. th	ne amount for the piping of 30m)
leat exchanger	s, amount, pro onargo longthy		i ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant contr	al		+		pansion valve
an type & Q'ty	01		+ -	Centrifugal fan × 3	Propeller fan × 2
an motor (Starti	ng mothod)		W	130 + 350 < Direct line start >	86 × 2 < Direct line start >
air motor (Starti	ng metriod)	Cooling	- **	130 + 330 < Direct line start >	148
Air flow		Heating	m³/min	P-Hi: 80 Hi: 72 Me: 64 Lo: 56	153
Vailable avtorne	Il static pressure	Trieating	Pa	Standard: 72 Max: 200	0
Outside air intake	· · · · · · · · · · · · · · · · · · ·		га	Possible	_
Air filter, Quality			_	Procure locally	_
Shock & vibration				Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)
Electric heater	Tabsorber		W	Nubber sleeve (for fair filotor)	20 (Crank case heater)
lectric rieater	Demosts control		VV	(Ontion) Mind - DC EVAA DC EE	, ,
Operation	Remote control			(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-KIT4-E2	
ontrol	Room temperature control		-	Thermostat by electronics	
	Operation display			O contact out and a set of	-
				•	tion for fan motor on thermostat
Safety equipmen	ts			·	stat for fan motor
					emperature protection
		Liquid line		I/U ϕ 12.7 (1/2") Pipe ϕ 12.7 (1/2") × 0.8	
	Refrigerant piping size (O.D)		mm		φ 25.4 (1") × 1.0 or φ 28.58 (1 1/8") × 1.0
	3	Gas line	""	O/U ϕ 22.22 (7/8")	φ = (1) 110 3. φ 20.00 (1 1/0) λ 1.0
	Connecting method	'		Brazing	Liquid : Flare / Gas : Brazing
	Attached length of piping		m		_
nstallation data	Insulation for piping				Liquid & Gas lines)
	Refrigerant line (one way) length		m		x.70
	5		 "		Outdoor air temperature ≤ 43°C)
	Vertical height diff. between O/U	and I/U	m	, ,	Outdoor air temperature > 43°C)
	22		"	, ,	or unit is lower)
	Drain hose			Hose connectable VP25 (I.D.25, O.D.32)	Hole size φ 20 x 3 pcs.
Drain pump, max			mm	— — —	- 110le size φ 20 x 3 pcs.
Recommended b			A		<u> </u>
			+		
R.A. (Locked ro		ara number	Α	-	<u> </u>
nterconnecting v	wires Size x C	ore number			le) / Termainal block (Screw fixing type)
P number				IPX0	IP24
Standard access	ories			Mounting kit	Connecting pipe, Edging
Option parts				Motion sens	sor : LB-KIT2

					1	
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	72Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	72F a	ISO5151-H1

- (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.
- (a) Select the preacter size according to the own finational standard.
 (b) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
 (6) 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-EX3A and RC-E5 only)
 (7) Use 1/2H pipes having a 1.0mm or thicker wall for φ 19.05 or larger pipes.

			Model		0VSAWVH
				Indoor unit FDU280VH	Outdoor unit FDC280VSA-W
					V 50Hz / 380V 60Hz
F	Nominal cooling capacity (range)		kW	-	n.) - 31.5 (Max.)]
	Nominal heating capacity (range)		kW	30.0 [6.9 (Mi	n.) - 33.5 (Max.)]
	Power consumption	Cooling		•	9.15
	Fower consumption	Heating	kW		9.12
	Max power consumption		7		11.4
	The second secon	Cooling	+ +		2 / 14.9
	Running current		\vdash \land \vdash		0 / 14.7
-		Heating	⊣ ^ ⊢		
	Inrush current, max current				5, 25
Operation data	Power factor	Cooling	- % -		93
poration data	1 GWGI IGGIGI	Heating	'		94
	EER	Cooling			2.95
	COP	Heating	7	;	3.29
-		Cooling	1		75
	Sound power level	_	-	78	77
-		Heating	⊣ ⊢		
	Sound pressure level	Cooling	dB(A)	P-Hi: 52 Hi: 50 Me: 47 Lo: 45	61
Ĺ		Heating		P-Hi: 52 Hi: 50 Me: 47 Lo: 44	63
	Silent mode	Cooling			55 / 54 (Normal/Silent)
	sound pressure level	Heating	7	_	56 / 55 (Normal/Silent)
		, ,	+ +		,
kterior dimension	ons (Height x Width x Depth)		mm	379 × 1600 × 893	1505 × 970 × 370
xterior appearan	200		+		Ct
	ICC				Stucco white
Munsell color)				_	(4.2Y7.5/1.1) near equivalent
RAL color)					(RAL 7044) near equivalent
let weight			kg	88	155
Compressor type	& Q'ty			_	GTC5150SC40MF x 1
ompressor motor (Starting method)		kW	_	Direct line start	
Refrigerant oil (An			L	_	1.55 (M-MB75R)
<u> </u>				DOO E 6 in authors unit /Incl	the amount for the piping of 30m)
	e, amount, pre-charge length)		kg	,	,
leat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant contro	ol			Electronic e	expansion valve
an type & Q'ty				Centrifugal fan x 3	Propeller fan × 2
an motor (Startin	ng method)		W	130 + 350 < Direct line start >	86 x 2 < Direct line start >
		Cooling			136
Air flow		Heating	m³/min	P-Hi: 80 Hi: 72 Me: 64 Lo: 56	140
viallable avitament	I atatia muanasuma	ricating	De l	Standard: 72 Max: 200	0
vailable external			Pa		· ·
Outside air intake				Possible	-
ir filter, Quality /	Quantity			Procure locally	_
Shock & vibration	n absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)
lectric heater			W	_	20 (Crank case heater)
	Remote control			(Ontion) Wired : BC-EX3A BC-E	
peration			+ +	(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-KIT4-E2 Thermostat by electronics	
	Room temperature control		+	inermostat	by electronics
	Operation display		+		-
					ction for fan motor
	ts				tion thermostat
afety equipment				Internal thermostat for fan motor	
afety equipment					temperature protection
Safety equipment		Liquid line	1	I/U φ 12.7 (1/2") Pipe φ 12.7 (1/2") × 0.8	O/U φ 12.7 (1/2")
Safety equipment		Liquid iiile			
Safety equipment	Refrigerant piping size (O.D)	·	mm		or φ 25.4 (1") × 1.0 or φ 28.58 (1 1/8") × 1.0
Safety equipment	Refrigerant piping size (O.D)	Gas line	mm	I/U ϕ 25.4 (1") Pipe ϕ 22.22 (7/8") × 1.0 ϕ O/U ϕ 22.22 (7/8")	or ϕ 25.4 (1") × 1.0 or ϕ 28.58 (1 1/8") × 1.0
Safety equipment	Refrigerant piping size (O.D) Connecting method	·	mm	O/U φ 22.22 (7/8")	
	Connecting method	·		O/U φ 22.22 (7/8") Brazing	pr φ 25.4 (1") × 1.0 or φ 28.58 (1 1/8") × 1.0 Liquid : Flare / Gas : Brazing —
	Connecting method Attached length of piping	·	mm	O/U φ 22.22 (7/8") Brazing —	Liquid : Flare / Gas : Brazing
Istallation data	Connecting method Attached length of piping Insulation for piping	·	m	O/U φ 22.22 (7/8") Brazing - Necessary (both	Liquid : Flare / Gas : Brazing — Liquid & Gas lines)
istallation data	Connecting method Attached length of piping	·		O/U φ 22.22 (7/8") Brazing - Necessary (both	Liquid : Flare / Gas : Brazing — 1 Liquid & Gas lines) ax.60
nstallation data	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length	Gas line	m	O/U ϕ 22.22 (7/8") Brazing Necessary (both M Max.50 (Outdoor unit is higher	Liquid : Flare / Gas : Brazing — b Liquid & Gas lines) ax.60 & Outdoor air temperature ≤ 43°C)
nstallation data	Connecting method Attached length of piping Insulation for piping	Gas line	m	O/U ϕ 22.22 (7/8") Brazing Necessary (both M Max.50 (Outdoor unit is higher	Liquid : Flare / Gas : Brazing — 1 Liquid & Gas lines) ax.60
nstallation data	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length	Gas line	m m	O/U ϕ 22.22 (7/8") Brazing Necessary (both M Max.50 (Outdoor unit is higher Max.30 (Outdoor unit is higher	Liquid : Flare / Gas : Brazing — b Liquid & Gas lines) ax.60 & Outdoor air temperature ≤ 43°C)
nstallation data	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U	Gas line	m m	O/U ϕ 22.22 (7/8") Brazing Necessary (both M Max.50 (Outdoor unit is higher Max.30 (Outdoor unit is higher Max.15 (Outdoor unit is higher)	Liquid: Flare / Gas: Brazing — Liquid & Gas lines) ax.60 & Outdoor air temperature ≤ 43°C) & Outdoor air temperature > 43°C) loor unit is lower)
stallation data	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose	Gas line	m m	O/U ϕ 22.22 (7/8") Brazing Necessary (both M Max.50 (Outdoor unit is higher Max.30 (Outdoor unit is higher Max.15 (Outdoor unit is higher Max.15 (Outdoor unit is higher)	Liquid: Flare / Gas: Brazing — Liquid & Gas lines) ax.60 & Outdoor air temperature ≤ 43°C) & Outdoor air temperature > 43°C) loor unit is lower) Hole size φ 20 x 3 pcs.
istallation data	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose	Gas line	m m	O/U ϕ 22.22 (7/8") Brazing Necessary (both M Max.50 (Outdoor unit is higher Max.30 (Outdoor unit is higher Max.15 (Outdoor unit is higher)	Liquid: Flare / Gas: Brazing — I Liquid & Gas lines) ax.60 & Outdoor air temperature ≤ 43°C) & Outdoor air temperature > 43°C) loor unit is lower) Hole size
nstallation data Prain pump, max Recommended by	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Lift height breaker size	Gas line	m m m A	O/U ϕ 22.22 (7/8") Brazing Necessary (both Max.50 (Outdoor unit is higher Max.30 (Outdoor unit is higher Max.15 (Outd Hose connectable VP25 (I.D.25, O.D.32)	Liquid: Flare / Gas: Brazing — Liquid & Gas lines) ax.60 & Outdoor air temperature ≤ 43°C) & Outdoor air temperature > 43°C) loor unit is lower) Hole size φ 20 x 3 pcs. —
nstallation data Drain pump, max Recommended by	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Lift height breaker size	Gas line	m m	O/U ϕ 22.22 (7/8") Brazing Necessary (both Max.50 (Outdoor unit is higher Max.30 (Outdoor unit is higher Max.15 (Outd Hose connectable VP25 (I.D.25, O.D.32)	Liquid: Flare / Gas: Brazing — I Liquid & Gas lines) ax.60 & Outdoor air temperature ≤ 43°C) & Outdoor air temperature > 43°C) loor unit is lower) Hole size
rain pump, max ecommended br. R.A. (Locked rot	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Lift height reaker size stor ampere)	Gas line	m m m A	O/U ϕ 22.22 (7/8") Brazing Necessary (both M Max.50 (Outdoor unit is higher Max.30 (Outdoor unit is higher Max.15 (Outdoor unit is higher	Liquid: Flare / Gas: Brazing — Liquid & Gas lines) ax.60 & Outdoor air temperature ≤ 43°C) & Outdoor air temperature > 43°C) loor unit is lower) Hole size φ 20 x 3 pcs. —
orain pump, max Recommended br R.A. (Locked rotherconnecting w	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Lift height reaker size stor ampere)	Gas line and I/U	m m m A	O/U ϕ 22.22 (7/8") Brazing Necessary (both M Max.50 (Outdoor unit is higher Max.30 (Outdoor unit is higher Max.15 (Outdoor unit is higher	Liquid: Flare / Gas: Brazing Liquid & Gas lines) ax.60 & Outdoor air temperature ≤ 43°C) & Outdoor air temperature > 43°C) loor unit is lower) Hole size φ 20 x 3 pcs. — 5/5
nstallation data	Connecting method Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Lift height breaker size stor ampere) vires Size x C	Gas line and I/U	m m m A	Property of the second of the	Liquid: Flare / Gas: Brazing — Liquid & Gas lines) ax.60 & Outdoor air temperature ≤ 43°C) & Outdoor air temperature > 43°C) loor unit is lower) Hole size φ 20 x 3 pcs. — — 5/5 ble) / Termainal block (Screw fixing type)

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	72Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	12Fd	ISO5151-H1

- (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.
- (a) Select the preacher size according to the own radional standard.
 (b) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
 (6) 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-EX3A and RC-E5 only)
 (7) Use 1/2H pipes having a 1.0mm or thicker wall for φ 19.05 or larger pipes.

(4) Duct connected-Low/Middle static pressure type (FDUM) (a) Twin type

Power source	Item			Model	Indoor unit FDUM100VH (2 units)	VSAWPVH Outdoor unit FDC200VSA-W
Nominal cooling capacity (anape) IAW 2.0.1 (5.80km.) = 22.4(6.80x.)						l .
Nominal heating capacity (range)	rower source	Nominal cooling capacity (rango)		I/M		
Power consumption						
Power consumption		Nominal heating capacity (range)	Caalina	KVV		
Max power consumption Cooling Heating A 8.8 / 9.2		Power consumption		H		
Running current			Heating	KVV		
Numinic current, max current		Max power consumption	T			
Presidence Pre		Running current	_	_ -		
Power factor			Heating	_ A		
Power factor		Inrush current, max current				
Heating 92 93.04	Operation data	Power factor	Cooling	_ % L		
COP	operation data	1 ower lactor	Heating	/ /	9	92
Sound power level		EER	Cooling	J L	3.	04
Sound pressure level Heating Sound pressure level Cooling Heating Sound pressure level Sound pressure Sound pres		COP	Heating		4.	01
Heating Cooling Heating Sound pressure level Cooling Heating Slient mode Cooling Heating Slient mode Cooling Heating		0	Cooling		05	72
Sound pressure level		Sound power level	Heating	7	65	74
Sourd pressure level Heating Cooling Cooling Cooling Sis 5:630No Sis 5:6			Cooling	┦ ├		58
Silent mode		Sound pressure level		dB(A)	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	59
Sound pressure level Heating		Silant made	+	┦ ├		55 /53(Normal/Silent)
Exterior dimensions (Height x Width x Depth)				-	_	56 /54(Normal/Silent)
State Stat	Evtorior dimonolo	<u> </u>	Treating	mm	2901270740	1505×970×370
Munsell color)				111111	200×13/0×/40	
RAL color		nce				Stucco white
Net weight	,				_	(4.2Y7.5/1.1) near equivalent
Compressor type & 0'ty	· · · · · · · · · · · · · · · · · · ·					(RAL 7044) near equivalent
Name	Net weight			kg	54	144
Refrigerant oil (Amount, type) L	Compressor type	& Q'ty			_	GTC5150SC40MF x 1
Refrigerant (Type, amount, pre-charge length) kg	Compressor moto	or (Starting method)		kW	_	Direct line start
Heat exchanger	Refrigerant oil (Ar	mount, type)		L	_	1.55(M-MB75R)
Heat exchanger	Refrigerant (Type	e, amount, pre-charge length)		kg	R32 4.3 in outdoor unit (Incl. th	e amount for the piping of 30m)
Refrigerant control					Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Cantrifugal fan x3		ol		1	_	
Fan motor (Starting method) W 100+130 < Direct line start > 86x2 < D				1		Propeller fan ×2
Air filow Cooling Heating Milhing Heating		na method)		١٨/		86×2 < Direct line start >
Heating	ran motor (otartii	ng metriod)	Cooling	+ **	100+100 \ Direct line start >	148
Available external static pressure Pa Standard : 60, Max : 100 Outside air intake Possible Ar filter, Quality / Quantity Shock & vibration absorber Rectric heater Operation Control Operation Operation display Safety equipments Refrigerant piping size (O.D) Connecting method Installation data Installation data Installation data Installation data	Air flow		_	m³/min	P-Hi: 36 Hi: 28 Me: 25 Lo: 19	134
Possible	Available avtorna	Latatia propoura	Treating	Do.	Standard : 60 May : 100	0
Air filter, Quality / Quantity Shock & vibration absorber Shock & vibration absorber Remote control Remote control Remote control Remote control Remote control Remote control Refrigerant piping size (0.D) Refrigerant piping size (0.D) Refrigerant line (one way) length Refrigerant piping size (1.Equid line line line line line line line line		· · · · · · · · · · · · · · · · · · ·		га	<u> </u>	_
Shock & vibration absorber Electric heater Operation control Remote control Operation control Operation control Refrigerant piping size (O.D.) Connecting method Installation data Installation data Installation data Refrigerant line (one way) length Vertical height diff. between O/U and I/U Drain pump, max lift height Recommended breaker size Liquid Shock & vibration Remote control W Coption (Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCI Romote experience (Operation display) Overload protection for fan motor. Frost protection therm Internal thermostat for fan motor. Abnormal discharge temperature of the protection of fan motor				+		
Remote control Refrigerant by electronics Refrigerant b				+ +	,	_
Remote control Room temperature control Ro		absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for fan motor & compressor)
Room temperature control Control Control Coperation display C	Electric heater			W	-	20(Crank case heater)
Normal temperature control Part temperature	Operation					
Operation display		Room temperature control			Thermostat b	by electronics
Refrigerant piping size		Operation display			-	_
Refrigerant piping size (O.D) Gas line mm Max.70 Max.50 (Outdoor unit is higher & Outdoor air temperature : Max.15 (Outdoor unit is higher & Outdoor air temperature : Max.15 (Outdoor unit is higher & Outdoor unit is lower)	Safety equipment	ts			Internal thermostat for fan motor. Abno	ormal discharge temperature protection
(O.D) Gas line			Liquid line	_ mm _	O/U φ 9.52(3/8")	
Connecting method Installation data Installation data Installation data Installation data Installation data Installation for piping Refrigerant line (one way) length Wertical height diff. between O/U and I/U Drain hose Installation for piping Refrigerant line (one way) length Max.70 Max.50 (Outdoor unit is higher & Outdoor air temperature of Max.15 (Outdoor unit is lower) Max.15 (Outdoor unit is lower) Hose connectable VP25 (I.D.25, O.D.32) Hole size of Max.15 (Outdoor unit is lower) Prain pump, max lift height Recommended breaker size A Built-in drain pump, 600 L.R.A. (Locked rotor ampere) A 5.0 Interconnecting wires Size x Core number Flare piping Liquid : Flare Necessary (both Liquid & Gas lines) Max.70 Max.70 Max.50 (Outdoor unit is higher & Outdoor air temperature of Max.15 (Outdoor unit is lower) Max.15 (Outdoor unit is lower) Max.15 (Outdoor unit is lower) A 5.0 Interconnectable VP25 (I.D.25, O.D.32) A 5.0		(υ.υ)	Gas line			
Installation data Refrigerant line (one way) length Wertical height diff. between O/U and I/U Drain hose Drain pump, max lift height Recommended breaker size L.R.A. (Locked rotor ampere) Insulation for piping Refrigerant line (one way) length Max.70 Max.50 (Outdoor unit is higher & Outdoor air temperature of Max.15 (Outdoor unit is lower) Max.15 (Outdoor unit is lower) Hose connectable VP25 (I.D.25, O.D.32) Hole size of Max.15 (Outdoor unit is lower) A		Connecting method		1		Liquid : Flare / Gas : Brazing
Refrigerant line (one way) length m Max.70 Vertical height diff. between O/U and I/U m Max.30 (Outdoor unit is higher & Outdoor air temperature of Max.15 (Outdoor unit is higher & Outdoor air temperature of Max.15 (Outdoor unit is higher & Outdoor air temperature of Max.15 (Outdoor unit is lower) Drain hose Hose connectable VP25 (I.D.25, O.D.32) Hole size of Max.15 (Outdoor unit is lower) Prain pump, max lift height mm Built-in drain pump, 600 Recommended breaker size A ———————————————————————————————————	netallation data			† †		
Max.50 (Outdoor unit is higher & Outdoor air temperature and Max.30 (Outdoor unit is higher & Outdoor air temperature and Max.30 (Outdoor unit is higher & Outdoor air temperature and Max.15 (Outdoor unit is lower) Drain hose Hose connectable VP25 (I.D.25, O.D.32) Hole size of Max.30 (Outdoor unit is lower) Drain pump, max lift height mm Built-in drain pump, 600 Recommended breaker size A — R.A. (Locked rotor ampere) A 5.0 Interconnecting wires Size x Core number φ 1.6mm x 3 cores + earth cable / Terminal block (Screw fix the properature and present air temperature and max.30 (Outdoor unit is higher & Outdoor air temperature and max.30 (Outdoor unit is higher & Outdoor air temperature and max.30 (Outdoor unit is higher & Outdoor air temperature and max.30 (Outdoor unit is higher & Outdoor air temperature and max.30 (Outdoor unit is higher & Outdoor air temperature and max.30 (Outdoor unit is higher & Outdoor air temperature and max.30 (Outdoor unit is higher & Outdoor unit is higher & Outdoor air temperature and max.30 (Outdoor unit is higher & Outdoor	notanauUH Uată			m		
Vertical height diff. between O/U and I/U m Max.30 (Outdoor unit is higher & Outdoor air temperature of Max.15 (Outdoor unit is lower) Drain hose Hose connectable VP25 (I.D.25, O.D.32) Hole size φ Drain pump, max lift height mm Built-in drain pump, 600 - Recommended breaker size A - - L.R.A. (Locked rotor ampere) A 5.0 Interconnecting wires Size x Core number φ 1.6mm x 3 cores + earth cable / Terminal block (Screw fix		3 (3.10 may, 10.19th		+ " +		
Max.15 (Outdoor unit is lower) Drain hose		Vertical height diff, between C/LL an	d I/I I	m		
Drain hose Hose connectable VP25 (I.D.25, O.D.32) Hole size φ Drain pump, max lift height mm Built-in drain pump, 600 Recommended breaker size A — L.R.A. (Locked rotor ampere) A 5.0 Interconnecting wires Size x Core number φ 1.6mm x 3 cores + earth cable / Terminal block (Screw fix		vortical height diff. between 0/0 all	a // 0	''' -	· · · · · · · · · · · · · · · · · · ·	
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 φ 1.6mm x 3 cores + earth cable / Terminal block (Screw fix		Drain hass		+ +	· · · · · · · · · · · · · · · · · · ·	
Recommended breaker size A — R.A. (Locked rotor ampere) A 5.0 nterconnecting wires Size x Core number φ 1.6mm x 3 cores + earth cable / Terminal block (Screw fix	Dunalina no succession			-		Hole size φ 20 x 3 pcs.
R.A. (Locked rotor ampere) A 5.0 nterconnecting wires Size x Core number φ 1.6mm x 3 cores + earth cable / Terminal block (Screw fix		-				_
nterconnecting wires Size x Core number ϕ 1.6mm x 3 cores + earth cable / Terminal block (Screw fix						
7 · · · · · · · · · · · · · · · · · · ·				A		
P number	nterconnecting w	vires Size x Cor	e number	<u> </u>	ϕ 1.6mm x 3 cores + earth cable	/ Terminal block (Screw fixing type)
I TAU IF	P number				IPX0	IP24
Standard accessories Mounting kit, Drain hose Connecting	Standard accesso	ories			Mounting kit, Drain hose	Connecting pipe, Edging
Option parts Filter set: UM-FL3EF, Motion sensor: LB-KIT2	Option parts					Motion sensor : LB-KIT2

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

Thor	ino	lonath	ic	7	5m

							The pipe length is 7.5m.
	Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards
0	peration	DB	WB	DB	WB	of indoor unit	Standards
	Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Г	Heating	20°C	_	7°C	6°C	- OUFA	ISO5151-H1

- (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 is two indoor units are combined and 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-EX3A,RC-EXZ3A and RC-E5 only) (10) Use 1/2H pipes having a 1.0mm or thicker wall for ϕ 19.05 or larger pipes.

			Model		DVSAWPVH
Item				Indoor unit FDUM125VH (2 units)	Outdoor unit FDC250VSA-W
Power source					/ 50Hz / 380V 60Hz
	Nominal cooling capacity (range)		kW	25.0 [6.8(Mir	n.) - 28.0(Max.)]
	Nominal heating capacity (range)		kW	28.0 [5.2(Mir	n.) - 31.5(Max.)]
	Power consumption	Cooling		8	.74
	Fower consumption	Heating	kW	7	.90
	Max power consumption		7	1	1.2
		Cooling		13.6	/ 14.3
	Running current	Heating	A		/ 13.2
	Inrush current, max current	1	\dashv		, 25
	middir darront, max darront	Cooling	+	,	93
Operation data	Power factor	Cooling	%		
		Heating			91
	EER	Cooling			.86
	COP	Heating		3	.54
	Sound power level	Cooling		67	73
	Souria power level	Heating		07	75
		Cooling	T		58
	Sound pressure level	Heating	dB(A)	P-Hi: 45 Hi: 40 Me: 34 Lo: 29	62
	Silent mode	Cooling	\dashv		56 / 55 (Normal/Silent)
	sound pressure level	Heating	\dashv	_	59 / 58 (Normal/Silent)
	Journa Pressure level	пеанну	-		59 / 50 (NOTHIAI/SHEIL)
xterior dimension	ons (Height x Width x Depth)		mm	280 × 1370 × 740	1505 × 970 × 370
Exterior appeara	nce				Stucco white
Munsell color)				_	(4.2Y7.5/1.1) near equivalent
RAL color)					(RAL 7044) near equivalent
let weight			kg	54	145
Compressor type	2. O'ty		- Ng	_	GTC5150SC40MF × 1
1 71			kW	_	Direct line start
	or (Starting method)				
Refrigerant oil (A			L	_	1.55 (M-MB75R)
Refrigerant (Type	e, amount, pre-charge length)		kg	R32 5.1 in outdoor unit (Incl. t	he amount for the piping of 30m)
leat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant contr	rol			Electronic ex	cpansion valve
an type & Q'ty				Centrifugal fan x 3	Propeller fan × 2
an motor (Starti	ng method)		W	100 + 200 < Direct line start >	86 × 2 < Direct line start >
, , , , , , , , , , , , , , , , , , , ,		Cooling			148
ir flow		Heating	m³/min	P-Hi: 39 Hi: 32 Me: 26 Lo: 20	153
wailahle ovtorno	al static pressure	I ricuting	Pa	Standard: 60 Max: 100	0
	· · · · · · · · · · · · · · · · · · ·		га		
Outside air intak			+	Possible	-
ir filter, Quality	·		1	Procure locally	<u> </u>
Shock & vibration	n absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)
lectric heater			W	_	20 (Crank case heater)
)norotio=	Remote control			(Option) Wired: RC-EX3A, RC-ES	5, RCH-E3 Wireless: RCN-KIT4-E2
peration	Room temperature control			Thermostat	by electronics
ontrol	Operation display				_
				Overload protect	tion for fan motor
N-6-4				,	ion thermostat
Safety equipmen	iis			·	stat for fan motor
					temperature protection
		Liquid II		I/U φ 9.52 (3/8") Pipe ② φ 9.52 (3/8") × 0.8 ① φ	<u> </u>
	Befrigerent pipis = ==== (O.D)	Liquid line	,,,,,,,,	O/U φ 12.7 (1/2")	
	Refrigerant piping size (O.D)	Gas line	mm	I/U ϕ 15.88 (5/8") Pipe ② ϕ 15.88 (5/8") × 1.0 ①	φ 22.22 (7/8") × 1.0 or
		Gas line		φ 25.4 (1") × 1.0 or φ 28.58 (1	$1/8$ ") × 1.0 O/U ϕ 22.22 (7/8")
	Connecting method			Flare piping	Liquid : Flare / Gas : Brazing
	Attached length of piping		m	_	_
nstallation data	Insulation for piping	,			Liquid & Gas lines)
	Refrigerant line (one way) length		m		ax.70
				1	& Outdoor air temperature ≤ 43°C)
	Vertical height diff hatures 2"1	and 1/11		, ,	
	Vertical height diff. between O/U	and I/U	m	, ,	& Outdoor air temperature > 43°C)
				•	por unit is lower)
	Drain hose			Hose connectable VP25 (I.D.25, O.D.32)	Hole size φ 20 x 3 pcs.
rain pump, max	clift height		mm	Built-in drain pump, 600	_
Recommended b	oreaker size		Α		_
.R.A. (Locked ro	otor ampere)		А	!	5/5
nterconnecting	· · · · · · · · · · · · · · · · · · ·	ore number	1		ble) / Termainal block (Screw fixing type)
			+	IPX0	IP24
2 number					IP24
P number					
P number Standard access Option parts	ories			Mounting kit, Drain hose	Connecting pipe, Edging Motion sensor : LB-KIT2

Notes (1)

The data are measured at	the following con	ditions.				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	60Pa	ISO5151-H1

- (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 is two indoor units are combined and 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 option air filter "UM-FL3EF" is 5Pa initially.

- (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3A and RC-E5 only)
- (10) Use 1/2H pipes having a 1.0mm or thicker wall for ϕ 19.05 or larger pipes.

			Model		0VSAWPVH
tem				Indoor unit FDUM140VH (2 units)	Outdoor unit FDC280VSA-W
Power source					V 50Hz / 380V 60Hz
	Nominal cooling capacity (range)		kW	27.0 [7.8 (Mir	n.) - 31.5 (Max.)]
	Nominal heating capacity (range)		kW	30.0 [6.3 (Mir	n.) - 33.5 (Max.)]
	D	Cooling		11	0.05
	Power consumption	Heating	kW	8	3.47
	Max power consumption			1	1.4
		Cooling			/16.2
	Running current	Heating	A		3 / 13.5
	Inrush current, max current	110001119	⊢ ′`		, 22
	Illiusii curent, max curent	Cooling		-	·
Operation data	Power factor	Cooling	- %		94
		Heating			96
	EER	Cooling			2.69
	COP	Heating		3	3.54
	Sound power level	Cooling		70	75
	Souria power level	Heating		70	77
		Cooling	T		61
	Sound pressure level	Heating	dB(A)	P-Hi: 47 Hi: 40 Me: 35 Lo: 30	63
	Silent mode	Cooling	-		55 / 54 (Normal/Silent)
	sound pressure level		\dashv	_	
	Journa pressure level	Heating			56 / 55 (Normal/Silent)
xterior dimension	ons (Height x Width x Depth)		mm	280 × 1370 × 740	1505 × 970 × 370
Exterior appeara	nce				Stucco white
(Munsell color)				_	(4.2Y7.5/1.1) near equivalent
RAL color)					(RAL 7044) near equivalent
Net weight			ka	54	155
	2 Olty		kg	54	GTC5150SC40MF × 1
Compressor type			1111	_	
<u> </u>	or (Starting method)		kW	_	Direct line start
Refrigerant oil (A			L	-	1.55 (M-MB75R)
Refrigerant (Type	e, amount, pre-charge length)		kg	R32 5.6 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 contr	rol			Electronic e	xpansion valve
an type & Q'ty				Centrifugal fan × 3	Propeller fan × 2
an motor (Starti	na method)		W	100 + 200 < Direct line start >	86 × 2 < Direct line start >
		Cooling			136
Air flow		Heating	m³/min	P-Hi: 48 Hi: 35 Me: 28 Lo: 22	140
Visilabla avstavia	l static successus	Treating	De	Chandard : CO May : 100	0
	al static pressure		Pa	Standard: 60 Max: 100	-
Outside air intak				Possible	_
Air filter, Quality				Procure locally	_
Shock & vibration	n absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)
Electric heater			W	_	20 (Crank case heater)
	Remote control			(Option) Wired: RC-EX3A, RC-E	5, RCH-E3 Wireless: RCN-KIT4-E2
Operation	Room temperature control			Thermostat	by electronics
ontrol	Operation display				<u>-</u>
				Overload protect	ction for fan motor
2-6-6-				·	tion thermostat
Safety equipmen	ITS			·	stat for fan motor
					temperature protection
		1111-		I/U φ 9.52 (3/8") Pipe ② φ 9.52 (3/8") × 0.8 ① φ	
	B-ti	Liquid line		O/U φ 12.7 (1/2")	, , , , , , , , , , , , , , , , , , , ,
	Refrigerant piping size (O.D)	Con Uni	mm	I/U φ 15.88 (5/8") Pipe ② φ 15.88 (5/8") × 1.0 ①	φ 22.22 (7/8") × 1.0 or
		Gas line		ϕ 25.4 (1") × 1.0 or ϕ 28.58 (1	1/8") × 1.0 O/U φ 22.22 (7/8")
	Connecting method	•		Flare piping	Liquid: Flare / Gas: Brazing
	Attached length of piping		m		
nstallation data	Insulation for piping			<u> </u>	Liquid & Gas lines)
	Refrigerant line (one way) length				ax.60
	rienigerani ilile (one way) length		m	I .	
				`	& Outdoor air temperature ≤ 43°C)
	Vertical height diff. between O/U	and I/U	m		& Outdoor air temperature > 43°C)
					oor unit is lower)
	Drain hose			Hose connectable VP25 (I.D.25, O.D.32)	Hole size φ 20 x 3 pcs.
Orain pump, max	lift height		mm	Built-in drain pump , 600	_
Recommended b			A		<u>.</u>
R.A. (Locked ro			A		5/5
nterconnecting		ore number	 ^		
merconnecting \	wiles Size X Co	ne Hullinet	+		ble) / Termainal block (Screw fixing type)
D				IPX0	IP24
IP number					_
P number Standard access	ories			Mounting kit, Drain hose	Connecting pipe, Edging Motion sensor : LB-KIT2

Notes (1) Th ed at the following

) The data are measured at	the following con	ditions.				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	Staridards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	oura .	ISO5151-H1

- (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 is two indoor units are combined and 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 option air filter "UM-FL3EF" is 5Pa initially.

- (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3A and RC-E5 only)
- (10) Use 1/2H pipes having a 1.0mm or thicker wall for ϕ 19.05 or larger pipes.

(b) Triple type

Item			Model	FDUM200	VSAWTVH
				Indoor unit FDUM71VH (3 units)	Outdoor unit FDC200VSA-W
Power source				3 Phase 380-415V	50Hz / 380V 60Hz
	Nominal cooling capacity (range)	kW	20.0 [6.8(Min.)	- 22.4(Max.)]
ŀ	Nominal heating capacity (range		kW		- 25.0(Max.)]
ŀ		Cooling			58
ŀ	Power consumption	Heating	- kw		59
	Max power consumption	1	┦ ᠁ ├		.00
ŀ	Max power consumption	Cooling			/ 11.0
	Running current	Heating		8.8	
	Inrush current, max current	rieating	⊣ ^ ⊢		, 19
ŀ	Infusit current, max current	Caalina			
Operation data	Power factor	Cooling	— % <u>—</u>	9	
		Heating			2
	EER	Cooling	→ ⊢	3.	
ŀ	COP	Heating		4.	
	Sound power level	Cooling	_	65	72
ŀ	Godina power level	Heating			74
	Sound pressure level	Cooling	dB(A)	P-Hi: 38 Hi: 33 Me: 29 Lo: 25	58
ŀ	Sourid pressure level	Heating	UD(A)	F-HI. 36 HI. 33 WIE. 29 LO. 23	59
	Silent mode	Cooling	7		55 /53(Normal/Silent)
	sound pressure level	Heating	_	_	56 /54(Normal/Silent)
Exterior dimensic	ons (Height x Width x Depth)		mm	280 × 950 × 635	1505×970×370
Exterior appearar					Stucco white
(Munsell color)	1100			_	(4.2Y7.5/1.1) near equivalent
(RAL color)					(RAL 7044) near equivalent
Net weight			kg	34	144
	9 Olt.		Ng	_	GTC5150SC40MF x 1
Compressor type			134/		
	or (Starting method)		kW		Direct line start
Refrigerant oil (Ar			L		1.55(M-MB75R)
	e, amount, pre-charge length)		kg		e amount for the piping of 30m)
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant contro	ol				pansion valve
Fan type & Q'ty				Centrifugal fan ×3	Propeller fan ×2
Fan motor (Startin	ng method)		W	130 < Direct line start >	86×2 < Direct line start >
Air flow		Cooling	m³/min	P-Hi: 24 Hi: 19 Me: 15 Lo: 10	148
All HOW		Heating	1117111111	F-HI. 24 HI. 19 WE. 15 LO. 10	134
Available externa	Il static pressure		Pa	Standard : 35, Max : 100	0
Outside air intake	9			Possible	_
Air filter, Quality /	Quantity			Procure locally	_
Shock & vibration				Rubber sleeve(for fan motor)	Rubber sleeve (for fan motor & compressor)
Electric heater			W	=	20(Crank case heater)
	Remote control			(Option) Wired : BC-EX3A BC-E5	, RCH-E3 Wireless : RCN-KIT4-E2
Operation	Room temperature control				by electronics
control	Operation display			momodati	
				Overload protection for fan mo	tor, Frost protection thermostat
Safety equipment	ts				ormal discharge temperature protection
-			+	I/U φ 9.52 (3/8") Pipe ② φ 9.52(3/8")x0.8	
	Refrigerant piping size	Liquid line		$O/U \phi 9.52(3/8")$	O + 1.12(0,0),010 0. \$ 12.11(112),010
	(O.D)	<u> </u>	mm	I/U φ 15.88 (5/8") Pipe ② φ 15.88(5/8")x1.0	①
	i di Calabara di C	Gas line			8(1 1/8")x1.0 O/U φ 22.22 (7/8")
	Connecting method			Flare piping	Liquid : Flare / Gas : Brazing
Installation data				Flare piping Necessary (both L	
Installation data	Insulation for piping		m	Necessary (both L	iquid & Gas lines)
Installation data			m	Necessary (both L	Liquid & Gas lines) k.70
Installation data	Insulation for piping Refrigerant line (one way) length	and I/I I		Necessary (both I Ma: Max.50 (Outdoor unit is higher &	_iquid & Gas lines) x.70 Outdoor air temperature ≦ 43°C)
Installation data	Insulation for piping	and I/U	m m	Necessary (both I Ma: Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher &	iquid & Gas lines) x.70 Outdoor air temperature ≦ 43°C) Outdoor air temperature > 43°C)
Installation data	Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U	and I/U		Necessary (both I Ma: Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdo	iquid & Gas lines) x.70 Outdoor air temperature ≦ 43°C) Outdoor air temperature > 43°C) or unit is lower)
	Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose	and I/U	m	Necessary (both I Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdoor unit is higher & Max.15 (Outdo Hose connectable VP25 (I.D.25, O.D.32)	iquid & Gas lines) x.70 Outdoor air temperature ≦ 43°C) Outdoor air temperature > 43°C)
Drain pump, max	Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose	and I/U	m	Necessary (both I Ma: Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdo	iquid & Gas lines) x.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower)
Drain pump, max Recommended b	Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Llift height preaker size	and I/U	m mm A	Necessary (both I Max. 50 (Outdoor unit is higher & Max. 30 (Outdoor unit is higher & Max. 30 (Outdoor unit is higher & Max. 15 (Outdo Hose connectable VP25 (I.D.25, O.D.32) Built-in drain pump , 600	Liquid & Gas lines) c.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs.
Drain pump, max Recommended b L.R.A. (Locked ro	Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Liff height breaker size otor ampere)		m	Necessary (both I Max. 50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdo Max.15 (Outdo Hose connectable VP25 (I.D.25, O.D.32) Built-in drain pump , 600	Liquid & Gas lines) x.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs.
Drain pump, max Recommended b	Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Liff height breaker size otor ampere)	and I/U	m mm A	Necessary (both I Max. 50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdo Max.15 (Outdo Hose connectable VP25 (I.D.25, O.D.32) Built-in drain pump , 600	Liquid & Gas lines) κ.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs.
Drain pump, max Recommended b L.R.A. (Locked ro	Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Liff height breaker size otor ampere)		m mm A	Necessary (both I Max. 50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdo Max.15 (Outdo Hose connectable VP25 (I.D.25, O.D.32) Built-in drain pump , 600	Liquid & Gas lines) x.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs.
Drain pump, max Recommended b L.R.A. (Locked ro Interconnecting w	Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose c lift height preaker size potor ampere) wires Size x 0		m mm A	Necessary (both I Max. Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdo Hose connectable VP25 (I.D.25, O.D.32) Built-in drain pump , 600	Liquid & Gas lines) x.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs. .0 / Terminal block (Screw fixing type)

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

Tho	nino	lonath	ic	7	50

						mo pipo ionganio momi
Iter	n Indoor air t	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	3354	ISO5151-H1

- (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 is three indoor units are 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 optional air filter "UM-FL3EF" is 5Pa initially.

- (9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3A,RC-EXZ3A and RC-E5 only) (10) Use 1/2H pipes having a 1.0mm or thicker wall for ϕ 19.05 or larger pipes.

(5) Ceiling suspended type (FDE)

(a) Twin type

tem Power source			Model	FDE200V	
ower source				Indoor unit FDE100VH (2 units)	Outdoor unit FDC200VSA-W
					50Hz / 380V 60Hz
	Nominal cooling capacity (range)		kW	20.0 [6.7(Min.)	
	Nominal heating capacity (range)		kW	22.4 [6.6(Min.)	— 25.0(Max.)]
	Power consumption	Cooling		6.3	29
	1 ower consumption	Heating	kW	5.	66
	Max power consumption			12	.00
	District assessed	Cooling		10.0	/ 10.5
	Running current	Heating	A	8.9	9.3
	Inrush current, max current		T	5	, 19
		Cooling		9	1
Operation data	Power factor	Heating	- % -	9	2
	EER	Cooling		3.	18
	COP	Heating	1		96
		Cooling		<u> </u>	72
	Sound power level	Heating	-	64	74
			\dashv \vdash		58
	Sound pressure level	Cooling	dB(A)	P-Hi: 48 Hi: 43 Me: 38 Lo: 34	
		Heating	_ `` _		59
	Silent mode	Cooling	_	_	55 /53(Normal/Silent)
	sound pressure level	Heating			56 /54(Normal/Silent)
xterior dimension	ons (Height x Width x Depth)		mm	250 × 1620 × 690	1505×970×370
xterior appearar	nce			Plaster white	Stucco white
Munsell color)				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
RAL color)				(RAL 9016) near equivalent	(RAL 7044) near equivalent
let weight			kg	43	144
Compressor type	2 & O'tv		1 13		GTC5150SC40MF x 1
	or (Starting method)		kW		Direct line start
Refrigerant oil (Ar	. ,				
			L		1.55(M-MB75R)
0 ()1	e, amount, pre-charge length)		kg		e amount for the piping of 30m)
leat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant contro	ol			Electronic ex	pansion valve
an type & Q'ty				Centrifugal fan ×4	Propeller fan ×2
an motor (Startii	ng method)		W	80 < Direct line start >	86×2 < Direct line start >
		Cooling	3, .	B.I. 00 II 00 II 01 I 10 5	148
ir flow		Heating	m³/min	P-Hi: 32 Hi: 26 Me: 21 Lo: 16.5	134
vailable externa	Il static pressure		Pa	0	0
				Not possible	-
utside air intake				Pocket plastic net ×2(Washable)	_
	()uantity			1 dollar plastic flot x2(vvasilable)	
ir filter, Quality /				Dubbar alasya (for for motor)	Dubbar alasya (for for motor 9 compress)
ir filter, Quality / hock & vibration			10/	Rubber sleeve (for fan motor)	Rubber sleeve (for fan motor & compresso
ir filter, Quality / hock & vibration	n absorber		W	_	20 (Crank case heater)
ir filter, Quality / hock & vibration lectric heater	n absorber Remote control		W	(Option) Wired: RC-EX3A, RC-E	20 (Crank case heater) 5 , RCH-E3 Wireless : RCN-E-E3
ir filter, Quality / shock & vibration lectric heater operation	n absorber Remote control Room temperature control		W	(Option) Wired: RC-EX3A, RC-E	20 (Crank case heater)
hir filter, Quality / Shock & vibration Electric heater Operation	n absorber Remote control		W	(Option) Wired: RC-EX3A, RC-E	20 (Crank case heater) 5, RCH-E3 Wireless : RCN-E-E3 by electronics
Air filter, Quality / Shock & vibration Electric heater Operation control	Remote control Room temperature control Operation display		W	(Option) Wired: RC-EX3A, RC-E Thermostat to Overload protection for fan mo Internal thermostat for fan motor, Abno	20 (Crank case heater) 5 , RCH-E3 Wireless : RCN-E-E3 by electronics tor, Frost protection thermostat by discharge temperature protection
Outside air intake kir filter, Quality / Shock & vibratior Electric heater Operation control Safety equipmen	Remote control Room temperature control Operation display ts Refrigerant piping size	Liquid line		Option) Wired: RC-EX3A, RC-E Thermostat It Overload protection for fan mo Internal thermostat for fan motor, Abno I/U φ 9.52 (3/8") Pipe ② φ 9.52(3/8")x0.8 (0.70 (0.	20 (Crank case heater) 55, RCH-E3 Wireless: RCN-E-E3 by electronics - tor, Frost protection thermostat by grading the protection 1 φ 9.52(3/8")x0.8 or φ 12.7(1/2")x0.8
Air filter, Quality / Shock & vibration Electric heater Operation control	Remote control Room temperature control Operation display	Liquid line Gas line	mm	(Option) Wired: RC-EX3A, RC-E Thermostat to Overload protection for fan mo Internal thermostat for fan motor, Abno	20 (Crank case heater) 55, RCH-E3 Wireless: RCN-E-E3 by electronics - tor, Frost protection thermostat by grading the protection 1 φ 9.52(3/8")x0.8 or φ 12.7(1/2")x0.8
ir filter, Quality / hock & vibration lectric heater peration ontrol	Remote control Room temperature control Operation display ts Refrigerant piping size	· ·		Option) Wired: RC-EX3A, RC-E Thermostat It Overload protection for fan mo Internal thermostat for fan motor, Abno I/U φ 9.52 (3/8") Pipe ② φ 9.52(3/8")x0.8 (0.70 (0.	20 (Crank case heater) 55, RCH-E3 Wireless: RCN-E-E3 by electronics - tor, Frost protection thermostat by grading the protection 1 φ 9.52(3/8")x0.8 or φ 12.7(1/2")x0.8
ir filter, Quality / hock & vibratior ectric heater peration ontrol afety equipmen	Remote control Room temperature control Operation display ts Refrigerant piping size (O.D)	· ·		Coption Wired : RC-EX3A , RC-ET	20 (Crank case heater) 5 , RCH-E3 Wireless : RCN-E-E3 by electronics
ir filter, Quality / hock & vibratior ectric heater peration ontrol afety equipmen	Remote control Room temperature control Operation display ts Refrigerant piping size (O.D) Connecting method Insulation for piping	· ·		Coption Wired : RC-EX3A , RC-ET	20 (Crank case heater) 55, RCH-E3 Wireless: RCN-E-E3 by electronics - tor, Frost protection thermostat by 9.52(3/8")x0.8 or □ 0 22.22(7/8")x1.0 or 8(11/8")x1.0 O/U □ 22.22 (7/8") Liquid: Flare piping / Gas: Brazing iquid & Gas lines)
ir filter, Quality / hock & vibratior lectric heater peration portrol afety equipmen	Remote control Room temperature control Operation display ts Refrigerant piping size (O.D) Connecting method	· ·	mm	Option) Wired: RC-EX3A, RC-E Thermostat to Section 1. Thermostat to Section 1. Thermostat to Section 1. Thermostat to Section 1. Thermostat for fan motor, Abnote 1. Thermostat for fan motor 1. The fan motor 1. Thermostat for fan motor 1. The fan motor 1. The fan motor 1. Thermostat for fan motor 1. The fan moto	20 (Crank case heater) 55, RCH-E3 Wireless: RCN-E-E3 by electronics - tor, Frost protection thermostat by electronic ele
ir filter, Quality / hock & vibratior ectric heater peration ontrol afety equipmen	Remote control Room temperature control Operation display ts Refrigerant piping size (O.D) Connecting method Insulation for piping Refrigerant line (one way) length	Gas line	- mm	Coption Wired : RC-EX3A , RC-E	20 (Crank case heater) 5. RCH-E3 Wireless : RCN-E-E3 by electronics tor, Frost protection thermostat brail discharge temperature protection 1
ir filter, Quality / hock & vibratior lectric heater peration portrol afety equipmen	Remote control Room temperature control Operation display ts Refrigerant piping size (O.D) Connecting method Insulation for piping	Gas line	mm	Option) Wired: RC-EX3A, RC-E Thermostat b Overload protection for fan mo Internal thermostat for fan motor, Abnot I/U φ 9.52 (3/8") Pipe ② φ 9.52(3/8") x0.8 (0/U φ 9.52 (3/8") Pipe ② φ 15.88(5/8")x1.0 I/U φ 15.88 (5/8") Pipe ② φ 15.88(5/8")x1.0 φ 25.4(1")x1.0 or φ 28.5 Flare piping Necessary (both L Mai Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher &	20 (Crank case heater) 5 , RCH-E3 Wireless : RCN-E-E3 by electronics
ir filter, Quality / hock & vibration lectric heater eperation ontrol	Remote control Room temperature control Operation display ts Refrigerant piping size (O.D) Connecting method Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U	Gas line	- mm	Coption) Wired: RC-EX3A, RC-E Thermostat b Overload protection for fan mo Internal thermostat for fan motor, Abno I/U φ 9.52 (3/8") Pipe ② φ 9.52(3/8")x0.8 (O/U φ 9.52(3/8") I/U φ 15.88 (5/8") Pipe ② φ 15.88(5/8")x1.0 Flare piping Necessary (both L Max. Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdo	20 (Crank case heater) 55, RCH-E3 Wireless: RCN-E-E3 by electronics - tor, Frost protection thermostat brand discharge temperature protection ① ∮ 9.52(3/8")x0.8 or ∮ 12.7(1/2")x0.8 ○ ① ∮ 22.22(7/8")x1.0 or 8(1 1/8")x1.0 O/U ∮ 22.22 (7/8") Liquid: Flare piping / Gas: Brazing Liquid & Gas lines) x.70 Outdoor air temperature ≦ 43°C) Outdoor air temperature > 43°C) or unit is lower)
ir filter, Quality / hock & vibration lectric heater peration portrol afety equipmen	Remote control Room temperature control Operation display ts Refrigerant piping size (O.D) Connecting method Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose	Gas line	m m	Coption Wired : RC-EX3A , RC-E Thermostat to	20 (Crank case heater) 5 , RCH-E3 Wireless : RCN-E-E3 by electronics
ir filter, Quality / hock & vibration lectric heater peration ontrol afety equipment stallation data	Remote control Room temperature control Operation display ts Refrigerant piping size (O.D) Connecting method Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose	Gas line	m m	Coption) Wired: RC-EX3A, RC-E Thermostat b Overload protection for fan mo Internal thermostat for fan motor, Abno I/U φ 9.52 (3/8") Pipe ② φ 9.52(3/8")x0.8 (O/U φ 9.52(3/8") I/U φ 15.88 (5/8") Pipe ② φ 15.88(5/8")x1.0 Flare piping Necessary (both L Max. Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdo	20 (Crank case heater) 55, RCH-E3 Wireless: RCN-E-E3 by electronics - tor, Frost protection thermostat brand discharge temperature protection ① ∮ 9.52(3/8")x0.8 or ∮ 12.7(1/2")x0.8 ○ ① ∮ 22.22(7/8")x1.0 or 8(1 1/8")x1.0 O/U ∮ 22.22 (7/8") Liquid: Flare piping / Gas: Brazing Liquid & Gas lines) x.70 Outdoor air temperature ≦ 43°C) Outdoor air temperature > 43°C) or unit is lower)
ir filter, Quality / hock & vibration lectric heater peration ontrol afety equipment stallation data	Remote control Room temperature control Operation display ts Refrigerant piping size (O.D) Connecting method Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose	Gas line	m m	Coption Wired : RC-EX3A , RC-E Thermostat to	20 (Crank case heater) 55, RCH-E3 Wireless: RCN-E-E3 by electronics - tor, Frost protection thermostat brand discharge temperature protection ① ∮ 9.52(3/8")x0.8 or ∮ 12.7(1/2")x0.8 ○ ① ∮ 22.22(7/8")x1.0 or 8(1 1/8")x1.0 O/U ∮ 22.22 (7/8") Liquid: Flare piping / Gas: Brazing Liquid & Gas lines) x.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower)
ir filter, Quality / hock & vibration lectric heater operation ontrol afety equipmen astallation data	Remote control Room temperature control Operation display ts Refrigerant piping size (O.D) Connecting method Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Liff height preaker size	Gas line	m m	Option) Wired: RC-EX3A, RC-E Thermostat to the first pipe (a) φ 9.52 (3/8") Pipe (a) φ 9.52(3/8") VI φ 9.52 (3/8") Pipe (a) φ 9.52(3/8") I/U φ 9.52 (3/8") Pipe (a) φ 9.52(3/8") I/U φ 15.88 (5/8") Pipe (a) φ 15.88(5/8")x1.0 or φ 28.5 Flare piping Necessary (both L Max. Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdo Hose connectable with VP20(O.D.26)	20 (Crank case heater) 55, RCH-E3 Wireless: RCN-E-E3 by electronics - tor, Frost protection thermostat brand discharge temperature protection ① ∮ 9.52(3/8")x0.8 or ∮ 12.7(1/2")x0.8 ○ ① ∮ 22.22(7/8")x1.0 or 8(1 1/8")x1.0 O/U ∮ 22.22 (7/8") Liquid: Flare piping / Gas: Brazing Liquid & Gas lines) x.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower)
ir filter, Quality / hock & vibration lectric heater operation ontrol afety equipment afety experience affety equipment afety	Remote control Room temperature control Operation display ts Refrigerant piping size (O.D) Connecting method Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Liff height reaker size stor ampere)	Gas line	m m m A	Coption Wired : RC-EX3A , RC-E	20 (Crank case heater) 55, RCH-E3 Wireless: RCN-E-E3 by electronics - tor, Frost protection thermostat by 9.52(3/8")x0.8 or \$\phi\$ 12.7(1/2")x0.8 1
Air filter, Quality / Shock & vibration Electric heater Operation control	Remote control Room temperature control Operation display ts Refrigerant piping size (O.D) Connecting method Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Liff height reaker size stor ampere)	Gas line and I/U	m m m A	Coption Wired : RC-EX3A , RC-E	20 (Crank case heater) 5, RCH-E3 Wireless: RCN-E-E3 by electronics
Air filter, Quality / Shock & vibration Electric heater Departion control Cafety equipment of the state of t	Remote control Room temperature control Operation display ts Refrigerant piping size (O.D) Connecting method Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Lift height oreaker size ottor ampere) wires Size x C	Gas line and I/U	m m m A	Coption Wired : RC-EX3A , RC-E	20 (Crank case heater) 5 , RCH-E3 Wireless : RCN-E-E3 by electronics - tor, Frost protection thermostat brand discharge temperature protection ① φ 9.52(3/8")x0.8 or φ 12.7(1/2")x0.8 ○ ① φ 22.22(7/8")x1.0 or 8(1 1/8")x1.0 O/U φ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing Liquid & Gas lines) x.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs. - 0 / Terminal block (Screw fixing type)

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

The	pipe	length	is	7.5m
	P.PC	iongui		

					The pipe length is 7.5m.
Iter	n 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	ISO5151-H1

- (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 is two indoor units are combined and run together.
 (7) Branching pipe set "DIS-WB1G"×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 ϕ 19.05 or larger pipes.

			Model	FDE250V	SAWPVH		
Item				Indoor unit FDE125VH (2 units)	Outdoor unit FDC250VSA-W		
Power source				3 Phase 380-415V	/ 50Hz / 380V 60Hz		
	Nominal cooling capacity (range)		kW	25.0 [6.7(Min	.) - 28.0(Max.)]		
	Nominal heating capacity (range)		kW	28.0 [5.2(Min	.) - 31.5(Max.)]		
	D	Cooling		8.	20		
	Power consumption	Heating	kW	7.	93		
	Max power consumption			1.	1.2		
		Cooling			/ 13.5		
	Running current	Heating	A		/ 13.3		
	law also accompany was accompany	Treating	⊣ ^		20		
	Inrush current, max current	10 "		,			
peration data	Power factor	Cooling	- %		93		
•		Heating			91		
	EER	Cooling			05		
	COP	Heating		3.	53		
	Carrad marrian larval	Cooling		64	73		
	Sound power level	Heating		64	75		
		Cooling			58		
	Sound pressure level	Heating	dB(A)	P-Hi: 48 Hi: 45 Me: 40 Lo: 35	62		
	Silont mode		-		56 / 55 (Normal/Silent)		
	Silent mode Cooling		\dashv	_	59 / 58 (Normal/Silent)		
	sound pressure level	Heating	-		39 / 30 (NORMAL/SHERIL)		
xterior dimension	ons (Height x Width x Depth)		mm	250 × 1620 × 690	1505 × 970 × 370		
Exterior appeara	nce			Plaster white	Stucco white		
Munsell color)				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent		
RAL color)				(RAL 9016) near equivalent	(RAL 7044) near equivalent		
let weight			kg	43	145		
Compressor type	2 & O'tv		 	_	GTC5150SC40MF x 1		
1 71	or (Starting method)		kW	_	Direct line start		
			L	_	1.55 (M-MB75R)		
Refrigerant oil (A					. ,		
	e, amount, pre-charge length)		kg	,	ne amount for the piping of 30m)		
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant contr	ol				pansion valve		
an type & Q'ty				Centrifugal fan × 4	Propeller fan × 2		
an motor (Starti	ng method)		W	80 < Direct line start >	86 x 2 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi: 32 Hi: 29 Me: 23 Lo: 17	148 153		
Available ovterne	al static pressure	ricating	Pa	0	0		
	· · · · · · · · · · · · · · · · · · ·		га		_		
Outside air intake			+	Not possible	_		
Air filter, Quality	·			Pocket plastic net × 2 (Washable)			
Shock & vibration	n absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)		
Electric heater			W	_	20 (Crank case heater)		
Operation	Remote control			(Option) Wired: RC-EX3A, RC-E	5, RCH-E3 Wireless: RCN-E-E3		
ontrol	Room temperature control			Thermostat t	by electronics		
Onlioi	Operation display			-			
	-			Overload protect	tion for fan motor		
Safah . a.c. da	4			Frost protecti	ion thermostat		
Safety equipmen	no .			Internal thermos	stat for fan motor		
					emperature protection		
		Liquid line		I/U φ 9.52 (3/8") Pipe ② φ 9.52 (3/8") × 0.8 ① φ 1 O/U φ 12.7 (1/2")	2.7 (1/2") × 0.8		
	Refrigerant piping size (O.D)	Liquid IIIIE	mm	" ο φ σ.σ2 (σ/ο) O/U φ 12.7 (1/2")			
	Tronigorant piping size (O.D)	Gas line	'''''	I/U φ 15.88 (5/8") Pipe ② φ 15.88 (5/8") × 1.0 ① φ	ф 22.22 (7/8") × 1.0 or		
		Gas iii le		$\phi = 13.88 (3/8) \phi = 25.4 (1") \times 1.0 \text{ or } \phi = 28.58 (1)$	1/8) × 1.0 Ο/Ο φ 22.22 (1/8)		
	Connecting method			Flare piping	Liquid : Flare / Gas : Brazing		
	Attached length of piping		m	_			
nstallation data	Insulation for piping			Necessary (both I	Liquid & Gas lines)		
	Refrigerant line (one way) length		m		x.70		
	(1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1	Outdoor air temperature ≤ 43°C)		
	Vertical height diff. between O/U	and I/LI	m	· · · · · · · · · · · · · · · · · · ·	Coutdoor air temperature > 43°C)		
	Voluda neight dill. Detweell 0/0	u.iu.i/ U	'''	· · · · · · · · · · · · · · · · · · ·			
	Dunin hans		+	Max.15 (Outdoor unit is lower)			
	Drain hose			Hose connectable with VP20 (O.D.26)	Hole size φ 20 x 3 pcs.		
t	c iiπ neight		mm	_	_		
			A		-		
Recommended b					/E		
Recommended b			A		5/5		
Recommended b R.A. (Locked ro	otor ampere)	ore number	A		le) / Termainal block (Screw fixing type)		
Recommended burner. R.A. (Locked ronterconnecting v	otor ampere)	ore number	A				
Drain pump, max Recommended bunk. A. (Locked ronterconnecting value) P number	otor ampere) wires Size x C	ore number	A	φ 1.6 mm x 3 cores (Including earth cab	le) / Termainal block (Screw fixing type) IP24		
Recommended burner. R.A. (Locked ronterconnecting v	otor ampere) wires Size x C	ore number	A	φ 1.6 mm x 3 cores (Including earth cab IPX0 Mounting kit, Drain hose	le) / Termainal block (Screw fixing type)		

i) The data are meas	The pipe length is 7.5m					
	eration Item Indoor air ter		emperature	Outdoor air temperature		Standards
Operation			WB	DB WB		Standards
Cooling		27°C	19°C	35°C	24°C	ISO5151-T1
Heating		20°C	_	7°C	6°C	ISO5151-H1

- (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.
- (a) Select the breaker size according to the own harboral standard.
 (b) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
 (c) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together.
 (7) Branching pipe set "DIS-WB1G"×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 φ 19.05 or larger pipes.

			Model	FDE280V	SAWPVH		
Item				Indoor unit FDE140VH (2 units)	Outdoor unit FDC280VSA-W		
Power source				3 Phase 380-415V	50Hz / 380V 60Hz		
	Nominal cooling capacity (range)		kW	27.0 [7.1 (Min.) - 31.5 (Max.)]		
Nominal heating capacity (range)		kW	30.0 [5.8 (Min.) - 33.5 (Max.)]			
		Cooling		9.:	31		
	Power consumption	Heating	kW	8.9	98		
	Max power consumption			11	.4		
		Cooling		14.3 /			
	Running current	Heating	A	13.5			
	law also accompany was accompany	Treating	⊣ ^	5,			
	Inrush current, max current	10 "		·			
peration data	Power factor	Cooling	- %	9			
•		Heating		9			
	EER	Cooling		2.9			
	COP	Heating		3.:	34		
	Carrad marrian larval	Cooling		65	75		
	Sound power level	Heating		00	77		
		Cooling	T		61		
	Sound pressure level	Heating	dB(A)	P-Hi: 49 Hi: 45 Me: 40 Lo: 36	63		
	Silent mode	Cooling	-		55 /54 (Normal/Silent)		
			\dashv	_	56 / 55 (Normal/Silent)		
	Souria pressure level	Heating	+		50 / 55 (NOTHAL/SHELL)		
xterior dimension	ons (Height x Width x Depth)		mm	250 × 1620 × 690	1505 × 970 × 370		
Exterior appeara	nce			Plaster white	Stucco white		
Munsell color)				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent		
RAL color)				(RAL 9016) near equivalent	(RAL 7044) near equivalent		
let weight			kg	43	155		
Compressor type	≥ & O'tv		 	_	GTC5150SC40MF × 1		
. ,,	or (Starting method)		kW	_	Direct line start		
Refrigerant oil (A			L	_	1.55 (M-MB75R)		
	e, amount, pre-charge length)		kg	R32 5.6 in outdoor unit (Incl. th	0 /		
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant control				Electronic ex	pansion valve		
an type & Q'ty				Centrifugal fan × 4	Propeller fan x 2		
an motor (Starti	ng method)		W	90 < Direct line start >	86 x 2 < Direct line start >		
Air flow Cooling Heating		m³/min	P-Hi: 34 Hi: 29 Me: 23 Lo: 18	136 140			
Available externa	al static pressure	1	Pa	0	0		
Outside air intak	· · · · · · · · · · · · · · · · · · ·		i u	Not possible			
Air filter, Quality			+	Pocket plastic net × 2 (Washable)			
	·		-		D. h.h		
Shock & vibration	n absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)		
lectric heater			W	-	20 (Crank case heater)		
Operation	Remote control			(Option) Wired: RC-EX3A, RC-E			
ontrol	Room temperature control			Thermostat b	y electronics		
	Operation display			-			
		<u> </u>		Overload protect	ion for fan motor		
Safety equipmen	te			Frost protection	on thermostat		
arety equipmen	110			Internal thermos	tat for fan motor		
				Abnormal discharge to			
		Liquid line		I/U ϕ 9.52 (3/8") Pipe ② ϕ 9.52 (3/8") × 0.8 ① ϕ 1: O/U ϕ 12.7 (1/2")	2.7 (1/2") × 0.8		
	Refrigerant piping size (O.D)	Liquid IIII6	mm	" ο φ 3.62 (σ/ο / O/U φ 12.7 (1/2")			
		Gas line	'''''	I/U φ 15.88 (5/8") Pipe ② φ 15.88 (5/8") × 1.0 ① φ	5 22.22 (7/8") × 1.0 or		
		1	1	φ 25.4 (1) × 1.0 or φ 28.58 (1	1/8) × 1.0 0/0 φ 22.22 (1/8)		
	Connecting method			Flare piping	Liquid : Flare / Gas : Brazing		
	Attached length of piping		m	_	_		
nstallation data	Insulation for piping			Necessary (both L	iquid & Gas lines)		
	Refrigerant line (one way) length		m	Max	c.60		
				Max.50 (Outdoor unit is higher &	Outdoor air temperature ≤ 43°C)		
	Vertical height diff. between O/U	and I/U	m	Max.30 (Outdoor unit is higher &			
			1	, ,			
	Drain hose		+	Max.15 (Outdoor unit is lower) Hose connectable with VP20 (O.D.26) Hole size φ 20 x 3 pcs.			
rain numn ma			mm	11056 COTHECTADIE WITH VEZU (O.D.20)	i ioie size ψ zu x s pcs.		
Prain pump, max			mm	_			
Recommended b			A	-			
R.A. (Locked ro	· · · · · · · · · · · · · · · · · · ·		A		/5		
nterconnecting v	wires Size x C	ore number		φ 1.6 mm x 3 cores (Including earth cabl	e) / Termainal block (Screw fixing type)		
P number				IPX0	IP24		
Standard access	ories			Mounting kit, Drain hose	Connecting pipe, Edging		
Option parts				- '	nsor : LB-E		
	lata are measured at the following			otion sei	<u></u>		

i) The data are mea	The pipe length is 7.5m						
	Item	Indoor air temperature		Outdoor air	temperature	Standards	
Operation	on DB		WB	DB WB		Standards	
Cooling		27°C	19°C	35°C	24°C	ISO5151-T1	
Heating		20°C	_	7°C	6°C	ISO5151-H1	

- (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.

- (a) 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 is two indoor units are combined and run together.
 (7) Branching pipe set "DIS-WB1G"×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 φ 19.05 or larger pipes.

(b) Triple type

			Model	FDE200V	SAWTVH		
Item				Indoor unit FDE71VH (3 units)	Outdoor unit FDC200VSA-W		
Power source				3 Phase 380-415V	50Hz / 380V 60Hz		
	Nominal cooling capacity (range	e)	kW	20.0 [7.5(Min.)	- 22.4(Max.)]		
Nominal heating capacity (range)		kW	22.4 [6.6(Min.)	- 25.0(Max.)]			
	Dower consumption	Cooling		6.	29		
	Power consumption	Heating	kW	5.	66		
	Max power consumption			12	00		
	D	Cooling		10.0	10.5		
	Running current	Heating	A	8.9	9.3		
	Inrush current, max current			5	, 19		
0	Daniel factor	Cooling	0/	9	1		
Operation data	Power factor	Heating	- % -	9	2		
	EER	Cooling		3.	18		
	COP	Heating		3.	96		
		Cooling			72		
	Sound power level	Heating		60	74		
		Cooling			58		
	Sound pressure level	Heating	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	59		
	Silent mode	Cooling			55 /53(Normal/Silent)		
	sound pressure level	Heating	-	_	56 /54(Normal/Silent)		
Exterior dimension	ons (Height x Width x Depth)	Trouting	mm	210 × 1320 × 690	1505×970×370		
Exterior appearar (Munsell color)	106			Plaster white (6.8Y8.9/0.2) near equivalent	Stucco white (4.2Y7.5/1.1) near equivalent		
(RAL color)				(RAL 9016) near equivalent	(A.2 17.5/1.1) near equivalent		
Net weight			kg	33	144		
Compressor type	2. O'ty		- Ng	_	GTC5150SC40MF x 1		
	or (Starting method)		kW		Direct line start		
Refrigerant oil (Ar			L		1.55(M-MB75R)		
	e, amount, pre-charge length)				e amount for the piping of 30m)		
0 ()1	e, amount, pre-charge length)		kg		7		
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing pansion valve		
Refrigerant contro	OI			22.2.2.2			
Fan type & Q'ty			14/	Centrifugal fan ×4 50 < Direct line start >	Propeller fan ×2		
Fan motor (Startii	ng metnoa)	0 11	W	50 < Direct line start >	86×2 < Direct line start >		
Air flow		Cooling	m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10	148		
Aailabla autamaa	I static muses we	Heating	Do.	0	134 0		
Available externa	· · · · · · · · · · · · · · · · · · ·		Pa	Not possible —			
Outside air intake				· · · · · · · · · · · · · · · · · · ·			
Air filter, Quality /				Pocket plastic net ×2(Washable)	_		
Shock & vibration	1 absorber		14/	Rubber sleeve (for fan motor)	Rubber sleeve (for fan motor & compressor)		
Electric heater	In		W		20 (Crank case heater)		
Operation	Remote control			(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-E-E3			
control	Room temperature control			Thermostat by electronics			
	Operation display			O control of control for for the	-		
Safety equipment	ts				tor, Frost protection thermostat		
				Internal thermostat for fan motor, Abnormal discharge temperature protection I/U $_{\phi}$ 9.52 (3/8") Pipe ② $_{\phi}$ 9.52(3/8")x0.8 ① $_{\phi}$ 9.52(3/8")x0.8 or $_{\phi}$ 12.7(1/2")x0.8 O/U $_{\phi}$ 9.52(3/8")			
	Refrigerant piping size	Liquid line		I/U φ 9.52 (3/8") O/U φ 9.52(3/8")	φ 3.02(0/0 /λ0.0 OF ψ 12./(1/2 /λ0.0		
	(O.D)		mm	1/U φ 15.88 (5/8") Pipe ② φ 15.88(5/8")x1.0 ① φ 22.22(7/8")x1.0 or			
	[Gas line		φ 25.4(1")x1.0 or φ 28.5	8(1 1/8")x1.0 O/U φ 22.22 (7/8")		
	Connecting method			Flare piping	Liquid : Flare piping / Gas : Brazing		
Installation data	Insulation for piping			Necessary (both L	iquid & Gas lines)		
inotaliation data	Refrigerant line (one way) length	1	m		· · · · · · · · · · · · · · · · · · ·		
				Max.50 (Outdoor unit is higher &	Outdoor air temperature ≤ 43°C)		
	Vertical height diff. between O/L	J and I/U	m	Max.30 (Outdoor unit is higher &			
				Max.15 (Outdo			
	Drain hose			Hose connectable with VP20(O.D.26)	Hole size φ 20 x 3 pcs.		
Drain pump, max			mm	—	— — — — — — — — — — — — — — — — — — —		
Recommended b			A	_	<u> </u>		
L.R.A. (Locked ro			A	-	.0		
•	· · · · · · · · · · · · · · · · · · ·	Coro number	A				
Interconnecting v	vires Size x	Core number		φ 1.6mm x 3 cores + earth cable . IPX0	/ Terminal block (Screw fixing type)		
IP number	orion		+				
Standard access	ones			Mounting kit, Drain hose	Connecting pipe, Edging		
Option parts				Matian an	nsor : LB-E		

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

The pipe length is 7.5m.

						The pipe length is 7.011.
Item		Indoor air t	emperature	Outdoor air	temperature	Standards
	Operation	DB	WB	DB	WB	Statidards
	Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
	Heating	20°C	_	7°C	6°C	ISO5151-H1

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (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 is three indoor units are 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 φ 19.05 or larger pipes.

(c) Double twin type

			Model	FDE200V	SAWDVH			
Item			WIOGEI	Indoor unit FDE50VH (4 units)	Outdoor unit FDC200VSA-W			
Power source				3 Phase 380-415V	50Hz / 380V 60Hz			
	Nominal cooling capacity (range)		kW	20.0 [7.8(Min.)) — 22.4(Max.)]			
	Nominal heating capacity (range)		kW) — 25.0(Max.)]			
		Cooling			29			
	Power consumption	Heating	kW		66			
	Max power consumption	1 3	1	12	.00			
	max perior concumption	Cooling		10.0				
	Running current	Heating	A	8.9				
	Inrush current, max current	Treating	- ^		, 19			
	midsir current, max current	Cooling			, 13 11			
Operation data	Power factor	Heating	- %		12			
	EER	Cooling			18			
	COP	Heating	-		96			
	COP			3.	Υ			
	Sound power level	Cooling	-	60	72 74			
		Heating	_					
	Sound pressure level	Cooling	dB(A)	P-Hi: 46 Hi: 38 Me: 36 Lo: 31	58			
		Heating	-		59			
	Silent mode	Cooling	_	_	55 /53(Normal/Silent)			
	sound pressure level	Heating		040 46-2	56 /54(Normal/Silent)			
Exterior dimension	ons (Height x Width x Depth)		mm	210 × 1070 × 690	1505×970×370			
Exterior appearar	nce			Plaster white	Stucco white			
(Munsell color)				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent			
(RAL color)				(RAL 9016) near equivalent	(RAL 7044) near equivalent			
Net weight			kg	28	144			
Compressor type				_	GTC5150SC40MF x 1			
	or (Starting method)		kW	_	Direct line start			
Refrigerant oil (Ar	mount, type)		L	_	1.55(M-MB75R)			
Refrigerant (Type	e, amount, pre-charge length)		kg	R32 4.3 in outdoor unit (Incl. the	e 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 ×2	Propeller fan ×2			
Fan motor (Starti	ng method)		W	30 < Direct line start >	86×2 < Direct line start >			
Air flow		Cooling	m³/min	P-Hi: 13 Hi: 10 Me: 9 Lo: 7	148			
All HOW		Heating	1117111111	1 -111. 10 111. 10 We. 3 Lo. 7	134			
Available externa	l static pressure		Pa	0 0				
Outside air intake	9			Not possible —				
Air filter, Quality /	Quantity			Pocket plastic net ×2(Washable) -				
Shock & vibration	absorber			Rubber sleeve (for fan motor) Rubber sleeve (for fan motor & com				
Electric heater			W	_	20 (Crank case heater)			
o .:	Remote control			(Option) Wired: RC-EX3A, RC-E	5 , RCH-E3 Wireless : RCN-E-E3			
Operation control	Room temperature control			Thermostat b	by electronics			
CONTROL	Operation display			-	_			
Safety equipmen	ts				tor, Frost protection thermostat			
	Define went wining -!	Liquid line		$1/(1 + 6.35)(1/4)$ Pipe ③② ϕ 9.52(3/8")x0.8 ① ϕ 9.	.52(3/8")x0.8 or			
	Refrigerant piping size (O.D)	Gas line	mm	ϕ 0.03 (1/4") ϕ 12.7(1/2")x0.8 O/U ϕ 9.52(3/8" I/U ϕ 12.7 (1/2") Pipe ③ ϕ 12.7x0.8 ② ϕ 15.88x1.0	① ① φ 22.22(7/8")x1.0 or			
	Connecting math = 4			φ 25.4(1)Χ1.0 0Γ φ 28.58(1 1/8)Χ				
	Connecting method		1	Flare piping	Liquid : Flare piping / Gas : Brazing			
Installation data	Insulation for piping			Necessary (both L	Liquid & Gas lines) x.70			
	Refrigerant line (one way) length		m					
	Vertical bainbt diff between 0/11	١/١١			Outdoor air temperature ≤ 43°C)			
	Vertical height diff. between O/U an	u I/U	m		Outdoor air temperature > 43°C)			
	Dunin hann		+	Max.15 (Outdoor unit is lower)				
	Drain hose			Hose connectable with VP20(O.D.26)	Hole size φ 20 x 3 pcs.			
Drain pump, max		_	mm	_	_			
Recommended b			A		= '-			
L.R.A. (Locked ro			Α		.0			
Interconnecting v	vires Size x Cor	e number		·	/ Terminal block (Screw fixing type)			
IP number				IPX0	IP24			
Standard access	ories			Mounting kit, Drain hose	Connecting pipe, Edging			
Option parts				Motion se	nsor : LB-E			

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

Tho	nino	lonath	ic	7	5m	

					The pipe length is 7.5mi.
Iter	n 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	ISO5151-H1

- (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 is four indoor units are 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 φ 19.05 or larger pipes.

			Model	FDE250V	SAWDVH
Item				Indoor unit FDE60VH (4 units)	Outdoor unit FDC250VSA-W
Power source				3 Phase 380-415V	50Hz / 380V 60Hz
	Nominal cooling capacity (range)		kW	25.0 [7.8(Min.) - 28.0(Max.)]
	Nominal heating capacity (range)		kW	28.0 [5.2(Min.) - 31.5(Max.)]
	Power consumption	Cooling		8.0	04
	Heating		kW	7.:	32
	Max power consumption			11	.2
		Cooling		12.5	/ 13.2
	Running current	Heating	A	11.6	
	Inrush current, max current	1110441119	-		20
	Illiusii cuitetti, max cuitett	Cooling	+		3
Operation data	Power factor	Cooling	- %		
	Heating			9	
	EER	Cooling		3.	
	COP	Heating		3.	83
	Sound power level	Cooling		60	73
	Souria power level	Heating		00	75
		Cooling	T		58
	Sound pressure level	Heating	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	62
	Silent mode	Cooling	-		56 / 55 (Normal/Silent)
	sound pressure level		\dashv	_	59 / 58 (Normal/Silent)
	Journa Pressure level	Heating	1		39 / 30 (NORMAI/SHERIL)
xterior dimension	ons (Height x Width x Depth)		mm	210 × 1320 × 690	1505 × 970 × 370
Exterior appeara	nce			Plaster white	Stucco white
Munsell color)				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
RAL color)				(RAL 9016) near equivalent	(RAL 7044) near equivalent
Net weight			kg	33	145
Compressor type	2 9 Olty		i iig	_	GTC5150SC40MF × 1
. ,,			1.34/		
	tor (Starting method)		kW	-	Direct line start
Refrigerant oil (A			L	_	1.55 (M-MB75R)
Refrigerant (Typ	e, amount, pre-charge length)		kg	R32 5.1 in outdoor unit (Incl. th	ne amount for the piping of 30m)
leat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant conti	ol			Electronic ex	pansion valve
an type & Q'ty				Centrifugal fan × 4	Propeller fan × 2
an motor (Start	ing method)		W	50 < Direct line start >	86 × 2 < Direct line start >
	g	Cooling			148
Air flow		Heating	m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10	153
Available avitame	al atatic preserve	rieating	De	0	0
	al static pressure		Pa	-	
Outside air intak				Not possible	_
Air filter, Quality	· · · · · · · · · · · · · · · · · · ·			Pocket plastic net × 2 (Washable)	_
Shock & vibratio	n absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)
Electric heater			W	_	20 (Crank case heater)
	Remote control			(Option) Wired: RC-EX3A, RC-E	5 , RCH-E3 Wireless : RCN-E-E3
Operation	Room temperature control			Thermostat b	by electronics
ontrol	Operation display			-	- -
	1			Overload protect	ion for fan motor
			1		on thermostat
Safety equipmen	nts			Internal thermos	
			1		emperature protection
			1		
		Liquid line		I/U ϕ 6.35 (1/4") Pipe ③② ϕ 9.52 (3/8") × 0.8 ① ϕ O/U ϕ 12.7 (1/2")	· / · ·
	Refrigerant piping size (O.D)	0 "	mm	$I/U \phi 12.7 (1/2")$ Pipe $3 \phi 12.7 \times 0.8 @ \phi 15.88 \times 0.8 $	× 1.0 ① φ 22.22 (7/8") × 1.0 or
		Gas line	1	ϕ 12.7 (1/2") ϕ 25.4 (1") × 1.0 or ϕ 28.58 (1 1/2")	/8") × 1.0 O/U φ 22.22 (7/8")
				Flare piping	Liquid : Flare / Gas : Brazing
	Connecting method				
	Connecting method Attached length of piping		m	1.1.4	
nstallation data	Attached length of piping		m	_	-
nstallation data	Attached length of piping Insulation for piping			– Necessary (both L	iquid & Gas lines)
nstallation data	Attached length of piping		m m	– Necessary (both L	iquid & Gas lines) k.70
nstallation data	Attached length of piping Insulation for piping Refrigerant line (one way) length		m	— Necessary (both L Max Max.50 (Outdoor unit is higher &	
nstallation data	Attached length of piping Insulation for piping	and I/U		— Necessary (both L Max Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher &	— Liquid & Gas lines) x.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C)
nstallation data	Attached length of piping Insulation for piping Refrigerant line (one way) length	and I/U	m	— Necessary (both L Max Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher &	
nstallation data	Attached length of piping Insulation for piping Refrigerant line (one way) length	and I/U	m	— Necessary (both L Max Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher &	— Liquid & Gas lines) x.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C)
	Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose	and I/U	m	— Necessary (both L Max Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdoor unit)	— Liquid & Gas lines) x.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower)
Orain pump, max	Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Iff height	and I/U	m m	Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdoor unit is higher & Max.15 (Outdoor unit is higher & Max.15 (Outdoor unit)	— iquid & Gas lines) x.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs.
Orain pump, max Recommended I	Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose K lift height preaker size	and I/U	m m m	Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdo Hose connectable with VP20 (O.D.26)	— iquid & Gas lines) κ.70 Outdoor air temperature ≤ 43°C) Outdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs.
Orain pump, max Recommended I R.A. (Locked re	Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Lift height breaker size botor ampere)		m m	Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (Outdoor unit is higher &	— Liquid & Gas lines)
Orain pump, max Recommended I R.A. (Locked re nterconnecting v	Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Lift height breaker size botor ampere)	and I/U	m m m	- Necessary (both L Max Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.31 (Outdoor unit is higher & Max.15 (- Liquid & Gas lines)
Drain pump, max Recommended I L.R.A. (Locked re Interconnecting v IP number	Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Iff height breaker size botor ampere) wires Size x C		m m m	- Necessary (both L Max Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.15 (- Liquid & Gas lines)
Drain pump, max Recommended b L.R.A. (Locked re Interconnecting v IP number Standard access	Attached length of piping Insulation for piping Refrigerant line (one way) length Vertical height diff. between O/U Drain hose Iff height breaker size botor ampere) wires Size x C		m m m	- Necessary (both L Max Max.50 (Outdoor unit is higher & Max.30 (Outdoor unit is higher & Max.31 (Outdoor unit is higher & Max.15 (- Liquid & Gas lines)

Notes (1) Th

) The data are measured a	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°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	ISO5151-H1

- (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 is four indoor units are 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 ϕ 19.05 or larger pipes.

			Model	FDE280V	SAWDVH
Item				Indoor unit FDE71VH (4 units)	Outdoor unit FDC280VSA-W
Power source				1	/ 50Hz / 380V 60Hz
	Nominal cooling capacity (range)		kW	1	.) - 31.5 (Max.)]
	Nominal heating capacity (range)		kW	30.0 [5.8 (Min.	.) - 33.5 (Max.)]
	Dower consumption	Cooling		9.	15
	Power consumption	Heating	kW	8.	98
	Max power consumption		7	1	1.4
		Cooling		14.1	/ 14.8
	Running current	Heating	A		/ 14.2
	Inrush current, max current	riodanig	- ^		20
	Illiusii cuiteit, max cuiteit	Caslina			94
Operation data	Power factor Cooling Heating		- %		-
					96
	EER	Cooling			95
	COP	Heating		3.	34
	Sound power level	Cooling		60	75
	Souria power level	Heating		00	77
		Cooling	T		61
	Sound pressure level	Heating	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32	63
	Silent mode	Cooling	-		55 / 54 (Normal/Silent)
	sound pressure level		-	_	56 / 55 (Normal/Silent)
	Souria pressure level	Heating	+		30 / 33 (NOTHAL/SHELL)
xterior dimension	ons (Height x Width x Depth)		mm	210 × 1320 × 690	1505 × 970 × 370
Exterior appeara	nce			Plaster white	Stucco white
Munsell color)				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
RAL color)				(RAL 9016) near equivalent	(RAL 7044) near equivalent
Net weight			kg	33	155
Compressor type	2. O'ty		- Ng	_	GTC5150SC40MF × 1
. ,,			kW	_	Direct line start
	or (Starting method)				
Refrigerant oil (A			L	_	1.55 (M-MB75R)
	e, amount, pre-charge length)		kg	,	ne amount for the piping of 30m)
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant contr	rol			Electronic ex	pansion valve
an type & Q'ty				Centrifugal fan × 4	Propeller fan × 2
an motor (Starti	ng method)		W	50 < Direct line start >	86 × 2 < Direct line start >
· · · · · · · · · · · · · · · · · · ·	,	Cooling			136
Air flow		Heating	m³/min	P-Hi: 20 Hi: 16 Me: 13 Lo: 10	140
Available externs	al static pressure	riodanig	Pa	0	0
Outside air intak	· · · · · · · · · · · · · · · · · · ·		ıα	Not possible	_
				·	_
Air filter, Quality	·			Pocket plastic net × 2 (Washable)	
Shock & vibration	n absorber			Rubber sleeve (for fan motor)	Rubber sleeve (for compressor)
Electric heater			W	_	20 (Crank case heater)
Operation	Remote control			(Option) Wired: RC-EX3A, RC-E	5, RCH-E3 Wireless: RCN-E-E3
•	Room temperature control			Thermostat b	by electronics
ontrol	Operation display			-	
	-			Overload protect	tion for fan motor
2-4-4					ion thermostat
Safety equipmen	iis			Internal thermos	stat for fan motor
				Abnormal discharge t	emperature protection
		Linguish the -			
	Befrigerent pipies size (O.D.)	Liquid line	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	I/U ϕ 9.52 (3/8") Pipe ③② ϕ 9.52 (3/8") × 0.8 ① ϕ 0/U ϕ 12.7 (1/2")	•
	Refrigerant piping size (O.D)	Gas line	mm	I/U φ 15.88 (5/8") Pipe ③② φ 15.88 × 1.0 ① φ 22	2.22 (7/8") × 1.0 or
		Gas illie		ϕ 13.88 (5/8) ϕ 25.4 (1") × 1.0 or ϕ 28.58 (1	1/8") × 1.0 O/U φ 22.22 (7/8")
	Connecting method			Flare piping	Liquid : Flare / Gas : Brazing
	Attached length of piping		m		
nstallation data	Insulation for piping		1		Liquid & Gas lines)
	Refrigerant line (one way) length		m	* :	x.60
	igania in a (ono may, longin			Max.50 (Outdoor unit is higher & Outdoor air temperature ≤ 43°C)	
	Vertical height diff between 0/11	and I/II			Courdoor air temperature ≥ 43°C)
	Vertical height diff. between O/U	and I/U	m		· · · · · · · · · · · · · · · · · · ·
			1	Max.15 (Outdoor unit is lower)	
	Drain hose		1	Hose connectable with VP20 (O.D.26)	Hole size φ 20 x 3 pcs.
Orain pump, max	clift height		mm	_	_
	oreaker size		Α		<u>-</u>
Recommended b	ntor amnere)		А	5	5/5
	otor umpere)				
R.A. (Locked ro	· · · · · · · · · · · · · · · · · · ·	ore number		φ 1.6 mm x 3 cores (Including earth cab)	le) / Termainal block (Screw fixing type)
Recommended b L.R.A. (Locked ro Interconnecting v	· · · · · · · · · · · · · · · · · · ·	ore number		φ 1.6 mm x 3 cores (Including earth cab	
L.R.A. (Locked ro Interconnecting v IP number	wires Size x C	ore number		IPX0	IP24
L.R.A. (Locked ro	wires Size x C	ore number		IPX0 Mounting kit, Drain hose	

Notes (1) Th

The data are measured at	the following con	ditions.			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°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	ISOE1E1_U1

- (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 is four indoor units are combined and run together.
 (7) Branching pipe set "DIS-WB1G"×1,"PIS-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 ϕ 19.05 or larger pipes.

(6) Wall mounted type (SRK)

(a) Twin type

Itom			Model		/SAWPZR
tem				Indoor unit SRK100ZR-W(2 units)	Outdoor unit FDC200VSA-W
Power source	Tar : 1 12 13 14 15			1	/ 50Hz / 380V 60Hz
	Nominal cooling capacity (range)		kW		.) - 22.4 (Max.)]
	Nominal heating capacity (range)		kW		.) - 25.0 (Max.)]
	Power consumption	Cooling	_		46
	r ever concumption	Heating	kW		87
	Max power consumption			12	2.00
	Bunning ourrent	Cooling		11.8	/ 12.5
	Running current	Heating	A	10.8	/ 11.3
	Inrush current, max current			5,	19
		Cooling	1	9	91
Operation data	Power factor	Heating	- %	C	92
	EER	Cooling			68
	COP	Heating	_		26
	001	Cooling		0.	72
	Sound power level		_	63	
		Heating	_		74
	Sound pressure level	Cooling	dB(A)	Hi: 48 Me: 45 Lo: 40 ULo: 27	58
		Heating		Hi: 48 Me: 43 Lo: 38 ULo: 30	59
	Silent mode	Cooling			55 / 53 (Normal/Silent)
	sound pressure level	Heating			56 / 54 (Normal/Silent)
xterior dimension	ons (Height x Width x Depth)	-	mm	339 × 1197 × 262	1505 × 970 × 370
Exterior appeara				Fine snow	Stucco white
Munsell color)				(8.0Y 9.3/0.1) near equivalent	(4.2Y7.5/1.1) near equivalent
RAL color)				(RAL 9003) near equivalent	(RAL 7044) near equivalent
,			le-	1 1	
Net weight	0.014		kg	16.5	144
Compressor type				_	GTC5150SC40MF x 1
	or (Starting method)		kW	_	Direct line start
Refrigerant oil (A	mount, type)		L	_	1.55 (M-MB75R)
Refrigerant (Type	e, amount, pre-charge length)		kg	R32 4.3 in outdoor unit (Incl. the	ne amount for the piping of 30m)
Heat exchanger			T I	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant contr	rol			Electronic ex	pansion valve
an type & Q'ty				Tangential fan x 1	Propeller fan ×2
an motor (Starti	ing mothod)		W	56 x 1 < Direct line start >	86 x 2< Direct line start >
air motor (Starti	ing memou)	Caslina	***	<u> </u>	
Air flow		Cooling	m³/min	Hi: 24.5 Me: 21.3 Lo: 17.6 ULo: 10.4	148
		Heating		Hi: 27.5 Me: 23.2 Lo: 19.1 ULo: 13.6	134
Available externa	al static pressure		Pa	0	0
Dutside air intak	е			Not possible	_
Air filter, Quality	/ Quantity			Polypropylene net (Washable) x 2	_
Shock & vibration	n absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for fan motor & compresso
Electric heater			W	_	20 (Crank case heater)
	Remote control			(Option) Wired: RC-EX3A, RC-E5.	RCH-E3 Interface kit : SC-BIKN2-E
Operation	Room temperature control				by electronics
ontrol			+		POWER : Green, 3D AUTO : Green
	Operation display		+		tion for fan motor
Safety equipmen	its			Frost protection thermostat Internal thermostat for fan motor	
					stat for fan motor emperature protection
	T	1	+		<u> </u>
		Liquid line		I/U ϕ 9.52 (3/8") Pipe ② ϕ 9.52 (3/8") × 0.8 ① ϕ 9.52 (3/8") × 0.8 or ϕ 12.7(1/2") × 0.8 O/U ϕ 9.52 (3/8")	
	Refrigerant piping size (O.D)		mm	I/U φ 15.88 (5/8") + 1.0 ① (1.0 × 1.0 ×	+ 22 22 (7/8") × 1 0 or
		Gas line		$1/U \phi 15.88 (5/8")$ Pipe $(2)\phi 15.88 (5/8") \times 1.0 U \phi 25.4 (1") × 1.0 or \phi 28.58 (1")$	μ 22.22 (7/0) × 1.0 01 1/8") × 1.0 O/U φ 22.22 (7/8")
	Connecting method	1			
	Attached length of pining			Flare piping	Liquid : Flare / Gas : Brazing
nstallation data	Attached length of piping		m		
	Insulation for piping			* * * * * * * * * * * * * * * * * * * *	Liquid & Gas lines)
	Refrigerant line (one way) length		m	I .	.70m
				Max.50m (Outdoor unit is higher & Outdoor air temperature ≤ 43°C)	
	Vertical height diff. between O/U a	and I/U	m	Max.30m (Outdoor unit is higher	& Outdoor air temperature > 43°C)
				Max.15m (Outd	oor unit is lower)
	Drain hose			Hose connectable with VP16	Hole size φ 20 x 3 pcs.
Orain pump, max			mm		— — — — — — — — — — — — — — — — — — —
Recommended b			A	_	
				-	
R.A. (Locked ro	· ' '		A		5
nterconnecting v	wires Size x Co	ore number			/ Terminal block (Screw fixing type)
P number				IPX0	IP24
Standard access	ories			Mounting kit, Drain hose	Connecting pipe
Option parts				-	_

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

The	pipe	length	is	7.5m.

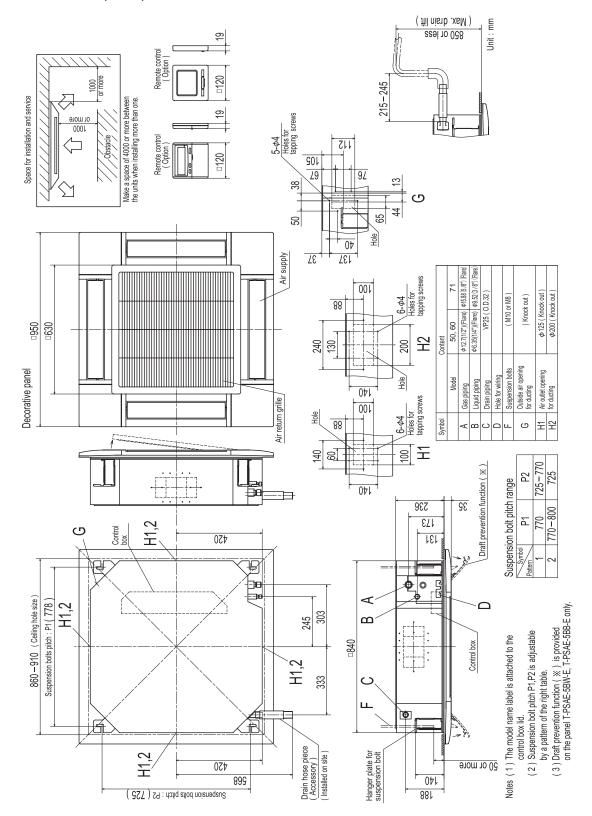
Item	Indoor air temperature		Outdoor air temperature		Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	ISO5151-H1

- (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 is two indoor units are combined and run together.
 (7) Branching pipe set "DIS-WB1G"×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 ϕ 19.05 or larger pipes.
- (9) A wired remote control and SC-BIKN2-E must be installed with SRK plural connection.

 The wireless remote control included in the SRK unit cannot be used in case of SRK plural connection.

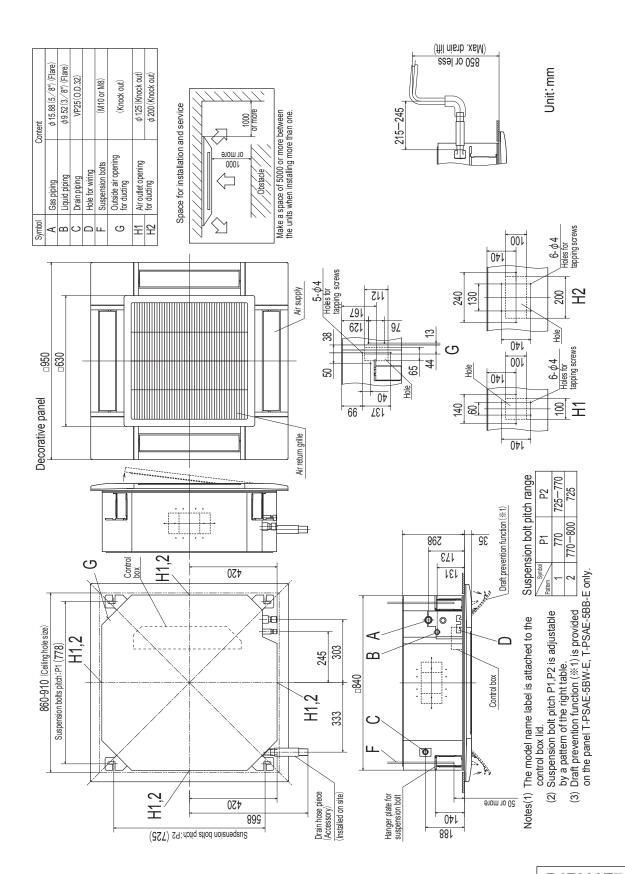
1.2 EXTERIOR DIMENSIONS

- (1) Indoor units
 - (a) Ceiling cassette-4 way type (FDT)
 Models FDT50VH, 60VH, 71VH



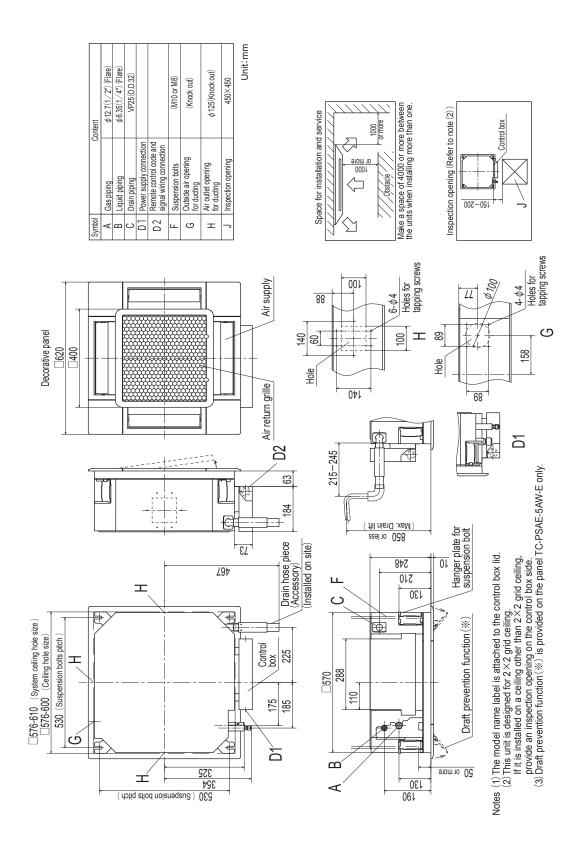
PJF000Z733

Models FDT100VH, 125VH, 140VH

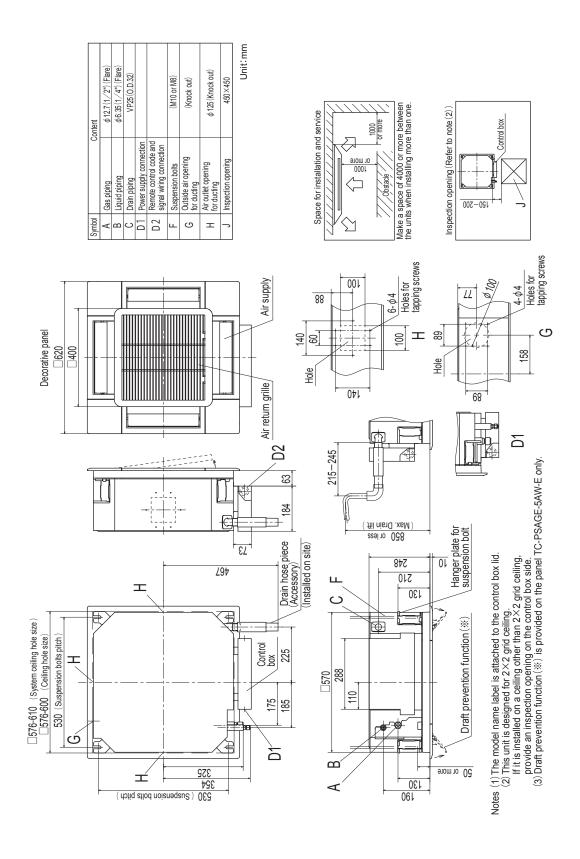


PJF000Z734

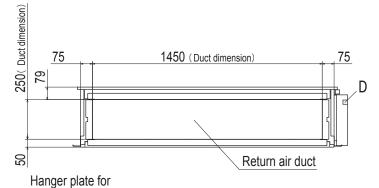
(b) 4-way ceiling cassette type (FDTC) Models FDTC50VH, 60VH (Inlet grill type : Honeycomb)



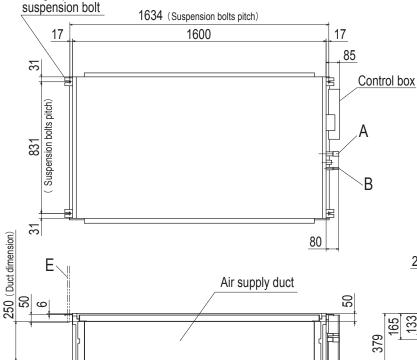
Models FDTC50VH, 60VH (Inlet grill type: Grid)

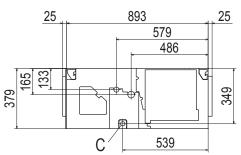


(c) Duct connected-High static pressure type (FDU) Models FDU200VH, 250VH, 280VH



Cymbol	Content					
Symbol	MODEL	200	250, 280			
Α	Gas piping	φ 25.4(1")				
В	Liquid piping	ϕ 9.52(3/8")(Brazing)	ϕ 12.7(1/2")(Brazing)			
С	Drain piping (Gravity drainage)	VP25(O.I	D.32)			
D	Hole for wiring					
Е	Suspension bolts	M ⁻	10			
F	Inspection opening	(450×	(450)			





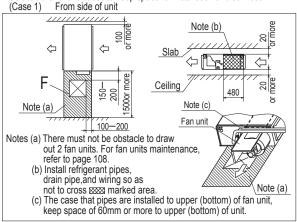
Unit:mm

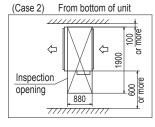
Space for installation and service

75

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

1450 (Duct dimension)



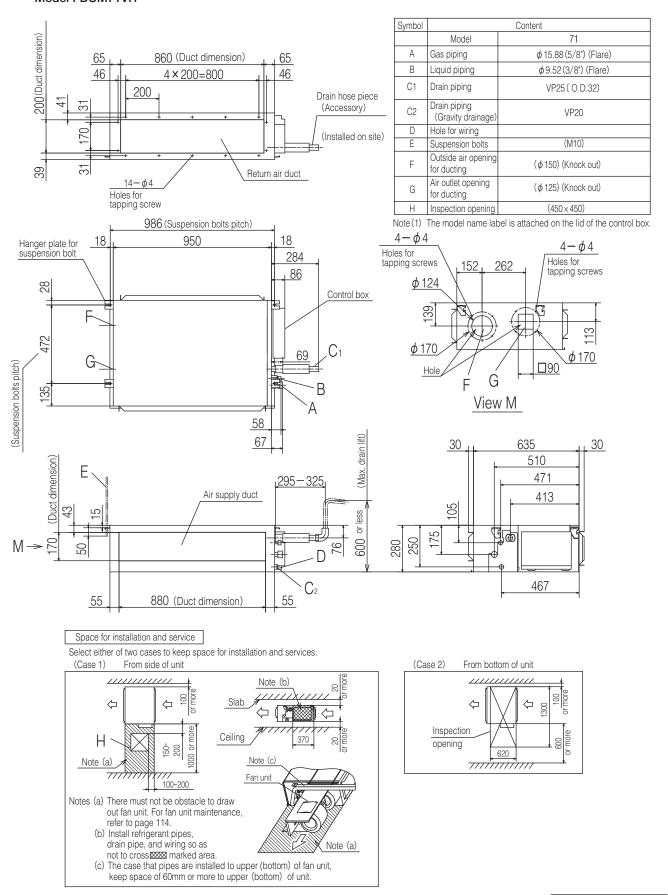


Note(1) The model name label is attached on the lid of the control box.

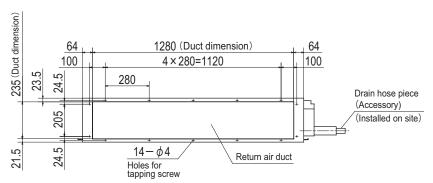
PJG000Z754

75

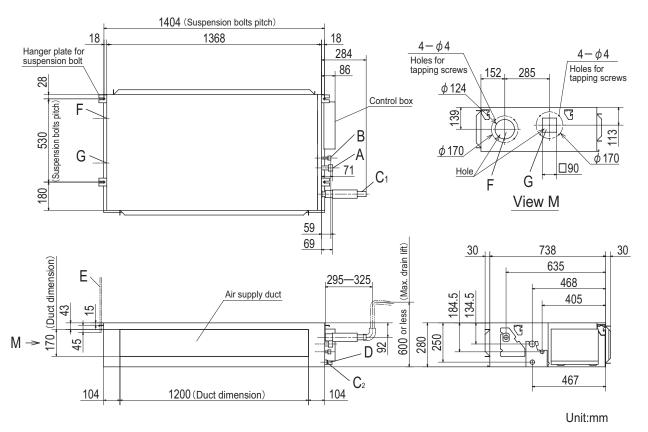
(d) Duct connected-Low / Middle static pressure (FDUM) Model FDUM71VH



Models FDUM100VH, 125VH, 140VH

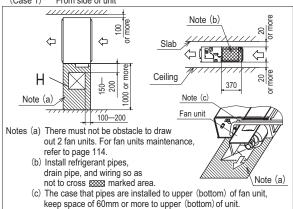


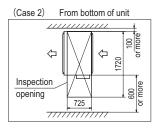
Symbol	Content				
Α	Gas piping	φ 15.88 (5/8") (Flare)			
В	Liquid piping	φ 9.52 (3 / 8") (Flare)			
C ₁	Drain piping	VP25 (O.D.32)			
C ₂	Drain piping (Gravity drainage)	VP20			
D	Hole for wiring				
E	Suspension bolts	(M10)			
F	Outside air opening for ducting	(φ 150) (Knock out)			
G	Air outlet opening for ducting	(φ 125) (Knock out)			
Н	Inspection opening	(450×450)			



Space for installation and service

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

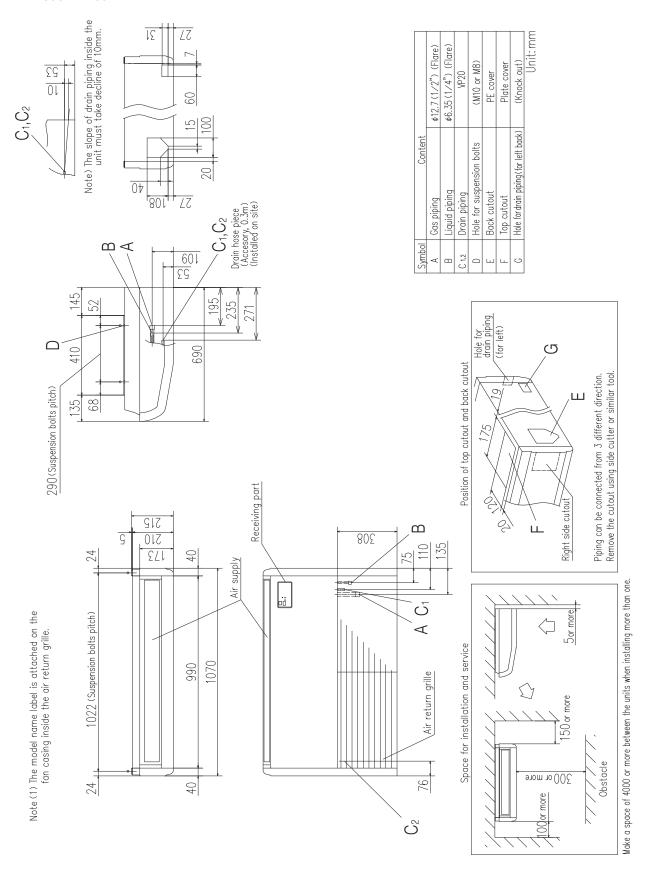




Note (1) The model name label is attached on the lid of the control box.

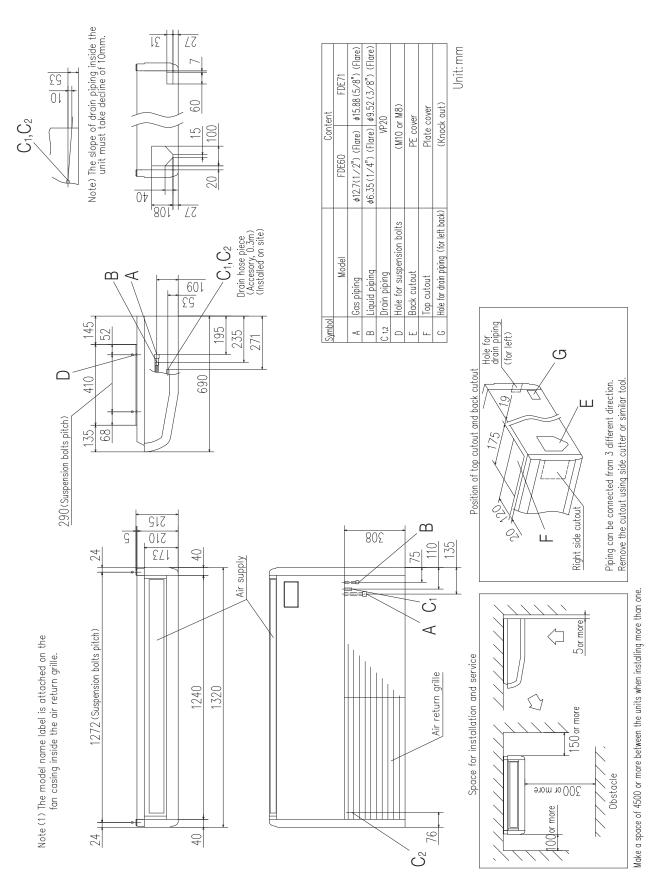
PJG000Z487<u>A</u>

(e) Ceiling suspended type (FDE) Model FDE50VH

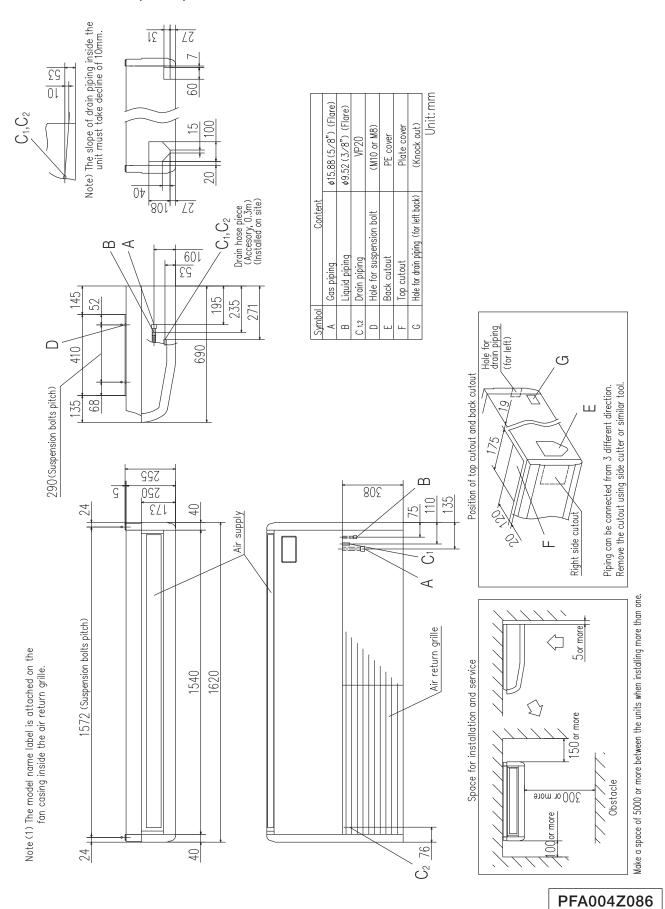


PFA004Z084

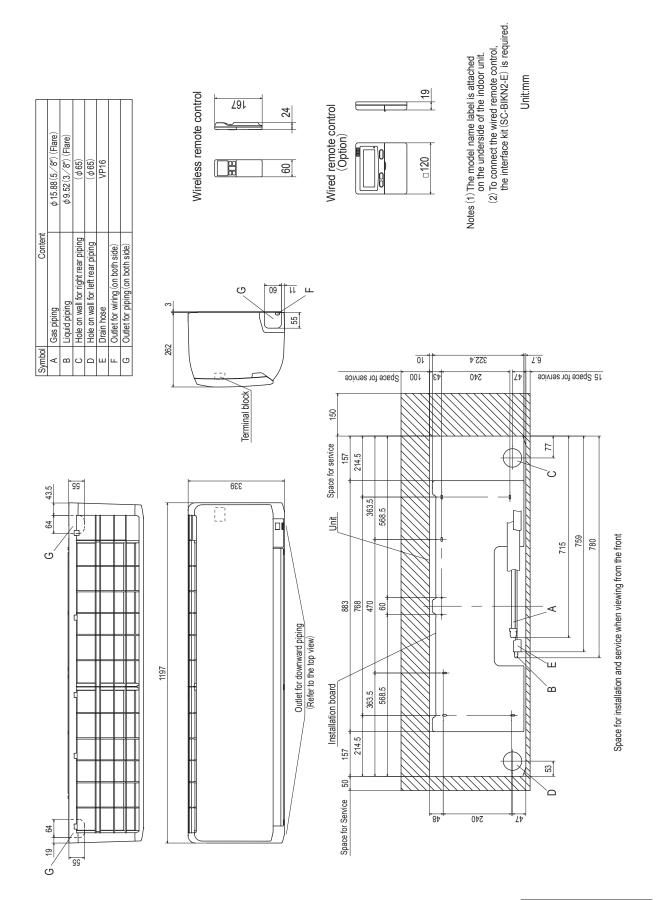
Models FDE60VH, 71VH



Models FDE100VH, 125VH, 140VH



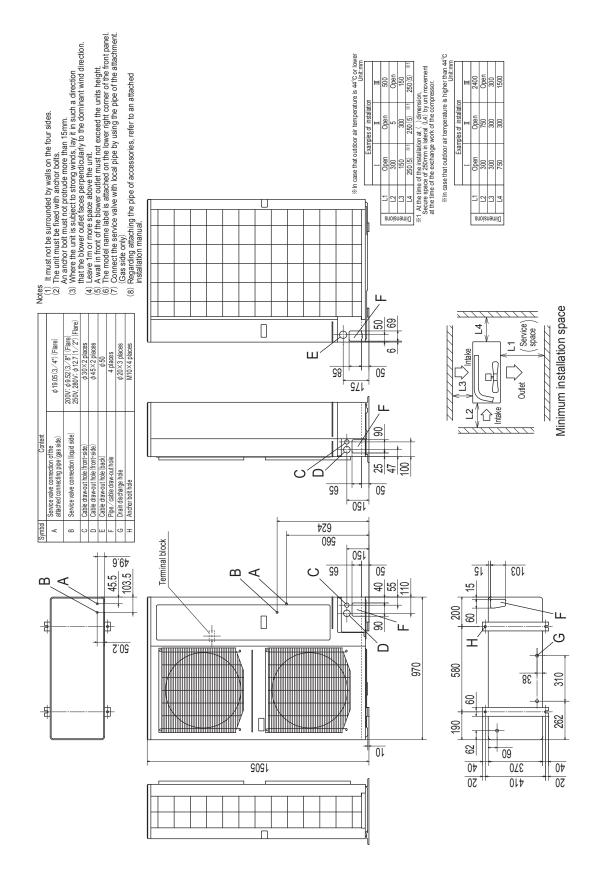
(f) Wall mountded type (SRK) Model SRK100ZR-W



RLD000Z005

(2) Outdoor units

Models FDC200VSA-W, 250VSA-W, 280VSA-W



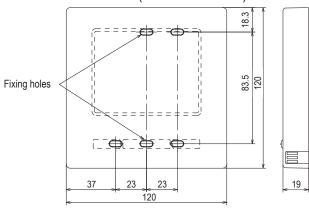
PCB004Z470 🛕

(3) Remote control (Option parts)

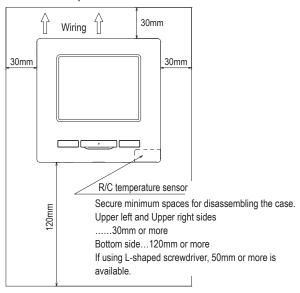
(a) Wired remote control

Model RC-EX3A

Dimensions (Viewed from front)



Installation space



• 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
- 4) When you are using the automatic grille up and down panel in the IU, you may not be able to confirm the up and down motion.
 - Where the IU cannot be visually confirmed

R/C cable:0.3mm² x 2 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.

	0.5 mm ² x 2 cores
≦ 300m	0.75 mm ² x 2 cores
≤ 400m	1.25 mm ² x 2 cores
≦ 600m	2.0 mm ² x 2 cores

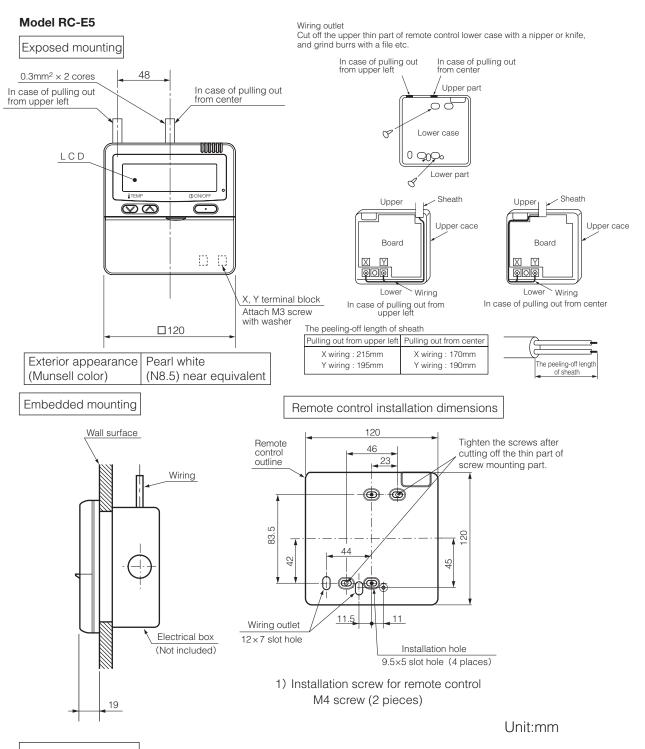
When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.

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.

Adapted RoHS directive

PJZ000Z333



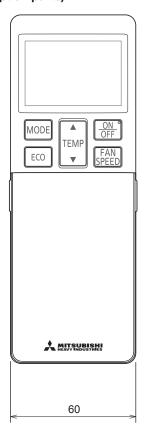
Wiring specifications

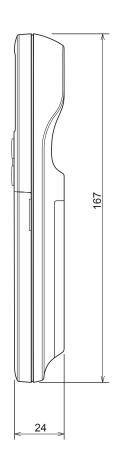
If the prolongation is over 100m, change to the size below.
 But, wiring in the remote control case should be under 0.5mm². Change the wire size outside of
the case according to wire connecting. Waterproof treatment is necessary at the wire connecting
section. Be careful about contact failure.

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

PJZ000Z295

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



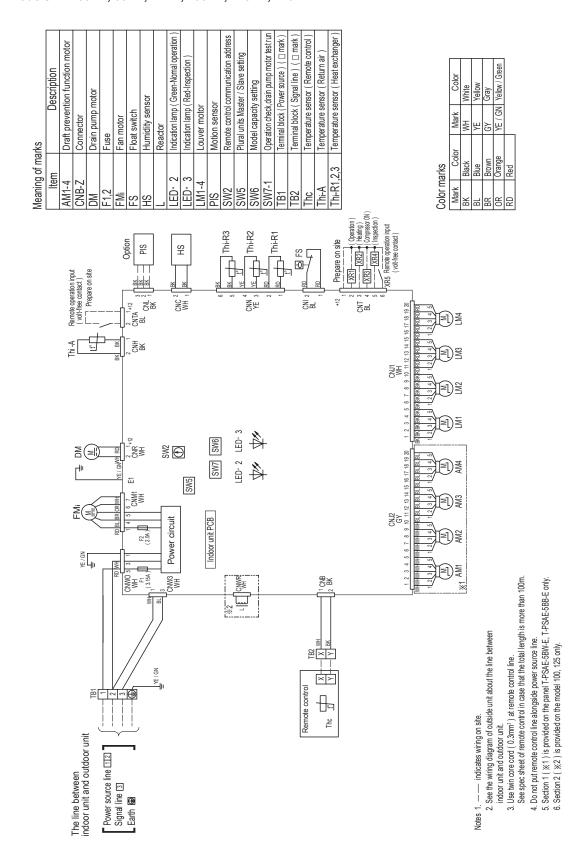


Unit: mm

1.3 ELECTRICAL WIRING

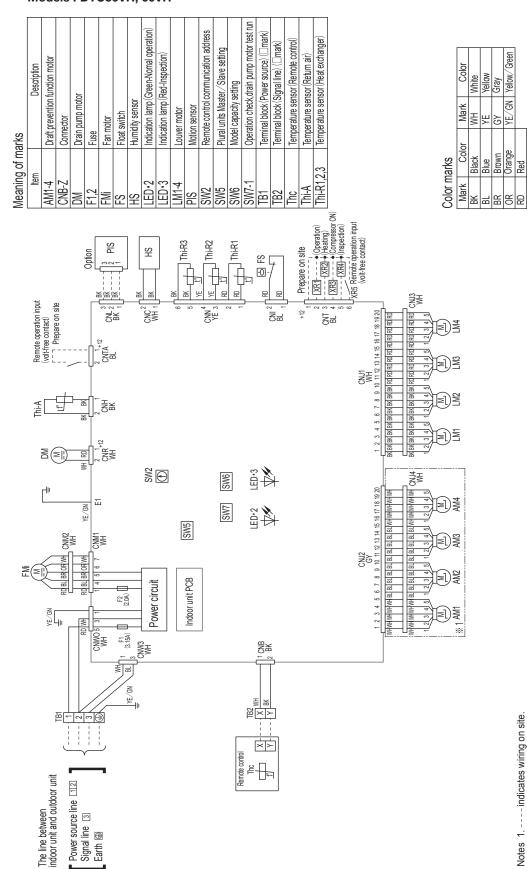
- (1) Indoor units
 - (a) Ceiling cassette-4 way type (FDT)

 Models FDT50VH, 60VH, 71VH, 100VH, 125VH, 140VH



PJF000Z735

(b) Ceiling casette-4 way compact type (FDTC) Models FDTC50VH, 60VH



Notes 1. - - - - indicates wiring on site.

2. See the wiring diagram of outdoor unit about the line between indoor unit and outdoor unit.

Use twin core cord (0.3mm²) at remote control line. რ.

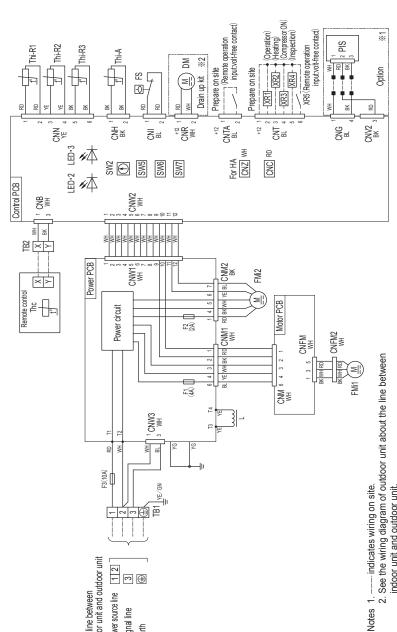
Do not put remote control line alongside power source line. Draft prevention function (% 1) is provided on the panel TC-PSA(G)E-5AW-E only.

PJF000Z739

(c) Duct connected-High static pressure type (FDU) Models FDU200VH, 250VH, 280VH

Meaning of marks	rks
ltem	Description
CNB-Z	Connector
DM	Drain pump motor
F1-3	Fuse
FMi1,2	Fan motor
R	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 pump motor test run
TB1	Terminal block (Power source) (☐mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Retum air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)
mark	Closed-end connector

arks	Color	Black	Blue	Red	White	Yellow	Yellow Green	Yellow/Green
Color marks	Mark	æ	BL	B	MH	YE	УG	YE/GN



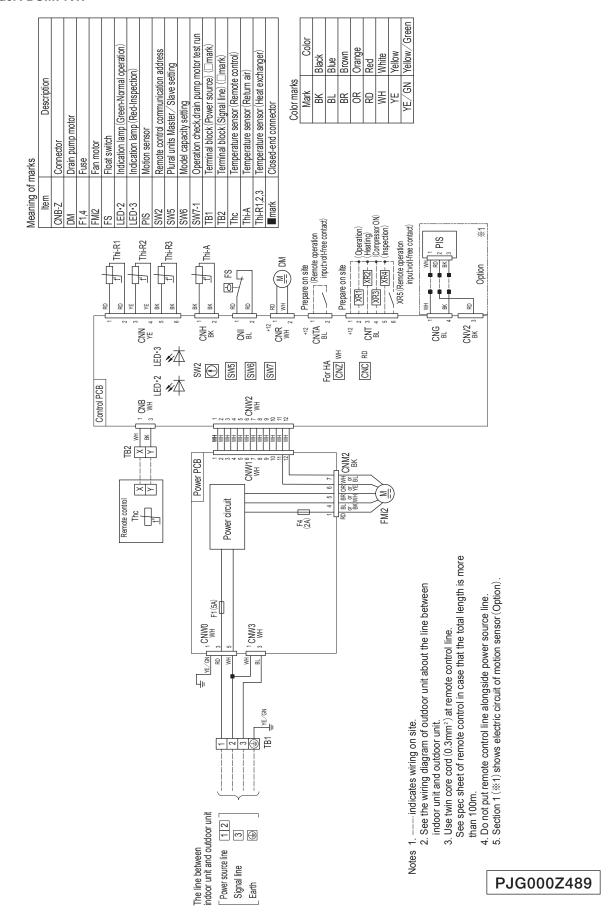
The line between indoor unit and outdoor unit

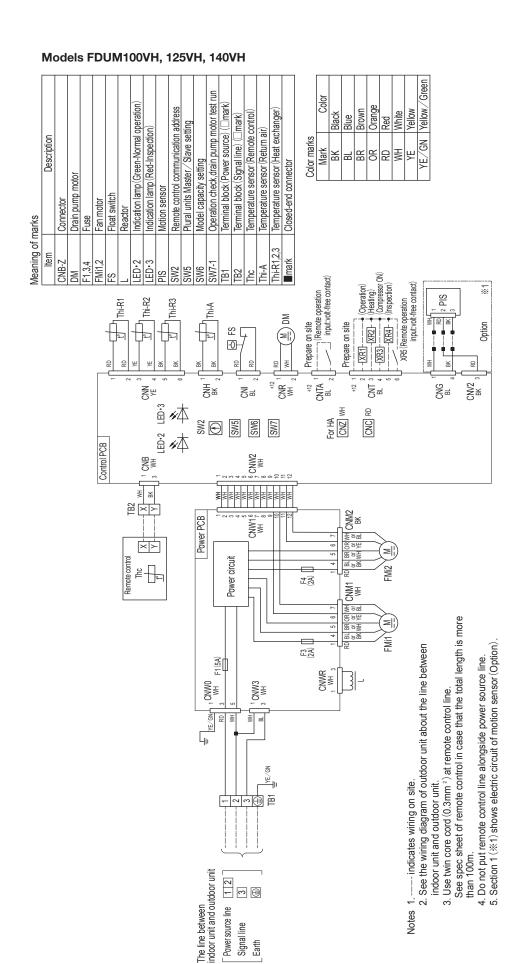
indoor unit and outdoor unit. 3. Use twin core cord $(0.3 mm^2)$ at remote control line. See spec sheet of remote control in case that the total length is more than 100m.

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.

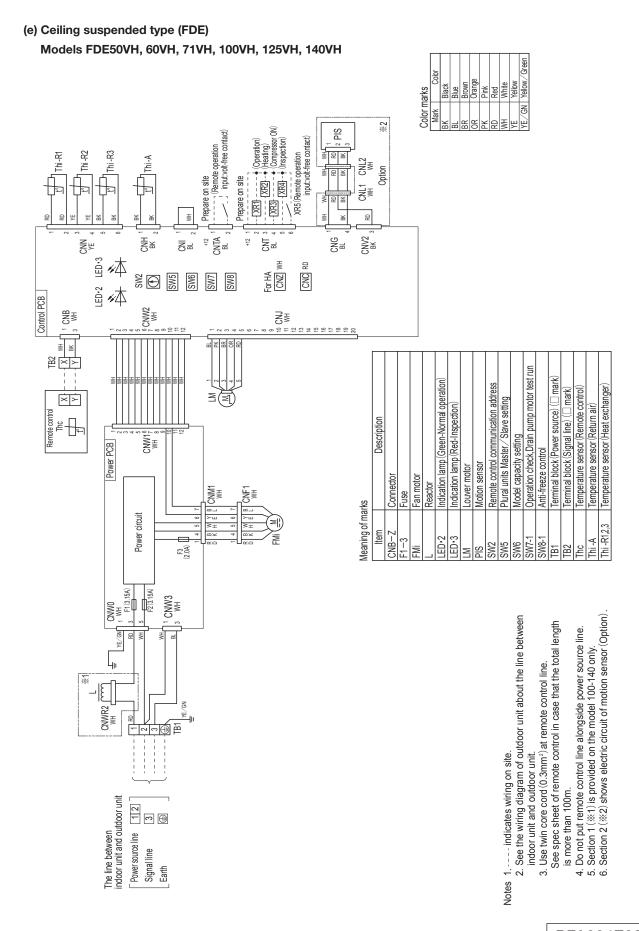
PJG000Z755

(d) Duct connected-Low/Middle static pressure type (FDUM) Model FDUM71VH





PJG000Z490



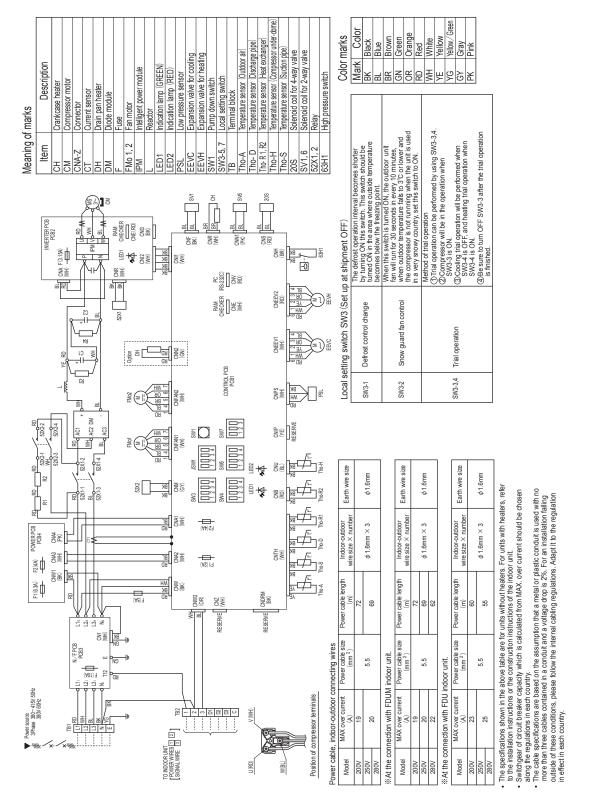
PFA004Z087

(f) Wall mounted type (SRK) Model SRK100ZR-W

Item Description	Connector S	i Fan motor I Flap motor I.2 Louver motor I Room temperature sensor	1,2	Fuse Terminal block	Varistor	Color marks Mark Color BK Black BL Blue RD Red WH White Y Yellow Y/G Yellow/Green		
	DISPLAY WRELESS RECEIVER BACK-UP SW That the the second		2 CNF	CNS	WG G G W W W W W W W W W W W W W W W W	EXCHANGER WH S/N U Va 1 RD RD	$ \begin{array}{c c} 2/N & \\ \hline & 3 \\ \hline & 1 \\ \hline & 1 \\ \hline & 1 \\ \hline & 2 \\ \hline & 1 \\ \hline & 2 \\ \hline & 1 \\ \hline & 2 \\ \hline & 1 \\ \hline & 2 \\ \hline \\ \hline & 2 \\ \hline & 2 \\ \hline \\ \hline \\ \hline \\ \hline & 2 \\ \hline \\$	÷ SIGNAL WIRE 3 HEAT EXCHANGER EARTH WIRE ⊕

(2) Outdoor units

Models FDC200VSA-W, 250VSA-W, 280VSA-W





1.4 NOISE LEVEL

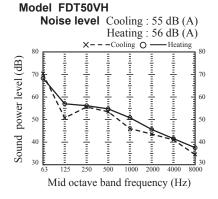
Notes(1) The data are based on the following conditions.

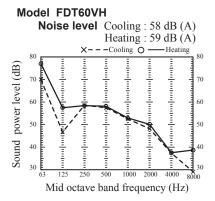
- Ambient air temperature: Indoor unit 27°CWB. Outdoor unit 35°CDB.
- (2) The data in the chart are measured in an anechoic room.
- (3) The noise levels measured in the field are usually higher than the data because of reflection.

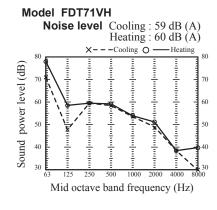
(1) Indoor units

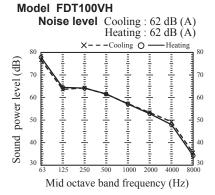
(a) Ceiling cassette-4way type (FDT)

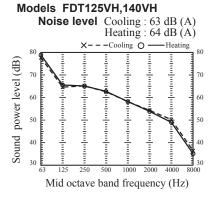
(i) Sound power level





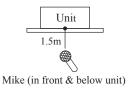




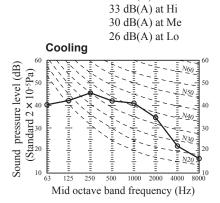


(ii) Sound pressure level

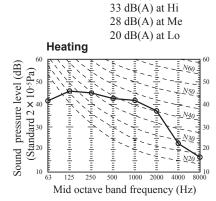
Measured mike position



Model FDT50VH



Noise level 41 dB(A) at P-Hi

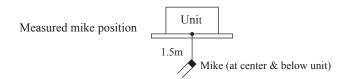


Noise level 42 dB(A) at P-Hi

Model FDT60VH Noise level 44 dB(A) at P-Hi Noise level 44 dB(A) at P-Hi 34 dB(A) at Hi 34 dB(A) at Hi 30 dB(A) at Me 30 dB(A) at Me 27 dB(A) at Lo 23 dB(A) at Lo Cooling Heating Sound pressure level (dB) pressure level (dB) (Standard 2×10^{-5} Pa) (Standard 2 × 10-5Pa) $\stackrel{\circ}{\approx}$ (Standard 2 × 10-5Pa) Sound Mid octave band frequency (Hz) Mid octave band frequency (Hz) Model FDT71VH Noise level 46 dB (A) at P-Hi Noise level 46 dB (A) at P-Hi 34 dB (A) at Hi 34 dB (A) at Hi 31 dB (A) at Me 31 dB (A) at Me 26 dB (A) at Lo 26 dB (A) at Lo Cooling Heating 60 Sound pressure level (dB) pressure level (dB) (Standard 2×10^{-5} Pa) (Standard 2×10^{-5} Pa) Sound Mid octave band frequency (Hz) Mid octave band frequency (Hz) Model FDT100VH Noise level 47 dB (A) at P-Hi Noise level 47 dB (A) at P-Hi 39 dB (A) at Hi 39 dB (A) at Hi 36 dB (A) at Me 36 dB (A) at Me 30 dB (A) at Lo 29 dB (A) at Lo Cooling Heating 60 60 Sound pressure level (dB) pressure level (dB) (Standard 2×10^{-5} Pa) (Standard 2×10^{-5} Pa) Sound 1000 2000 1000 Mid octave band frequency (Hz) Mid octave band frequency (Hz) Models FDT125VH,140VH Noise level 48 dB (A) Noise level 48 dB (A) at P-Hi at P-Hi 41[42] dB (A) at Hi 41 dB (A) at Hi 39 dB (A) at Me 38 dB (A) at Me 31[32] dB (A) at Lo 31 dB (A) at Lo Cooling Heating Sound pressure level (dB) pressure level (dB) (Standard 2×10^{-5} Pa) (Standard 2×10^{-5} Pa) Sound 500 1000 2000 4000 1000 2000 4000 Mid octave band frequency (Hz) Mid octave band frequency (Hz)

Note (1) Values in [] are for the FDT140VH

(b) Ceiling cassette-4 way compact type (FDTC)



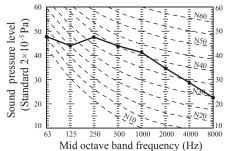
Model FDTC50VH

Sound pressure level (Standard Standard
Mid octave band frequency (Hz)

Noise level 44 dB(A) at P-Hi

Model FDTC60VH

Noise level 46 dB(A) at P-Hi 42 dB(A) at Hi 38 dB(A) at Me 31 dB(A) at Lo

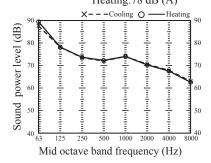


(c) Duct connected-High static pressure type (FDU)

(i) Sound power level

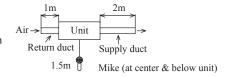
Models FDU200VH, 250VH, 280VH

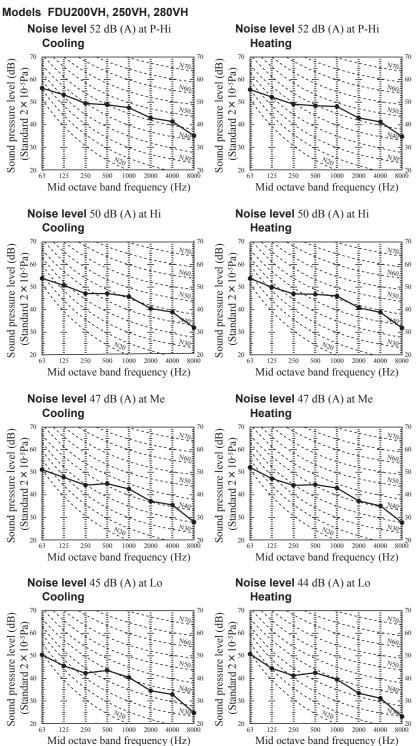
Noise level Cooling:78 dB (A) Heating:78 dB (A)



(ii) Sound pressure level

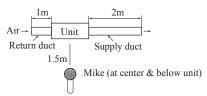
Measured mike position





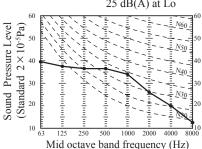
(d) Duct connected-Low/Middle static pressure type (FDUM)

Measured mike position



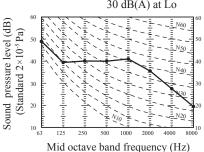
Model FDUM71VH

Noise level 38 dB(A) at P-Hi 33 dB(A) at Hi 29 dB(A) at Me 25 dB(A) at Lo



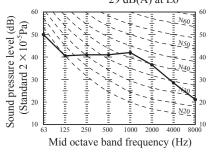
Model FDUM100VH

Noise level 44 dB(A) at P-Hi 38 dB(A) at Hi 36 dB(A) at Me 30 dB(A) at Lo



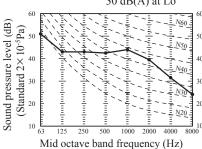
Model FDUM125VH

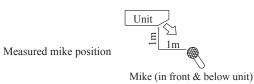
Noise level 45 dB(A) at P-Hi 40 dB(A) at Hi 34 dB(A) at Me 29 dB(A) at Lo



Model FDUM140VH

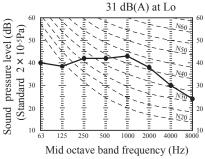
Noise level 47 dB(A) at P-Hi 40 dB(A) at Hi 35 dB(A) at Me 30 dB(A) at Lo





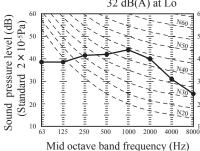
(e) Ceiling suspended type (FDE)

Model FDE50VH Noise level 46 dB(A) at P-Hi 38 dB(A) at Hi 36 dB(A) at Me 31 dB(A) at Lo



Models FDE60VH, 71VH

Noise level 47 dB(A) at P-Hi 41 dB(A) at Hi 37 dB(A) at Me 32 dB(A) at Lo



Model FDE100VH

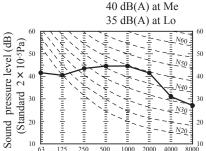
Noise level 48 dB(A) at P-Hi 43 dB(A) at Hi 38 dB(A) at Me 34 dB(A) at Lo

pressure level (dB) (Standard 2×10^{-5} Pa) Sound 1000

Mid octave band frequency (Hz)

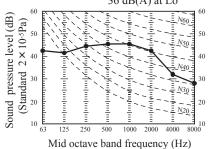
Model FDE125VH

Noise level 48 dB(A) at P-Hi 45 dB(A) at Hi 40 dB(A) at Me 35 dB(A) at Lo



Model FDE140VH

Noise level 49 dB(A) at P-Hi 45 dB(A) at Hi 40 dB(A) at Me 36 dB(A) at Lo

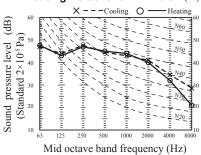


(f) Wall mounted type (SRK)

Model SRK100ZR-W

Cooling noise level Hi: 48 dB (A) Heating noise level Hi: 48 dB (A)

Mid octave band frequency (Hz)

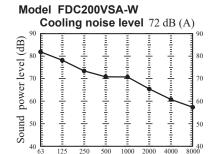


Mike position as right



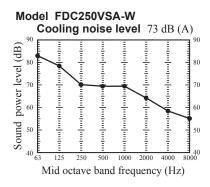
(2) Outdoor units

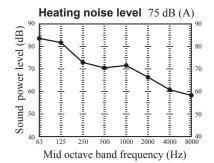
(a) Sound power level (Rated capacity value)

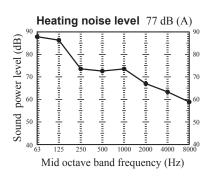


Mid octave band frequency (Hz)

Heating noise level 74 dB (A) power level (dB) Sound 250 500 1000 Mid octave band frequency (Hz)

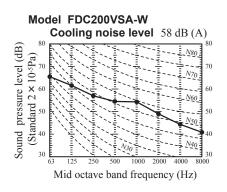


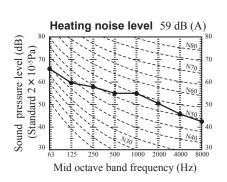


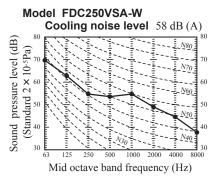


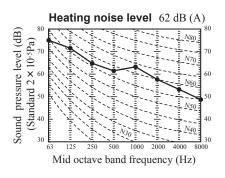
(b) Sound pressure level (Rated capacity value)

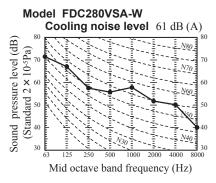
Measured mike position: at highest noise level in position as mentioned below Distance from front side 1m
Height 1m

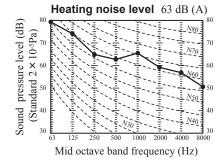












1.5 CHARACTERISTICS OF FAN

- (1) 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.

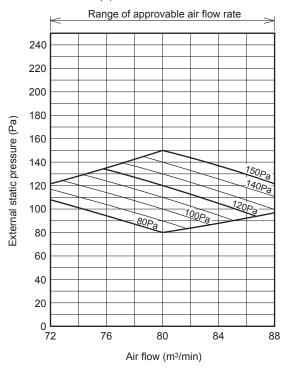
Models FDU200VH, 250VH, 280VH

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

Characteristic FAN (1)

--- In case actual E.S.P. correcpond setting of E.S.P. 240 220 200 180 External static pressure (Pa) Setting 150Pa 160 140 Setting 120Pa 120 100 80 Setting 80Pa 60 40 20 ₀ L 50 60 70 80 90

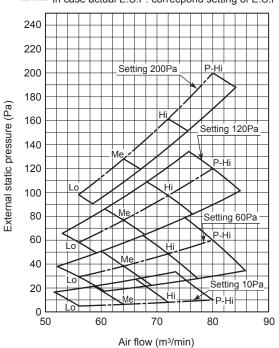
Characteristic FAN (2)



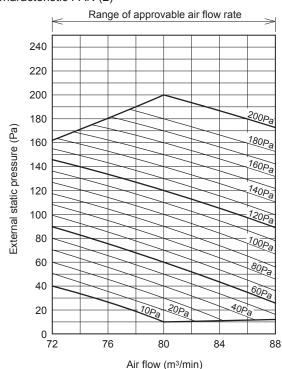
■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)
Characteristic FAN (1)

Air flow (m3/min)

--- In case actual E.S.P. correcpond setting of E.S.P.



Characteristic FAN (2)



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

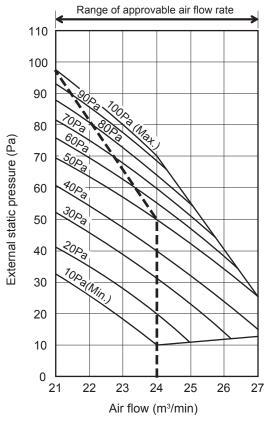
- Characteristic FAN (1) shows air flow vs. External Static Pressure (E.S.P.) range where settings of E.S.P. are maximum E.S.P. (100Pa), rated E.S.P., and minimum E.S.P. (10Pa)
- · Characteristic FAN (2) shows air flow vs E.S.P. curve when set fan tap is set P-Hi with each setting of E.S.P by remote 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.

Model FDUM71VH

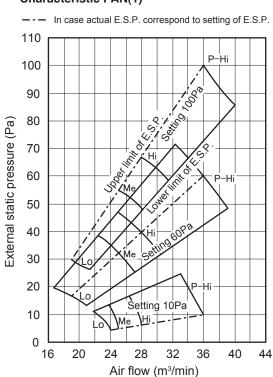
Characteristic FAN(1)

--- In case actual E.S.P. correspond to setting of E.S.P. 110 100 90 80 External static pressure (Pa) 70 60 50 40 Setting 40Pa 30 20 Setting 10Pa 10 Lo.Me 0 22 10 14 18 26 Air flow (m3/min)

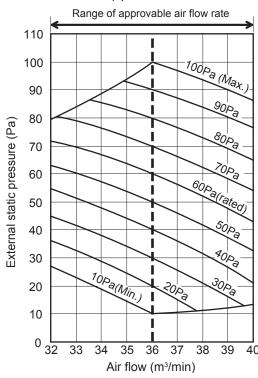
Characteristic FAN(2)



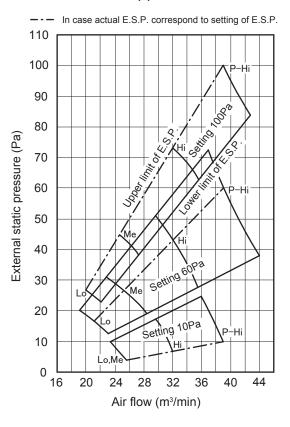
Model FDUM100VH Characteristic FAN(1)



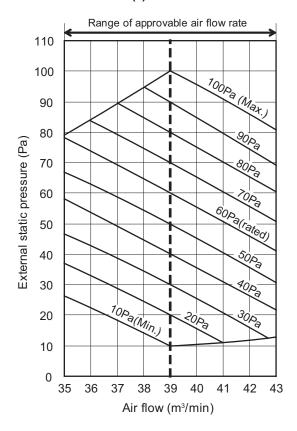
Characteristic FAN(2)



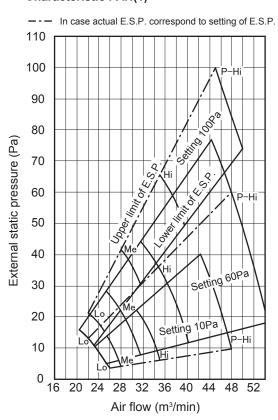
Model FDUM125VH Characteristic FAN(1)



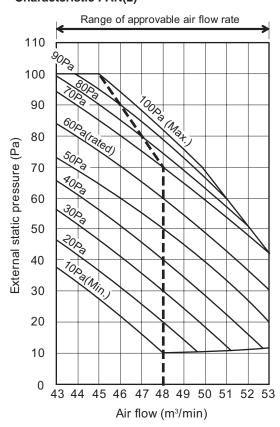
Characteristic FAN(2)



Model FDUM140VH Characteristic FAN(1)



Characteristic FAN(2)



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.

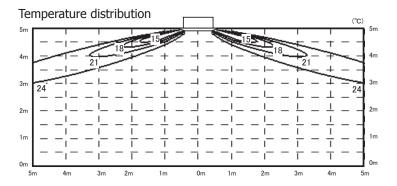
(1) Ceiling cassette-4 way type (FDT)

Model FDT50VH

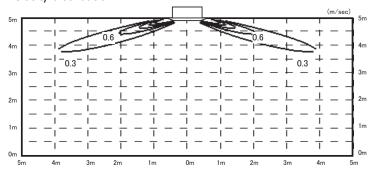
Cooling Air flow: P-Hi

Louver position





Velocity distribution

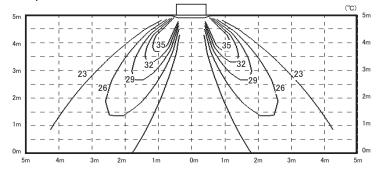


Heating Air flow: P-Hi

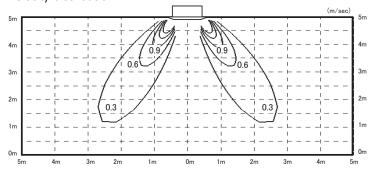
Louver position



Temperature distribution



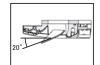
Velocity distribution

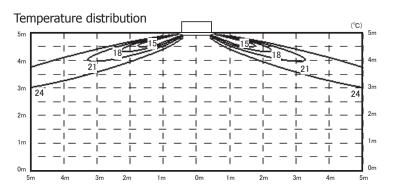


Models FDT60VH, 71VH

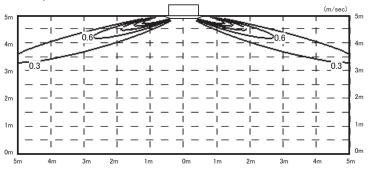
Cooling Air flow: P-Hi

Louver position





Velocity distribution

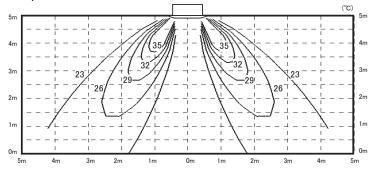


Heating Air flow: P-Hi

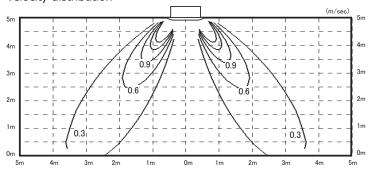
Louver position



Temperature distribution



Velocity distribution

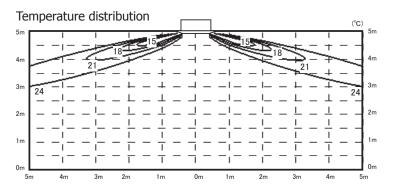


Models FDT100VH, 125VH, 140VH

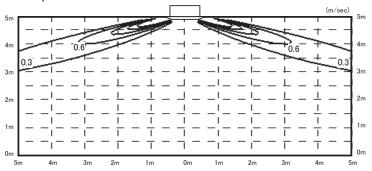
Cooling Air flow: P-Hi

Louver position





Velocity distribution

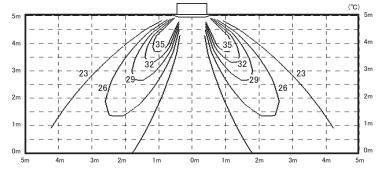


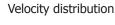
Heating Air flow: P-Hi

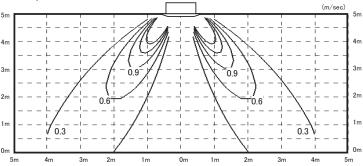
Louver position



Temperature distribution





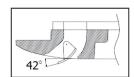


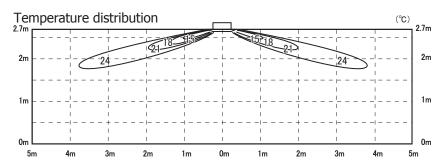
(2) Ceiling casstte-4 way compact type (FDTC)

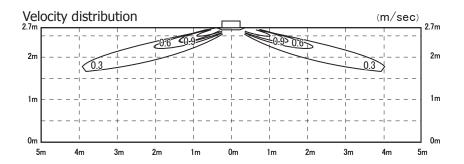
Model FDTC50VH

Cooling Air flow: P-Hi

Louver position

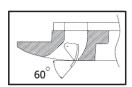


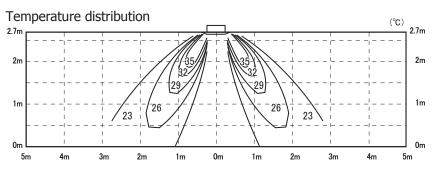


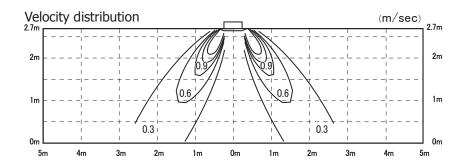


Heating Air flow: P-Hi

Louver position



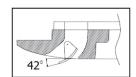


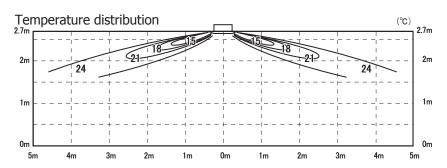


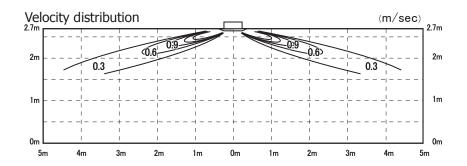
Model FDTC60VH

Cooling Air flow: P-Hi

Louver position

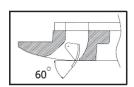


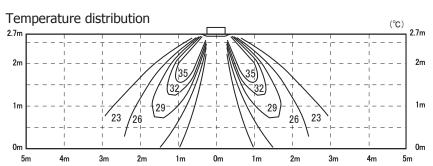


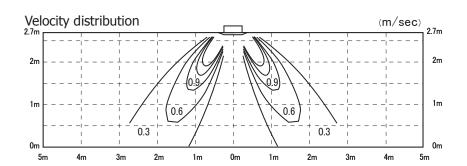


Heating Air flow: P-Hi

Louver position







(3) Ceiling suspended type (FDE)

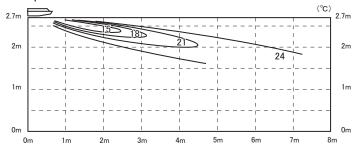
Model FDE50VH

Cooling Air flow: P-Hi

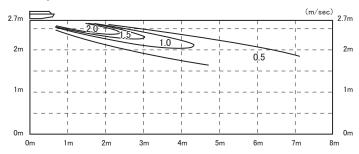
Louver position



Temperature distribution

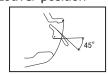


Velocity distribution

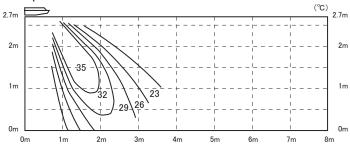


Heating Air flow: P-Hi

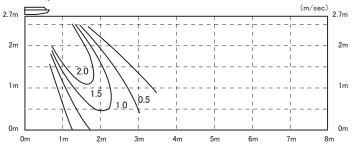
Louver position



Temperature distribution



Velocity distribution



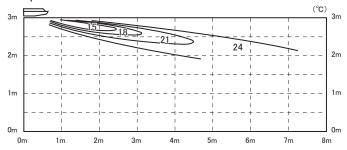
Models FDE60, 71VH

Cooling Air flow: P-Hi

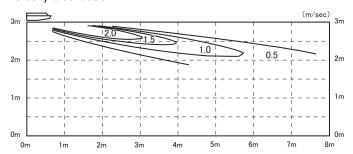
Louver position



Temperature distribution

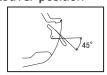


Velocity distribution

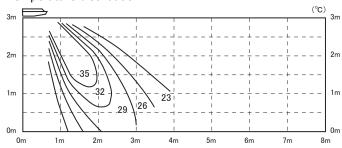


Heating Air flow: P-Hi

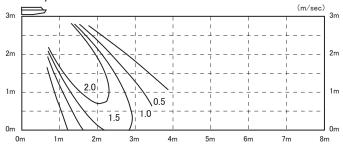
Louver position



Temperature distribution



Velocity distribution



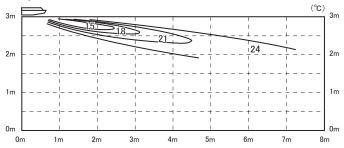
Models FDE100, 125VH

Cooling Air flow: P-Hi

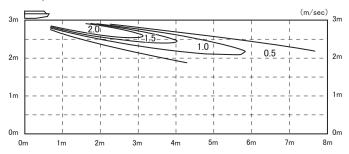
Louver position



Temperature distribution

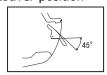


Velocity distribution

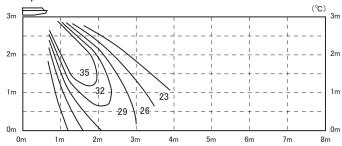


Heating Air flow: P-Hi

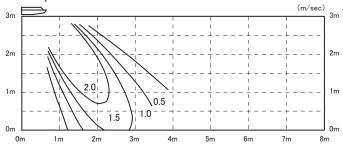
Louver position



Temperature distribution



Velocity distribution



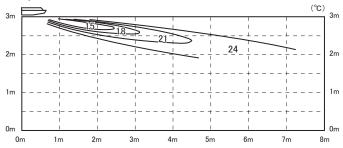
Model FDE140VH

Cooling Air flow: P-Hi

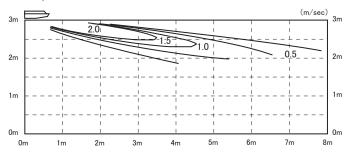
Louver position



Temperature distribution

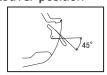


Velocity distribution

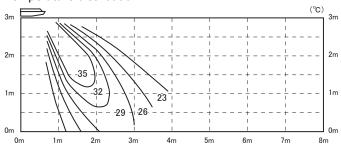


Heating Air flow: P-Hi

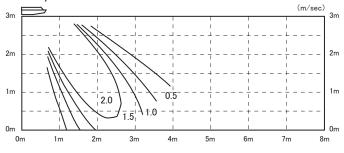
Louver position



Temperature distribution



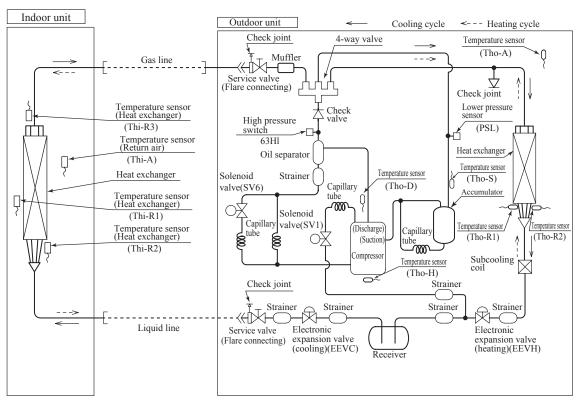
Velocity distribution



1.7 PIPING SYSTEM

(1) Single type

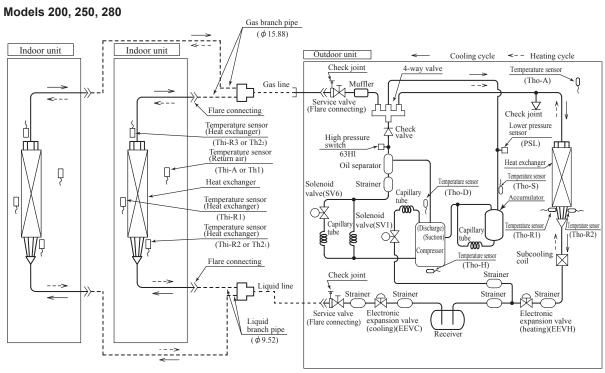
Models 200, 250, 280



•Refrigerant line (one way) pipe size

Gae line	Liquid line
Gas illie	Liquid lille
In case of φ22.22 · 35m	In case of ϕ 9.52 : 40m (200)
In case of ϕ 25.4 or ϕ 28.58 : /0m (200, 250)	In case of ϕ 12.7 : 70m (200, 250)
60m (280)	60m (280)
	Gas line In case of φ22.22 : 35m In case of φ25.4 or φ28.58 : 70m (200, 250) 60m (280)

(2) Twin type

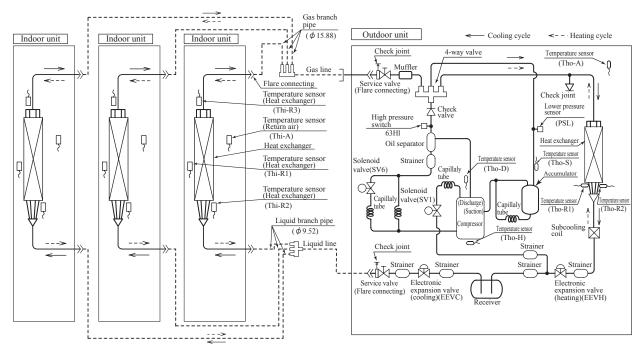


●Refrigerant line (one way) pipe size

Model	Gas line	Liquid line		
	In case of ϕ 22.22 : 35m In case of ϕ 25.4 or ϕ 28.58 : 70m (200, 250) 60m (280)	In case of ϕ 9.52 : 40m (200) In case of ϕ 12.7 : 70m (200, 250) 60m (280)		

(3) Triple type

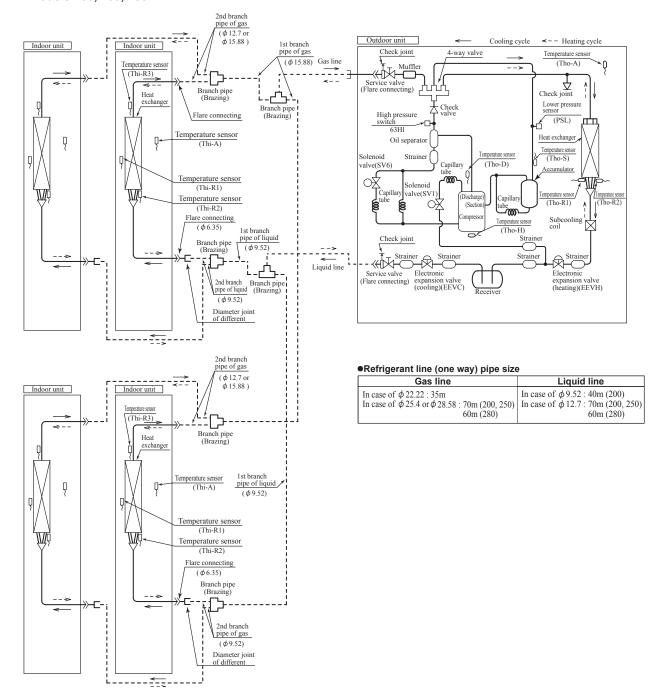
Model 200



●Refrigerant line (one way) pipe size

Gas line	Liquid line
In case of ϕ 22.22 : 35m	In case of ϕ 9.52 : 40m
In case of ϕ 25.4 or ϕ 28.58 : 70m	In case of ϕ 12.7 : 70m

(4) Double twin type Models 200, 250, 280



Preset point of the protective devices

Parts name	Mark	Equipped unit	200, 250, 280 model
Temperature sensor (for protection over- loading in heating)	Thi-R (Tho-A)	Indoor unit (Outdoor unit)	OFF 56°C ON 63°C (OFF 16°C ON 17°C)
Temperature sensor (for frost prevention)	Thi-R (Th2)	Indoor unit	OFF 10°C ON 1.0°C (OFF 8°C ON 2.5°C)
Temperature sensor (for protection high pressure in cooling)	Tho-R	Outdoor unit	OFF 50°C ON 64°C
Temperature sensor (for detecting discharge pipe temperature)	Tho-D	Outdoor unit	OFF 90°C ON 135°C
High pressure switch (for protection)	63H1	Outdoor unit	OFF 3.15MPa ON 4.15MPa
Low pressure sensor (for protection)	PSL	Outdoor unit	OFF 0.227MPa ON 0.079MPa

Note (1) Values in () shown in case of SRK model.

1.8 RANGE OF USAGE & LIMITATIONS

Operating temperature ran		See next page.					
Operating temperature ran	ige	When used below -5°C, install a snow hood (Option).					
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 pipi	ing installation	See pages 73-75.					
Limitation of refrigerant		7.95kg See page 76.					
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 unbalance	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.
- 17) Location with receiving heat radiation from another heat source.
- Note 2. If ambient temperature and humidity exceed the above values, add polyurethane foam insulation (10mm or thicker) on the outer plate of indoor unit.

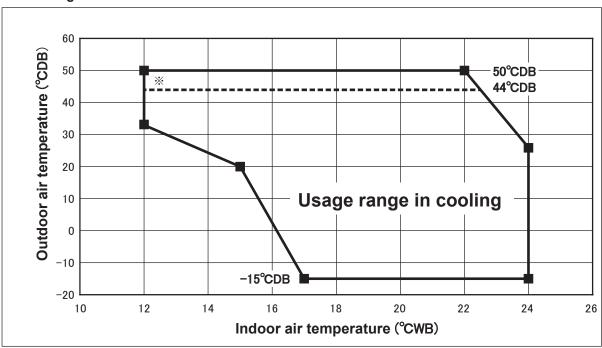
Both gas and liquid pipes need to be coverd with 20mm or thicker heat insulation materials at the place where humidity exceeds 70%.

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

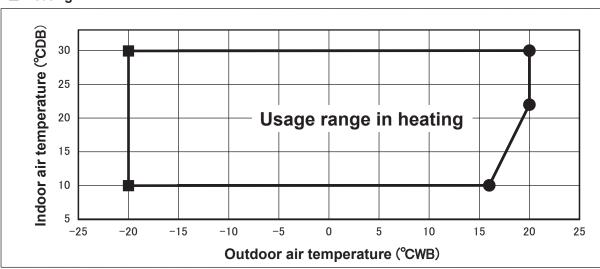
Regarding outline of a snow hood, refer to our technical maunal.

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.

*Strict installation restrictions apply when outdoor temperature exceeds 44°C.

For details, refer to chapter 1.10.4 Installation of outdoor unit, 1. HAULAGE AND INSTALLATION, 5) Installation space.

Limitation on unit and piping installation - single,twin,triple,W-twin.

- Check the following points against the specification of the indoor unit and the installation site.
 Observe the following restrictions regarding unit installation and use. Improper installation can cause compressor failure or degradation of performance.
 The total liquid piping length of the system is restricted by the equivalent length (Le).
 The equivalent length (Le) is a virtual length corresponding to an equivalent length of liquid piping using a diameter of 12.7mm.

● FDC200V

Restricti	Dimensional restrictions	Marks appearing in the drawing								
		Single	Twin	Triple (A)	Triple(B)(2)	W-twin				
Total equivalent length (Liquid	≦ 70 m ≤ 40m (L: φ 9.52)	Le	Le	Le	Le	Le				
One-way pipe length of refrigerant piping			L	L+L1 L+L2	L+L1, L+L2, L+L3	L+L1 ⁽¹⁾	L+La+L1, L+La+L2 L+Lb+L3, L+Lb+L4			
Main pipe length	Liquid piping Gas piping	\leq 70m \leq 35m (L : ϕ 22.22) 35–70m (L : ϕ 25.4 or ϕ 28.58)	L	L	L	L	L			
One way pipe length from the point to the second branching		≦ 5m	-	-	-	La	-			
One-way pipe length after the	first branching point	≦ 30m	-	L1,L2	L1,L2,L3	L1	La+L1, La+L2 La+L3, La+L4			
One-way pipe length from the indoor units through the secon		≦ 27m	-	-	-	La+L2,La+L3	-			
One-way pipe length difference from the first branching point to the indoor	Twin Type, W-Twin	≦ 10m	-	IL1-L2I	-	-	(L1+La)-(L3+Lb) , (L1+La)-(L4+Lb) , (L2+La)-(L3+Lb) , (L2+La)-(L4+Lb) , L1-L2 , L3-L4			
units	Triple Type(A)	≦ 3m	-	-	IL1-L2I,IL2- L3I,IL3-L1I	-	-			
	Triple Type(B)	3m – 10m	-	-	-	L1-(La+L2), L1-(La+L3)(1)	-			
One-way pipe length different branching point to the indoor		≦ 10m	-	-	-	IL2-L3I	L1-L2 , L3-L4			
Total pipe length after the sec	ond branching point	≦ 15m	-	-	-	-	L1+L2,L3+L4			
Elevation difference between indoor and outdoor units When the outdoor unit is positioned higher When the outdoor unit is positioned lower		≤ 50m ⁽³⁾ ≤ 15m	Н	Н	Н	Н	н			
Elevation difference between	ndoor units	≦ 0.5m	-	h	h1,h2,h3	h1,h2,h3	h1,h2,h3,h4,h5,h6			

[Formula to calculate equivalent length (Le)]

In case of new piping	Le = (length of ϕ 12.7) + 0.52 × (length of ϕ 9.52)
In case of existing piping	Le = (length of ϕ 12.7) + 0.52 × (length of ϕ 9.52) + 1.56 × (length of ϕ 15.88)

ACAUTION

- ullet For model 200V, always use ϕ 12.7mm liquid main pipe when one-way piping length exceeds 40m and ϕ 9.52mm if it is 40m or less. If ϕ 9.52mm liquid pipe is used in an installation having one-way pipe longer than 40m, it may cause degradation of performance and/or water drops in the indoor unit.
- ullet Always use ϕ 25.4mm or ϕ 28.58mm gas main pipe "L" when the length of "L" exceeds 35m.

If ϕ 22.22mm gas pipe is used in an installation having one-way pipe longer than 35m, it may cause degradation of performance and/or water drops in the indoor unit.

Notes:

- (1) Install the indoor units so that L + L1 becomes the longest one-way pipe.
- (2) Connect the indoor unit with the maximum capacity to L1.
- (3) If the outdoor temperature is above 43°C, the dimensional restriction is \leq 30m.

Limitation on unit and piping installation - single,twin,W-twin.

- Check the following points against the specification of the indoor unit and the installation site.
 Observe the following restrictions regarding unit installation and use. Improper installation can cause compressor failure or degradation of performance.
 The total liquid piping length of the system is restricted by the equivalent length (Le).
 The equivalent length (Le) is a virtual length corresponding to an equivalent length of liquid piping using a diameter of 12.7mm.

● FDC250/280V

Restrict	Dimensional restrictions		Marks appe	aring in the dra	awing	
Restrict	Dimensional restrictions	Single	Twin	Triple	W-twin	
Total equivalent length(Liquid	piping)	[250V] ≦ 70m [280V] ≦ 60m	Le	Le		Le
One-way pipe length of refrig	erant piping	[250V] ≦ 70m [280V] ≦ 60m	L	L+L1 L+L2		L+La+L1, L+La+L2 L+Lb+L3, L+Lb+L4
	Liquid piping	[250V] ≦ 70m [280V] ≦ 60m				
Main pipe length	Gas piping	\leq 35m (L : ϕ 22.22) [250V] 35-70m [280V] 35-60m (L : ϕ 25.4 or ϕ 28.58)	L	L		L
One-way pipe length after the	first branching point	≦ 30m	-	L1,L2		La+L1, La+L2 La+L3, La+L4
One-way pipe length differen branching point to the indoor		≦ 10m	-	L1-L2	-	(L1+La)-(L3+Lb) , (L1+La)-(L4+Lb) , (L2+La)-(L3+Lb) , (L2+La)-(L4+Lb) , L1-L2 , L3-L4
One-way pipe length differen branching point to the indoor		≦ 10m				L1-L2 , L3-L4
Total pipe length after the sec	ond branching point	≦ 15m	-	-		L1+L2,L3+L4
When the outdoor unit is positioned higher		$\leq 50 \text{m}^{(3)}$	Н	н		н
indoor and outdoor units	When the outdoor unit is positioned lower	≦ 15m	- 11			
Elevation difference between	indoor units	≦ 0.5m	-	h		h1,h2,h3,h4,h5,h6

[Formula to calculate equivalent length (Le)]

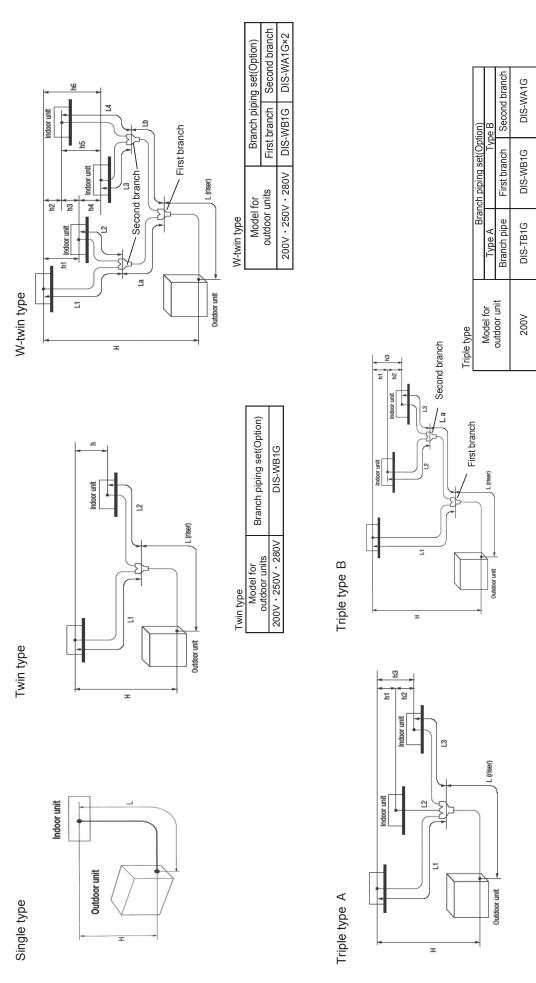
In case of new piping	Le = (length of ϕ 12.7) + 0.52 × (length of ϕ 9.52)
In case of existing piping	Le = (length of ϕ 12.7) + 0.52 × (length of ϕ 9.52) + 1.56 × (length of ϕ 15.88)



ullet Always use ϕ 25.4mm or ϕ 28.58mm gas main pipe "L" when the length of "L" exceeds 35m. If ϕ 22.22mm gas pipe is used in an installation having one-way pipe longer than 35m, it may cause degradation of performance and/or water drops in the indoor unit.

Notes:

(1) If the outdoor temperature is above 43°C, the dimensional restriction is \leqq 30m.



(1) A riser pipe must be part of the main.
A branching pipe set should be installed horizontally at a point as close to an indoor unit as possible.

Limitation of refrigerant and additional refrigerant charge

(1) Determine if the factory refrigerant charge of the outdoor unit is sufficient to cover the total liquid piping length.

Item Capacity	Factory refrigerant charge (kg)	Liquid piping length covered with factory refrigerant charge (m)
200V	4.3	
250V	5.1	30
280V	5.6	

(2) If the factory charge does not cover the total liquid piping length, an addition of refrigerant is necessary.

Step1 - Calculate the total equivalent length, Le:

[Formula to calculate equivalent length (Le)]

In case of new piping	Le = (length of ϕ 12.7) + 0.52 × (length of ϕ 9.52)
In case of existing piping	Le = (length of ϕ 12.7) + 0.52 × (length of ϕ 9.52) + 1.56 × (length of ϕ 15.88)

Step2 - Determine from the table below the additional refrigerant charge:

Model FDC200 *	Equivalent length (Le)										
MIOUEI FDG200	≦30 m	30 <le≦40 m<="" td=""><td>40<le≦50 m<="" td=""><td>50<le≦60 m<="" td=""><td>60<le≦70 m<="" td=""></le≦70></td></le≦60></td></le≦50></td></le≦40>	40 <le≦50 m<="" td=""><td>50<le≦60 m<="" td=""><td>60<le≦70 m<="" td=""></le≦70></td></le≦60></td></le≦50>	50 <le≦60 m<="" td=""><td>60<le≦70 m<="" td=""></le≦70></td></le≦60>	60 <le≦70 m<="" td=""></le≦70>						
Additional refrigerant charge (kg)	0kg	0.20kg	2.11kg	2.98kg	3.65kg						
Model FDC250	Equivalent length (Le)										
Middel FDG250	≦30 m	30 <le≦40 m<="" td=""><td>40<le≦50 m<="" td=""><td>50<le≦60 m<="" td=""><td>60<le≦70 m<="" td=""></le≦70></td></le≦60></td></le≦50></td></le≦40>	40 <le≦50 m<="" td=""><td>50<le≦60 m<="" td=""><td>60<le≦70 m<="" td=""></le≦70></td></le≦60></td></le≦50>	50 <le≦60 m<="" td=""><td>60<le≦70 m<="" td=""></le≦70></td></le≦60>	60 <le≦70 m<="" td=""></le≦70>						
Additional refrigerant charge (kg)	0kg	kg 0.44kg 1.31kg 2.18kg									
Model FDC280	Equivalent length (Le)										
MOUEI FDG200	≦30 m	30 <le≦40 m<="" td=""><td>40<le≦50 m<="" td=""><td>50<le≦55 m<="" td=""><td>55<le≦60 m<="" td=""></le≦60></td></le≦55></td></le≦50></td></le≦40>	40 <le≦50 m<="" td=""><td>50<le≦55 m<="" td=""><td>55<le≦60 m<="" td=""></le≦60></td></le≦55></td></le≦50>	50 <le≦55 m<="" td=""><td>55<le≦60 m<="" td=""></le≦60></td></le≦55>	55 <le≦60 m<="" td=""></le≦60>						
Additional refrigerant charge (kg)	0kg	0.44kg	1.31kg	1.96kg	2.35kg						

^{*}For FDC200VSA-W only, even if the total liquid piping length > 30m, there may be cases where additional refrigerant charge is not required.

- It is not necessary to remove or add refrigerant charge even if the total liquid piping length is less than 3 m.
 If an existing pipe system is used, the refrigerant charge will vary according to the liquid pipe size. For further information, see "6. UTILIZATION OF EXISTING PIPING" in chapter 1.10.4 Installation of outdoor unit.

Examples:

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FDC250VSA-W - W-twin system with L(\phi12.7) = 35 m; La(\phi9.52) = Lb(\phi9.52) = 5 m; L1(\phi9.52) = L2(\phi9.52) = L3(\phi9.52) = L4(\phi9.52) = 3 m Total liquid piping length = 57 m, additional refrigerant charge is necessary Step 1: Le = 35 + 0.52 x (5 + 5 + 3 + 3 + 3 + 3) = 46.44 m Step 2: additional refrigerant charge = 1.31 kg
```

FDC200VSA-W - Twin system with L(ϕ 9.52) = 30 m; L1(ϕ 9.52) = L2(ϕ 9.52) = 6 m Total liquid piping length = 42 m, additional refrigerant charge might be necessary Step 1: Le = 0 + 0.52 x (30 + 6 + 6) = 21.84 m Step 2: additional refrigerant charge = 0 kg

FDC280VSA-W - Single system with L($\!\phi$ 12.7) = 25 m Total liquid piping length = 25 m, no additional refrigerant charge needed

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 cassette-4 way type (FDT)
 - (a) Twin type

Model FDT200VSAWPVH Indoor unit FDT100VH (2 uints) Outdoor unit FDC200VSA-W

Cooling r	node															(kW)	Н	leating	mode	: HC
Outdoor							Ind	oor air t	empera	ture							Γ	Outdo	or air	
air	18°0	CDB	21°0	CDB	23°0	DB	26°0	CDB	27°0	CDB	28°0	DB	31°0	CDB	33°0	DB		tempe	rature	
temperature	12°0	CWB	14°C	CWB	16°0	CWB	18°0	CWB	19℃	CWB	20°C	CWB	22°0	CWB	24°C	WB	Ī	°CDB	°CWB	16
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	ſ	-19.8	-20	8.9
11	i		i		20.38	16.21	21.53	17.54	22.10	17.27	22.81	17.02	24.23	17.98	25.65	17.38		-17.7	-18	9.6
13	i		Î		20.48	16.24	21.65	17.58	22.24	17.31	22.93	17.05	24.31	18.00	25.68	17.39		-15.7	-16	10.3
15	İ		ĺ		20.57	16.27	21.78	17.61	22.38	17.35	23.05	17.08	24.38	18.01	25.72	17.39		-13.5	-14	11.1
17	İ		ĺ		20.59	16.27	21.86	17.64	22.50	17.38	23.15	17.11	24.45	18.03	25.76	17.40		-11.5	-12	11.9
19					20.67	16.31	21.94	17.66	22.61	17.41	23.25	17.13	24.52	18.04	25.80	17.41		-9.5	-10	12.7
21					20.35	16.20	21.58	17.56	22.22	17.31	22.86	17.03	24.13	17.96	25.40	17.34	Г	-7.5	-8	13.5
23	i		ĺ		20.04	16.09	21.22	17.45	21.84	17.20	22.47	16.94	23.74	17.87	25.01	17.26	Г	-5.5	-6	13.7
25	Î		18.76	16.77	19.88	16.05	21.04	17.40	21.64	17.15	22.28	16.88	23.54	17.83	24.81	17.23		-3.0	-4	13.9
27			18.61	16.73	19.72	16.00	20.86	17.36	21.45	17.09	22.37	16.92	23.30	17.78				-1.0	-2	14.2
29			18.31	16.61	19.39	15.89	20.51	17.25	21.09	17.00	22.03	16.83	22.97	17.72				1.0	0	14.4
31			18.01	16.51	19.07	15.79	20.16	17.16	20.72	16.91	21.69	16.75	22.65	17.65				2.0	1	14.5
33	16.68	15.19	17.45	16.32	18.74	15.68	19.81	17.06	20.36	16.81	21.35	16.66	22.33	17.58				3.0	2	16.1
35	16.56	15.15	17.23	16.24	18.41	15.59	19.46	16.97	20.00	16.73	21.00	16.58	22.01	17.52				5.0	4	19.5
37	16.34	15.06	16.98	16.15	18.04	15.47	19.00	16.84	19.54	16.61	20.50	16.46	21.46	17.40				7.0	6	22.8
39	16.12	14.98	16.73	16.06	17.67	15.36	18.54	16.72	19.09	16.49	20.00	16.34	20.92	17.29				9.0	8	23.9
41	15.90	14.89	16.47	15.98	17.29	15.24	18.08	16.59	18.63	16.38	19.50	16.22	20.37	17.19				11.5	10	25.0
43	15.68	14.81	16.22	15.89	16.92	15.13	17.62	16.47	18.17	16.26	19.00	16.11	19.83	17.07				13.5	12	25.9
46	15.34	14.68	15.84	15.53	16.36	14.96	16.93	16.29	17.49	16.09	18.25	15.94	19.01	16.92				15.5	14	26.8
50	11.84	11.60	12.40	12.15	13.04	12.78	13.34	13.07	13.56	13.28	13.77	13.49	13.98	13.69			П	16.5	16	27.2

Heating mode : HC (kW												
Outdo	or air		Indoor air temperature									
tempe	rature		°CDB									
°CDB	°CWB	16	18	20	22	24						
-19.8	-20	8.95	8.85	8.76	8.65	8.55						
-17.7	-18	9.67	9.56	9.46	9.34	9.23						
-15.7	-16	10.38	10.27	10.16	10.04	9.92						
-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 13.60	13.24						
-3.0	-4	13.99	13.86	13.73		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						

PJF000Z588 <u>⚠</u>

Model FDT250VSAWPVH

Indoor unit FDT125VH (2 units)

Outdoor unit FDC250VSA-W

Cooling mode		(kW) Heating mode:HC	(kW)

13	0009																(,	- : :							(,
Empirellum 12°CWB	Outdoor							Ind	oor air t	emperat	ure							Γ	Outdo	or air		Indoor	air temp	erature	
Page 14 Care * Fig. *** Fi	air	18°C	DB	21°0	DB	23°C	DB	26°0	DB	27°0	DB	28°0	DB	31°0	DB	33°0	DB	ı	tempe	rature			°CDB		
11 25.67 20.35 27.17 21.86 27.92 21.69 28.75 21.43 30.42 22.66 32.08 22.24 -17.7 -18 12.14 12.00 11.87 11.53 11.59 13 25.70 20.36 27.20 21.88 27.95 21.70 28.78 21.54 30.42 22.67 32.11 22.55 -15.7 -16 12.92 12.78 12.49 12.35 15 25.72 20.38 27.32 21.89 27.98 21.71 28.81 21.55 30.48 22.68 32.15 22.26 -13.5 -14 13.71 13.55 13.41 13.25 13.10 19 4 25.84 20.43 27.43 21.97 28.26 21.62 29.06 21.65 30.66 22.74 32.25 22.29 -9.5 -10 15.09 14.92 14.00 14.45 20.24 21.00 22.74 32.25 22.29 -9.5 -10 15.09	temperature	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19°C	WB	20°C	WB	22°0	WB	24°C	WB	Г	°CDB	°CWB	16	18	20	22	24
13	°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	Γ	-19.8	-20	11.35	11.22	11.10	10.97	10.84
15 B 25.72 20.38 27.23 21.89 27.98 21.71 28.81 21.55 30.48 22.68 32.15 22.26 -13.5 -14 13.71 13.55 13.41 13.25 13.10 17 19 25.73 20.38 27.32 21.93 28.11 21.77 28.94 21.59 30.56 22.71 32.20 22.27 -11.5 -12 14.39 14.24 14.08 13.93 13.77 19 25.84 20.43 27.43 21.97 28.26 21.82 29.06 21.65 30.66 22.74 32.25 22.29 -9.5 -10 15.09 14.27 14.60 14.45 23 1 25.05 20.08 26.53 21.61 27.29 21.45 28.08 21.29 29.68 22.41 31.26 21.99 -5.5 -6 16.05 15.89 15.73 15.58 15.42 25 23.45 20.54 24.85 20.00<	11					25.67	20.35	27.17	21.86	27.92	21.69	28.75	21.43	30.42	22.66	32.08	22.24		-17.7	-18	12.14	12.00	11.87	11.73	11.59
17	13					25.70	20.36	27.20	21.88	27.95	21.70	28.78	21.54	30.45	22.67	32.11	22.25	E	-15.7	-16	12.92	12.78	12.64	12.49	12.35
19 25.84 20.43 27.43 21.97 28.26 21.82 29.06 21.65 30.66 22.74 32.25 22.29 -9.5 -10 15.09 14.92 14.77 14.60 14.45 21 21 25.45 20.25 20.88 21.79 27.78 21.64 28.57 21.47 30.17 22.57 31.75 22.14 -7.5 -8 15.77 15.61 15.44 15.28 15.12 23 25.05 20.88 26.30 21.52 27.05 21.35 27.89 21.29 29.68 22.41 31.26 21.99 -5.5 -6 16.05 15.89 15.42 25.89 15.42 20.00 26.30 21.52 27.05 21.35 27.89 21.20 29.43 22.23 31.01 21.92 -1.0 -2 16.59 16.46 16.31 16.17 16.02 15.87 15.72 27.97 21.24 29.13 22.23 -1.0 -2 16.59	15					25.72	20.38	27.23	21.89	27.98	21.71	28.81	21.55	30.48	22.68	32.15	22.26	- 1-	_	-14	13.71	13.55	13.41	13.25	13.10
21 25,45 20,25 26,98 21,79 27,78 21,64 28,57 21,47 30,17 22,57 31,75 22,14 -7,5 -8 15,77 15,61 15,44 15,28 15,12 23						_	_	_					_					-	_						
23 23.45 25.05 20.08 26.53 21.61 27.29 21.45 28.08 21.29 29.68 22.41 31.26 21.99 -5.5 -6 16.05 15.89 15.73 15.58 15.42 25.05 20.05 24.85 20.00 26.30 21.52 27.05 21.35 27.84 21.20 29.43 22.32 31.01 21.92 -3.0 -4 16.32 16.17 16.02 15.87 15.72 25.05 20.05 2	-						_	_	_		_			_										_	
25 23.45 20.54 24.85 20.00 26.30 21.52 27.05 21.35 27.84 21.20 29.43 22.32 31.01 21.92 -3.0 -4 16.32 16.17 16.02 15.87 15.72 27 27 23.26 20.46 24.66 19.92 26.08 21.44 26.81 21.27 27.97 21.24 29.13 22.23 -1.0 -2 16.59 16.46 16.31 16.17 16.02 29 22.89 20.28 24.24 19.74 25.64 21.26 26.35 21.09 27.54 21.08 28.72 22.09 -1.0 -2 16.59 16.46 16.31 16.17 16.02 16.60 16.60 16.61 16.02 16.57 16.00 16.60 16.60 16.61 16.02 15.87 25.20 25.09 20.91 20.93 27.11 20.94 28.31 21.96 20.72 21.82 20.01 17.01 16.87 16.74 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td>_</td> <td></td> <td></td> <td>_</td> <td></td> <td>_</td> <td></td> <td></td> <td>-</td> <td>_</td> <td>_</td> <td>_</td> <td></td> <td></td> <td></td> <td></td>									_	_			_		_			-	_	_	_				
27 23.26 20.46 24.66 19.92 26.08 21.44 26.81 21.27 27.97 21.24 29.13 22.23 -1.0 -2 16.59 16.46 16.31 16.17 16.02 29 22.89 20.28 24.24 19.74 25.64 21.26 26.35 21.09 27.54 21.08 28.72 22.09 1.0 0 16.87 16.74 16.60 16.46 16.32 31 22.51 20.11 23.83 19.57 25.20 21.09 25.91 20.93 27.11 20.94 28.31 21.96 2.0 1 17.01 16.87 16.74 16.60 16.46 16.32 33 20.84 18.57 21.81 19.79 23.43 19.40 24.76 20.92 25.46 20.76 26.69 20.78 27.92 21.82 3.0 2 19.33 19.37 23.74 23.50 20.93 29.41 21.70 5.0 4 29.37																		- 1-		_					
29 22.89 22.89 22.84 19.74 25.64 21.26 26.35 21.09 27.54 21.08 28.72 22.09 1.0 0 16.87 16.74 16.60 16.46 16.32 31 22.51 20.11 23.83 19.57 25.20 21.09 25.91 20.93 27.11 20.94 28.31 21.96 20.0 1 17.01 16.87 16.74 16.60 16.48 16.32 33 20.84 18.57 21.81 19.79 23.43 19.40 24.76 20.92 25.46 20.76 26.69 20.78 27.92 21.82 3.0 2 19.33 19.16 19.00 18.87 16.74 16.60 16.47 16.60 16.47 16.60 16.47 16.60 16.47 16.60 16.47 16.60 16.47 16.60 16.47 16.60 16.47 16.60 16.47 16.60 16.47 16.60 16.47 16.60 16.47 16.60									_				_		_	31.01	21.92	- 1-						_	
31 22.51 20.11 23.83 19.57 25.20 21.09 25.91 20.93 27.11 20.94 28.31 21.96 2.0 1 17.01 16.87 16.74 16.60 16.47 33 20.84 18.57 21.81 19.79 23.43 19.40 24.76 20.92 25.46 20.76 26.69 20.78 27.92 21.82 3.0 2 19.33 19.16 19.00 18.85 18.71 35 20.70 18.51 21.54 19.68 23.02 19.23 24.32 20.75 25.00 20.59 26.26 20.63 27.51 21.70 5.0 4 23.97 23.74 23.50 23.33 23.17 37 20.43 18.38 21.27 19.55 22.69 19.09 23.90 20.58 24.54 20.42 25.69 20.43 26.83 21.47 7.0 6 28.61 28.90 27.81 27.64 39 20.32 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td>_</td> <td>_</td> <td>_</td> <td></td> <td>⊩</td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>												_		_	_	_		⊩	_						
33 20.84 18.57 21.81 19.79 23.43 19.40 24.76 20.92 25.46 20.76 26.69 20.78 27.92 21.82 3.0 2 19.33 19.16 19.00 18.85 18.71 35 20.70 18.51 21.54 19.68 23.02 19.23 24.32 20.75 25.00 20.59 26.26 20.63 27.51 21.70 5.0 4 23.97 23.74 23.50 23.33 23.17 37 20.43 18.38 21.27 19.55 22.69 19.09 23.90 20.58 24.54 20.42 25.69 20.43 26.83 21.47 7.0 6 28.61 28.30 28.00 27.81 27.64 39 20.32 18.32 21.18 19.51 22.55 19.03 23.67 20.50 24.27 20.32 25.31 20.29 26.35 21.31 9.0 8 29.99 29.73 29.47 29.27 29.07 43 19.81 18.07 20.68 19.29 21.93 18.77 22.83 20.18 23.34 19.89 24.16 19.89 24.96 20.86 13.5 12 32.44 32.24 32.03 33.13 32.91 32.68 46 17.88 17.16 18.45 18.08 19.05 17.60 19.72 19.01 20.36 18.91 21.26 18.89 22.15 19.98 15.5 14 33.52 33.33 33.13 32.91 32.68	-						_	_	-				-		-	_	\vdash	ŀ	$\overline{}$	0			-	-	
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37 20.43 18.38 21.27 19.55 22.69 19.09 23.90 20.58 24.54 20.42 25.69 20.43 26.83 21.47 7.0 6 28.61 28.30 28.00 27.81 27.64 39 20.32 18.32 21.18 19.51 22.55 19.03 23.67 20.50 24.27 20.32 25.31 20.29 26.35 21.31 9.0 8 29.99 29.73 29.47 29.27 29.07 41 20.93 18.61 21.43 19.63 22.36 18.96 23.38 20.39 23.94 20.20 24.88 20.14 25.80 21.14 11.5 10 31.36 31.15 30.50 30.50 30.50 43 28.94 20.20 24.88 20.14 25.80 21.14 11.5 10 31.36 31.15 30.59 30.73 30.50 43 18.91 24.96 20.86 13.5 12 32.44 32.24				_				_	-						_		\vdash	Н	\rightarrow	4					
39 20.32 18.32 21.18 19.51 22.55 19.03 23.67 20.50 24.27 20.32 25.31 20.29 26.35 21.31 9.0 8 29.99 29.73 29.47 29.27 29.07 41 20.93 18.61 21.43 19.63 22.36 18.96 23.38 20.39 23.94 20.20 24.88 20.14 25.80 21.14 11.5 10 31.36 31.15 30.95 30.73 30.50 43 19.81 18.07 20.68 19.29 21.93 18.77 22.83 20.18 23.34 19.98 24.16 19.89 24.96 20.86 13.5 12 32.44 32.24 32.03 31.82 31.59 46 17.88 17.16 18.45 18.08 19.05 17.60 19.72 19.01 20.36 18.91 21.26 18.89 22.15 19.98 15.5 14 33.52 33.33 33.13 32.91 32.68						_							_					Н		6				_	
41 20.93 18.61 21.43 19.63 22.36 18.96 23.38 20.39 23.94 20.20 24.88 20.14 25.80 21.14 11.5 10 31.36 31.15 30.95 30.73 30.50 43 19.81 18.07 20.68 19.29 21.93 18.77 22.83 20.18 23.34 19.98 24.16 19.89 24.96 20.86 13.5 12 32.44 32.24 32.03 31.82 31.59 46 17.88 17.16 18.45 18.08 19.05 17.60 19.72 19.01 20.36 18.91 21.26 18.89 22.15 19.98 15.5 14 33.52 33.33 33.13 32.91 32.68																		Н	_	8					_
43 19.81 18.07 20.68 19.29 21.92 18.77 22.83 20.18 23.34 19.98 24.16 19.89 24.96 20.86 13.5 12 32.44 32.24 32.03 31.82 31.59 46 17.88 17.16 18.45 18.08 19.05 17.60 19.72 19.01 20.36 18.91 21.26 18.89 22.15 19.98 15.5 14 33.52 33.33 33.13 32.91 32.68				_		_	_	_	_	_	-						\vdash	Н					_	_	
46 17.88 17.16 18.45 18.08 19.05 17.60 19.72 19.01 20.36 18.91 21.26 18.89 22.15 19.98 15.5 14 33.52 33.33 33.13 32.91 32.68		_					_		-				_					-	_						
	-		_				_	_	-					_					_	_	_		_		
			11.54	12.33	12.08	12.97	12.71	_	-	_	-	13.69	-					-	16.5				_	33.44	

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)

PJF000Z588 🛕

Model FDT280VSAWPVH

Indoor unit FDT140VH (2 units)

Outdoor unit FDC280VSA-W

Cooling m	node															(kW)) [Heating	g mode:l	H
Outdoor							Ind	loor air t	emperat	ture							П	Outdo	oor air	Γ
air	18°	CDB	21°0	CDB	23°	CDB	26°0	CDB	27°	CDB	28°0	CDB	31°0	CDB	33°0	CDB	П	tempe	rature	Γ
temperature	12°0	CWB	14°0	CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°0	CWB	П	°CDB	°CWB	Γ
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	П	-19.8	-20	1
11					27.72	21.98	29.34	23.61	30.15	23.42	31.05	23.14	32.85	24.47	34.65	24.02	П	-17.7	-18	1
13					27.75	21.99	29.37	23.63	30.18	23.43	31.08	23.27	32.88	24.48	34.68	24.03	П	-15.7	-16	Ľ
15					27.78	22.01	29.41	23.64	30.22	23.45	31.12	23.28	32.92	24.49	34.72	24.04	П	-13.5	-14	1
17					27.79		29.51	23.68	30.36	23.51	31.25	23.32	33.01	24.53	34.77	24.05	П	-11.5	-12	1
19					27.91	22.06	29.62	23.73	30.52		31.39	23.38	33.11	24.56	34.83	24.08	П	-9.5	-10	1
21					27.48		29.14	23.54	30.00		30.86	23.19	32.58	24.38	34.29	23.91	П	-7.5	-8	L
23					27.06	21.69	28.65	23.34	29.48	23.16	30.33	23.00	32.05	24.20	33.76	23.75	IJ	-5.5	-6	1
25			25.32	22.19	26.84	21.60	28.41	23.24	29.22	23.06	30.07	22.89	31.78	24.11	33.49	23.67	П	-3.0	-4	1
27	<u> </u>		25.12	22.10	26.63	_	28.17	23.15	28.96	22.97	30.21	22.94	31.46	24.01	Щ		П	-1.0	-2	1
29			24.72	21.90	26.18	_	27.69	22.96	28.46	22.78	29.75	22.77	31.02	23.86	Щ		П	1.0	0	1
31	<u> </u>		24.31	21.72	25.74	21.14	27.21	22.78	27.98	22.60	29.28	22.61	30.58	23.72	Ь—		П	2.0	1	1
33	22.51	20.06	23.56	21.38	25.30	20.95	26.74	22.59	27.50	22.42	28.82	22.44	30.15		Щ		П	3.0	2	2
35	22.35	19.99	23.27	21.25	24.86	_	26.27	22.41	27.00	22.24	28.36	22.28	29.71	23.43	Щ		П	5.0	4	2
37	22.06	19.85	22.97	21.12	24.50		25.81	22.23	26.51	22.05	27.74	22.06	28.98		Щ		П	7.0	6	3
39	21.95	19.79	22.87	21.07	24.36		25.56	22.14	26.21	21.95	27.34	21.92	28.46	23.02	Щ		П	9.0	8	3
41	22.60	20.10	23.14	21.20	24.15		25.25	22.02	25.85		26.87	21.75	27.87	22.83	Щ		П	11.5	10	13
43	21.40	19.52	22.33	20.84	23.68	20.27	24.66	21.79	25.21	21.58	26.09	21.48	26.96	22.53	Ь—		П	13.5	12	3
46	10 21	10.52	10.02	10.52	20 50	10.01	21 20	20.52	21 00	20 42	22.06	20 40	22 02	21 50	4	1		15.5	1 1/1	1 3

/)		Heating	mode:	HC				(kW)
	П	Outdo	or air		Indoor	air temp	erature	
1	Ш	tempe	rature			°CDB		
Ī	Ш	°CDB	°CWB	16	18	20	22	24
1	П	-19.8	-20	13.25	13.10	12.96	12.81	12.66
٦	ı	-17.7	-18	13.73	13.57	13.43	13.27	13.12
	П	-15.7	-16	14.21	14.05	13.90	13.74	13.58
]	П	-13.5	-14	14.69	14.52	14.37	14.20	14.03
	Ш	-11.5	-12	15.42	15.26	15.09	14.92	14.76
]	П	-9.5	-10	16.17	15.99	15.82	15.64	15.48
	П	-7.5	-8	16.90	16.72	16.54	16.37	16.20
]	П	-5.5	-6	17.20	17.02	16.86	16.69	16.52
	Ш	-3.0	-4	17.49	17.32	17.17	17.00	16.84
	П	-1.0	-2	17.78	17.63	17.48	17.32	17.17
	П	1.0	0	18.08	17.93	17.79	17.63	17.49
	П	2.0	1	18.22	18.08	17.93	17.79	17.64
	П	3.0	2	20.71	20.53	20.36	20.20	20.04
	П	5.0	4	25.68	25.43	25.18	25.00	24.82
	П	7.0	6	30.66	30.32	30.00	29.80	29.61
	П	9.0	8	32.13	31.86	31.58	31.36	31.14
	П	11.5	10	33.60	33.38	33.16	32.92	32.68
	П	13.5	12	34.76	34.54	34.32	34.09	33.84
	П	15.5	14	35.91	35.71	35.50	35.26	35.01
	П	16.5	16	36.50	36.29	36.08	35.83	35.59

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(kW)

(b) Triple type

Model FDT200VSAWTVH Indoor unit FDT71VH (3 uints)

Outdoor unit FDC200VSA-W

Cooling n	node															(kW)	Heati	ng mode	: HC
Outdoor							Inde	oor air t	empera	ture							Out	door air	
air	18°0	DB	21°0	DB	23°0	DB	26°0	DB	27°0	DB	28°0	DB	31°0	DB	33°0	DB	tem	perature	
temperature	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19°C	WB	20°0	CWB	22°C	WB	24°0	CWB	°CD	3 °CWB	16
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.	3 -20	8.95
11					20.38	17.82	21.53	19.42	22.10	19.16	22.81	18.93	24.23	20.12	25.65	19.55	-17.	7 -18	9.67
13					20.48	17.85	21.65	19.45	22.24	19.20	22.93	18.96	24.31	20.14	25.68	19.55	-15.	7 -16	10.38
15					20.57	17.88	21.78	19.49	22.38	19.23	23.05	18.98	24.38	20.15	25.72	19.56	-13.	5 -14	11.10
17					20.59	17.88	21.86	19.52	22.50	19.26	23.15	19.01	24.45	20.17	25.76	19.57	-11.	5 -12	11.93
19					20.67	17.91	21.94	19.54	22.61	19.29	23.25	19.03	24.52	20.18	25.80	19.57	-9.5	-10	12.75
21					20.35	17.81	21.58	19.43	22.22	19.19	22.86	18.94	24.13	20.09	25.40	19.49	-7.5	-8	13.57
23					20.04	17.71	21.22	19.34	21.84	19.09	22.47	18.84	23.74	20.01	25.01	19.43	-5.5	-6	13.78
25			18.76	18.38	19.88	17.65	21.04	19.28	21.64	19.04	22.28	18.79	23.54	19.97	24.81	19.39	-3.0	-4	13.99
27			18.61	18.24	19.72	17.61	20.86	19.23	21.45	18.99	22.37	18.81	23.30	19.92			-1.0	-2	14.20
29			18.31	17.95	19.39	17.51	20.51	19.14	21.09	18.89	22.03	18.73	22.97	19.85			1.0	0	14.41
31			18.01	17.65	19.07	17.40	20.16	19.03	20.72	18.80	21.69	18.64	22.65	19.78			2.0	1	14.51
33	16.68	16.35	17.45	17.11	18.74	17.29	19.81	18.94	20.36	18.71	21.35	18.56	22.33	19.72			3.0	2	16.19
35	16.56	16.23	17.23	16.89	18.41	17.20	19.46	18.84	20.00	18.61	21.00	18.48	22.01	19.64			5.0	4	19.54
37	16.34	16.01	16.98	16.64	18.04	17.08	19.00	18.62	19.54	18.49	20.50	18.36	21.46	19.53			7.0	6	22.89
39	16.12	15.79	16.73	16.39	17.67	16.97	18.54	18.17	19.09	18.38	20.00	18.24	20.92	19.42			9.0	8	23.99
41	15.90	15.58	16.47	16.15	17.29	16.85	18.08	17.72	18.63	18.25	19.50	18.12	20.37	19.31			11.5	10	25.09
43	15.68	15.36	16.22	15.89	16.92	16.58	17.62	17.27	18.17	17.81	19.00	18.00	19.83	19.20			13.	12	25.95
46	15.34	15.04	15.84	15.53	16.36	16.03	16.93	16.59	17.49	17.14	18.25	17.82	19.01	18.63			15.		26.82
50	11.84	11.60	12.40	12.15	13.04	12.78	13.34	13.07	13.56	13.28	13.77	13.49	13.98	13.69			16.	16	27.25

Outdo	or air		Indoor	air temp	erature	
tempe	rature			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	8.95	8.85	8.76	8.65	8.55
-17.7	-18	9.67	9.56	9.46	9.34	9.23
-15.7	-16	10.38	10.27	10.16	10.04	9.92
-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

Notes(1) These data show average status.

(1) I nese 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)

PJF000Z588

(c) Double twin type

Model FDT200VSAWDVH Indoor unit FDT50VH (4 uints) Outdoor unit FDC200VSA-W

Cooling n	node															(kW
Outdoor							Inde	oor air t	empera	ture						
air	18°0	DB	21°0	DB	23°0	DB	26°0	DB	27°0	CDB	28°0	DB	31°0	DB	33°0	DB
temperature	12°C	WB	14°C	WB	16°C	WB	18°C	CWB	19°C	CWB	20°C	WB	22°C	CWB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					20.38	17.46	21.53	19.06	22.10	18.75	22.81	18.45	24.23	19.61	25.65	18.9 ⁻
13					20.48	17.49	21.65	19.09	22.24	18.78	22.93	18.48	24.31	19.62	25.68	18.92
15					20.57	17.52	21.78	19.13	22.38	18.81	23.05	18.51	24.38	19.63	25.72	18.92
17					20.59	17.53	21.86	19.15	22.50	18.84	23.15	18.53	24.45	19.64	25.76	18.93
19					20.67	17.55	21.94	19.17	22.61	18.86	23.25	18.55	24.52		25.80	18.9
21					20.35	17.46	21.58	19.07	22.22	18.78	22.86	18.46	24.13	19.59	25.40	18.8
23					20.04	17.37	21.22	18.99	21.84	18.69	22.47	18.39	23.74	19.53	25.01	18.8
25			18.76	18.19	19.88	17.33	21.04	18.95	21.64	18.65	22.28	18.35	23.54	19.49	24.81	18.8
27			18.61	18.14	19.72	17.28	20.86	18.91	21.45	18.61	22.37	18.37	23.30	19.45		
29			18.31	17.95	19.39	17.20	20.51	18.82	21.09	18.53	22.03	18.29	22.97	19.40		
31			18.01	17.65	19.07	17.11	20.16	18.75	20.72	18.45	21.69	18.23	22.65	19.35		
33	16.68	16.35	17.45	17.11	18.74	17.02	19.81	18.66	20.36	18.38	21.35	18.17	22.33	19.29		
35	16.56	16.23	17.23	16.89	18.41	16.93	19.46	18.58	20.00	18.29	21.00	18.09	22.01	19.24		
37	16.34	16.01	16.98	16.64	18.04	16.83	19.00	18.47	19.54	18.20	20.50	18.00	21.46	19.16		
39	16.12	15.79	16.73	16.39	17.67	16.74	18.54	18.17	19.09	18.11	20.00	17.91	20.92	19.07		
41	15.90	15.58	16.47	16.15	17.29	16.63	18.08	17.72	18.63	18.01	19.50	17.81	20.37	18.99		
43	15.68	15.36	16.22	15.89	16.92	16.54	17.62	17.27	18.17	17.81	19.00	17.72	19.83	18.91		
46	15.34	15.04	15.84	15.53	16.36	16.03	16.93	16.59	17.49	17.14	18.25	17.58	19.01	18.63		
50	11 84	11 60	12 40	12 15	13 04	12 78	13 34	13 07	13 56	13 28	13 77	13 49	13 98	13 69		

W))	Heating	g mode	: HC				(kW)
	П	Outdo	oor air		Indoor	air temp	erature	
	П	tempe	rature			°CDB		
		°CDB	°CWB	16	18	20	22	24
0		-19.8	-20	8.95	8.85	8.76	8.65	8.55
11	П	-17.7	-18	9.67	9.56	9.46	9.34	9.23
2	П	-15.7	-16	10.38	10.27	10.16	10.04	9.92
2	П	-13.5	-14	11.10	10.98	10.86	10.73	10.60
3	П	-11.5	-12	11.93	11.80	11.67	11.54	11.40
3	П	-9.5	-10	12.75	12.61	12.48	12.34	12.20
7	П	-7.5	-8	13.57	13.43	13.29	13.14	13.00
2	П	-5.5	-6	13.78	13.64	13.51	13.37	13.24
0	П	-3.0	-4	13.99	13.86	13.73	13.60	13.47
	П	-1.0	-2	14.20	14.08	13.95	13.83	13.71
	П	1.0	0	14.41	14.29	14.18	14.06	13.94
	П	2.0	1	14.51	14.40	14.29	14.17	14.06
	П	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
	П	7.0	6	22.89	22.64	22.40	22.25	22.11
	П	9.0	8	23.99	23.78	23.58	23.42	23.25
	П	11.5	10	25.09	24.92	24.75	24.58	24.40
	П	13.5	12	25.95	25.79	25.63	25.45	25.27
	П	15.5	14	26.82	26.66	26.50	26.32	26.14
	П	16.5	16	27.25	27.10	26.94	26.76	26.57

PJF000Z588

Model FDT250VSAWDVH

Cooling mode

Indoor unit FDT60VH (4 Units)

Outdoor unit FDC250VSA-W

(kW)	Heating mode:H	C				(kW)
\Box	Outdoor air		Indoor	air temp	erature	

							la d										1 1		
Outdoor							ind	oor air t	emperat	ure							IJ	Outdo	
air	18°0	CDB	21°0	DB	23°0	CDB	26°0	CDB	27°0	CDB	28°0	CDB	31°	CDB	33°	CDB	П	tempe	rature
temperature	12°0	CWB	14°C	WB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°0	CWB	Ш	°CDB	°CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	П	-19.8	-20
11					25.67	21.69	27.17	23.68	27.92	23.27	28.75	22.86	30.42	24.26	32.08	23.32	11	-17.7	-18
13					25.70	21.70	27.20	23.69	27.95	23.28	28.78	22.88	30.45	24.26	32.11	23.85	П	-15.7	-16
15					25.72	21.70	27.23	23.70	27.98	23.28	28.81	22.88	30.48	24.27	32.15	23.33	П	-13.5	-14
17					25.73	21.71	27.32	23.72	28.11	23.31	28.94	22.91	30.56	24.28	32.20	23.33	П	-11.5	-12
19					25.84	21.74	27.43	23.74	28.26	23.34	29.06	22.93	30.66	24.29	32.25	23.34	П	-9.5	-10
21					25.45	21.63	26.98	23.64	27.78	23.24	28.57	22.73	30.17	24.22	31.75	23.28	Ш	-7.5	-8
23					25.05	21.52	26.53	23.53	27.29	23.15	28.08	22.74	29.68	24.15	31.26	23.23	П	-5.5	-6
25			23.45	22.58	24.85	21.47	26.30	23.48	27.05	23.09	27.84	22.70	29.43	24.10	31.01	23.20	П	-3.0	-4
27			23.26	22.52	24.66	21.42	26.08	23.44	26.81	23.04	27.97	22.72	29.13	24.06			П	-1.0	-2
29			22.89	22.42	24.24	21.31	25.64	23.33	26.35	22.95	27.54	22.64	28.72	24.00			П	1.0	0
31			22.51	22.06	23.83	21.21	25.20	23.24	25.91	22.85	27.11	22.56	28.31	23.94			П	2.0	1
33	20.84	20.41	21.81	21.38	23.43	21.10	24.76	23.15	25.46	22.77	26.69	22.48	27.92	23.88			П	3.0	2
35	20.70	20.28	21.54	21.11	23.02	21.00	24.32	23.04	25.00	22.68	26.26	22.40	27.51	23.82			П	5.0	4
37	20.43	20.02	21.27	20.84	22.69	20.92	23.90	22.96	24.54	22.58	25.69	22.29	26.83	23.72			П	7.0	6
39	20.32	19.92	21.18	20.75	22.55	20.88	23.67	22.91	24.27	22.53	25.31	22.23	26.35	23.66			П	9.0	8
41	20.93	20.43	21.43	21.00	22.36	20.83	23.38	22.84	23.94	22.47	24.88	22.15	25.80	23.57			П	11.5	10
43	19.81	19.42	20.68	20.26	21.93	20.72	22.83	22.38	23.34	22.35	24.16	22.02	24.96	23.46			П	13.5	12
46	17.88	17.51	18.45	18.08	19.05	18.68	19.72	19.33	20.36	19.96	21.26	20.83	22.15	21.71			П	15.5	14
50	11.78	11.54	12.33	12.08	12.97	12.71	13.27	13.01	13.48	13.22	13.69	22.79	13.91	13.63			П	16.5	16

terripe	rature			CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	11.35	11.22	11.10	10.97	10.84
-17.7	-18	12.14	12.00	11.87	11.73	11.59
-15.7	-16	12.92	12.78	12.64	12.49	12.35
-13.5	-14	13.71	13.55	13.41	13.25	13.10
-11.5	-12	14.39	14.24	14.08	13.93	13.77
-9.5	-10	15.09	14.92	14.77	14.60	14.45
-7.5	-8	15.77	15.61	15.44	15.28	15.12
-5.5	-6	16.05	15.89	15.73	15.58	15.42
-3.0	-4	16.32	16.17	16.02	15.87	15.72
-1.0	-2	16.59	16.46	16.31	16.17	16.02
1.0	0	16.87	16.74	16.60	16.46	16.32
2.0	1	17.01	16.87	16.74	16.60	16.47
3.0	2	19.33	19.16	19.00	18.85	18.71
5.0	4	23.97	23.74	23.50	23.33	23.17
7.0	6	28.61	28.30	28.00	27.81	27.64
9.0	8	29.99	29.73	29.47	29.27	29.07
11.5	10	31.36	31.15	30.95	30.73	30.50
13.5	12	32.44	32.24	32.03	31.82	31.59
15.5	14	33.52	33.33	33.13	32.91	32.68
16.5	16	34.07	33.87	33.67	33.44	33.22

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)

PJF000Z588

(kW)

Model FDT280VSAWDVH

Indoor unit FDT71VH (4 Units)

Outdoor unit FDC280VSA-W

Cooling m	ode															(kW)	Heatir	ng mode:H	НС	
Outdoor							Ind	oor air t	emperat	ure							Out	door air		Indoor
air	18°0	DB	21°0	DB	23°0	DB	26°0	CDB	27°0	DB	28°0	DB	31°0	DB	33°0	DB	tem	perature		
temperature	12°C	WB	14°0	WB	16°0	WB	18°C	CWB	19°0	WB	20°0	WB	22°0	WB	24°0	CWB	°CDI	3 °CWB	16	18
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	3 -20	13.25	13.10
11					27.72	23.42	29.34	25.57	30.15	25.13	31.05	24.69	32.85	26.20	34.65	25.19	-17.	⁷ -18	13.73	13.57
13					27.75	23.43	29.37	25.58	30.18	25.14	31.08	24.71	32.88	26.20	34.68	25.76	-15.	⁷ -16	14.21	14.05
15					27.78	23.43	29.41	25.59	30.22	25.14	31.12	24.71	32.92	26.21	34.72	25.20	-13.	-14	14.69	14.52
17					27.79	23.45	29.51	25.62	30.36	25.18	31.25	24.74	33.01	26.22	34.77	25.20	-11.	-12	15.42	15.26
19					27.91	23.48	29.62	25.64	30.52	25.21	31.39	24.76	33.11	26.24	34.83	25.21	-9.5	-10	16.17	15.99
21					27.48	23.36	29.14	25.53	30.00	25.10	30.86	24.55	32.58	26.16	34.29	25.14	-7.5	-8	16.90	16.72
23					27.06	23.24	28.65	25.41	29.48	25.00	30.33	24.56	32.05	26.08	33.76	25.09	-5.5	-6	17.20	17.02
25			25.32	24.39	26.84	23.19	28.41	25.36	29.22	24.94	30.07	24.51	31.78	26.03	33.49	25.05	-3.0	-4	17.49	17.32
27			25.12	24.32	26.63	23.13	28.17	25.31	28.96	24.89	30.21	24.54	31.46	25.99			-1.0	-2	17.78	17.63
29			24.72	24.21	26.18	23.02	27.69	25.20	28.46	24.78	29.75	24.45	31.02	25.92			1.0	0	18.08	17.93
31			24.31	23.83	25.74	22.91	27.21	25.10	27.98	24.68	29.28	24.37	30.58	25.85			2.0	1	18.22	18.08
33	22.51	22.04	23.56	23.09	25.30	22.79	26.74	25.00	27.50	24.59	28.82	24.28	30.15	25.79			3.0	2	20.71	20.53
35	22.35	21.90	23.27	22.80	24.86	22.68	26.27	24.89	27.00	24.49	28.36	24.19	29.71	25.73			5.0	4	25.68	25.43
37	22.06	21.62	22.97	22.51	24.50	22.59	25.81	24.80	26.51	24.39	27.74	24.08	28.98	25.62			7.0	6	30.66	30.32
39	21.95	21.51	22.87	22.41	24.36	22.55	25.56	24.74	26.21	24.33	27.34	24.01	28.46	25.55			9.0	8	32.13	31.86
41	22.60	22.06	23.14	22.68	24.15	22.50	25.25	24.67	25.85	24.27	26.87	23.92	27.87	25.46			11.5	10	33.60	33.38
43	21.40	20.97	22.33	21.88	23.68	22.38	24.66	24.17	25.21	24.14	26.09	23.78	26.96	25.34			13.5	12	34.76	34.54
46	19.31	18.91	19.92	19.53	20.58	20.17	21.30	20.88	21.99	21.56	22.96	22.50	23.92	23.45			15.5	14	35.91	35.71
50	12.72	12.47	13.32	13.05	14.01	13.73	14.33	14.05	14.56	14.28	14.78	24.62	15.02	14.72			16.5	16	36.50	36.29

_	ouug						
Γ	Outdo	or air		Indoor	air temp	erature	
	tempe	rature			°CDB		
Г	°CDB	°CWB	16	18	20	22	24
Г	-19.8	-20	13.25	13.10	12.96	12.81	12.66
	-17.7	-18	13.73	13.57	13.43	13.27	13.12
Г	-15.7	-16	14.21	14.05	13.90	13.74	13.58
	-13.5	-14	14.69	14.52	14.37	14.20	14.03
	-11.5	-12	15.42	15.26	15.09	14.92	14.76
	-9.5	-10	16.17	15.99	15.82	15.64	15.48
	-7.5	-8	16.90	16.72	16.54	16.37	16.20
	-5.5	-6	17.20	17.02	16.86	16.69	16.52
	-3.0	-4	17.49	17.32	17.17	17.00	16.84
	-1.0	-2	17.78	17.63	17.48	17.32	17.17
	1.0	0	18.08	17.93	17.79	17.63	17.49
	2.0	1	18.22	18.08	17.93	17.79	17.64
	3.0	2	20.71	20.53	20.36	20.20	20.04
	5.0	4	25.68	25.43	25.18	25.00	24.82
	7.0	6	30.66	30.32	30.00	29.80	29.61
E	9.0	8	32.13	31.86	31.58	31.36	31.14
	11.5	10	33.60	33.38	33.16	32.92	32.68
L	13.5	12	34.76	34.54	34.32	34.09	33.84
Е	15.5	14	35.91	35.71	35.50	35.26	35.01
	16.5	16	36.50	36.29	36.08	35.83	35.59

PJF000Z588

(2) Ceiling cassette-4 way compact type (FDTC)

(a) Double twin type

Model FDTC200VSAWDVH Indoor unit FDTC50VH (4 units) Outdoor unit FDC200VSA-W

Cooling n	node															(kW)
Outdoor							Inde	oor air t	empera	ture						
air	18°0	DB	21°0	DB	23°0	DB	26°0	DB	27°0	DB	28°0	DB	31°0	DB	33°C	DB
temperature	12°C	WB	14°C	WB	16°C	WB	18°C	CWB	19°C	WB	20°C	CWB	22°C	CWB	24°C	:WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11	i				20.38	0.48 14.82 21		15.75	22.10	15.57	22.81	15.42	24.23	16.15	25.65	15.75
13					20.48	.48 14.82 2		15.80	22.24	15.62	22.93	15.46	24.31	16.17	25.68	15.76
15					20.57	57 14.86 21		15.84	22.38	15.67	23.05	15.51	24.38	16.19	25.72	15.77
17					20.59	14.87	21.86	15.87	22.50	15.72	23.15	15.54	24.45	16.21	25.76	15.78
19					20.67	14.91	21.94	15.91	22.61	15.76	23.25	15.58	24.52	16.24	25.80	15.79
21					20.35	14.77	21.58	15.77	22.22	15.61	22.86	15.44	24.13	16.12	25.40	15.68
23					20.04	14.64	21.22	15.63	21.84	15.46	22.47	15.31	23.74	15.99	25.01	15.57
25			18.76	15.03	19.88	14.57	21.04	15.56	21.64	15.40	22.28	15.23	23.54	15.93	24.81	15.51
27			18.61	14.97	19.72	14.51	20.86		21.45	15.33	22.37	15.26		15.84		
29			18.31	14.83	19.39	14.37	20.51	15.36	21.09	15.19	22.03	15.15	22.97	15.75		
31			18.01	14.69	19.07	14.23	20.16	15.22	20.72	15.06	21.69	15.03	22.65	15.64		
33	16.68	13.66	17.45	14.45	18.74	14.09	19.81	15.09	20.36	14.94	21.35	14.91	22.33	15.55		
35	16.56	13.60	17.23	14.36	18.41	13.97	19.46	14.96	20.00	14.80	21.00	14.79	22.01	15.44		
37	16.34	13.49	16.98	14.24	18.04	13.81	19.00	14.79	19.54	14.64	20.50	14.62	21.46	15.27		
39	16.12	13.40	16.73	14.14	17.67	13.66	18.54	14.62	19.09	14.48	20.00	14.45	20.92	15.11		
41	15.90	13.29	16.47	14.02	17.29	13.52	18.08	14.45	18.63	14.32	19.50	14.28	20.37	14.95		
43	15.68	13.19	16.22	13.92	16.92	13.37	17.62	14.28	18.17	14.16	19.00	14.12	19.83	14.78		
46	15.34	13.03	15.84			13.15			17.49		18.25	13.87	19.01	14.54		
50	11.84	11.44	12.40	12.15	13.04	11.88	13.34	12.80	13.56	12.63	13.77	12.46	13.98	13.13		

(kW)	, I I	Heating	mode	: HC				(kW
	П		oor air		Indoor a	air temp	erature	
В	Ш	tempe	rature			°CDB		
/B		°CDB	°CWB	16	18	20	22	24
SHC	П	-19.8	-20	8.95	8.85	8.76	8.65	8.55
5.75	П	-17.7	-18	9.67	9.56	9.46	9.34	9.23
5.76	П	-15.7	-16	10.38	10.27	10.16	10.04	9.92
5.77	П	-13.5	-14	11.10	10.98	10.86	10.73	10.60
5.78	П	-11.5	-12	11.93	11.80	11.67	11.54	11.40
5.79	П	-9.5	-10	12.75	12.61	12.48	12.34	12.20
5.68	П	-7.5	-8	13.57	13.43	13.29	13.14	13.00
5.57	П	-5.5	-6	13.78	13.64	13.51	13.37	13.24
5.51	П	-3.0	-4	13.99	13.86	13.73	13.60	13.47
	П	-1.0	-2	14.20	14.08	13.95	13.83	13.71
	П	1.0	0	14.41	14.29	14.18	14.06	13.94
	П	2.0	1	14.51	14.40	14.29	14.17	14.06
	П	3.0	2	16.19	16.05	15.91	15.79	15.67
	П	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
	П	16.5	16	27.25	27.10	26.94	26.76	26.57

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)

PJF000Z586



Model FDTC250VSAWDVH

Indoor unit FDTC60VH (4 units)

Outdoor unit FDC250VSA-W

Cooling m	ode															(kW)
Outdoor							Ind	loor air t	emperat	ure						
air	18°0	CDB	21°0	DB	23°0	DB	26°0	CDB	27°0	DB	28°0	CDB	31°0	DB	33°C	CDB
temperature	12°0	CWB	14°C	WB	16°C	WB	18°0	CWB	19°0	CWB	20°0	CWB	22°C	WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					25.67	17.15	27.17	18.09	27.92	17.88	28.75	17.67	30.42	18.28	32.08	17.74
13	i				25.70	17.17	27.20	18.10	27.95	17.89	28.78	17.68	30.45	18.29	32.11	17.75
15					25.72	17.18	27.23	18.11	27.98	17.90	28.81	17.69	30.48	18.30	32.15	17.76
17	i				25.73	17.18	27.32	18.16	28.11	17.96	28.94	17.74	30.56	18.33	32.20	17.78
19					25.84	17.23	27.43	18.20	28.26	18.01	29.06	17.78	30.66	18.36	32.25	17.79
21	I				25.45	17.05	26.98	18.01	27.78	17.81	28.57	17.59	30.17	18.20	31.75	17.64
23					25.05	16.86	26.53	17.82	27.29	17.63	28.08	17.41	29.68	18.02	31.26	17.48
25			23.45	17.30	24.85	16.78	26.30	17.73	27.05	17.52	27.84	17.32	29.43	17.94	31.01	17.41
27			23.26	17.22	24.66	16.69	26.08	17.64	26.81	17.43	27.97	17.36	29.13	17.83		
29			22.89	17.04	24.24	16.51	25.64	17.46	26.35	17.25	27.54	17.20	28.72	17.70		
31			22.51	16.85	23.83	16.32	25.20	17.28	25.91	17.07	27.11	17.04	28.31	17.56		
33	20.84	15.78	21.81	16.52	23.43	16.15	24.76	17.10	25.46	16.90	26.69	16.89	27.92	17.43		
35	20.70	15.71	21.54	16.40	23.02	15.97	24.32	16.93	25.00	16.73	26.26	16.72	27.51	17.29		
37	20.43	15.57	21.27	16.27	22.69	15.82	23.90	16.76	24.54	16.55	25.69	16.51	26.83	17.06		
39	20.32	15.52	21.18	16.23	22.55	15.77	23.67	16.67	24.27	16.45	25.31	16.38	26.35	16.91		
41	20.93	15.82	21.43	16.34	22.36	15.69	23.38	16.55	23.94	16.32	24.88	16.22	25.80	16.73		
43	19.81	15.26	20.68	16.00	21.93	15.50	22.83	16.33	23.34	16.10	24.16	15.96	24.96	16.46		
46	17.88	14.31	18.45	14.99	19.05	14.30	19.72	15.17	20.36	15.03	21.26	14.97	22.15	15.59		
50	11 78	11 53	12 33	12 08	12 97	11 98	13 27	12 93	13 48	12 76	13 69	12 58	13 91	13 27		1

(kW)	Heating	mode:H	IC				(kW)
	Outdo	or air		Indoor	air temp	erature	
В	tempe	rature			°CDB		
/B	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	11.35	11.22	11.10	10.97	10.84
7.74	-17.7	-18	12.14	12.00	11.87	11.73	11.59
7.75	-15.7	-16	12.92	12.78	12.64	12.49	12.35
7.76	-13.5	-14	13.71	13.55	13.41	13.25	13.10
7.78	-11.5	-12	14.39	14.24	14.08	13.93	13.77
7.79	-9.5	-10	15.09	14.92	14.77	14.60	14.45
7.64	-7.5	-8	15.77	15.61	15.44	15.28	15.12
7.48	-5.5	-6	16.05	15.89	15.73	15.58	15.42
7.41	-3.0	-4	16.32	16.17	16.02	15.87	15.72
	-1.0	-2	16.59	16.46	16.31	16.17	16.02
	1.0	0	16.87	16.74	16.60	16.46	16.32
	2.0	1	17.01	16.87	16.74	16.60	16.47
	3.0	2	19.33	19.16	19.00	18.85	18.71
	5.0	4	23.97	23.74	23.50	23.33	23.17
	7.0	6	28.61	28.30	28.00	27.81	27.64
	9.0	8	29.99	29.73	29.47	29.27	29.07
	11.5	10	31.36	31.15	30.95	30.73	30.50
	13.5	12	32.44	32.24	32.03	31.82	31.59
	15.5	14	33.52	33.33	33.13	32.91	32.68
	16.5	16	34.07	33.87	33.67	33.44	33.22

PJF000Z586 /G



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

Model FDU200VSAWVH

Indoor unit FDU200VH

Outdoor unit FDC200VSA-W

Cooling n	node															(kW)
Outdoor							Indo	oor air t	empera	ture						
air	18°0	DB	21°0	DB	23°0	DB	26°0	DB	27°0	DB	28°0	DB	31°0	DB	33°C	DB
emperature	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	İ				20.38	14.92	21.53	15.88	22.10	15.72	22.81	15.59	24.23	16.33	25.65	15.98
13					20.48	14.96	21.65	15.94	22.24	15.77	22.93	15.63	24.31	16.36	25.68	15.99
15					20.57	15.00	21.78	15.99	22.38	15.83	23.05	15.68	24.38	16.38	25.72	16.00
17					20.59	15.00	21.86	16.02	22.50	15.87	23.15	15.72	24.45	16.41	25.76	16.01
19					20.67	15.04	21.94	16.05	22.61	15.92	23.25	15.76	24.52	16.43	25.80	16.02
21					20.35	14.91	21.58	15.91	22.22	15.77	22.86	15.61	24.13	16.29	25.40	15.91
23					20.04	14.77	21.22	15.77	21.84	15.62	22.47	15.46	23.74	16.17	25.01	15.78
25			18.76	15.13	19.88	14.69	21.04	15.69	21.64	15.55	22.28	15.40	23.54	16.11	24.81	15.73
27			18.61	15.06	19.72	14.63	20.86	15.62	21.45	15.47	22.37	15.43	23.30	16.02		
29			18.31	14.93	19.39	14.48	20.51	15.48	21.09	15.34	22.03	15.31	22.97	15.92		
31			18.01	14.78	19.07	14.35	20.16	15.35	20.72	15.20	21.69	15.18	22.65	15.81		
33	16.68	13.74	17.45	14.53	18.74	14.21	19.81	15.21	20.36	15.06	21.35	15.06	22.33	15.71		
35	16.56	13.68	17.23	14.43	18.41	14.07	19.46	15.07	20.00	14.93	21.00	14.94	22.01	15.60		
37	16.34	13.57	16.98	14.32	18.04	13.92	19.00	14.89	19.54	14.76	20.50	14.76	21.46	15.42		
39	16.12	13.46	16.73	14.20	17.67	13.76	18.54	14.72	19.09	14.59	20.00	14.59	20.92	15.25		
41	15.90	13.36	16.47	14.08	17.29	13.61	18.08	14.55	18.63	14.43	19.50	14.41	20.37	15.07		
43	15.68	13.25	16.22	13.98	16.92	13.45	17.62	14.37	18.17	14.26	19.00	14.23	19.83	14.91		
46	15.34	13.09	15.84	13.81	16.36	13.22	16.93	14.12	17.49	14.02	18.25	13.98	19.01	14.65		
50	11.84	11.46	12.40	12.15	13.04	11.92	13.34	12.83	13.56	12.67	13.77	12.51	13.98	13.16		

Heating	g mode	: HC				(kW)
Outdo	or air		Indoor	air temp	erature	
tempe	rature			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	8.95	8.85	8.76	8.65	8.55
-17.7	-18	9.67	9.56	9.46	9.34	9.23
-15.7	-16	10.38	10.27	10.16	10.04	9.92
-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

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)

PJG000Z649

Model FDU250VSAWVH

Indoor unit FDU250VH

Outdoor unit FDC250VSA-W

Cooling m	ode															(kW)	H	Heating	mode:H	IC
Outdoor							Ind	loor air t	emperat	ure							Ιſ	Outdo	or air	
air	18°0	DB	21°0	CDB	23°0	CDB	26°0	CDB	27°0	CDB	28°0	DB	31°0	CDB	33°0	CDB	П	tempe	rature	
temperature	12°0	CWB	14°C	CWB	16°0	CWB	18°C	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°0	CWB	П	°CDB	°CWB	16
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	П	-19.8	-20	11.35
11					25.67	20.48	27.17	22.06	27.92	21.84	28.75	21.64	30.42	22.80	32.08	22.29	Ιľ	-17.7	-18	12.14
13					25.70	20.49	27.20	22.07	27.95	21.85	28.78	21.65	30.45	22.81	32.11	22.30	Ħ	-15.7	-16	12.92
15					25.72	20.50	27.23	22.08	27.98	21.86	28.81	21.66	30.48	22.82	32.15	22.31	Ιľ	-13.5	-14	13.71
17					25.73	20.50	27.32	22.11	28.11	21.92	28.94	21.70	30.56	22.84	32.20	22.32	H	-11.5	-12	14.39
19					25.84	20.55	27.43	22.16	28.26	21.97	29.06	21.74	30.66	22.88	32.25	22.33	П	-9.5	-10	15.09
21					25.45	20.39	26.98	21.99	27.78	21.79	28.57	21.58	30.17	22.72	31.75	22.20	П	-7.5	-8	15.77
23					25.05	20.23	26.53	21.82	27.29	21.63	28.08	21.42	29.68	22.57	31.26	22.06	П	-5.5	-6	16.05
25			23.45	20.79	24.85	20.16	26.30	21.74	27.05	21.54	27.84	21.33	29.43	22.50	31.01	22.00	П	-3.0	-4	16.32
27			23.26	20.71	24.66	20.07	26.08	21.66	26.81	21.46	27.97	21.38	29.13	22.41			П	-1.0	-2	16.59
29			22.89	20.55	24.24	19.91	25.64	21.50	26.35	21.30	27.54	21.24	28.72	22.29			H	1.0	0	16.87
31			22.51	20.39	23.83	19.75	25.20	21.34	25.91	21.15	27.11	21.09	28.31	22.17			П	2.0	1	17.01
33	20.84	18.80	21.81	20.09	23.43	19.59	24.76	21.19	25.46	20.99	26.69	20.96	27.92	22.05			П	3.0	2	19.33
35	20.70	18.74	21.54	19.98	23.02	19.43	24.32	21.03	25.00	20.83	26.26	20.81	27.51	21.93			П	5.0	4	23.97
37	20.43	18.61	21.27	19.86	22.69	19.30	23.90	20.88	24.54	20.68	25.69	20.63	26.83	21.73			П	7.0	6	28.61
39	20.32	18.56	21.18	19.82	22.55	19.25	23.67	20.79	24.27	20.58	25.31	20.51	26.35	21.59			Ιľ	9.0	8	29.99
41	20.93	18.84	21.43	19.93	22.36	19.18	23.38	20.70	23.94	20.47	24.88	20.36	25.80	21.43			Ιľ	11.5	10	31.36
43	19.81	18.33	20.68	19.61	21.93	19.01	22.83	20.50	23.34	20.27	24.16	20.14	24.96	21.19			Ιľ	13.5	12	32.44
46	17.88	17.47	18.45	18.08	19.05	17.93	19.72	19.33	20.36	19.29	21.26	19.23	22.15	20.39			ΙÌ	15.5	14	33.52
50	11.78	11.54	12.33	12.08	12.97	12.71	13.27	13.01	13.48	13.22	13.69	13.42	13.91	13.63				16.5	16	34.07

(kW) Indoor air temperature °CDB 18 20 22 24 11.22 11.10 10.97 10.84 4 12.00 11.87 11.73 11.59 2 12.78 12.64 12.49 12.35 1 13.55 13.41 13.25 9 14.24 14.08 13.93 13.77 9 | 14.92 | 14.77 | 14.60 | 14.45 7 15.61 15.44 15.28 15.12 5 15.89 15.73 15.58 15.42 2 16.17 16.02 15.87 15.72 9 16.46 16.31 16.17 16.02 7 16.74 16.60 16.46 16.32 1 16.87 16.74 16.60 16.47 3 19.16 19.00 18.85 18.71 7 23.74 23.50 23.33 23.17 1 28.30 28.00 27.81 27.64 9 29.73 29.47 29.27 29.07 6 31.15 30.95 30.73 30.50 4 32.24 32.03 31.82 31.59 33.33 33.13 32.91 32.68 16.5 16 34.07 33.87 33.67 33.44 33.22

PJG000Z649 🖟



(kW)

Model FDU280VSAWVH

Indoor unit FDU280VH

Outdoor unit FDC280VSA-W

Cooling m	ode															(kW))	Heating	mode:F	НС
Outdoor							Inc	loor air t	emperat	ure							l	Outdo	oor air	
air	18°0	CDB	21°0	CDB	23°	CDB	26°	CDB	27°0	DB	28°0	CDB	31°0	DB	33°	CDB	1	tempe	rature	
temperature	12°0	CWB	14°C	CWB	16°0	CWB	18°0	CWB	19°0	WB	20°0	CWB	22°0	WB	24°0	CWB	1	°CDB	°CWB	Γ
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	1	-19.8	-20	13
11					27.72	22.12	29.34	23.83	30.15	23.59	31.05	23.37	32.85	24.63	34.65	24.08	1	-17.7	-18	13
13					27.75	22.13	29.37	23.84	30.18	23.60	31.08	23.38	32.88	24.64	34.68	24.09	l	-15.7	-16	14
15					27.78	22.14	29.41	23.85	30.22	23.61	31.12	23.39	32.92	24.65	34.72	24.10	1	-13.5	-14	14
17					27.79	22.14	29.51	23.88	30.36	23.67	31.25	23.43	33.01	24.67	34.77	24.11	L	-11.5	-12	15
19					27.91	22.20	29.62	23.93	30.52	23.73	31.39	23.48	33.11	24.71	34.83	24.12	1	-9.5	-10	16
21					27.48	22.02	29.14	23.75	30.00	23.54	30.86	23.31	32.58	24.54	34.29	23.97	1	-7.5	-8	16
23					27.06	21.85	28.65	23.57	29.48	23.36	30.33	23.13	32.05	24.38	33.76	23.83	l	-5.5	-6	17
25			25.32	22.46	26.84	21.77	28.41	23.48	29.22	23.27	30.07	23.04	31.78	24.30	33.49	23.76	1	-3.0	-4	17
27			25.12	22.37	26.63	21.68	28.17	23.39	28.96	23.18	30.21	23.09	31.46	24.20			L	-1.0	-2	17
29			24.72	22.20	26.18	21.50	27.69	23.22	28.46	23.01	29.75	22.94	31.02	24.08			L	1.0	0	18
31			24.31	22.02	25.74	21.33	27.21	23.05	27.98	22.84	29.28	22.78	30.58	23.94			Ш	2.0	1	18
33	22.51	20.31	23.56	21.70	25.30	21.16	26.74	22.88	27.50	22.67	28.82	22.64	30.15	23.82			1	3.0	2	20
35	22.35	20.24	23.27	21.58	24.86	20.98	26.27	22.71	27.00	22.50	28.36	22.48	29.71	23.68			L	5.0	4	25
37	22.06	20.10	22.97	21.45	24.50	20.85	25.81	22.55	26.51	22.33	27.74	22.28	28.98	23.47			L	7.0	6	30
39	21.95	20.05	22.87	21.41	24.36	20.79	25.56	22.46	26.21	22.23	27.34	22.15	28.46	23.32			1	9.0	8	32
41	22.60	20.35	23.14	21.52	24.15	20.71	25.25	22.35	25.85	22.11	26.87	21.99	27.87	23.14			L	11.5	10	33
43	21.40	19.80	22.33	21.18	23.68	20.53	24.66	22.14	25.21	21.89	26.09	21.75	26.96	22.88			ı	13.5	12	34
46	19.31	18.87	19.92	19.53	20.58	19.36	21.30	20.88	21.99	20.84	22.96	20.77	23.92	22.02			l	15.5	14	35
50	12.72	12.47	13.32	13.05	14.01	13.73	14.33	14.05	14.56	14.28	14.78	14.49	15.02	14.72				16.5	16	36

Outdo	oor air		Indoor	air temp	erature	
tempe	erature			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	13.25	13.10	12.96	12.81	12.66
-17.7	-18	13.73	13.57	13.43	13.27	13.12
-15.7	-16	14.21	14.05	13.90	13.74	13.58
-13.5	-14	14.69	14.52	14.37	14.20	14.03
-11.5	-12	15.42	15.26	15.09	14.92	14.76
-9.5	-10	16.17	15.99	15.82	15.64	15.48
-7.5	-8	16.90	16.72	16.54	16.37	16.20
-5.5	-6	17.20	17.02	16.86	16.69	16.52
-3.0	-4	17.49	17.32	17.17	17.00	16.84
-1.0	-2	17.78	17.63	17.48	17.32	17.17
1.0	0	18.08	17.93	17.79	17.63	17.49
2.0	1	18.22	18.08	17.93	17.79	17.64
3.0	2	20.71	20.53	20.36	20.20	20.04
5.0	4	25.68	25.43	25.18	25.00	24.82
7.0	6	30.66	30.32	30.00	29.80	29.61
9.0	8	32.13	31.86	31.58	31.36	31.14
11.5	10	33.60	33.38	33.16	32.92	32.68
13.5	12	34.76	34.54	34.32	34.09	33.84
15.5	14	35.91	35.71	35.50	35.26	35.01
16.5	16	36.50	36.29	36.08	35.83	35.59

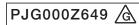
Notes(1) These data show average status.

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)

(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)



(4) Duct connected-Low/Middle static pressure type (FDUM) (a) Twin type

Model FDUM200VSAWPVH

Indoor unit FDUM100VH (2 unit)

Outdoor unit FDC200VSA-W

Gooling n	node															(KW)
Outdoor							Inde	oor air t	empera	ture						
air	18°0	CDB	21°0	DB	23°0	DB	26°0	DB	27°0	DB	28°0	DB	31°0	DB	33°C	DB
temperature	12°C	CWB	14°C	WB	16°C	CWB	18°C	CWB	19°C	WB	20°0	CWB	22°C	CWB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11	İ		ì		20.38	15.45	21.53	16.68	22.10	16.38	22.81	16.09	24.23	16.96	25.65	16.28
13	İ		Ì		20.48	15.48	21.65	16.72	22.24	16.41	22.93	16.13	24.31	16.97	25.68	16.28
15					20.57	15.52	21.78	16.75	22.38	16.45	23.05	16.16	24.38	16.98	25.72	16.29
17					20.59	15.52	21.86	16.77	22.50	16.48	23.15	16.18	24.45	17.00	25.76	16.29
19					20.67	15.55	21.94	16.79	22.61	16.51	23.25	16.20	24.52	17.01	25.80	16.31
21					20.35	15.44	21.58	16.69	22.22	16.41	22.86	16.11	24.13	16.94	25.40	16.24
23					20.04	15.35	21.22	16.60	21.84	16.32	22.47	16.02	23.74	16.86	25.01	16.18
25			18.76	16.06	19.88	15.31	21.04	16.56	21.64	16.26	22.28	15.98	23.54	16.82	24.81	16.15
27			18.61	16.02	19.72	15.25	20.86	16.51	21.45	16.22	22.37	16.00	23.30	16.78		
29			18.31	15.92	19.39	15.16	20.51	16.41	21.09	16.14	22.03	15.93	22.97	16.72		
31			18.01	15.81	19.07	15.05	20.16	16.33	20.72	16.04	21.69	15.84	22.65	16.65		
33	16.68	14.59	17.45	15.63	18.74	14.96	19.81	16.23	20.36	15.96	21.35	15.77	22.33	16.59		
35	16.56	14.55	17.23	15.56	18.41	14.86	19.46	16.14	20.00	15.87	21.00	15.69	22.01	16.54		
37	16.34	14.46	16.98	15.47	18.04	14.76	19.00	16.02	19.54	15.77	20.50	15.58	21.46	16.43		
39	16.12	14.38	16.73	15.39	17.67	14.65	18.54	15.92	19.09	15.66	20.00	15.47	20.92	16.34		
41	15.90	14.31	16.47	15.31	17.29	14.54	18.08	15.80	18.63	15.56	19.50	15.37	20.37	16.24		
43	15.68	14.22	16.22	15.22	16.92	14.43	17.62	15.68	18.17	15.45	19.00	15.26	19.83	16.15		
46	15.34	14.09	15.84	15.11	16.36	14.27	16.93	15.52	17.49	15.29	18.25	15.11	19.01	16.01		
50	11.84	11.60	12.40	12.15	13.04	12.78	13.34	13.07	13.56	13.28	13.77	13.49	13.98	13.69		

	Outdo	oor air		Indoor	air temp	erature	
В		erature			°CDB		
VB	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	8.95	8.85	8.76	8.65	8.55
6.28	-17.7	-18	9.67	9.56	9.46	9.34	9.23
6.28	-15.7	-16	10.38	10.27	10.16	10.04	9.92
6.29	-13.5	-14	11.10	10.98	10.86	10.73	10.60
6.29	-11.5	-12	11.93	11.80	11.67	11.54	11.40
6.31	-9.5	-10	12.75	12.61	12.48	12.34	12.20
6.24	-7.5	-8	13.57	13.43	13.29	13.14	13.00
6.18	-5.5	-6	13.78	13.64	13.51	13.37	13.24
6.15	-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
T i	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
\neg	15.5	14	26.82	26.66	26.50	26.32	26.14
\neg	16.5	16	27.25	27.10	26.94	26.76	26.57

PJG000Z623



(kW)

Model FDUM250VSAWPVH

Indoor unit FDUM125VH (2 units)

Outdoor unit FDC250VSA-W

Cooling m	ode															(kW))	Heating	mode:H	I C
Outdoor							Inc	loor air t	emperat	ure							ÌΪ	Outdo	oor air	Г
air	18°0	CDB	21°0	CDB	23°	CDB	26°	CDB	27°0	CDB	28°0	CDB	31°0	DB	33°0	CDB	П	tempe	erature	Г
temperature	12°0	CWB	14°0	CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°0	CWB	Ιİ	°CDB	°CWB	1
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	Ιİ	-19.8	-20	11
11					25.67	21.16	27.17	22.80	27.92	22.65	28.75	22.50	30.42	23.75	32.08	23.36	Ħ	-17.7	-18	12
13					25.70	21.17	27.20	22.81	27.95	22.66	28.78	22.51	30.45	23.76	32.11	23.38	ĺΙ	-15.7	-16	12
15					25.72	21.18	27.23	22.82	27.98	22.67	28.81	22.52	30.48	23.77	32.15	23.39	Ш	-13.5	-14	13
17					25.73	21.19	27.32	22.86	28.11	22.72	28.94	22.57	30.56	23.79	32.20	23.41	Ш	-11.5	-12	14
19					25.84	21.23	27.43	22.91	28.26	22.77	29.06	22.61	30.66	23.82	32.25	23.42	Ш	-9.5	-10	15
21					25.45	21.06	26.98	22.72	27.78	22.58	28.57	22.44	30.17	23.66	31.75	23.26	П	-7.5	-8	15
23					25.05	20.89	26.53	22.54	27.29	22.40	28.08	22.25	29.68	23.49	31.26	23.10	П	-5.5	-6	16
25			23.45	21.33	24.85	20.80	26.30	22.45	27.05	22.30	27.84	22.17	29.43	23.41	31.01	23.03	П	-3.0	-4	16
27			23.26	21.25	24.66	20.72	26.08	22.36	26.81	22.22	27.97	22.21	29.13	23.30			П	-1.0	-2	16
29			22.89	21.07	24.24	20.54	25.64	22.19	26.35	22.04	27.54	22.05	28.72	23.17			П	1.0	0	16
31			22.51	20.91	23.83	20.36	25.20	22.01	25.91	21.76	27.11	21.90	28.31	23.03			П	2.0	1	17
33	20.84	19.26	21.81	20.58	23.43	20.20	24.76	21.84	25.46	21.70	26.69	21.74	27.92	22.90			П	3.0	2	19
35	20.70	19.19	21.54	20.46	23.02	20.02	24.32	21.67	25.00	21.52	26.26	21.58	27.51	22.76			П	5.0	4	23
37	20.43	19.05	21.27	20.34	22.69	19.89	23.90	21.50	24.54	21.35	25.69	21.38	26.83	22.53			П	7.0	6	28
39	20.32	19.00	21.18	20.29	22.55	19.82	23.67	21.42	24.27	21.25	25.31	21.24	26.35	22.38			П	9.0	8	29
41	20.93	19.29	21.43	20.41	22.36	19.75	23.38	21.30	23.94	21.13	24.88	21.08	25.80	22.19			П	11.5	10	31

ı	Outdo	or air		Indoor	air temp	erature	
	tempe	rature			°CDB		
	°CDB	°CWB	16	18	20	22	24
	-19.8	-20	11.35	11.22	11.10	10.97	10.84
	-17.7	-18	12.14	12.00	11.87	11.73	11.59
	-15.7	-16	12.92	12.78	12.64	12.49	12.35
	-13.5	-14	13.71	13.55	13.41	13.25	13.10
	-11.5	-12	14.39	14.24	14.08	13.93	13.77
	-9.5	-10	15.09	14.92	14.77	14.60	14.45
	-7.5	-8	15.77	15.61	15.44	15.28	15.12
	-5.5	-6	16.05	15.89	15.73	15.58	15.42
	-3.0	-4	16.32	16.17	16.02	15.87	15.72
	-1.0	-2	16.59	16.46	16.31	16.17	16.02
	1.0	0	16.87	16.74	16.60	16.46	16.32
	2.0	1	17.01	16.87	16.74	16.60	16.47
	3.0	2	19.33	19.16	19.00	18.85	18.71
	5.0	4	23.97	23.74	23.50	23.33	23.17
	7.0	6	28.61	28.30	28.00	27.81	27.64
	9.0	8	29.99	29.73	29.47	29.27	29.07
	11.5	10	31.36	31.15	30.95	30.73	30.50
	13.5	12	32.44	32.24	32.03	31.82	31.59
	15.5	14	33.52	33.33	33.13	32.91	32.68
	16.5	16	34.07	33.87	33.67	33.44	33.22

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)

PJG000Z623 /

Model FDUM280VSAWPVH

Indoor unit FDUM140VH (2 units)

Outdoor unit FDC280VSA-W

Cooling m	ode															(kVV)
Outdoor							Ind	oor air t	emperat	ure						
air	18°0	CDB	21°0	DB	23°0	DB	26°0	DB	27°0	DB	28°0	CDB	31°0	DB	33°0	CDB
temperature	12°0	CWB	14°C	WB	16°C	WB	18°0	CWB	19°C	WB	20°C	CWB	22°C	WB	24°0	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					27.72	22.85	29.34	24.63	30.15	24.46	31.05	24.30	32.85	25.65	34.65	25.23
13					27.75	22.86	29.37	24.64	30.18	24.47	31.08	24.31	32.88	25.66	34.68	25.25
15					27.78	22.87	29.41	24.65	30.22	24.48	31.12	24.32	32.92	25.67	34.72	25.26
17					27.79	22.88	29.51	24.69	30.36	24.54	31.25	24.38	33.01	25.70	34.77	25.28
19					27.91	22.93	29.62	24.74	30.52	24.59	31.39	24.42	33.11	25.73	34.83	25.29
21					27.48	22.75	29.14	24.54	30.00	24.39	30.86	24.23	32.58	25.55	34.29	25.12
23					27.06	22.56	28.65	24.35	29.48	24.19	30.33	24.03	32.05	25.37	33.76	24.95
25			25.32	23.04	26.84	22.47	28.41	24.24	29.22	24.09	30.07	23.94	31.78	25.28	33.49	24.87
27			25.12	22.95	26.63	22.38	28.17	24.15	28.96	24.00	30.21	23.99	31.46	25.17		
29			24.72	22.76	26.18	22.19	27.69	23.96	28.46	23.81	29.75	23.82	31.02	25.02		
31			24.31	22.58	25.74	21.99	27.21	23.77	27.98	23.50	29.28	23.65	30.58	24.87		
33	22.51	20.80	23.56	22.23	25.30	21.81	26.74	23.59	27.50	23.43	28.82	23.48	30.15	24.73		
35	22.35	20.72	23.27	22.10	24.86	21.62	26.27	23.40	27.00	23.24	28.36	23.31	29.71	24.58		
37	22.06	20.58	22.97	21.97	24.50	21.48	25.81	23.22	26.51	23.06	27.74	23.09	28.98	24.33		
39	21.95	20.52	22.87	21.92	24.36	21.41	25.56	23.13	26.21	22.95	27.34	22.94	28.46	24.17		
41	22.60	20.84	23.14	22.04	24.15	21.33	25.25	23.01	25.85	22.82	26.87	22.77	27.87	23.96		
43	21.40	20.26	22.33	21.68	23.68	21.13	24.66	22.77	25.21	22.58	26.09	22.49	26.96	23.67		
46	19.31	18.91	19.92	19.53	20.58	19.85	21.30	20.88	21.99	21.40	22.96	21.39	23.92	22.68		
50	12.72	12.47	13.32	13.05	14.01	13.73	14.33	14.05	14.56	14.28	14.78	14.49	15.02	14.72		

(kW)	Heating	mode:H	IC				(kW)
	Outdo	or air		Indoor	air temp	erature	
В	tempe	rature			°CDB		
VB	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	13.25	13.10	12.96	12.81	12.66
25.23	-17.7	-18	13.73	13.57	13.43	13.27	13.12
25.25	-15.7	-16	14.21	14.05	13.90	13.74	13.58
25.26	-13.5	-14	14.69	14.52	14.37	14.20	14.03
25.28	-11.5	-12	15.42	15.26	15.09	14.92	14.76
25.29	-9.5	-10	16.17	15.99	15.82	15.64	15.48
25.12	-7.5	-8	16.90	16.72	16.54	16.37	16.20
24.95	-5.5	-6	17.20	17.02	16.86	16.69	16.52
24.87	-3.0	-4	17.49	17.32	17.17	17.00	16.84
—i	-1.0	-2	17.78	17.63	17.48	17.32	17.17
	1.0	0	18.08	17.93	17.79	17.63	17.49
i	2.0	1	18.22	18.08	17.93	17.79	17.64
\neg	3.0	2	20.71	20.53	20.36	20.20	20.04
	5.0	4	25.68	25.43	25.18	25.00	24.82
	7.0	6	30.66	30.32	30.00	29.80	29.61
\neg	9.0	8	32.13	31.86	31.58	31.36	31.14
	11.5	10	33.60	33.38	33.16	32.92	32.68
	13.5	12	34.76	34.54	34.32	34.09	33.84
	15.5	14	35.91	35.71	35.50	35.26	35.01
	16.5	16	36.50	36.29	36.08	35.83	35.59

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(kW)

(b) Triple type

Model FDUM200VSAWTVH Indoor unit FDUM71VH (3 unit) Outdoor unit FDC200VSA-W

Cooling n	node															(kW)) <u>H</u>	eating	g mode	: HC
Outdoor							Inde	oor air t	empera	ture							П	Outdo	oor air	
air	18°0	CDB	21°0	CDB	23°0	DB	26°0	DB	27°0	CDB	28°0	DB	31°0	DB	33°0	CDB	П	tempe	erature	
temperature	12°C	CWB	14°0	CWB	16°0	CWB	18°C	CWB	19°0	CWB	20°0	CWB	22°C	CWB	24°0	CWB	֓֓֓֓֓֓֓֓֓֓֓֟֓֓֓֓֓֓֟֓֓֓֓֓֟֓֓֓֓֓֓֓֓֓֓֓֓	°CDB	°CWB	16
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	П	-19.8	-20	8.95
11			i –		20.38	17.11	21.53	18.53	22.10	18.32	22.81	18.15	24.23	19.23	25.65	18.79	1	-17.7	-18	9.67
13			Î		20.48	17.15	21.65	18.57	22.24	18.37	22.93	18.19	24.31	19.25	25.68	18.80	lΓ	-15.7	-16	10.38
15			Î		20.57	17.18	21.78	18.61	22.38	18.41	23.05	18.22	24.38	19.27	25.72	18.81	lΓ	-13.5	-14	11.10
17					20.59	17.19	21.86	18.64	22.50	18.45	23.15	18.25	24.45	19.29	25.76	18.82	lΓ	-11.5	-12	11.93
19					20.67	17.22	21.94	18.66	22.61	18.48	23.25	18.28	24.52	19.32	25.80	18.83	lΕ	-9.5	-10	12.75
21					20.35	17.09	21.58	18.55	22.22	18.36	22.86	18.17	24.13	19.20	25.40	18.74	lΓ	-7.5	-8	13.57
23					20.04	16.98	21.22	18.42	21.84	18.23	22.47	18.04	23.74	19.09	25.01	18.64	ΙL	-5.5	-6	13.78
25			18.76	17.52	19.88	16.93	21.04	18.36	21.64	18.18	22.28	17.99	23.54	19.04	24.81	18.59		-3.0	-4	13.99
27			18.61	17.45	19.72	16.86	20.86	18.31	21.45	18.12	22.37	18.02	23.30	18.98			lΓ	-1.0	-2	14.20
29			18.31	17.34	19.39	16.75	20.51	18.18	21.09	18.00	22.03	17.92	22.97	18.88			lΕ	1.0	0	14.41
31			18.01	17.21	19.07	16.62	20.16	18.06	20.72	17.88	21.69	17.81	22.65	18.80			lΓ	2.0	1	14.51
33	16.68	15.81	17.45	16.99	18.74	16.51	19.81	17.95	20.36	17.77	21.35	17.71	22.33	18.72			П	3.0	2	16.19
35	16.56	15.76	17.23	16.89	18.41	16.39	19.46	17.83	20.00	17.65	21.00	17.60	22.01	18.63			lГ	5.0	4	19.54
37	16.34	15.66	16.98	16.64	18.04	16.25	19.00	17.68	19.54	17.52	20.50	17.45	21.46	18.48			lΓ	7.0	6	22.89
39	16.12	15.57	16.73	16.39	17.67	16.12	18.54	17.54	19.09	17.37	20.00	17.31	20.92	18.34			lΕ	9.0	8	23.99
41	15.90	15.47	16.47	16.15	17.29	15.98	18.08	17.39	18.63	17.23	19.50	17.16	20.37	18.20			lГ	11.5	10	25.09
43	15.68	15.36	16.22	15.89	16.92	15.85	17.62	17.24	18.17	17.09	19.00	17.01	19.83	18.05			ΙŒ	13.5	12	25.95
46	15.34	15.04	15.84	15.53	16.36	15.65	16.93	16.59	17.49	16.88	18.25	16.80	19.01	17.84			ÌΓ	15.5	14	26.82
50	11.84	11.60	12.40	12.15	13.04	12.78	13.34	13.07	13.56	13.28	13.77	13.49	13.98	13.69			l [16.5	16	27.25

П	Outdo	oor air		Indoor	air temp	erature	
۱	tempe	rature			°CDB		
۱	°CDB	°CWB	16	18	20	22	24
П	-19.8	-20	8.95	8.85	8.76	8.65	8.55
1	-17.7	-18	9.67	9.56	9.46	9.34	9.23
i	-15.7	-16	10.38	10.27	10.16	10.04	9.92
П	-13.5	-14	11.10	10.98	10.86	10.73	10.60
П	-11.5	-12	11.93	11.80	11.67	11.54	11.40
П	-9.5	-10	12.75	12.61	12.48	12.34	12.20
П	-7.5	-8	13.57	13.43	13.29	13.14	13.00
П	-5.5	-6	13.78	13.64	13.51	13.37	13.24
П	-3.0	-4	13.99	13.86	13.73	13.60	13.47
l	-1.0	-2	14.20	14.08	13.95	13.83	13.71
П	1.0	0	14.41	14.29	14.18	14.06	13.94
П	2.0	1	14.51	14.40	14.29	14.17	14.06
П	3.0	2	16.19	16.05	15.91	15.79	15.67
П	5.0	4	19.54	19.35	19.15	19.02	18.89
П	7.0	6	22.89	22.64	22.40	22.25	22.11
П	9.0	8	23.99	23.78	23.58	23.42	23.25
П	11.5	10	25.09	24.92	24.75	24.58	24.40
П	13.5	12	25.95	25.79	25.63	25.45	25.27
П	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 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)

PJG000Z623 🙆



(5) Ceiling suspended type (FDE)

(a) Twin type

Model FDE200VSAWPVH

Indoor unit FDE100VH (2 uints)

Outdoor unit FDC200VSA-W

Cooling n	node															(KW
Outdoor							Inde	oor air t	empera	ture						
air	18°0	CDB	21°0	CDB	23°0	DB	26°0	DB	27°0	CDB	28°0	DB	31°0	DB	33°C	DB
temperature	12°C	CWB	14°0	CWB	16°C	CWB	18°C	CWB	19°C	CWB	20°C	WB	22°C	CWB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11	i				20.38	15.26	21.53	16.40	22.10	16.15	22.81	15.93	24.23	16.75	25.65	16.20
13	ĺ				20.48	15.31	21.65	16.44	22.24	16.19	22.93	15.97	24.31	16.77	25.68	16.21
15	ĺ				20.57	15.34	21.78	16.48	22.38	16.23	23.05	16.00	24.38	16.78	25.72	16.21
17					20.59	15.34	21.86	16.51	22.50	16.27	23.15	16.03	24.45	16.80	25.76	16.22
19					20.67	15.37	21.94	16.53	22.61	16.31	23.25	16.05	24.52	16.82	25.80	16.23
21					20.35	15.25	21.58	16.42	22.22	16.19	22.86	15.95	24.13	16.72	25.40	16.15
23					20.04	15.15	21.22	16.31	21.84	16.07	22.47	15.83	23.74	16.62	25.01	16.06
25			18.76	15.73	19.88	15.08	21.04	16.24	21.64	16.01	22.28	15.78	23.54	16.58	24.81	16.02
27			18.61	15.67	19.72	15.03	20.86	16.19	21.45	15.96	22.37	15.81	23.30	16.52		
29			18.31	15.56	19.39	14.92	20.51	16.08	21.09	15.85	22.03	15.72	22.97	16.44		
31			18.01	15.44	19.07	14.81	20.16	15.97	20.72	15.75	21.69	15.62	22.65	16.36		
33	16.68	14.27	17.45	_	18.74	14.69	19.81	15.86		15.64	21.35	15.53	22.33	16.28		
35	16.56	14.23	17.23		18.41	14.58	19.46	15.76	20.00	15.54	21.00	15.43	22.01	16.21		
37	16.34	14.14	16.98	15.05	18.04	14.45	19.00	15.62	19.54	15.40	20.50	15.29	21.46	16.07		
39	16.12	14.04	16.73	14.95	17.67	14.33	18.54	15.47	19.09	15.27	20.00	15.16	20.92	15.95		
41	15.90	13.96	16.47	14.86	17.29	14.20	18.08	15.34	18.63	15.15	19.50	15.03	20.37	15.82		
43	15.68	13.86	16.22	14.77	16.92	14.08	17.62	15.21	18.17	15.02	19.00	14.89	19.83	15.71		
46	15.34	13.73	15.84	_	16.36	13.89	16.93	15.00	17.49	14.83	18.25	14.71	19.01	15.52		
50	11.84	11.60	12.40	12.15	13.04	12.78	13.34	13.07	13.56	13.28	13.77	13.49	13.98	13.69		

(kW)	Heating	_	. 110				(kW
		oor air		indoor a	air temp	erature	
)B	tempe	rature			°CDB		
/B	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	8.95	8.85	8.76	8.65	8.55
6.20	-17.7	-18	9.67	9.56	9.46	9.34	9.23
6.21	-15.7	-16	10.38	10.27	10.16	10.04	9.92
6.21	-13.5	-14	11.10	10.98	10.86	10.73	10.60
6.22	-11.5	-12	11.93	11.80	11.67	11.54	11.40
6.23	-9.5	-10	12.75	12.61	12.48	12.34	12.20
6.15	-7.5	-8	13.57	13.43	13.29	13.14	13.00
6.06	-5.5	-6	13.78	13.64	13.51	13.37	13.24
6.02	-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
\neg	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
T i	5.0	4	19.54	19.35	19.15	19.02	18.89
T i	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
T	13.5	12	25.95	25.79	25.63	25.45	25.27
Ti.	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

PFA004Z110 ⚠

(kW)

Model FDE250VSAWPVH

Indoor unit FDE125VH (2 units)

Outdoor unit FDC250VSA-W

Cooling m	ode															(kW)	Не	ating	mode:F	łC
Outdoor							Ind	loor air t	emperat	ure								Outdo	oor air	Г
air	18°0	DB	21°0	CDB	23°0	DB	26°0	CDB	27°0	CDB	28°0	CDB	31°0	CDB	33°0	CDB	te	empe	erature	Г
temperature	12°C	WB	14°C	CWB	16°0	WB	18°0	CWB	19°0	WB	20°0	CWB	22°0	CWB	24°0	CWB	°c	DB	°CWB	
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-1	9.8	-20	11
11					25.67	17.17	27.17	18.21	27.92	17.92	28.75	17.63	30.42	18.28	32.08	17.58	-1	7.7	-18	12
13					25.70	17.18	27.20	18.22	27.95	17.93	28.78	17.64	30.45	18.29	32.11	17.58	-1	5.7	-16	12
15					25.72	17.19	27.23	18.23	27.98	17.93	28.81	17.65	30.48	18.30	32.15	17.59	l [-1	3.5	-14	13
17					25.73	17.20	27.32	18.26	28.11	17.98	28.94	17.69	30.56	18.32	32.20	17.60	l [-1	1.5	-12	14
19					25.84	17.24	27.43	18.30	28.26	18.03	29.06	17.72	30.66	18.35	32.25	17.63	-	9.5	-10	15
21					25.45	17.08	26.98	18.14	27.78	17.86	28.57	17.56	30.17	18.21	31.75	17.50	[-	7.5	-8	15
23					25.05	16.93	26.53	17.98	27.29	17.70	28.08	17.42	29.68	18.07	31.26	17.38	ΙЕ	5.5	-6	16
25			23.45	17.55	24.85	16.84	26.30	17.90	27.05	17.63	27.84	17.33	29.43	18.00	31.01	17.31	ΙŒ	3.0	-4	16
27			23.26	17.47	24.66	16.77	26.08	17.82	26.81	17.54	27.97	17.38	29.13	17.92			П	1.0	-2	16
29			22.89	17.31	24.24	16.61	25.64	17.67	26.35	17.40	27.54	17.24	28.72	17.81				1.0	0	16
31			22.51	17.16	23.83	16.46	25.20	17.52	25.91	17.24	27.11	17.10	28.31	17.70				2.0	1	17
33	20.84	16.02	21.81	16.86	23.43	16.30	24.76	17.36	25.46	17.09	26.69	16.98	27.92	17.59				3.0	2	19
35	20.70	15.95	21.54	16.75	23.02	16.15	24.32	17.22	25.00	16.95	26.26	16.84	27.51	17.48				5.0	4	23
37	20.43	15.82	21.27	16.65	22.69	16.02	23.90	17.07	24.54	16.80	25.69	16.67	26.83	17.30				7.0	6	28
39	20.32	15.78	21.18	16.60	22.55	15.97	23.67	17.00	24.27	16.72	25.31	16.56	26.35	17.18			9	9.0	8	29
41	20.93	16.05	21.43	16.71	22.36	15.91	23.38	16.91	23.94	16.61	24.88	16.43	25.80	17.03				1.5	10	31
43	19.81	15.55	20.68	16.40	21.93	15.74	22.83	16.72	23.34	16.43	24.16	16.22	24.96	16.81			1	3.5	12	32
46	17.88	14.71	18.45	15.52	19.05	14.72	19.72	15.73	20.36	15.54	21.26	15.40	22.15	16.13			1	5.5	14	33
50	11.78	11.54	12.33	12.08	12.97	12.71	13.27	13.01	13.48	13.22	13.69	13.42	13.91	13.63			1	6.5	16	34

	ricuting						(144)
	Outdo	or air		Indoor	air temp	erature	
	tempe	rature			°CDB		
	°CDB	°CWB	16	18	20	22	24
	-19.8	-20	11.35	11.22	11.10	10.97	10.84
	-17.7	-18	12.14	12.00	11.87	11.73	11.59
ı	-15.7	-16	12.92	12.78	12.64	12.49	12.35
	-13.5	-14	13.71	13.55	13.41	13.25	13.10
	-11.5	-12	14.39	14.24	14.08	13.93	13.77
	-9.5	-10	15.09	14.92	14.77	14.60	14.45
	-7.5	-8	15.77	15.61	15.44	15.28	15.12
	-5.5	-6	16.05	15.89	15.73	15.58	15.42
	-3.0	-4	16.32	16.17	16.02	15.87	15.72
	-1.0	-2	16.59	16.46	16.31	16.17	16.02
	1.0	0	16.87	16.74	16.60	16.46	16.32
	2.0	1	17.01	16.87	16.74	16.60	16.47
	3.0	2	19.33	19.16	19.00	18.85	18.71
	5.0	4	23.97	23.74	23.50	23.33	23.17
	7.0	6	28.61	28.30	28.00	27.81	27.64
	9.0	8	29.99	29.73	29.47	29.27	29.07
	11.5	10	31.36	31.15	30.95	30.73	30.50
	13.5	12	32.44	32.24	32.03	31.82	31.59
	15.5	14	33.52	33.33	33.13	32.91	32.68
	16.5	16	34.07	33.87	33.67	33.44	33.22

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)

PFA004Z110 ⚠

Model FDE280VSAWPVH

Indoor unit FDE140VH (2 units)

Outdoor unit FDC280VSA-W

Cooling m	ode															(kW)
Outdoor							Ind	oor air t	emperat	ure						
air	18°0	18°CDB 21°CDB 23°CDB 26°CDB 27°CDB 28°CDB 31°CDB 33°CDB 12°CWB 14°CWB 16°CWB 18°CWB 19°CWB 20°CWB 22°CWB 24°CWB														
temperature	12°C	WB	14°C	CWB	16°0	WB	18°C	WB	19°0	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					27.72	18.54	29.34	19.67	30.15	19.35	31.05	19.04	32.85	19.74	34.65	18.99
13					27.75	18.55	29.37	19.68	30.18	19.36	31.08	19.05	32.88	19.76	34.68	18.99
15					27.78	18.56	29.41	19.69	30.22	19.36	31.12	19.06	32.92	19.77	34.72	19.00
17					27.79	18.57	29.51	19.72	30.36	19.42	31.25	19.10	33.01	19.79	34.77	19.01
19					27.91	18.62	29.62	19.77	30.52	19.47	31.39	19.14	33.11	19.82	34.83	19.04
21					27.48	18.45	29.14	19.59	30.00	19.29	30.86	18.97	32.58	19.67	34.29	18.90
23					27.06	18.28	28.65	19.42	29.48	19.11	30.33	18.81	32.05	19.52	33.76	18.77
25			25.32	18.96	26.84	18.19	28.41	19.33	29.22	19.04	30.07	18.72	31.78	19.44	33.49	18.70
27			25.12	18.87	26.63	18.11	28.17	19.25	28.96	18.95	30.21	18.77	31.46	19.35		
29			24.72	18.70	26.18	17.94	27.69	19.08	28.46	18.79	29.75	18.62	31.02	19.24		
31			24.31	18.53	25.74	17.78	27.21	18.92	27.98	18.62	29.28	18.47	30.58	19.11		
33	22.51	17.30	23.56	18.21	25.30	17.61	26.74	18.75	27.50	18.46	28.82	18.34	30.15	19.00		
35	22.35	17.22	23.27	18.09	24.86	17.44	26.27	18.60	27.00	18.30	28.36	18.19	29.71	18.88		
37	22.06	17.09	22.97	17.98	24.50	17.30	25.81	18.44	26.51	18.15	27.74	18.00	28.98	18.69		
39	21.95	17.04	22.87	17.93	24.36	17.25	25.56	18.36	26.21	18.06	27.34	17.89	28.46	18.55		
41	22.60	17.34	23.14	18.05	24.15	17.18	25.25	18.26	25.85	17.94	26.87	17.74	27.87	18.39		
43	21.40	16.80	22.33	17.71	23.68	17.00	24.66	18.06	25.21	17.74	26.09	17.52	26.96	18.16		
46	19.31	15.89	19.92	16.76	20.58	15.90	21.30	16.99	21.99	16.79	22.96	16.63	23.92	17.42		
50	12.72	12.47	13.32	13.05	14.01	13.73	14.33	14.05	14.56	14.28	14.78	14.49	15.02	14.72		

(kW)	Heating	mode:H	IC				(kW)
	Outdo	or air		Indoor	air temp	erature	
)B	tempe	rature			°CDB		
VB	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	13.25	13.10	12.96	12.81	12.66
18.99	-17.7	-18	13.73	13.57	13.43	13.27	13.12
18.99	-15.7	-16	14.21	14.05	13.90	13.74	13.58
19.00	-13.5	-14	14.69	14.52	14.37	14.20	14.03
19.01	-11.5	-12	15.42	15.26	15.09	14.92	14.76
19.04	-9.5	-10	16.17	15.99	15.82	15.64	15.48
18.90	-7.5	-8	16.90	16.72	16.54	16.37	16.20
18.77	-5.5	-6	17.20	17.02	16.86	16.69	16.52
18.70	-3.0	-4	17.49	17.32	17.17	17.00	16.84
	-1.0	-2	17.78	17.63	17.48	17.32	17.17
	1.0	0	18.08	17.93	17.79	17.63	17.49
	2.0	1	18.22	18.08	17.93	17.79	17.64
	3.0	2	20.71	20.53	20.36	20.20	20.04
	5.0	4	25.68	25.43	25.18	25.00	24.82
	7.0	6	30.66	30.32	30.00	29.80	29.61
\neg	9.0	8	32.13	31.86	31.58	31.36	31.14
i	11.5	10	33.60	33.38	33.16	32.92	32.68
	13.5	12	34.76	34.54	34.32	34.09	33.84
	15.5	14	35.91	35.71	35.50	35.26	35.01
	16.5	16	36.50	36.29	36.08	35.83	35.59

PFA004Z110 🗥

(kW)

(b) Triple type

Model FDE200VSAWTVH Indoor unit FDE71VH (3 uints) Outdoor unit FDC200VSA-W

Cooling n	noae															(KW)	neatin	g mode	: пС
Outdoor							Inde	oor air t	empera	ture							Outo	loor air	
air	18°0	DB	21°0	DB	23°0	DB	26°0	DB	27°0	DB	28°0	DDB	31°0	DB	33°0	DB	temp	erature	
temperature	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19°C	WB	20°0	CWB	22°C	CWB	24°C	WB	°CDB	°CWB	16
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	8.95
11					20.38	15.96	21.53	17.14	22.10	16.96	22.81	16.82	24.23	17.73	25.65	17.36	-17.7	-18	9.67
13					20.48	16.00	21.65	17.19	22.24	17.01	22.93	16.86	24.31	17.76	25.68	17.37	-15.7	-16	10.38
15					20.57	16.04	21.78	17.23	22.38	17.06	23.05	16.91	24.38	17.78	25.72	17.38	-13.5	-14	11.10
17					20.59	16.04	21.86	17.26	22.50	17.11	23.15	16.95	24.45	17.80	25.76	17.39	-11.5	-12	11.93
19					20.67	16.08	21.94	17.29	22.61	17.15	23.25	16.98	24.52	17.82	25.80	17.40	-9.5	-10	12.75
21					20.35	15.95	21.58	17.16	22.22	17.01	22.86	16.84	24.13	17.71	25.40	17.29	-7.5	-8	13.57
23					20.04	15.82	21.22	17.02	21.84	16.87	22.47	16.71	23.74	17.58	25.01	17.18	-5.5	-6	13.78
25			18.76	16.24	19.88	15.76	21.04	16.96	21.64	16.80	22.28	16.64	23.54	17.52	24.81	17.13	-3.0	-4	13.99
27			18.61	16.18	19.72	15.69	20.86	16.89	21.45	16.73	22.37	16.67	23.30	17.44			-1.0	-2	14.20
29			18.31	16.04	19.39	15.56	20.51	16.76	21.09	16.60	22.03	16.56	22.97	17.35			1.0	0	14.41
31			18.01	15.92	19.07	15.43	20.16	16.63	20.72	16.47	21.69	16.44	22.65	17.24			2.0	1	14.51
33	16.68	14.71	17.45	15.67	18.74	15.29	19.81	16.51	20.36	16.35	21.35	16.33	22.33	17.15			3.0	2	16.19
35	16.56	14.65	17.23	15.58	18.41	15.17	19.46	16.37	20.00	16.22	21.00	16.21	22.01	17.04			5.0	4	19.54
37	16.34	14.55	16.98	15.47	18.04	15.02	19.00	16.20	19.54	16.06	20.50	16.04	21.46	16.88			7.0	6	22.89
39	16.12	14.44	16.73	15.36	17.67	14.87	18.54	16.04	19.09	15.91	20.00	15.88	20.92	16.72			9.0	8	23.99
41	15.90	14.35	16.47	15.25	17.29	14.73	18.08	15.87	18.63	15.75	19.50	15.72	20.37	16.56			11.5	10	25.09
43	15.68	14.24	16.22	15.15	16.92	14.58	17.62	15.72	18.17	15.59	19.00	15.55	19.83	16.40			13.5	12	25.95
46	15.34	14.09	15.84	14.99	16.36	14.36	16.93	15.46	17.49	15.36	18.25	15.31	19.01	16.16			15.5	14	26.82
50	11.84	11.60	12.40	12.15	13.04	12.78	13.34	13.07	13.56	13.28	13.77	13.49	13.98	13.69			16.5	16	27.25

Heading	, illoud	. 110				(1(11)
Outdo	or air		Indoor	air temp	erature	
tempe	rature			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	8.95	8.85	8.76	8.65	8.55
-17.7	-18	9.67	9.56	9.46	9.34	9.23
-15.7	-16	10.38	10.27	10.16	10.04	9.92
-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

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)

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(c) Double twin type

Model FDE200VSAWDVH

Indoor unit FDE50VH (4 uints)

Outdoor unit FDC200VSA-W

Cooling n	node															(kW)
Outdoor							Inde	oor air t	empera	ture						
air	18°0	DB	21°0	DB	23°0	DB	26°0	DB	27°0	DB	28°0	DB	31°0	DB	33°0	CDB
temperature	12°C	WB	14°C	WB	16°0	WB	18°C	WB	19°C	WB	20°0	WB	22°C	WB	24°C	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					20.38	15.57	21.53	16.62	22.10	16.48	22.81	16.40	24.23	17.23	25.65	16.96
13					20.48	15.61	21.65	16.67	22.24	16.55	22.93	16.44	24.31	17.26	25.68	16.97
15					20.57	15.65	21.78	16.73	22.38	16.60	23.05	16.49	24.38	17.29	25.72	16.98
17					20.59	15.66	21.86	16.77	22.50	16.65	23.15	16.53	24.45	17.32	25.76	17.00
19					20.67	15.69	21.94	16.80	22.61	16.69	23.25	16.57	24.52	17.34	25.80	17.01
21					20.35	15.56	21.58	16.64	22.22	16.54	22.86	16.42	24.13	17.20	25.40	16.87
23					20.04	15.41	21.22	16.49	21.84	16.39	22.47	16.26	23.74	17.06	25.01	16.75
25			18.76	15.72	19.88	15.34	21.04	16.42	21.64	16.31	22.28	16.19	23.54	16.99	24.81	16.68
27			18.61	15.65	19.72	15.27	20.86	16.35	21.45	16.23	22.37	16.23	23.30	16.91		
29			18.31	15.51	19.39	15.13	20.51	16.20	21.09	16.08	22.03	16.09	22.97	16.79		
31			18.01	15.36	19.07	14.98	20.16	16.06	20.72	15.94	21.69	15.97	22.65	16.67		
33	16.68	14.24	17.45	15.09	18.74	14.83	19.81	15.92	20.36	15.80	21.35	15.84	22.33	16.57		
35	16.56	14.18	17.23	15.00	18.41	14.69	19.46	15.77	20.00	15.65	21.00	15.71	22.01	16.45		
37	16.34	14.07	16.98	14.87	18.04	14.53	19.00	15.59	19.54	15.48	20.50	15.52	21.46	16.26		
39	16.12	13.96	16.73	14.76	17.67	14.37	18.54	15.40	19.09	15.31	20.00	15.34	20.92	16.07		
41	15.90	13.85	16.47	14.64	17.29	14.20	18.08	15.22	18.63	15.13	19.50	15.15	20.37	15.89		
43	15.68	13.74	16.22	14.53	16.92	14.04	17.62	15.03	18.17	14.95	19.00	14.96	19.83	15.71		
46	15.34	13.58	15.84	14.35	16.36	13.80	16.93	14.76	17.49	14.69	18.25	14.68	19.01	15.43		
50	11.84	11.60	12.40	12.15	13.04	12.43	13.34	13.07	13.56	13.24	13.77	13.11	13.98	13.69		

	Outdo	or air		Indoor a	air temp	erature	
		rature					
В	_				°CDB		
/B	°CDB	℃WB	16	18	20	22	24
SHC	-19.8	-20	8.95	8.85	8.76	8.65	8.55
6.96	-17.7	-18	9.67	9.56	9.46	9.34	9.23
6.97	-15.7	-16	10.38	10.27	10.16	10.04	9.92
6.98	-13.5	-14	11.10	10.98	10.86	10.73	10.60
7.00	-11.5	-12	11.93	11.80	11.67	11.54	11.40
7.01	-9.5	-10	12.75	12.61	12.48	12.34	12.20
6.87	-7.5	-8	13.57	13.43	13.29	13.14	13.00
6.75	-5.5	-6	13.78	13.64	13.51	13.37	13.24
6.68	-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
\neg	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
T i	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

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Model FDE250VSAWDVH

Indoor unit FDE60VH (4 units)

Outdoor unit FDC250VSA-W

Cooling m	ode															(kW)	He
Outdoor							Ind	oor air t	emperat	ure							П
air	18°0	DB	21°0	CDB	23°0	DB	26°0	DB	27°0	DB	28°0	DB	31°0	CDB	33°0	DB	t
temperature	12°0	CWB	14°C	CWB	16°0	16°CWB		CWB	19°0	WB	20°C	CWB	22°0	CWB	24°C	WB	9
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	Ī
11	i				25.67	18.75	27.17	20.06	27.92	19.80	28.75	19.55	30.42	20.46	32.08	19.85	ΙŒ
13					25.70	18.76	27.20	20.07	27.95	19.81	28.78	19.56	30.45	20.47	32.11	19.86	ΙŒ
15					25.72	18.77	27.23	20.08	27.98	19.82	28.81	19.57	30.48	20.48	32.15	19.86	ΙŒ
17					25.73	18.78	27.32	20.11	28.11	19.88	28.94	19.61	30.56	20.50	32.20	19.89	ΙŒ
19					25.84	18.82	27.43	20.16	28.26	19.92	29.06	19.66	30.66	20.53	32.25	19.90	ΙŒ
21					25.45	18.67	26.98	19.99	27.78	19.75	28.57	19.50	30.17	20.39	31.75	19.77	ΙŒ
23					25.05	18.51	26.53	19.83	27.29	19.59	28.08	19.34	29.68	20.25	31.26	19.65	ΙŒ
25			23.45	19.10	24.85	18.44	26.30	19.75	27.05	19.51	27.84	19.26	29.43	20.18	31.01	19.58	ΙĿ
27			23.26	19.03	24.66	18.35	26.08	19.68	26.81	19.43	27.97	19.30	29.13	20.09			ΙŒ
29			22.89	18.88	24.24	18.20	25.64	19.52	26.35	19.28	27.54	19.17	28.72	19.98			ΙL
31			22.51	18.72	23.83	18.04	25.20	19.36	25.91	19.13	27.11	19.03	28.31	19.86			ΙL
33	20.84	17.35	21.81	18.43	23.43	17.89	24.76	19.22	25.46	18.98	26.69	18.90	27.92	19.75			
35	20.70	17.29	21.54	18.31	23.02	17.73	24.32	19.06	25.00	18.83	26.26	18.76	27.51	19.64			ΙE
37	20.43	17.17	21.27	18.20	22.69	17.60	23.90	18.92	24.54	18.68	25.69	18.58	26.83	19.45			ΙП
39	20.32	17.13	21.18	18.17	22.55	17.55	23.67	18.84	24.27	18.59	25.31	18.47	26.35	19.32			ΙГ
41	20.93	17.40	21.43	18.27	22.36	17.49	23.38	18.74	23.94	18.49	24.88	18.33	25.80	19.17			ΙĽ
43	19.81	16.90	20.68	17.96	21.93	17.32	22.83	18.56	23.34	18.30	24.16	18.11	24.96	18.95			ΙĽ
46	17.88	16.05	18.45	17.06	19.05	16.28	19.72	17.54	20.36	17.38	21.26	17.27	22.15	18.21			ΙĽ
50	11.78	11.54	12.33	12.08	12.97	12.71	13.27	13.01	13.48	13.22	13.69	13.42	13.91	13.63			ľ

	Heating	mode:H	IC				(kW)
	Outdo	or air		Indoor	air temp	erature	
	tempe	rature			°CDB		
	°CDB	°CWB	16	18	20	22	24
	-19.8	-20	11.35	11.22	11.10	10.97	10.84
	-17.7	-18	12.14	12.00	11.87	11.73	11.59
	-15.7	-16	12.92	12.78	12.64	12.49	12.35
	-13.5	-14	13.71	13.55	13.41	13.25	13.10
П	-11.5	-12	14.39	14.24	14.08	13.93	13.77
	-9.5	-10	15.09	14.92	14.77	14.60	14.45
	-7.5	-8	15.77	15.61	15.44	15.28	15.12
	-5.5	-6	16.05	15.89	15.73	15.58	15.42
	-3.0	-4	16.32	16.17	16.02	15.87	15.72
	-1.0	-2	16.59	16.46	16.31	16.17	16.02
Ш	1.0	0	16.87	16.74	16.60	16.46	16.32
П	2.0	1	17.01	16.87	16.74	16.60	16.47
Ш	3.0	2	19.33	19.16	19.00	18.85	18.71
	5.0	4	23.97	23.74	23.50	23.33	23.17
П	7.0	6	28.61	28.30	28.00	27.81	27.64
	9.0	8	29.99	29.73	29.47	29.27	29.07
	11.5	10	31.36	31.15	30.95	30.73	30.50
	13.5	12	32.44	32.24	32.03	31.82	31.59
	15.5	14	33.52	33.33	33.13	32.91	32.68
	16.5	16	34.07	33.87	33.67	33.44	33.22

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)

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Model FDE280VSAWDVH

Indoor unit FDE71VH (4 units)

Outdoor unit FDC280VSA-W

Cooling m	ode															(kW)	Heating	g mode:H	IC .	
Outdoor							Ind	oor air t	emperat	ure							Outd	loor air		In
air	18°0	DB	21°0	DB	23°0	DB	26°0	DB	27°0	CDB	28°0	CDB	31°0	DB	33°	CDB	temp	erature		
temperature	12°C	WB	14°C	WB	16°C	WB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°0	CWB	°CDB	°CWB	16	Г
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	13.25	1
11					27.72	20.25	29.34	21.67	30.15	21.39	31.05	21.12	32.85	22.10	34.65	21.44	-17.7	-18	13.73	1
13					27.75	20.26	29.37	21.68	30.18	21.40	31.08	21.13	32.88	22.11	34.68	21.45	-15.7	-16	14.21	1
15					27.78	20.27	29.41	21.69	30.22	21.41	31.12	21.14	32.92	22.12	34.72	21.45	-13.5	-14	14.69	1
17					27.79	20.28	29.51	21.72	30.36	21.47	31.25	21.18	33.01	22.14	34.77	21.48	-11.5	-12	15.42	
19					27.91	20.33	29.62	21.77	30.52	21.51	31.39	21.23	33.11	22.17	34.83	21.49	-9.5	-10	16.17	1
21					27.48	20.16	29.14	21.59	30.00	21.33	30.86	21.06	32.58	22.02	34.29	21.35	-7.5	-8	16.90	1
23					27.06	19.99	28.65	21.42	29.48	21.16	30.33	20.89	32.05	21.87	33.76	21.22	-5.5	-6	17.20	1
25			25.32	20.63	26.84	19.91	28.41	21.33	29.22	21.07	30.07	20.80	31.78	21.79	33.49	21.15	-3.0	-4	17.49	1
27			25.12	20.55	26.63	19.82	28.17	21.25	28.96	20.98	30.21	20.85	31.46	21.70			-1.0	-2	17.78	1
29			24.72	20.39	26.18	19.65	27.69	21.08	28.46	20.82	29.75	20.70	31.02	21.58			1.0	0	18.08	1
31			24.31	20.22	25.74	19.49	27.21	20.91	27.98	20.66	29.28	20.55	30.58	21.45			2.0	1	18.22	1
33	22.51	18.74	23.56	19.90	25.30	19.32	26.74	20.76	27.50	20.50	28.82	20.41	30.15	21.33			3.0	2	20.71	2
35	22.35	18.68	23.27	19.78	24.86	19.15	26.27	20.59	27.00	20.34	28.36	20.26	29.71	21.21			5.0	4	25.68	2
37	22.06	18.54	22.97	19.65	24.50	19.01	25.81	20.43	26.51	20.17	27.74	20.07	28.98	21.00			7.0	6	30.66	3
39	21.95	18.50	22.87	19.62	24.36	18.96	25.56	20.35	26.21	20.08	27.34	19.95	28.46	20.87			9.0	8	32.13	3
41	22.60	18.79	23.14	19.73	24.15	18.89	25.25	20.24	25.85	19.97	26.87	19.80	27.87	20.70			11.5	10	33.60	3
43	21.40	18.25	22.33	19.40	23.68	18.71	24.66	20.05	25.21	19.77	26.09	19.56	26.96	20.46			13.5	12	34.76	3
46	19.31	17.34	19.92	18.43	20.58	17.58	21.30	18.95	21.99	18.77	22.96	18.65	23.92	19.67			15.5	14	35.91	3
50	12.72	12.47	13.32	13.05	14.01	13.73	14.33	14.05	14.56	14.28	14.78	14.49	15.02	14.72			16.5	16	36.50	3

/)	Heating	mode:H	IC				(kW)
1	Outdo	or air		Indoor	air temp	erature	
	tempe	rature			°CDB		
1	°CDB	°CWB	16	18	20	22	24
1	-19.8	-20	13.25	13.10	12.96	12.81	12.66
1	-17.7	-18	13.73	13.57	13.43	13.27	13.12
1	-15.7	-16	14.21	14.05	13.90	13.74	13.58
1	-13.5	-14	14.69	14.52	14.37	14.20	14.03
1	-11.5	-12	15.42	15.26	15.09	14.92	14.76
1	-9.5	-10	16.17	15.99	15.82	15.64	15.48
1	-7.5	-8	16.90	16.72	16.54	16.37	16.20
]	-5.5	-6	17.20	17.02	16.86	16.69	16.52
1	-3.0	-4	17.49	17.32	17.17	17.00	16.84
1	-1.0	-2	17.78	17.63	17.48	17.32	17.17
1	1.0	0	18.08	17.93	17.79	17.63	17.49
1	2.0	1	18.22	18.08	17.93	17.79	17.64
]	3.0	2	20.71	20.53	20.36	20.20	20.04
Т	5.0	4	25.68	25.43	25.18	25.00	24.82
Ш	7.0	6	30.66	30.32	30.00	29.80	29.61
J	9.0	8	32.13	31.86	31.58	31.36	31.14
J	11.5	10	33.60	33.38	33.16	32.92	32.68
_	13.5	12	34.76	34.54	34.32	34.09	33.84
J	15.5	14	35.91	35.71	35.50	35.26	35.01
]	16.5	16	36.50	36.29	36.08	35.83	35.59

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(6) Wall mounted type (SRK)

(a) Twin type

Model SRK200VSAWPZR

Indoor unit SRK100ZR-W (2 uints)

Outdoor unit FDC200VSA-W

Cooling n	node															(kW)	Heat	ng mode	: HC				(kW)
Outdoor							Indo	or air t	empera	ture							Ou	door air		Indoor	air temp	erature	
air	12°0	DB	21°0	DB	23°0	DB	26°0	DB	27°0	DB	28°0	DB	31°0	DB	33°0	DB	ten	perature			°CDB		
temperature	18°C	WB	14°C	WB	16°C	WB	18°C	WB	19°C	WB	20°0	CWB	22°C	WB	24°C	WB	°CD	3 °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	8.93	8.81	8.69	8.58	8.47
11							18.50	14.49	18.93	14.39	19.37	14.25	20.27	14.87	21.16	14.57	-17	7 -18	9.65	9.52	9.39	9.27	9.15
13							19.24	14.83	19.72	14.70	20.23	14.58	21.24	15.22	22.26	14.93	-15	7 -16	10.36	10.22	10.08	9.95	9.82
15							19.99	15.14	20.52	15.03	21.09	14.92	22.22	15.60	23.35	15.31	-13	5 -14	11.08	10.93	10.78	10.64	10.50
17							20.15	15.21	20.72	15.11	21.30	15.00	22.47	15.69	23.64	15.41	-11	5 -12	11.78	11.64	11.50	11.34	11.19
19							20.30	15.27	20.91	15.18	21.52	15.11	22.73	15.78	23.94	15.51	-9.	-10	12.49	12.35	12.22	12.04	11.87
21							20.45	15.34	21.11	15.29	21.73	15.19	22.98	15.87	24.24	15.61	-7.	-8	12.81	12.70	12.60	12.41	12.22
23							20.61	15.40	21.30	15.37	21.95	15.28	23.24	15.97	24.53	15.71	-5.	-6	13.14	13.06	12.97	12.77	12.58
25	19.82	15.50	19.82	15.50	19.45	14.63	20.76	15.49	21.49	15.45	22.16	15.37	23.49	16.09	24.83	15.84	-3.	-4	13.46	13.41	13.35	13.14	12.93
27	19.25	15.21	19.25	15.21	19.13	14.48	20.42	15.33	21.20	15.33	21.85	15.24	23.17	15.94			-1.	-2	13.79	13.76	13.73	13.50	13.28
29	18.67	14.93	18.67	14.93	18.81	14.34	20.09	15.18	20.90	15.18	21.55	15.12	22.85	15.82			1.0	0	14.12	14.11	14.10	13.87	13.63
31	18.09	14.64	18.09	14.64	18.49	14.19	19.76	15.04	20.60	15.06	21.24	14.98	22.52	15.71			2.0	1	14.28	14.29	14.29	14.05	13.81
33	17.52	14.36	17.52	14.36	18.17	14.04	19.42	14.90	20.30	14.94	20.93	14.86	22.20	15.59			3.0	2	15.93	15.92	15.91	15.65	15.39
35	16.94	14.08	16.94	14.08	17.84	13.90	19.09	14.76	20.00	14.81	20.63	14.74	21.88	15.47			5.0	4	19.23	19.19	19.16	18.85	18.55
37	16.36	13.79	16.36	13.79	17.31	13.66	18.53	14.51	19.36	14.56	19.98	14.49	21.24	15.22			7.0	6	22.53	22.46	22.40	22.06	21.72
39	15.79	13.51	15.79	13.51	16.78	13.40	17.97	14.27	18.71	14.28	19.34	14.24	20.60	14.99			9.0	8	23.70	23.39	23.07	22.69	22.31
41	15.21	13.24	15.21	13.24	16.25	13.17	17.42	14.05	18.07	14.02	18.70	13.97	19.96	14.77			11.	10	24.87	24.31	23.75	23.32	22.90
43	14.63	12.97	14.63	12.97	15.72	12.94	16.86	13.82	17.43	13.77	18.06	13.73	19.32	14.55			13.	12	26.04	25.60	25.15	24.77	24.40
46	13.33	12.35	13.33	12.35	14.21	12.27	15.05	13.07	15.41	12.97	15.90	12.90	16.86	13.62			15.	14	27.21	26.88	26.55	26.23	25.90
50	11.58	11.57	11.58	11.57	12.20	11.43	12.64	12.12	12.72	11.94	13.01	11.85	13.59	12.54			16.	16	28.39	28.14	27.89	27.64	27.40

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)

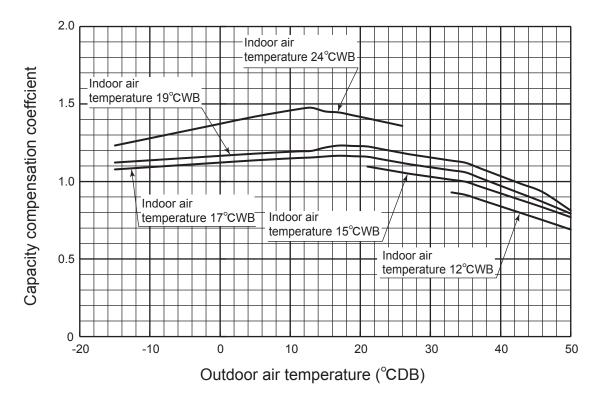
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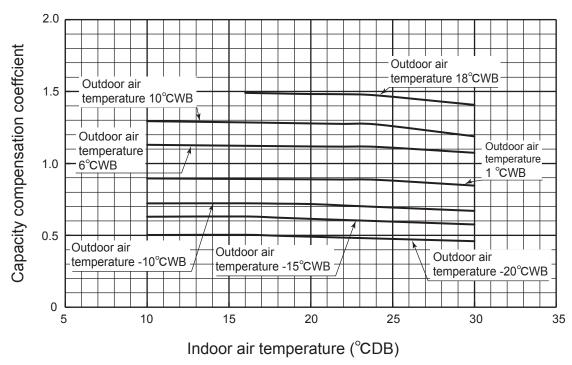
The following figures show capacity variation against outdoor and indoor temperature. Capacity compensation coefficient shows the ratio of maximum capacity at any temperature to nominal capacity.

(1) Model FDC200VSA-W

1 Cooling



2 Heating



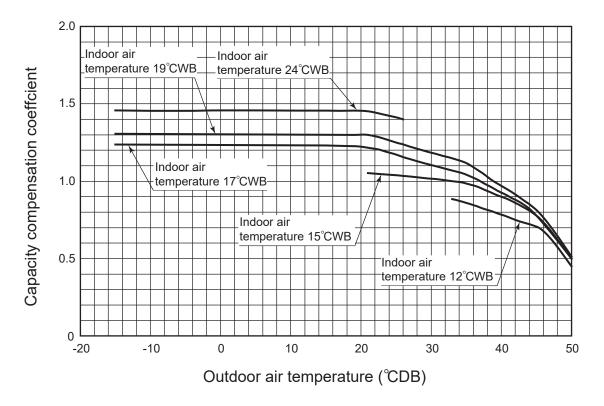
Note (1) These data show the case where the operation frequency of a compressor is maximum.

[References data]

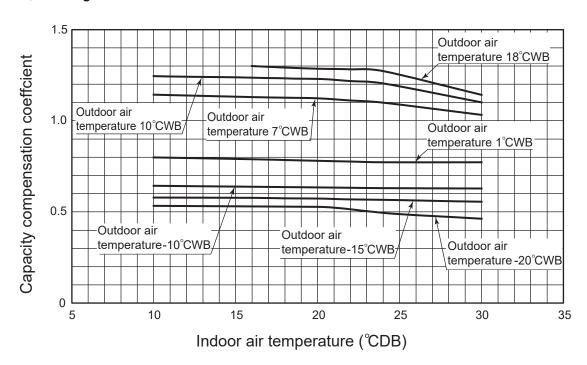
The following figures show capacity variation against outdoor and indoor temperature. Capacity compensation coefficient shows the ratio of maximum capacity at any temperature to nominal capacity.

(2) Model FDC250VSA-W

1 Cooling



2 Heating

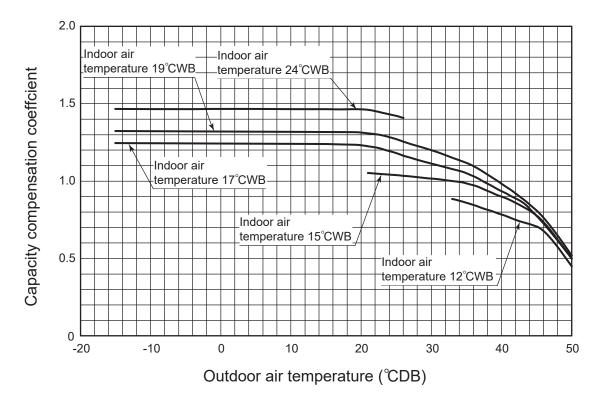


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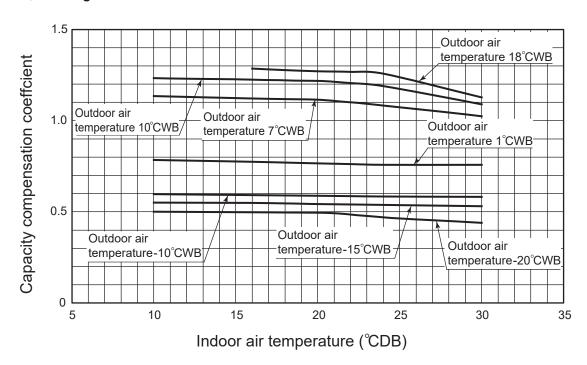
The following figures show capacity variation against outdoor and indoor temperature. Capacity compensation coefficient shows the ratio of maximum capacity at any temperature to nominal capacity.

(3) Model FDC280VSA-W

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 ⁽¹⁾	Me	Lo
Coefficient	1.00	0.97	0.95

Note (1) SRK series only

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.

Models FDC200, 250, 280

Equivale	et piping length (1) ((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
	200model		1	0.997	0.991	0.984	0.978	0.971	0.965	-	-	-	-	-	-	-	-
	250model	ϕ 22.22	1	0.995	0.985	0.975	0.965	0.954	0.944	-	-	-	-	-	-	-	-
	280model		1	0.993	0.979	0.966	0.952	0.937	0.923	-	-	-	-	-	-	-	-
	200model		-	-	-	-	-	-	0.988	0.984	0.981	0.977	0.974	0.970	0.967	0.963	0.960
Cooling	250model	ϕ 25.4	-	-	-	-	-	-	0.978	0.972	0.966	0.960	0.953	0.947	0.941	0.935	0.929
	280model		-	-	-	-	-	-	0.968	0.960	0.951	0.943	0.932	0.925	0.916	-	-
-	200model		-	-	-	-	-	-	0.999	0.997	0.995	0.993	0.991	0.989	0.987	0.985	0.983
	250model	ϕ 28.58	-	-	-	-	-	-	0.997	0.994	0.990	0.987	0.983	0.980	0.976	0.973	0.969
	280model		-	-	-	-	-	-	0.995	0.991	0.985	0.981	0.975	0.971	0.965	-	-

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.

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

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	35m	40m	45m	50m
Adjustment coefficient	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90

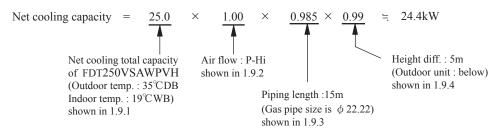
Piping length limitations

Model	FDC200, 250	FDC280		
Max. one way piping length	70m	60m		
Max. vertical height difference	Outdoor unit is higher 50m (Outdoor air temperature≤43°C) Outdoor unit is higher 30m (Outdoor air temperature>43°C) 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 FDT250VSAWPVH with the air flow "P-Hi", the piping length of 15m, the outdoor unit located 5m lower than the indoor unit, indoor wet-bulbtemperature at 19.0° C and outdoor dry-bulb temperature 35° C is



1.10 Application data

1.10.1 Installation of indoor unit

Ceiling cassette-4 way type(FDT)

This manual is for the installation of the indoor unit

For electrical wiring work (Indoor unit), refer to page 124. For remote control installation, refer to page 128. For wireless kit installation, refer to page 225. For electrical wiring work (Outdoor unit) and refriger ant pipe work installation for outdoor unit, refer to page 140. For motion sensor kit installation, refer to page 262. This unit must always be used with the panel.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- 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.

In case of R32, the refrigerant could be ignited because of its flar

Install the unit in a location that can hold heavy weight. Improper installation may cause the unit to fall leading to accide

 $\blacksquare \text{Install the unit properly in order to be able to with stand strong winds such as typhoons, and earth quakes. }$

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 panel property.

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 R32 or 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 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, fin

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

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. Ø It could cause electric shock, unit failure and improper runni

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⚠ 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 due to a short circuit.

Earth leakage breaker must be installed.

If the earth leakage breaker is not installed, it can cause electric shocks

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

Do not use any materials other than a fuse of correct capacity where a fuse should be used.

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 it could be sprayed with chemicals, or volatile flammable substances are handled.

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

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

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

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Places exposed to oil mist or steam directly. On vehicles and ships

Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit

Do not put any valuables which will break down by getting wet under the air conditioner.

It could cause the unit falling down and injury.

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.

Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work

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.

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

sects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to keep the surroundings clean.

Make sure to dispose of the packaging material.

Do not touch any button with wet hands

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

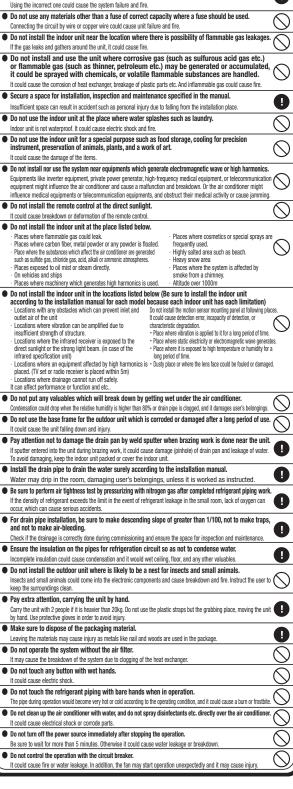
Do not turn off the power source immediately after stopping the operation

Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or break

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

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1Before installation

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

Accessory item

OUnit type/Power supply specification

OPipes/Wires/Small parts OAccessory items When moving the indoor unit, hold only the hanging hardware (4 places) only, with care not to apply forces to any other parts of the unit (particularly the refriger ant pipe, drain pipe, and resin parts).

For un	it hanging		For refrigerant pig	oe e		For dra	in pipe	
Flat washer (M10)	Level gauge	Pipe cover(big)	Pipe cover (small)	Strap	Pipe cover(big)	Pipe cover(small)	Drain hose	Hose clamp
0)	00 00 0 0 0 0				0	0		
8	1	1	1	4	1	1	1	1
For unit hanging	For unit hight position adjustment and hanging suport	For heat insulation of gas pipe	For heat insulation of liquid tube	For pipe cover fixing	For heat insulation of drain socket	For heat insulation of drain socket	For drain pipe connecting	For drain hose mounting

2 Selection of installation location for the indoor unit

- 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
- In case of the panel having the motion sensor, the installation height must be no higher than 4 m. It could reduce the sensitivity of motion sensor, disabling the detection
- · 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 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.
- 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 condensa tion drop if the air conditioner is operated under the severer condition than mentioned

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

(A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air conditioner might not work properly.)

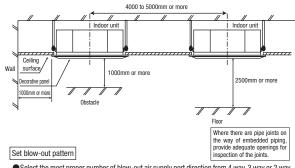
②Check if the place where the air conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

(3)If there are 2 units of wireless type, keep them away for more than 6m to avoid malfunction due to cross communication.

(4) When plural indoor units are installed nearby, keep them away for more than 4 to 5m.

Space for installation and service

- When it is not possible to keep enough space between indoor unit and wall or between indoor units, close the air supply port where it is not possible to keep space and confirm there is no short circuit of airflow.
- Install the indoor unit at a height of more than 2.5m above the floor.



- Select the most proper number of blow-out air supply port direction from 4 way, 3 way or 2 way according to the shape of the room and installation position. (1 way is not available.)
- If it is necessary to change the number of air supply port, prepare the covering materials. (sold as accessory)
- Instruct the user not to use low fan speed when 2way or 3way air supply is used.
- Do not use 2way air supply port under high temperature and humidity environment. (Otherwise it could cause condensation and leakage of water.)
- ●It is possible to set the airflow direction port by port independently. Refer to tne user's manual for details.

3Preparation before installation

If suspension bolt becomes longer do reinforcement of earthquake resistant. OFor 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.

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 or M8) on site.

Ceiling opening, Suspension bolts pitch, Pipe position

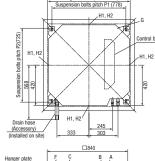
* It is possible the suspension bolts pitch to adjust accoding to the this table.

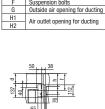
•			Single S
Mark			SE
Туре	P1	P2	VRI
1	770	725~770	SE
2	770~800	725	

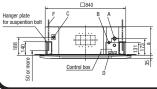
						(111111)	
Series	Туре	а	d	f	g	h	
Single Split (PAC)	40 to 71 type	236	37	105	88	67	
series	100 to 140 type	298	99	167	140	129	
VRF (KX)	28 to 71 type	236	37	105	88	67	
series	90 to 160 type	298	99	105 88 67 167 140 129 105 88 67			

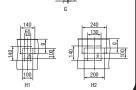
Gas piping

Liquid piping







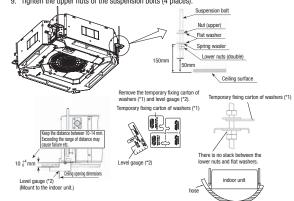


(4) Installation of indoor unit

Work procedure

- Set the suspension bolt length to about 50 mm from the ceiling.
- Temporarily locate the lower nuts of the suspension bolts (4 places) at a position approximately 150 mm from the ceiling.
- Temporarily locate the upper nuts of the suspension bolts (4 places) at positions sufficiently distance from the lower nuts so that they do not interfere with the suspension of the indoor unit and with its height adjustment.
- Set the upper nuts of the suspension bolts and upper washers (4 places) at positions sufficiently distance from the lower nuts. Then, push and insert the temporary fixing carton of washers (*1) onto suspension bolts. Make sure that the upper washers do not slide down.
- 5. Suspend the indoor unit.
- 6. After suspending the indoor unit, mount the level gauge (*2) to the air outlet of the indoor unit, and adjust the suspension height of the indoor unit. Loosen the upper nuts (4 places), and adjust the suspension height using the lower nuts (4 places). Confirm there is no slack between the lower nuts and flat washers of the indoor unit hanger plate (4 places).
- Remove the temporary fixing carton of washers (from all 4 places).
- Make sure that the indoor unit is installed horizontally. Confirm the levelness of the indoor unit using a level gauge or transparent hose filled with water. (Keep the height difference at both ends of the indoor unit within 3 mm.)

Tighten the upper nuts of the suspension bolts (4 places)



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(4)Installation of indoor unit (continued)

Protection of the indoor unit

If it is not possible to install the panel for a while or if attaching the ceiling board after installing the indoor unit, protect the indoor unit by using upper carton.



Caution

- Do not adjust the unit height by adjusting the upper nuts. Doing so will cause unexpected stress on the indoor unit and cause the unit to become deformed, prevent the panel from being installed, and be generated fan interference noise.
- Make sure that the indoor unit is installed horizontally and set the appropriate gap between the underside of the unit and the ceiling plane. Improper installation may cause air leakage. dew condensation, water leakage and noise
- Even after the panel has been installed, the unit height can still be finely adjusted. Refer to the panel installation manual for details.
- Make sure there is no gap between the panel and the ceiling surface, and between the panel and the indoor unit. Any gap may cause air and/or water to leak, or condensation to

5Refrigerant pipe

Caution

- Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product. Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction unit, catalogue or technical data
 - In case of reuse: Do not use old flare nut, but use the nut attached to the unit.

2) in case of reuse: Flare the end of pipe replaced partially for R32 or R410A.

[AWARNING]: When flared joints are reused indoors, the flare part shall be re-fabricated. (only for R32)





П			Protrucing aimer	ision for flare, mm			
١	Pipe dia.	Min. pipe wall thickness	Rigid (CI	utch type)	Flare O.D.	Flare nut tightening torque	
	mm	mm	For R32 For R410A	Conventional tool	D mm	N-m	
[6.35	0.8				8.9 ~ 9.1	14 ~ 18
I	9.52	0.8				12.8 ~ 13.2	34 ~ 42
ſ	12.7	0.8	0 ~ 0.5	0.7 ~ 1.3	16.2 ~ 16.6	49 ~ 61	
[15.88	1				19.3 ~ 19.7	68 ~ 82
ľ	19.05	1.2			23.6 ~ 24.0	100 ~ 120	

- Use phosphorus deoxidized copper alloy seamless pipe (C1220T) 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 the designated refrigerant. Using other refrigerant except the designated refrigerant, 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 R32 or R410A refrigerant.

Work procedure

- 1. Remove the flare nut and blind flanges on the pipe of the indoor unit.
 - efflower the hare not and united hardges on one paper of the motion of the Make sure to losen the flare not 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.

 * 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
 - Make sure to use flare nuts assembled on the unions.
 Usage of other flare nuts could cause refrigerant leakage.
 - * Do a flare connection as follows:
 - Make sure to hold the nut on indoor unit pipe side using double spanner method as indicated when fastening / loosening flare nuts in order to prevent unintentional twisting of the copper pipe.
 - 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 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

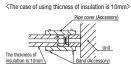
 - *Incomplete insulation may cause dew condensation or water dropping.
 - Use heat-resistant (120 °C or more) insulations on the gas side pipes.
 In case of using at high humidity condition, reinforce insulation of refrigerant pipes. Surface of insulation may cause dew condition or water dropping, if insulations are not
- Refrigerant is charged in the outdoor unit.

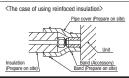
As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

(5) Refrigerant pipe (continued)

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

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





6 Drain pipe

Caution

- Install the drain pipe according to the installation manual in order to drain properly.
 Water may drip in the room, damaging user's belongings, unless it is worked as instructed.
- Be sure to use the supplied drain hose. Unless it is used, the drain socket could be damaged
- by undue stresses, causing water leakage.

 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.

Drain socket and drain hose connection

- Where temperatures around the drain socket may rise beyond 50°C, adhere the drain socket and the drain hose.
- Avoid using the hose clamp with adhesive. It could cause water leakage.
- <When using the hose clamp>
- 1. Make sure that the drain hose (the soft PVC side) is inserted into the end of the step part of the drain socket.
- Fix the hose clamp so that its bolt is located on the outside of the indoor unit, and the bolt are fastened in a vertical orientation. Position the hose clamp so that it touches the
- insulation of the drain hose, and then tighten the bolt. Turn the bolt several times until it is securely
- tightened, but do not tighten it excessively Target extent of bolt tightening should be 17 to 20 mm (Reference:1.2 to 1.5N·m)

<When using adhesives>



Shorten the distance as much as possible (250 mm or less)

Joint for VP-25 (Prenare on site

0° to 20°

- Connect the drain hose (the soft PVC side) to the drain socket using polyvinyl type adhesives Make sure that the drain hose (the soft PVC side) is inserted into the end of the step part of the drain socket.
- Use the adhesive according to maker's instructions.
- * Do not use adhesives containing phthalic esters. It could cause water leak.
- Make sure that the adhesive will not get into the drain hose or drain socket.

Drain hose and piping connection

- Prepare a joint for connecting VP-25 pipe, adhere and connect the joint to the drain hose (the rigid PVC side), 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 leakage.

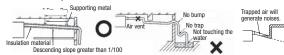
 2. Pay attention not to apply stresses to the drain socket or drain pipe, and support and fix the drain pipe as close place to the unit as possible when connecting the drain pipe.

 (within 250 mm from the end of joint prepared at site)

 As for drain pipe, apply VP25 (DD32).

 If apply PVC25 (DD25), connect the Indoor side Drain hose
- expanded connector to the drain hose, with adhesive. (Multi unit only) 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.

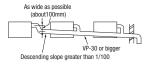
Do not set up air vent.





(6) Drain pipe (continued)

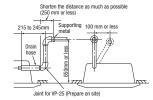
When sharing a drain pipe for more than 1 unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP-30 or bigger size for main drain pipe.



- 4. Insulate the drain pipe.
 - lacktriangledark Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.
 - * After 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), hose clamp 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 850mm 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 right figure



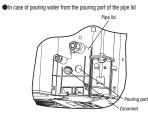
Drain test

- After installing the drain pipe, make sure that drain system works correctly and that no water leaks from the joint and drain pan. Check whether the motor sound of the drain pump is normal.
- Conduct a drain test when installing, even during the heating season.

 In the case of new buildings, be sure to complete the test before fixing the ceiling.
- Pour about 1,000 cc of test water into the drain pan of the indoor unit. Exercise care not to allow electrical equipment such as the drain pump and other components to become wet while filling water.

Pour test water through the pouring port of the pipe lid using a feed water pump or a similar device, or through the refrigerant pipe joint.





- 2. Make sure that water drains out completely and that no water leaks from any joints of the drain pipe during the test. Test to confirm that the water drains out correctly while listening to the drain pump motor operating sound.
- At the drain socket (transparent), it is possible to check whether the water drains out corre 3. Unplug the rubber plug on the indoor unit so that the remaining water drains from the drain
- pan after the draining test. After checking the water drainage, fix the rubber plug correctly. Installation work for the drain

pipe must be performed for the entire drain pipe up to the indoor unit. If the pipe lid has been removed in order to pour water, mount the pipe lid again.

Drain nump operation

- ●In case electrical wiring work completed
- Drain pump can be operated by the wired remote controller.

 For the operation method, refer to Operation for drain pump in the installation manual for wiring work. In case electrical wiring work not completed

Drain pump will run continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connector CNB is disconnected, and then the power supply (230VAC on the terminal block ① and ②) is turned ON. Make sure to turn OFF "SW7-1" and reconnect the Connector CNB after the test.

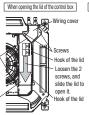
(7) Wiring-out position and wiring connection

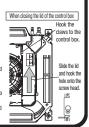
- Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country. 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 miscommuni-
- cation and malfunction.
- cation and maintenent.

 Be sure to do D type earth work.

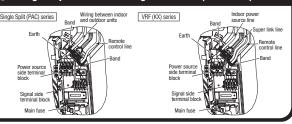
 For the details of electrical wiring work, see attached instruction manual for electrical wiring work.
- 1 Loosen the 2 screws of the lid of the control box, and slide the lid in the direction of the arrow shown in the figure. It will then be possible to open the lid
 Unhook the lid from the control box,
- and remove the lid.
- Remove the 2 screws from the wiring cover, and remove the wiring cover. Hold each wire inside the unit, and securely
- fasten them to the terminal block Fix the wiring using clamps.
 Install the wiring cover and the lid of
- the control box. Main fuse specification







(7)Wiring-out position and wiring connection (continued)



®Panel installation

- Install the panel on the indoor unit after electrical wiring work.
- Refer to the attached manual for panel installation for details

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	
Supply 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 airflow on air inlet and outlet?	Insufficient capacity	

(Maintenance)

The method of checking the dirt of drain pan

- It is possible to check dirt on the drain pan and drain pump inlet without removing the panel.
- Open the inlet grille and remove the corner lid on the drain pan side
- Remove the drain cap cover (1 screw) from the panel corner.

 Check the dirt on the drain pan from the drain cap, and check the drain pump inlet. If the drain pan is very dirty, remove the drain pan and clean it.
- After checking, refix the drain cap cover securely.
 If the cover is not refixed correctly, it may cause condensation to form and/or water to leak.



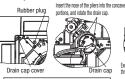
Cleaning of drain pump inlet

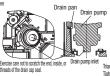
- It is possible to clean the drain pump inlet and surrounding area by removing the drain cap only; it is not necessary to remove the panel and drain pan.

 Before removing the drain cap, remove the rubber plug and drain water from the drain pan.
- Remove the drain cap cover as described above.

- Remove the drain cap cover as described above.
 Insert the nose of the pilers into the concave portions (2 places) of the drain cap, and rotate the pilers about 1 turn in the CCM direction. The drain cap is removed.
 When cleaning the drain pump inlet, use a soft plastic tool. If a metallic tool is used, the drain cap mounting portion may be scratched and water may leak.
 Before mounting the drain cap, rinse it and remove any foreign material from the inside of the cap. If the drain cap is installed with foreign material side it, it may cause water to leak.
 Insert the nose of the pilers into the concave portions of the drain cap and rotate the pilers to install the drain cap. Rotate the drain cap about 1 turn in the CW direction until it stops rotating. If the drain cap is not rotated for 1 or more turns, the cap will not have been installed correctly.
 Remove the drain cap, and then install it again correctly.
 After tibiletion the drain cap, make sure the triangle (Δ) mark of the drain comes close to the triangle mark

6. After tightening the drain cap, make sure the triangle (△) mark of the drain cap comes close to the triangle mark on the panel. If these triangle marks are not close to each other, tighten the drain cap further.
7. Refix the drain cap cover and rubber plug securely. If the cover is not refixed correctly, it may cause condensation to form and/or water to leak.







Notes for removing the drain pan

Before removing the drain pan, drain water from the drain pan. Remove the rubber plug and drain water

• Before removing the drain pain, sind water from the drain pain. Hemove the rubber plug and drain water. The drain pain is installed by the temporary installation plate. Remove the 2 drain pan fixing screws, and loosen the 2 screws of the temporary installation plate. Slide the temporary installation plate to the drain pain. And then, it is possible to remove the drain pain. When reinstalling the drain pan, slide the temporary installation plate to the inside and temporarily fix the drain pan. Then, tighten the 2 drain pan fixing screws and the 2 screws of the temporary installation plate. Also, refix the rubber plug securely.









Slide the plate

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Panel installation

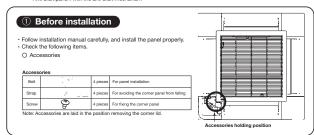
Read this manual together with the indoor unit's installation manual.

⚠ WARNING urely 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.

The Anti draft panel has the anti draft mechanism. If the Anti draft panel is installed and the anti draft function is set, the anti draft function will be operarted and reduce the draft feeling. (Refer to Rand satting for details.)

- Standard panel: without the anti draft mechanism

- Anti draft panel: with the anti draft mechanism

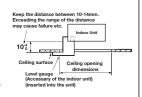


② Checking the indoor unit installation position

- · Read this manual together with the air-conditioner installation manual carefully.
- · Check if the opening size for the indoor unit is correct with the level gauge supplied in the indoor unit.
- Check if the gap between the plane and the indoor unit is correct by inserting the level gauge into the air outlet port of the indoor unit. (See below drawing)
- · Adjust the installation elevation if necessary
- · Remove the level gauge before installing the panel.

If there is a height difference beyond the design limit between the installation level of the indoor unit and the panel, the panel may be subject to excessive stress during installation and it may cause distortion and damage.

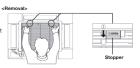
The installation level of the indoor unit can be adjusted finely from the opening provided on the corner, even after panel is Installed. (Refer to installing the panel for details.)



③ Removing the inlet grille

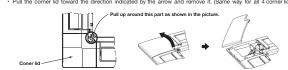
- 1. Hold the stoppers on the inlet grille (2 places) toward OPEN direction, open the inlet grille c places) toward OPEN direction, open the inlet grille.

 2. Remove the hooks of the inlet grille from the panel while it is in the open position.



Removing the corner lid

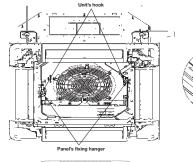
Pull the corner lid toward the direction indicated by the arrow and remove it. (Same way for all 4 corner lids)



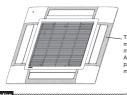
⑤ Orientation of the panel installation Take note that there is an orientation to install the panel. Install the panel with the orientation shown on the right. Align the "PIPE SIDE" mark (on the panel) with the refrigerant pipes on the indoor unit. Align the "DPAIN" mark (on the panel) with the drain pipe on the indoor unit. Control In case the orientation of the panel is not correct, it will lead to air leakage and also it is not possible to connect the flap motor wiring. **Q** -0

6 Installing the panel

- 1. Temporary hanging
- Lift up the hanger (2 places) on the panel for temporary support.
 Hang the panel on the hook on the indoor unit.



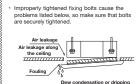




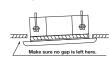
. The Anti draft panel moves the parts of the anti draft mechanism (shaded area, 4 places). Note that they may break if they are moved forcibly by hand. Although the parts (shaded area) of the Standard panel are separate parts from the body, they do not move.

- The parts (shaded area), of the anti draft mechanism around the air outlet, are separate parts. Handle the panel with care. Especially, the shaded area of the Anti draft panel move. Note that they may break if they are moved forcibly by hand.

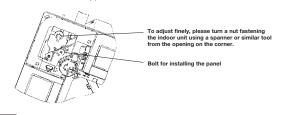
- Fix the panel on the indoor unit
 Fasten the panel on the indoor unit with the 4 bolts supplied with the panel.



If there is a gap between the ceiling and the panel even after the fixing bolts are tightened, adjust the installation level of the indoor unit again.



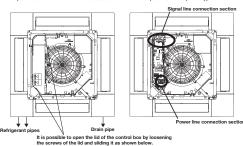
It is possible to adjust the installation height of the indoor unit with the panel installed as long as there is no influence on the drain pipe inclination and/or the indoor unit levelness.



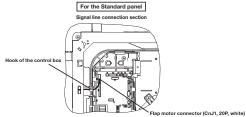
Do not give any stress on the panel when adjusting the height of the indoor unit to avoid unexpected distortion. It may cause the distortion of panel or failing to close the inlet grille, and the parts of the anti draft mechanism.

② Electrical wiring

The wiring work varies depending on the panel type. Select the wiring work appropriate for the panel type. The connection positions of the indoor unit are as shown below irrespective of the panel type.

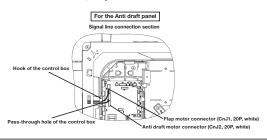


- <For the Standard panel>
 1. Loosen 2 screws on the control box lid of the indoor unit, and remove the lid by sliding it.
 2. Pass the flap motor wiring (20-wire) through the hook of the control box, and connect to CnJ1 (20P, white).
 3. Fix the control box lid of the indoor unit, and tighten 2 screws.



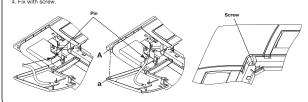
- <For the Anti draft panel>
 1. Loosen 2 screws on the control box lid of the indoor unit, and remove the lid by sliding it.
 2. Pass the flag motor cable (20-wire) through the hook of the control box, and connect to CnJ1 (20P, white).
 3. Pass the anti draft motor cable (20-wire) through the hook of the control box, and connect to CnJ2 (20P, white).
 4. Fix the control box lid of the indoor unit, and tighten the 2 screws.





8 Installing a corner lid

- To avoid unexpected falling of the corner lid, put the strap onto the corner lid's pin with turning the strap up.
 Then hang the strap of a corner lid onto the panel's pin.
 First insert the part "a" of a corner lid into the part "A" of the panel, and then engage 2 hooks.
 Fix with scrape.

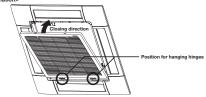


9 Installing the inlet grille

To attach the inlet grille, follow the procedure described in the tender that grille in the reverse order.

1. Hang the hooks of the inlet grille in the hole of the panel. (The hooks of the grille can be hanged in 4 side of the panel as following.)

2. After the grille is hanged, close the grille while the stoppers(2 places) on the grille are kept pressed to "OPEN" direction. When the grille comes to the original position, release the stoppers to hold the grille. Make sure to hear the sound of "CLICK" in both stoppers.



- Installing the inlet grille from the hinge side.
 Be careful in the inlet grille Installing, unstable installing may cause grille falling.
 Repair or replace the distorted, broken stopper at once, or the grille falling may occur.

10 Panel setting

<Flap swing range setting (Individual flap cotrol setting)>

It is possible to change the swing range of the flap by the wired remote control. Once the upper and lower limit positions are set, the flap will swing within the set range. It is also possible to set the different range to each flap.

The anti draft function will not be operated if the anti draft panel is installed and its wirings are only connected. To operate the anti draft function, enable the anti draft setting by using the wired or wireless remote control.

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

Once you have enabled the settings in this mode, the anti draft function is operated when the air-conditioner is started, and the parts of the anti draft mechanism are always open when the air-conditioner is operating. When the air-conditioner is stopped, they are closed. It is possible to enabled or disabled the anti draft function for each air outlet.

For the setting details, refer to the user's manual supplied with the remote control.

(2) Ceiling cassette-4 way compact type(FDTC)

PJF012D514

This manual is for the installation of the indoor unit.

For electrical wiring work (Indoor unit), refer to page 124. For remote control installation, refer to page 128. For wireless kit installation, refer to page 234. For electrical wiring work (Outdoor unit) and refrigerant pipe work installation for outdoor unit, refer to page 140. For motion sensor kit installation, refer to page



⚠ 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 ause unit failure and electric shock due to a short circuit Earth leakage breaker must be installed. Œ If the earth leakage breaker is not installed, it can cause electric shocks Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all noles 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 accumulatit could be sprayed with chemicals, 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. a 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. It could cause breakdown or deformation of the remote control 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 floatec
Place where the substances which affect the air conditioner are generated Places where cosmetics or special sprays a frequently used. Highly salted area such as beach. Heavy snow area such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres. Places where the system is affected by Places exposed to oil mist or steam directly. On vehicles and ships smoke from a chimney. Places where machinery which generates high harmonics is used. 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) secording 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 wibration can be amplified due to insufficient serior of structure. Locations where wibration are partial of structure. Locations where the infrared receiver is exposed to the direct suniglinor the strong light beam. (In case of the infrared specification unit) Locations where an equipment affected by high harmonics is - Dusty place or where the lens face could be fouled or damaged. Locations where drainage cannot run off safely. 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. n could drop when the relative humidity is higher than 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. Water may drip in the room, damaging user's belongings, unless it is worked as instructed Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work. 0 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. • For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps 0 Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenance Ensure the insulation on the pipes for refrigeration circuit so as not to condense water. ø 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 🤇 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 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 • 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 frostbite Do not clean up the air conditioner with water, and do not spray disinfectants etc. directly over the air condition t could cause electrical shock or corrode parts 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.

It could cause electric shock, unit failure and improper running

ion work, it could cause el

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

Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also

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Connect the pipes for refrigeration circuit securely in installation work before compressor is operated.

• Stop the compressor before removing the pipe after shutting the service valve on pump down work.

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.

or is operated when the service valve is open without connecting the pipe, it could cause explo

If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit

cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak.

and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.

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

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

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

Improper repair may cause water leakage, electric shock or fire

If the power is supplied during servicing or inspec

Shut off the power before electrical wiring work.

burned, or electric shock

Improper installation may cause water leakage, electric shock or fire

Turn off the power source during servicing or inspection work.

to abnormal high pressure in the system.

#

1Before installation

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

OUnit type/Power supply specification

OPipes/Wires/Small parts OAccessory items Accessory item

When moving the indoor unit, hold only the hanging hardware (4 places) only with care not to apply forces to any other parts of the unit (particularly the refriger ant pipe, drain pipe, and resin parts).

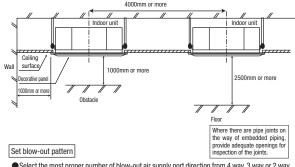
Ē	For unit hanging For refrigerant pipe For drain pipe								
Flat	washer (M10)	Level gauge	Pipe cover(big)	Pipe cover (small)	Strap	Pipe cover(big)	Pipe cover(small)	Drain hose	Hose clamp
	0)					0	0	a	8
	8	1	1	1	4	1	1	1	1
For	unit hanging	For unit hight position adjustment and hanging suport	For heat insulation of gas pipe	For heat insulation of liquid tube	For pipe cover fixing	For heat insulation of drain socket	For heat insulation of drain socket	For drain pipe connecting	For drain hose mounting

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.
 - In case of the panel having the motion sensor, the installation height must be no higher than 4 m. It could reduce the sensitivity of motion sensor, disabling the detection
 - · 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.
 - 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.)
- 2Check 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)If there are 2 units of wireless type, keep them away for more than 6m to avoid malfunction due to cross communication.
- 4When plural indoor units are installed nearby, keep them away for more than 4m.

Space for installation and service

- •When it is not possible to keep enough space between indoor unit and wall or between indoor units, close the air supply port where it is not possible to keep space and confirm there is no short circuit of airflow
- Install the indoor unit at a height of more than 2.5m above the floor

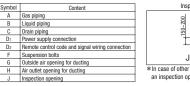


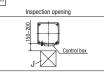
- Select the most proper number of blow-out air supply port direction from 4 way, 3 way or 2 way according to the shape of the room and installation position. (1 way is not available.)
- If it is necessary to change the number of air supply port, prepare the covering materials. (sold as accessory)
- Instruct the user not to use low fan speed when 2way or 3way air supply is used.
- Do not use 2way air supply port under high temperature and humidity environment. (Otherwise it could cause condensation and leakage of water.)
- It is possible to set the airflow direction port by port independently. Refer to the user's manual for details

3Preparation before installation

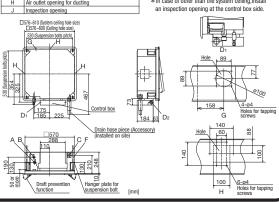
- If suspension bolt becomes longer, do reinforcement of earthquake resistant. OFor grid ceiling
 - When suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.
- Oln case the unit is hanged directly from the slab and 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 or M8) on site

Ceiling opening, Suspension bolts pitch, Pipe position





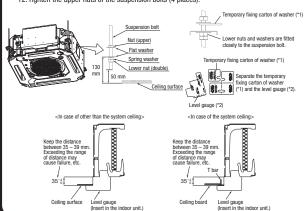
* In case of other than the system ceiling,install an inspection opening at the control box side.



(4)Installation of indoor unit

Work procedure

- This unit is designed to install on a system ceiling.
 If necessary, remove T bars temporarily before installing the unit.
- When it is installed on a ceiling other than the system ceiling, install an inspection port at the control box side.
- Determine the position of suspension bolts (530 mm imes 530 mm).
- 3. Use 4 suspension bolts, and fix them.
- Set the suspension bolt length to about 50 mm from the ceiling.
- Temporarily locate the lower nuts of the suspension bolts (4 places) at a position approximately 130 mm from the ceiling.
- Temporarily locate the upper nuts of the suspension bolts (4 places) at positions sufficiently distance from the lower nuts so that they do not interfere with the suspension of the indoor unit and with its height adjustment.
- Set the upper nuts of the suspension bolts and upper washers (4 places) at positions sufficiently distance from the lower nuts. Then, push and insert the temporary fixing carton of washers (*1) onto suspension bolts. Make sure that the upper washers do not slide down
- Suspend the indoor unit.
- 9. After suspending the indoor unit, mount the level gauge (*2) to the air outlet of the indoor unit, and adjust the suspension height of the indoor unit. Loosen the upper nuts (4 places), and adjust the suspension height using the lower nuts (4 places). Confirm there is no slack between the lower nuts and flat washers of the indoor unit hanger plate (4 places).
- 10. Remove the temporary fixing carton of washers (from all 4 places).
- 11. Make sure that the indoor unit is installed horizontally. Confirm the levelness of the indoor unit using a level gauge or transparent hose filled with water. (Keep the height difference at both ends of the indoor unit within 3 mm.)
- 12. Tighten the upper nuts of the suspension bolts (4 places).



4 Installation of indoor unit (continued)

Protection of the indoor unit

If it is not possible to install the panel for a while or if attaching the ceiling board after installing the indoor unit, protect the indoor unit by using upper carton



Caution

- Do not adjust the unit height by adjusting the upper nuts. Doing so will cause unexpected stress on the indoor unit and cause the unit to become deformed, prevent the panel from being installed, and be generated fan interference noise
- Make sure that the indoor unit is installed horizontally and set the appropriate gap between the underside of the unit and the ceiling plane. Improper installation may cause air leakage, dew condensation, water leakage and noise
- Make sure there is no gap between the panel and the ceiling surface, and between the panel and the indoor unit. Any gap may cause air and/or water to leak, or condensation to

⑤Refrigerant pipe

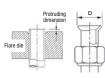
Caution

- Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product. Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the out unit, catalogue or technical data.

 1) In case of reuse: Do not use old flare nut, but use the nut attached to the unit.

 2) In case of reuse: Flare the end of pipe replaced partially for R32 or R410A.

[AWARNING]: When flared joints are reused indoors, the flare part shall be re-fabricated. (only for R32)



1	Protruding dimension for flare, mm									
Pipe dia.	Min. pipe wall thickness	Rigid (CI	utch type)	Flare O.D.	Flare nut tightening torque					
mm	mm	For R32 For R410A	Conventional tool	mm	N-m					
6.35	0.8				8.9 ~ 9.1	14 ~ 18				
9.52	0.8									
12.7	0.8	0 ~ 0.5	0.7 ~ 1.3	16.2 ~ 16.6	49 ~ 61					
15.88	1					19.3 ~ 19.7	68 ~ 82			
19.05	1.2			23.6 ~ 24.0	100 ~ 120					

- Use phosphorus deoxidized copper alloy seamless pipe (C1220T) 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 the designated refrigerant.
- Using other refrigerant except the designated refrigerant, 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 R32 or R410A refrigerant.

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.)
- 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.
- Make sure to use flare nuts assembled on the unions Usage of other flare nuts could cause refrigerant
- * Do a flare connection as follows:
- ■Make sure to hold the nut on indoor unit pipe side using double spanner method as indicated when fastening / loosening flare nuts in order to prevent unintentional twisting of the copper pipe
- 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.
- 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

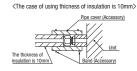
 Use heat-resistant (120 °C or more) insulations on the gas side pipes.
- In case of using at high humidity condition, reinforce insulation of refrigerant pipes. Surface of insulation may cause dew condition or water dropping, if insulations are not
- Refrigerant is charged in the outdoor unit.
- As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit

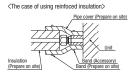
5Refrigerant pipe (continued)

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 y the stress corrosion.

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





6 Drain pipe

Caution

- Install the drain pipe according to the installation manual in order to drain properly.
- Water may drip in the room, damaging user's belongings, unless it is worked as instructed.

 Be sure to use the supplied drain hose. Unless it is used, the drain socket could be damaged
- by undue stresses, causing water leakage.

 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.

Drain socket and drain hose connection

- Where temperatures around the drain socket may rise beyond 50°C, adhere the drain socket and the drain hose.
- Avoid using the hose clamp with adhesive. It could cause water leakage.

- When using the hose clamp>
 . Make sure that the drain hose (the soft PVC side) is inserted into the end of the step part of the drain socket.
 - Fix the hose clamp so that its bolt is located on the outside of the indoor unit, and the bolt are fastened in a vertical orientation.
- Position the hose clamp so that it touches the
- insulation of the drain hose, and then tighten the bolt. Turn the bolt several times until it is securely tightened, but do not tighten it excessively Target extent of bolt tightening should be 17 to 20 mm (Reference:1.2 to 1.5N·m)

<When using adhesives>

- Connect the drain hose (the soft PVC side) to the drain socket using polyvinyl type adhesives Make sure that the drain hose (the soft PVC side) is inserted into the end of the step part of the drain socket.
- Use the adhesive according to maker's instructions.
 - * Do not use adhesives containing phthalic esters. It could cause water leak.
- Make sure that the adhesive will not get into the drain hose or drain socket.

Drain hose and piping connection

- Prepare a joint for connecting VP-25 pipe, adhere and connect the joint to the drain hose (the rigid PVC side), 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

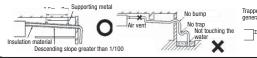
- adhesive is dried up and gets rigid.

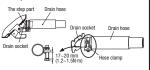
 The flexible drain hose is intended to absorb a small difference at installation of the unit or drain pipes. Intentional bending, expanding may cause the
- flexible hose broken and water leakage.
 Pay attention not to apply stresses to the drain socket or drain pipe, and support and fix the drain pipe as close place to the unit as possible when connecting the drain pipe.
- within 250 mm from the end of joint prepared at site)

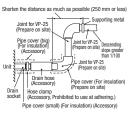
 As for drain pipe, apply VP25 (0D32).

 If apply PVC25 (0D25), connect the expanded connector to the drain hose with adhesive. (Multi unit only)
- 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.



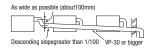




0" to 20"

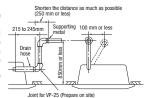
6 Drain pipe (continued)

When sharing a drain pipe for more than 1 unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP-30 or bigger size for main drain pipe.



- 4. Insulate the drain pipe.
- lacktriangle Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.
 - * After 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), hose clamp and part of the drain hose, and fix and wrap it with tapes to wrap and make joint part gapless.

 The position for drain pipe outlet can be raised up to 850mm 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 right figure.



Drain test

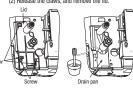
- After installing the drain pipe, make sure that drain system works correctly and that no water leaks from the joint and drain pan. Check whether the motor sound of the drain pump is normal
- Conduct a drain test when installing, even during the heating season.
- In the case of new buildings, be sure to complete the test before fixing the ceiling.
 Pour about 1,000 cc of test water into the drain pan of the indoor unit. Exercise care not to allow electrical equipment such as the drain pump and other components to become wet while filling water.

Pour test water through the pipe lid using a feed water pump or a similar device, or through the refrigerant pipe joint.

In case of pouring water from the air outlet



 In case of pouring water from the pipe lid (1) Remove screws at 2 places.
(2) Release the claws, and remove the lid



- 2. Make sure that water drains out completely and that no water leaks from any joints of the drain pipe during the test.
 - Test to confirm that the water drains out correctly while listening to the drain pump motor operating sound. At the drain socket (transparent), it is possible to check whether the water drains out correctly
- Unplug the rubber plug on the indoor unit so that the remaining water drains from the drain pan after the draining test. After checking the water drainage, fix the rubber plug correctly. Installation work for the drain

pipe must be performed for the entire drain pipe up to the indoor unit.

If the pipe lid has been removed in order to pour water, mount the pipe lid again.

Drain pump operation

- In case electrical wiring work completed
- In case electrical wining work completed
 Drain pump can be operated by the wired remote controller.

 For the operation method, refer to [Operation for drain pump] in the installation manual for wiring work.
 In case electrical wiring work not completed
 Drain pump will run continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connection of the cont
- tor CNB is disconnected, and then the power supply (230VAC on the terminal block ① and ②) is turned ON. Make sure to turn OFF "SW7-1" and reconnect the Connector CNB after the test.

(7)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.

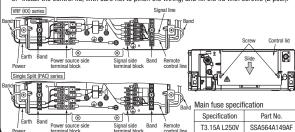
 Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.

- Be sure to do D type earth work.

 For the details of electrical wiring work, see attached instruction manual for electrical wiring work.
- Loosen screws (2 pcs.) on the control box of the unit.

- Remove the control lid by sliding it in the arrow direction in the figure. Introduce the wiring in the control box, and connect it securely to the terminal block. Fix the wiring with bands as shown below.

 Install the control lid, with care not to pinch the wiring, and fix the lid with screws (2 pcs.).



®Panel installation

- Install the panel on the indoor unit after electrical wiring work.
- Refer to the attached manual for panel installation for details

9Check list after installation

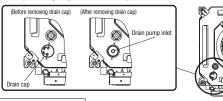
Check the following items after all installation work completed.

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	
Supply 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 airflow on air inlet and outlet?	Insufficient capacity	

(1) How to check the dirt of drain pan and cleaning the inlet of the drain pump. (Maintenance)

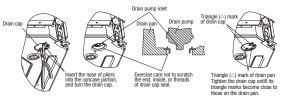
The method of checking the dirt of drain pan

- 1. Remove the panel according to the installation manual of the panel.
- 2. Check the dirt on the drain pan from the drain cap, and check the drain pump inlet. If the drain pan is very dirty, remove the drain pan and clean it.



Cleaning of drain pump inlet

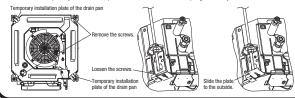
- It is possible to clean the drain pump inlet and surrounding area by removing the drain cap only; it is not necessary to remove the drain pan.
- Before removing the drain cap, remove the rubber plug and drain water from the drain pan.
- 1. Insert the nose of the pliers into the concave portions (2 places) of the drain cap, and rotate the pliers about 1 turn in the CCW direction. The drain cap is removed.
- 2. When cleaning the drain pump inlet, use a soft plastic tool. If a metallic tool is used, the drain cap mounting portion may be scratched and water may leak
- 3. Before mounting the drain cap, rinse it and remove any foreign material from the inside of the cap. If the drain cap is installed with foreign material inside it, it may cause water to leak.
- 4. Insert the nose of the pliers into the concave portions of the drain cap and rotate the pliers to install the drain cap. Rotate the drain cap about 1 turn in the CW direction until it stops rotating. If the drain cap is not rotated for 1 or more turns, the cap will not have been installed correctly. Remove the drain cap, and then install it again correctly.
- 5. After tightening the drain cap, make sure the triangle (\triangle) mark of the drain cap comes close to the triangle mark on the drain pan. If these triangle marks are not close to each other, tighten the drain cap further.
- 6. Refix the rubber plug securely. If the cover is not refixed correctly, it may cause condensation to form and/or water to leak.



Notes for removing the drain pan

- Before removing the drain pan, drain water from the drain pan. Remove the rubber plug
- and drain water.

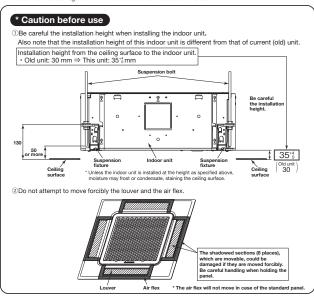
 The drain pan is installed by the temporary installation plate. Remove the 2 drain pan fixing screws, and loosen the 2 screws of the temporary installation plate.
- rixing screws, and loosen the 2 screws of the temporary installation plate. Slide the temporary installation plate to the outside of the drain pan. And then, it is possible to remove the drain pan.
 When reinstalling the drain pan, slide the temporary installation plate to the inside and temporarily fix the drain pan. Then, tighten the 2 drain pan fixing screws and the 2 screws of the temporary installation plate. Also, refix the rubber plug securely.



Panel installation

PJF012D503 🛦

Read this manual together with the 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



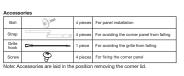
Function

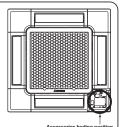
The draft prevention panel has the draft prevention mechanism. If the draft prevention panel is installed and the draft prevention function is set, the draft prevention function will be operated and reduce the draft feeling. (Refer to 10 Panel setting) or (details.)

- Standard panel: without the draft prevention mechanism
- Draft prevention panel: with the draft prevention mechanism

Before installation

- Follow installation manual carefully, and install the panel properly.
- Check the following items
- O Accessories





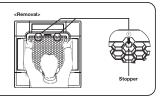
② Checking the indoor unit installation height

- Read this manual together with the air-conditioner installation manual carefully.
- Check if the opening size for the indoor unit is correct with the level gauge supplied in the indoor unit.
- Check if the gap between the plane and the indoor unit is correct by inserting the level gauge into the air outlet port of the indoor unit. (See below drawing) Adjust the installation elevation if necessary

Remove the level gauge before installing the panel. If there is a height difference beyond the design limit between the installation level of the indoor unit and the panel, the panel may be subject to excessive stress during installation and it may cause distortion and damage. <In case of other than the system ceiling> <In case of the system ceiling> urface

③ Removing the inlet grille

- While placing a finger behind the stopper (2 places) and pressing it in the direction of arrow ①, pull the grille downward to open the grille.
 Release the hooks of the inlet grille from the panel while it is in the open position.



4 Removing the corner lid

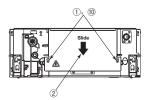
· Pull the corner lid toward the direction indicated by the arrow and remove it. (Same way for all 4 corner lids)

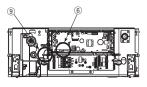


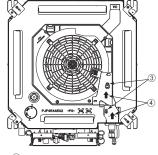


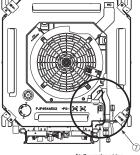
⑤ Before installing the panel <Only Draft prevention panel>

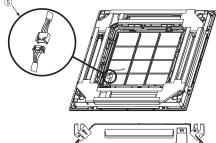
- ① Loosen screws (2 pcs.) on the control lid of the unit.
 ② Slide the control lid in the arrow direction in the figure, and remove it.
 ③ Loosen screws on the wiring cover (2 places).
 ⑤ Loosen screws on the wiring cover (2 places) arrow direction in the figure, and remove it.
 ⑤ Disconnect the relay connector of the air flex motor wiring attached to the panel.
 ⑥ Connect the air flex motor wiring to CNJ2 (20 P., gray) on PCB in the control box of the unit.
 ⑦ Pass the air flex motor wiring as shown in the figure.
 ⑤ Install the wiring cover (1 place) with care not to pinch wiring, and fix it with a screw.
 ⑥ Install the control lid with care not to pinch wiring, and fix with screws (2 places,).

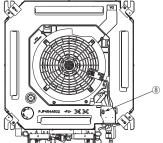


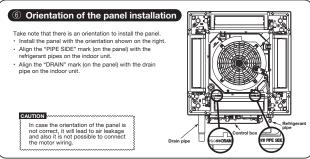


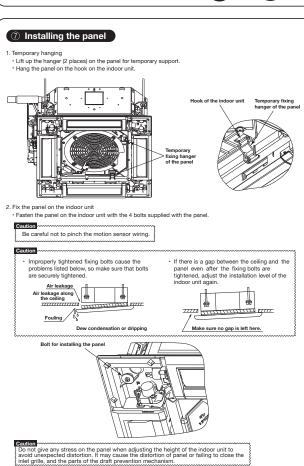










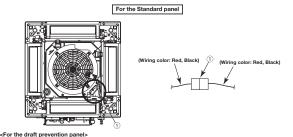


8 Electrical wiring

The wiring work varies depending on the panel type. Select the wiring work appropriate for the panel type.

- CFor the standard panels

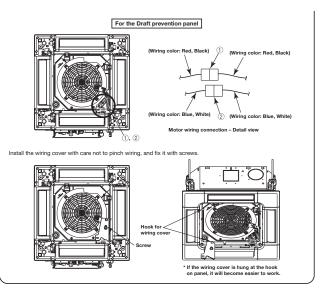
① Connect the connector of the louver motor wiring (Wiring color: Red, Black) at the panel side to the connector CnJ3 (20 P, White) of the louver motor wiring (Wiring color: Red, Black) at the unit side.



Cror me trait prevention panels:

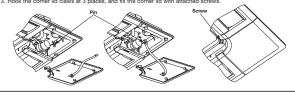
(i) Connect the connector of the louver motor wiring (Wiring color: Red, Black) at the panel side to the connector CnJ3 (20 P, White) of the louver motor wiring (Wiring color: Red, Black) at the unit side.

(i) Connect the connector of the air flex motor wiring (Wiring color: Blue, White) at the panel side to the connector CnJ4 (20 P, White) of the air flex motor wiring (Wiring color: Blue, White) at the unit side.



9 Installing a corner lid

To avoid unexpected falling of the comer lid, put the strap onto the corner lid's pin with turning the strap up.
 Then hang the strap of a corner lid onto the panel's pin.
 Hook the corner lid claws at 3 places, and fix the corner lid with attached screws.



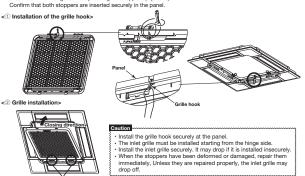
10 Installing the inlet grille

The panel and the inlet grille have no directional limitation to install, (Hinges of the inlet grille can be hooked at any side.) Install the inlet grille in the reverse order of the steps described at Removing the inlet grille.

② Insert the hinges of inlet grille with the panel.

Close then the inlet grille while pressing the stoppers (2 places).

Confirm that both stoppers are inserted securely in the panel.



11 Panel setting

<Louver swing range setting (Individual louver control setting)>

It is possible to change the swing range of the louver by the wired remote control. Once the upper and lower limit positions are set, the louver will swing within the set range. It is also possible to set the different range to each louver limit.

<Draft prevention setting>

The draft prevention function will not be operated if the draft prevention panel is installed and its wirings are only connected. To operate the draft prevention function, enable the draft prevention setting by using the wired or wireless remote control.

Note: It is not possible to set by the following remote control models or older. Wired:RC-EX3, RC-E5, RCH-E3 Wireless: RCN-E1R

Once you have enabled the settings in this mode, the draft prevention function is operated when the air-conditioner is started, and the parts of the draft prevention mechanism are always open when the air-conditioner is operating. When the air-conditioner is stopped, they are closed. It is possible to enabled or disabled the draft prevention function for each air outlet.

For the setting details, refer to the user's manual supplied with the remote control.

FRESH AIR INTAKE (Location for installation) FOR FDTC

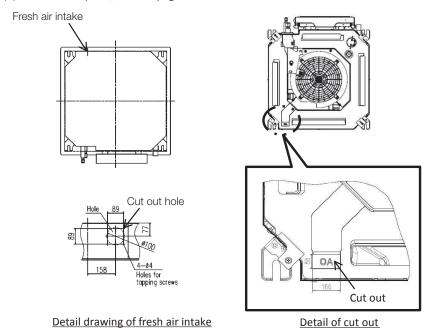
At the time of installation use the duct hole (cut out) located at the positions shown in follwing diagram, as and when required.

(1) Temperature conditions for OA spacer (1)

- Adjust the temperature conditions of mixed air with outdoor air and indoor air within the usage range of suction air temperature for the air-conditioner.
- The usage temperature conditions of intake outdoor air and indoor air around the ducts are shown in the following table.
- If the temperature conditions of intake outdoor air do not satisfy, process the outdoor air before intaking.

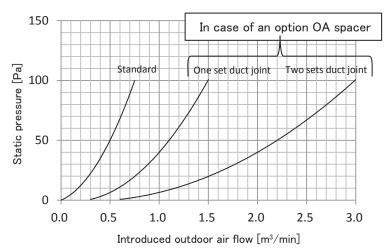
On small and small a	Usage temperature conditions							
Operation mode	Intake outdoor air	Indoor air around the ducts						
Heating	5°C DB or higher	18.5°C WB or lower and 60% RH or lower						
Cooling	29°C DB or lower and 80% RH or lower	20°C DB or higher						

Note(1): For the OA spacer, refer to page 293.



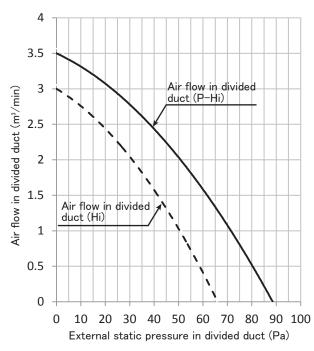
■ Fresh air intake amount & static pressure characteristics

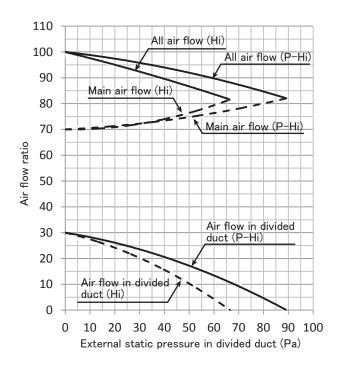
FDTC50VH, 60VH



CHARACTERISTICS OF AIR FLOW IN DIVIDED DUCT FOR FDTC

Models FDTC50VH, 60VH





■ Divided duct connection method

- 1. Open some one during 4 knock out holes, and please connect a divided duct. It isn't possible to use more than one hole at the same time.
- 2. Please make the wind shielding a blowout vent or the side where a divided duct was connected.
- 3. The shotage of the external static pressure by pressure loss for a connected divided duct and blowout unit is made up by a booster fan.

example: When $2.5 \,\mathrm{m}^3/\mathrm{min}$ of ventilation by divided duct is needed in model FDTC60VH (In case of connection duct ϕ $125 \,\mathrm{x}\,5\mathrm{m}$)

- ①Duct resistance: Pressure loss by a flexible duct =35Pa (7Pa/m x 5m)
- ②Blowout unit: Pressure loss by a blowout unit =10Pa
- ③External static pressure when being 2.5m³/min =17Pa (See upper table.)
- \Rightarrow Correspondence by a booster fan =1+2-3 =28Pa

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

(a) Indoor unit

- •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 124. For remote control installation, refer to page 128 For wireless kit installation, refer to page 243.

For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to page 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, [△WARNING] and [△CAUTION] 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 "SAFFTY 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.

• 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.

tion 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.

cified by our company are used it could cau se 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.

In case of R32, the refrigerant could be ignited because of its flam ●Install the unit in a location that can hold heavy weight.

Improper installation may cause the unit to fall leading to accidents

● Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes.

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 injurie

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

mproper 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 R32 or 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 als 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 explo to abnormal high pressure in the system.

Stop the compressor before removing the pipe after shutting the service valve on pump down work. n and iniuries due to abnormal high pressure in the c

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

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

It could cause electric shock, unit failure and improper running

Shut off the power before electrical wiring work.

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∧ 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. . 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.

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

 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 jar

 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 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.

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- 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 chimney Altitude over 1000m

 Do not install the indoor unit in the locations listed below (Re 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 Do not install the motion sensor mounting at an following placest could cause detection erro
incapacity of detection characteristic degration.

• Place where vilation isapplied to it for a long period of time. 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 · Place where satic electricity or electroamnetic wave

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.

Place where it is exposed to high tenapure or Dusty place or where the lens face could be fouled or

damaged.

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

 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 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 oxy

occur, which can cause serious accident 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 maintenance • 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 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.

 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 frostb

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

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

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

1Before installation

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

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

710000001	itom									
For hanging			For dra	in pipe						
roi nanging	FDU ·	FDU-F	FDUA							
Flat washer (M10)	Hose clamp	Soket	Pipe cover (big)	Pipe cover (small)	Drain hose	Hose clamp				
0	()		6	5		(4)				
8	2	1	1	1	1	1				
For unit hanging	For drain soket mounting	For drain pipe mounting	For heat insulation of drain socket	For heat insulation of drain socket	For drain pipe connecting	For drain hose mounting				



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.
 - 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.)

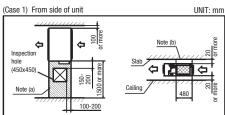
② Check if the place where the air-conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

Space for installation and service

Make installation altitude over 2.5m.

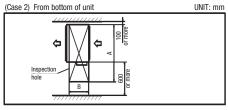
(Indoor Unit)

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)

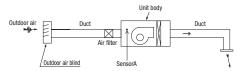
(b) Install refrigerant pipe, drain pipe, and wiring so as not to cross \(\) marked area



(Size of inspection hol	e) UNIT: mm
Single type	200, 250, 280
Multi type	224, 280
FDU-F	1800, 2400
A	1900
В	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.

- ②When 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, 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.
- (a) 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 outlet.

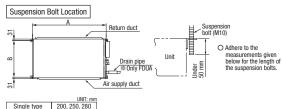
4 Preparation before installation

• If suspension bolt becomes longer, do reinforcement of earthquake resistant.

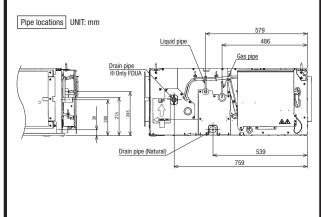
OFor grid ceiling

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.



Single type	200, 250, 280				
Multi type	224, 280				
FDU-F	1800, 2400				
A	1634				
В	831				



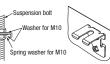
5 Installation of indoor unit

Work procedure

- 1. Prepare a hole of specified size on the ceiling.
- 2. Install suspension bolts at specified positions.
- 3. Make sure to use four suspension bolts.
- 4. Adjust the indoor unit position in order to fit with it.
- 5. Make sure to install the indoor unit horizontally. Confirm the levelness of the indoor unit with a level gauge or transparent hose filled with water. Keep the height difference at both ends of the indoor unit within 3mm.
- 6. Tighten four upper nuts and fix the unit after height and levelness adjustment.

Installation





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.

Adjust so the bottom side of the unit will be leveled with the water surface as illustrated below.

Pipe side
Pour water
Water
Surface

0-5mm
Let the pipe side be slightly sloped.

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.

	UNIT: mm
Single type	200, 250, 280
Multi type	224, 280
FDU-F	1800, 2400
A	1450
В	250



- 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.

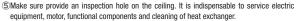
3 Inlet port

- 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: mr
Single type	200, 250, 280
Multi type	224, 280
FDU-F	1800, 2400
A	1450
В	250

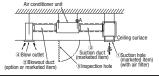


- Make sure to insulate the duct to prevent dewing on it.
- (a) Install the specific blowout duct in a location where the air will circulate to the entire room.
- Conduct the installation of the specific blowout hole and the connection of the duct before attaching them to the ceiling.
- Insulate the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



- 6)Make sure to insulate ducts. in order to prevent dewing on them.
- Connect the duct with care not to touch the blower (fan motor) with fingers. Or, when inhaling air directly from the suction side, install an air filter at the air suction inlet.

FDU · FDUA

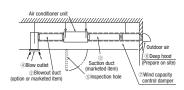




cure with a band, etc

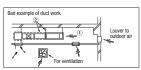
6 Duct work (continued)

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 class wool (25mm). (Use a wire net or equivalent to hold the class 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, and reprocess the flare parts.
- · Do not use thin-walled pipes.
- Use phosphorus deoxidized copper alloy seamless pipe (C1220T) 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 the designated refrigerant.
 Using other refrigerant except R32 or 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 R32 or R410A 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
		Gas piping	φ25.4	1 ype 224	Gas piping	ϕ 19.05
	Type 250 280	Liquid piping	φ12.7	Tumo 200	Liquid piping	φ 9.52
		Gas piping	Φ25.4	Type 280	Gas piping	φ22.22

*Please refer to the installation sheet of outdoor units for details.

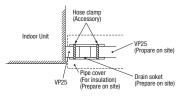
®Drain pipe

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.

- 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.

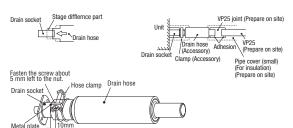


OThe cases of FDUA and mouting a Drain-up KIT (optional parts)

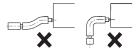
Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part

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

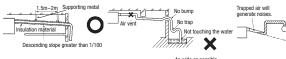
- Do not apply adhesives on this end.
- Do not use acetone-based adhesives to connect to the drain socket.



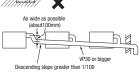
- 2. Prepare a joint for connecting VP25 pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP25 pipe (prepare on site). XAs for drain pipe, apply VP25 made of rigid PVC which is on the market.
 - Make sure that the adhesive will not get into the 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.



- 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 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.



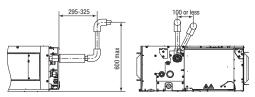
®Drain pipe (continued)

- 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 (optional 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.



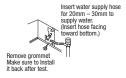
Otherwise, the construction point makes it same as drain pipe construction.

Drain test

- 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.

Procedures

- 1. Supply about 2000 cc of water to the unit through the air outlet by using a feed water numn.
- 2. Check the drain while cooling operation.

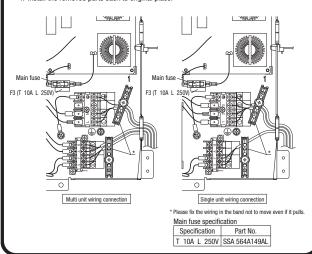


9Wiring-out position and wiring connection

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 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.



(1) 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
 - 1 Push "

 " marked button(E.S.P. button).
 - 2 Select indoor unit No. by using \$\Display \text{button.}
 - ③ Select setting No. by using

 button and set E.S.P. by

 button. button. See detailed procedure in technical manual.

Notice

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

With E.S.P. setting, confirm that actual E.S.P. agrees with E.S.P. setting.

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.

E.S.P. buttor

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

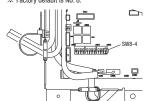
 E.S.P (Pa)
 80
 90
 100
 110
 120
 130
 140
 150

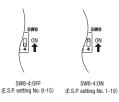
If 1 – 7 is selected for the setting No. on the remote control, the setting No. shows No. 8.
 If 16 – 20 is selected for the setting No. on the remote control, the setting No. shows No. 15.
 Factory default is No. 8.

The Case of FDU-F

Setting No.	1	2	3	4	5	6	7	8	9	10	11	12
E.S.P. (Pa)	10	20	30	40	50	60	70	80	90	100	110	120

% If 13-20 is selected for the setting No. on the remote control, the setting No. shows No. 12. % Factory default is No. 8.



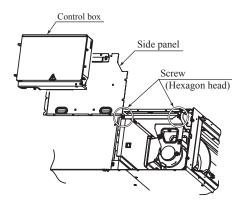


(b) Replacement procedure of the fan unit

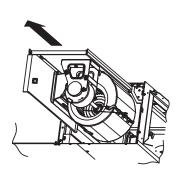
- Notes(1) The unit is a heavy item. It must be supported securely and handled with care not to drop when it is necessary to replace.
 - (2) For the maintenance space, refer to page 108.

Models FDU200VH, 250VH, 280VH

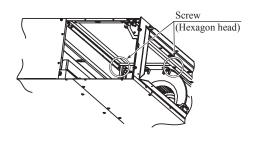
(i) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) from the unit located at the near side.



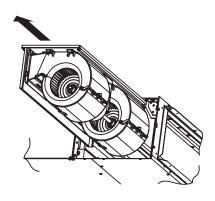
(ii) Take out the fan unit located at the near side in the arrow direction.



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



(iv) Take out the fan unit in the arrow direction.



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PJG012D021/A

(4) 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 124. For remote control installation, refer to page 128. For wireless kit installation, refer to page 271. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to page 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, <u>AWARNING</u> and <u>ACAUTION</u>. <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 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 of the unit

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.

f 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.

In case of R32, the refrigerant could be ignited because of its flamm

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

Improper installation may cause the unit to fall leading to accidents

• 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 injur

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. ns 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 produce Ouse the specified pipe, flare nut, and tools for R32 or R410A.

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

 $\ensuremath{\bullet}$ 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 car

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.

or 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.

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

mproper 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 urned, or electric shock.

Shut off the power before electrical wiring work.

It could cause electric shock, unit failure and improper running.

⚠ 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

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. 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 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 control

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

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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 suffide gas, chloride gas, acid, alkali 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 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 LOCATIONS WITH CITY SOCIEDAD.

air of the unit
I ocations 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. t can affect nerforn ance or function and etc

Do not install the motion sensor at following places. It could cause detection error, incapacity of detection, or characteristic degradation.

- Place where vibration is applied to it for a long paried of the sense of the sens

period of time.
Place where static electricity or electromagnetic wave generates. Place where it is exposed to high temperature

or humidity for a long period of time Dusty place or where the lens face could be

Do not put any valuables which will break down by getting wet under the air-conditioner. sation 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. 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 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 0 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.

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 mainte

 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. nsects 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.

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

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 bre

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.

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

2 Selection of installation location for the indoor unit

- $\ensuremath{\textcircled{1}}$ 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 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.)

② Check if the place where the air-conditioner is installed can hold the weight of the unit. If it is

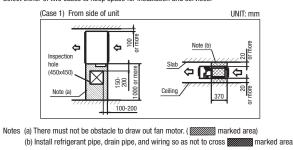
② Check if the place where the air-conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

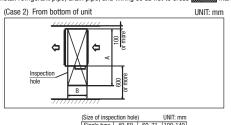
Space for installation and service

Make installation altitude over 2.5m.

(Indoor Unit)

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





3Preparation before installation

• If suspension bolt becomes longer, do reinforcement of earthquake resistant.

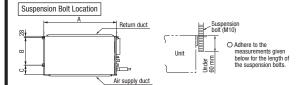
OFor grid ceiling

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.

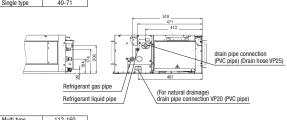
Prepare four (4) sets of suspension bolt, nut and spring washer (M10) on site.

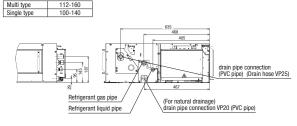


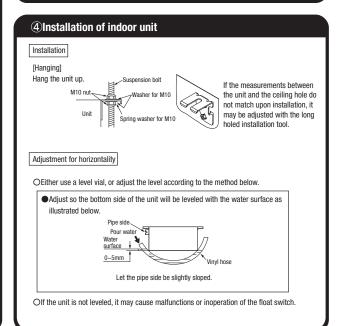
			UNIT: mm
Multi type	22-56	71, 90	112-160
Single type	40-50	60, 71	100-140
A	786	986	1404
В	472	472	530
С	135	135	180

Pipe locations UNIT: mm

Multi type







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

2 Blowout duct

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

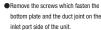
			UNIT. IIIII
Single type	40-50	60, 71	100-140
Multi type	22-56	71, 90	112-140
A	682	882	1202
В	172	172	172
B			

- 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 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.



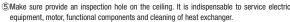


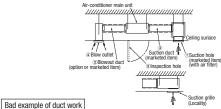


 Replace the removed bottom plate and duct joint.



- 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.





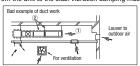
(1) If a duct is not provided at the suction side but it is substituted with the space over the ceiling humidity in the space will increase by the influence of capacity of ventilation fan, strength of wind blowing against the out door air louver, weather (rainy day) and others.

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 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.

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.



5Duct 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)

②Air Vent

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

take through the 分 <u></u> 17 分 Air vent hole = 4

Olnsulate the duct to protect it from dew condensation

6 Refrigerant pipe

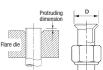
Caution

Blowout

Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product. 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.

I) In case of reuse: Do not use old flare nut, but use the one attached to the unit.
 In case of reuse: Flare the end of pipe replaced partially for R32 or R410A.

 $\boxed{\underline{\triangle}\text{WARNING}} : \text{When flared joints are reused indoors, the flare part shall be re-fabricated. (only for R32)}$



Pine	Pipe		sion for flare, mm			
diameter	Min. pipe wall thickness	Rigid (CI	utch type)	Flare O.D.	Flare nut tightening torque N·m	
mm	mm	For R32 For R410A	Conventional tool	mm		
6.35	0.8			8.9 - 9.1	14 - 18	
9.52	0.8		-0.5 0.7 - 1.3	12.8 - 13.2	34 - 42	
12.7	0.8	0 - 0.5		16.2 - 16.6	49 - 61	
15.88	1			19.3 - 19.7	68 - 82	
19.05	1.2			23.6 - 24.0	100 - 120	

- Use phosphorus deoxidized copper alloy seamless pipe (C1220T) 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 R32 or R410A.
- Using other refrigerant except R32 or 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 R32 or 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

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. &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.

 Make sure to use flare nuts assembled on the unions.
 Usage of other flare nuts could cause refrigerant
 - *Do a flare connection as follows
- Make sure to hold the nut on indoor unit pipe side using double spanner method as indicated when fastening / loosening flare nuts in order to prevent unintentional twisting of the copper pipe.

 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.
- 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

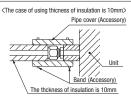
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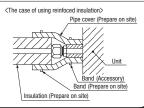
6Refrigerant pipe (continued)

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.

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

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





7 Drain pipe

Caution

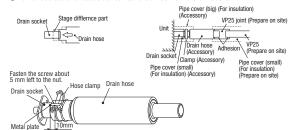
- Install the drain pipe according to the installation manual in order to drain properly. Imperfection in draining may cause flood indoors and wetting the household goods, etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is 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

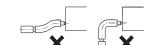
1. Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part of drain socket.

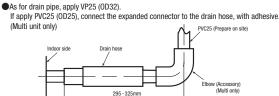
Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw about 5mm left to the nut.

- 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 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.

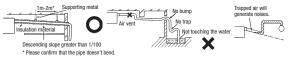




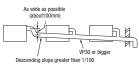
⑦Drain pipe (continued)

Do not set up air vent.

- 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.



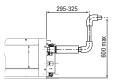
When sharing a drain pipe for more than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP30 or bigger size for main drain pipe.

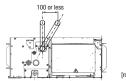


- 4. Insulate the drain pipe
 - Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.
 - X After drainage test implementation, cover the drain socket part with pipe cover (small size), then use the pipe cover (big size) to 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.



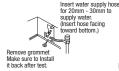


Otherwise, the construction point makes it same as drain pipe construction.

Drain test

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

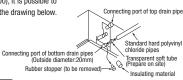




If the electrical work has not been completed, connect a convex joint in the drain pipe connection to provide a water inlet. Then, check if water leaks from the piping system and that drain flows through the drain pipe normally.

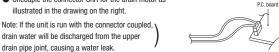
Outline of bottom drain piping work

 If the bottom drain piping can be done with a descending gradient (1/50-1/100), it is possible to connect the pines 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.



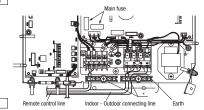
®Wiring-out position and wiring connection

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.

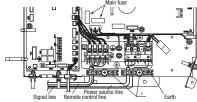
Be sure to use an exclusive circuit.

- 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.
- Be sure to do D type earth work.
- 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.

Single unit wiring connection



Multi unit wiring connection



* Please fix the wiring in the band not to move even if it pul

Main fus	e specification
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Model	Specification	Part No.
22-56	T3.15A L250V	SSA564A149AF
71-160	T5A L250V	SSA564A149AH

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

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).
 - $\ \ \, \ \ \, \ \ \, \ \ \,$ Select indoor unit No. by using $\ \, \mbox{\Large \textcircled{\Rightarrow}} \,$ 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.
 - $\ensuremath{\ensuremath{\mbox{3}}}$ Select [AUT] by using $\ensuremath{\mbox{$\Leftrightarrow$}}$ button and press $\ensuremath{\mbox{$\bigcirc$}}$ 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.

10 Check list after installation

Check the following items after all installation work completed

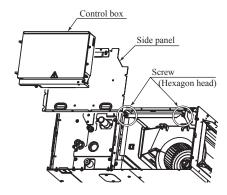
Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Power source voltage is same as mentioned in the 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

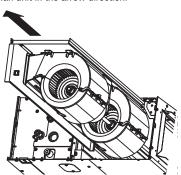
Notes(1) The unit is a heavy item. It must be supported securely and handled with care not to drop when it is necessary to replace. (2) For the maintenance space, refer to page 114.

(i) Model FDUM71VH

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

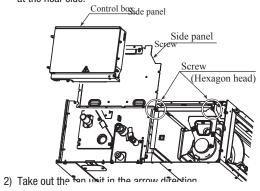


2) Take out the fan unit in the arrow direction.

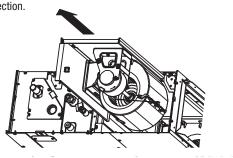


(ii) Models FDUM100VH, 125VH, 140VH

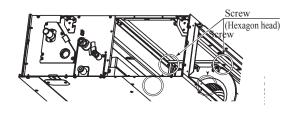
 Remove the control box and the side panel, and remove the screws marked in the circles (2 places) from the unit located at the near side.



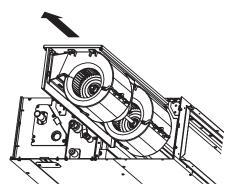
2) Take out the fan unit located at the near side in the arrow direction.



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.



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(5) Ceiling suspended type (FDE)

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This manual is for the installation of an indoor unit.

For electrical wiring work (Indoor), refer to page 124. For remote control installation, refer to page 128. For wireless kit installation, refer to page 253. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to page 140.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work
- [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 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 In case of R32, the refrigerant could be ignited because of its flamn

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

proper installation may cause the unit to fall leading to accidents

• 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 injurie

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 panel property.

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 R32 or 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 per

• Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur. us 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. or 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. Ø 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, ele

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. \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 burned, or electric shock.

Shut off the power before electrical wiring work.

It could cause electric shock, unit failure and improper running

⚠ CAUTION

Perform earth wiring surely.

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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 poles under over current

Using the incorrect one could car 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 leakag 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. a 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. t 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. own or deformation of the remote co Do not install the indoor unit at the place listed below. Places where cosmetics or special sprays are 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 frequently used. Highly salted area such as beach Heavy snow area Places where the system is affected by smoke from a chimney. Altitude over 1000m such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres. Places exposed to oil mist or steam directly. On vehicles and ships 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) Do not install the motion sensor at following Locations with any obstacles which can prevent inlet and outlet places. It could cause detection error, incapacity of detection, or characteristic degradation Locations where vibration can be amplified due to insufficient · Place where vibration is applied to it for a long strength of structure. nerind of time Locations where the infrared receiver is exposed to the direct Place where static electricity or electromag sunlight or the strong light beam. (in case of the infrared netic wave generates. Place where it is exposed to high temperature Locations where an equipment affected by high harmonics is or humidity for a long period of time placed. (TV set or radio receiver is placed within 5m) · Dusty place or where the lens face could be Locations where drainage cannot run off safely. t can affect performance or function and etc.. fouled or damaged. Do not put any valuables which will break down by getting wet under the air-conditioner. ld drop when the relative humidity is higher than 80% or drain pipe is cloqged, and it dama 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 0 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 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. Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenance 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 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. Ŧ 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 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 fn 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

Grille upside

1 Before installation Install correctly according to the installation manual. Confirm the following points: OUnit type/Power source specification OPipes/Wires/Small parts OAccessory items Accessory item Strap **6** (MIMILE)

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.

 In case of having the motion sensor, the installation height must be no higher than 4 m. It could reduce the sensitivity of motion sensor, disabling the detection.

 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 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 I vario ratio stays away into that Int. It could cause jaintning and observed 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.

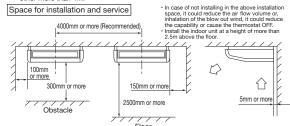
 Areas where there is no influence by the heat which cookware generates.

 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.)

 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.

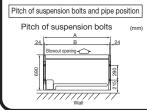
 If there are 2 units of wireless type, keep them away for more than 6m to avoid
- malfunction due to cross communication
- When plural indoor units are installed nearby, it is recommended to separate each other more than 4m.

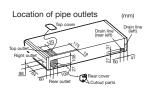


③ Preparation before installation

- •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.





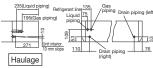
③ Preparation before installation (continued)

			(mm)
Series	type	Α	В
Single Split (PAC)	40 to 50type	1070	1022
series	60 to 71type	1320	1272
	100 to 140type	1620	1572
	36 to 56type	1070	1022
VRF (KX) series	71type	1320	1272
	112 to 140 tupo	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
- cut out the top labe cover anything to the plying 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 characters. wires from damages by sharp edges. When taking them out to the right-hand side, remove burrs or sharp edges from the cutout.



Pipe position

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, blow louver etc.
- •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 loose the fixing bolts.



2. Remove the side panel.

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

Side panel screw (1 each on the left and right) (M4) plate fixing bolts(M8) Hanging plat

4 Installation of indoor unit

riangle 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 or other hazards.

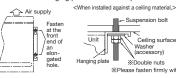
⚠ CAUTION ely seal the hole in the wall Complete with putty

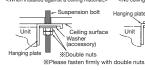
other fixtures may be damaged by water leakage or condensation.



Suspension bolt

- 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.
- 4. Check the measurements given at the right figure for the length of the suspension bolts
- Fasten the hanging plate onto the suspension bolts.







6. 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.

(For left-side drain connection, give the reverse slope.)

Hanging plate

▲ CAUTION : Do not give the reversed slope, which may cause water leaks.

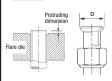
⑤ Refrigerant pipe

Caution

- Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product. Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction ma 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.
- In case of reuse: Flare the end of pipe replaced partially for R32 or R410A.

[AWARNING]: When flared joints are reused indoors, the flare part shall be re-fabricated. (only for R32)



		Protruding dimer	ision for flare, mm		Flare nut tightening torque N·m	
Pipe diameter d	Min. pipe wall thickness	Rigid (CI	utch type)	Flare O.D. D		
mm	mm	For R32 For R410A	Conventional tool	mm		
6.35	0.8			8.9 - 9.1	14 - 18	
9.52	0.8			12.8 - 13.2	34 - 42	
12.7	0.8	0-0.5	0.7 - 1.3	16.2 - 16.6	49 - 61	
15.88	1				19.3 - 19.7	68 - 82
19.05	1.2			23.6 - 24.0	100 - 120	

- Use phosphorus deoxidized copper alloy seamless pipe (C1220T) 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 R32 or R410A.
 Using other refrigerant except R32 or 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 R32 or R410A refrigerant.

Work procedure

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

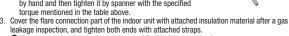
 ** Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them. (Gas may come out at this time, but it is not abnormal.)

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

 Make sure to use flare nuts assembled on the unions.
 Usage of other flare nuts could cause refrigerant leakage. * Do a flare connection as follows:
- Make sure to hold the nut on indoor unit pipe side using double spanner method as indicated when fastening / loosening flare nuts in order to prevent unintentional
- 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 insulate both gas pipes and liquid pipes completely.

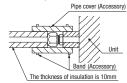
- In case of using at high humidity condition, reinforce insulation of refrigerant pipes. Surface of insulation may cause dew condition or water dropping, if insulations are not reinfoced. Refrigerant is charged in the outdoor unit.
- As for the additional refrigerant charge for the indoor unit and piping, refer to the installation anual attached to the outdoor unit

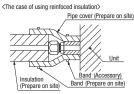
Education.

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>

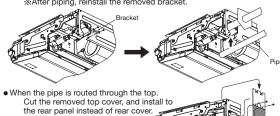




The pipe can be connected from three different directions. (back, reight, top)

When the pipe is routed through the back.

If the bracket is removed, piping work will become easy. After piping, reinstall the removed bracket.







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.)
- When plumbing on the left side, move the 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 acces * 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.) W 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 assum-
- ing that the drain pipes is downhill. (more than 1/100)
 - Never set up air vent.
- 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.

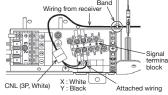
(7) Wiring-out position and wiring connection

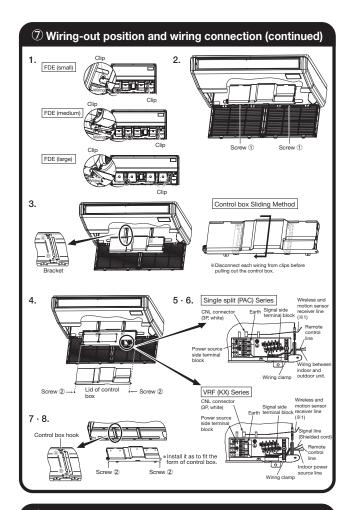
- Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical stan-dards and other regulations applicable to electrical installation in the country. 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.

 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 (B)→(A)).
 Install the removed parts at their original places.
- 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

NOTICE

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





® Control mode switching

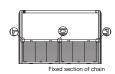
• The control content of indoor units can be switched in following way. (______ is the default setting)

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

9 Attaching the air return grille

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





(1) Check list after installation

• Check the following items after all installation work completed.

S .		
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	

RLD012A018 🗚

(6) Wall mounted type (SRK)

Model SRK100ZR-W

Model SRK63.71.80.100ZR R32/R410A REFRIGERANT USED

- This installation manual deals with an indoor unit installation only. For an outdoor unit installation, refer to page 140.
- This unit is designed for R32 or R410A. See a label on the outdoor unit to check refrigerant information
- · A wired remote control and SC-BIKN2-E must be installed with SRK plural connection. The wireless remote control included in the SRK unit cannot be used in case of SRK plural connection.

SAFETY PRECAUTIONS

- tion work in order to protect yourself.

 The precautionary items mentioned below are distinguished into two levels, AWARNING and ACAUTION 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.

⚠ WARNING

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 parts other than those prescribed may cause water leak, electric shock, fire and personal injury.

Do not install the unit near the location where leakage of flammable gases can occur. If leaked gases accumulate around the unit, it can cause fire resulting in property damage and personal injury.

sonal injury.

When installing the unit in small rooms, make sure that refrigerant density does not exceed the limit (Reference: ISO5149) in the event of leakage.

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.

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 R32 or R410A.

Using any other refrigerant can cause unit failure and personal injury.

Do not vent R32 or R410A into atmosphere.

R32 is a fluorinated greenhouse gas with a Global Warming Potential(GWP)=675.

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. 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.

can cause burst and personal injury. **Be sure to use the prescribed pipes, flare nuts and tools for R32 or 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-**

Do not open the liquid and gas connecting pipes properly screen graing the compressor.

Do not open the liquid and gas operation valves before completing piping work, and evacuation.

If the compressor is operated when connecting pipes are not connected and operation valves are open, air can be sucked into the refrigerant circuit which can cause anomalous high pressure result-

togin 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 operation valves and removing connecting pipes. If the connecting pipes are removed when the compressor is in operation and operation valves are open, air can be sucked into the refrigerant circuit which can cause anomalous high pressure resultng 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 shock, fire or personal injury.

Make sure that earth leakage breaker and circuit breaker of appropriate caractities 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, insuf-

ficient insulation or over-current

ficient 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 fre due to intrusion of dust or water.

Be sure to use the prescribed power and connecting cables for electrical work.

Be sure to use the prescribed power and connecting cables for electrical work. Using improper cables can cause electric leak 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 standard IEC60884-1 must be

Using improper plug can cause electric shock or fre.

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

Insects and small animals can enter the electrical parts and cause damage resulting in fire or per-

sonal 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.

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 obstade 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.
 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.

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 indoor unit)								
(1)	Installation board		1 pc.	(6)	Batteries [R03 (AAA, Micro) 1.5V] 2	pcs.		
(2)	Wireless remote control		1 pc.	(7)	Air-cleaning filters 2	pcs.		
(3)	Remote control holder		1 pc.	(8)	Filter holders 2	pcs.		
(4)	Tapping screws (for installation board ø4 X 25mm)	<u>O</u> _	10 pcs.	(9)	Insulation (#486 50 X 100 t3) 1	рс.		
(5)	Wood screws (for remote control holder ø3.5 X 16mm)	Service Control of th	2 pcs.					

	Locally procured parts
(a)	Sleeve (1 pc.)
(b)	Sealing plate (1 pc.)
(c)	Inclination plate (1 pc.)
(d)	Putty
(e)	Connecting cable
(f)	Drain hose (extension hose)
(g)	Piping cover (for insulation of connection piping)
(h)	Clamp and screw (for finishing work)
(i)	Electrical tape

Tools for installation Work						
Plus headed driver	Hole core drill (65mm in diameter)					
Knife	Wrench key (Hexagon) [4mm]					
Saw	Flaring tool set*					
Tape measure	Gas leak detector*					
Torque wrench (14.0-82.0N·m (1.4-8.2kgf·m))	Pipe bender					
Plier	Gauge for projection adjustment					
Pipe cutter	(Used when flare is made by us- ing conventional flare tool)					
* Designed specifically for R32 or R410A						

2. SELECTING INSTALLATION LOCATION

After getting customer's approval, select installation location according to following guidelines.

- Indoor unit
 Where there is no obstruction to the airflow and where the cooled and heated air can be evenly distributed.
 A colid place where the unit or the unit
- distributed.

 A solid place where the unit or the wall will not vibrate.

 A place where there will be enough space for servicing. (Where space mentioned on the right side can be secured.)

 Where it is easy to conduct wiring and piping work.

 A place where unit is not directly exposed to sunlight or street light.

 A place where it can be easily drained.

 A place separated at least 1m away from the television or the radio. (To prevent interference to impace and spunds.)

- ages and sounds.)

 A place where this unit is not affected by the high frequency equipment or electric equipment.

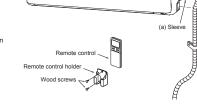
 Avoid installing this unit in place where there is much oil mist.

 A place where there is no electric equipment or household.

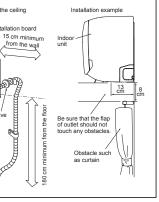
 Install the indoor unit on the wall where the height from the floor to the bottom of the unit is more than

2. Remote control

- A place where the air-conditioner can receive the signal surely during operating the remote control.
 A place where it is not affected by the TV, radio etc.
 Do not place where it is exposed to direct sunlight or near heat devices such as a stove.

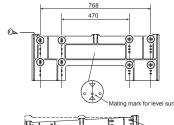


5 cm minimum from the wall



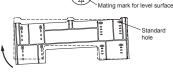
3. INSTALLING INSTALLATION BOARD

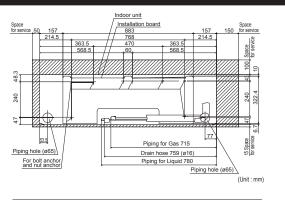
- Installation board should be installed on the wall which can support the weight of the indoor unit.
 Adjustment of the installation board in the horizontal direction is to be conducted with 8 screws in a
- temporary tightened state.
 With the standard hole as a center, adjust the board and level it.











10 cm minimum from the ceiling

Installation board

⚠ CAUTION

Improper adjustment of the installation board can cause water leakage

4. DRILLING HOLE AND FIXTURE OF SLEEVE

When drilling the wall that contains a metal lath, wire lath or metal plate, be sure to use sealing plate, sleeve and inclination plate (Locally procured parts)



core drill.





(2) Cut sleeve to adjust to wall thickness. In case of rear piping draw out, cut off the lower and the right side portions of the sleeve collar.



Outdoor side Indoor side (3) Fix sealing plate, sleeve and inclination plate





seal the hole in the wall with putty.

⚠ 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 or other hazards.

⚠ CAUTION

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

5. ELECTRICAL WIRING WORK

- Before installation, make sure that the power source complies with the air-conditioner's power speci-
- fication.

 Carry out electrical wiring work according to following guidelines.

1. Preparing cable

(1) Selecting cable

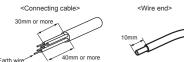
Select the connecting cable in accordance with the specifications mentioned below.

4-core* 1.5mm² conformed with 60245 IEC57

* 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.

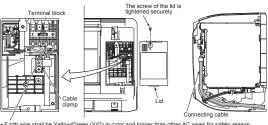


2. Connecting cable

- 2. Connecting cable
 (1) Open the air inlet panel.
 (2) Remove the lid.
 (3) Remove the cable clamp.
 (4) Connect the connecting wires to the terminal block.
 (5) Fix the connecting cable by cable clamp.
 (6) Fix the lid.
- (7) Close the air inlet panel.

NOTE

Take care not to confuse the terminal numbers for indoor and outdoor connections.



· Earth wire shall be Yellow/Green (Y/G) in color and longer than other AC wires for safety reason

⚠ WARNING

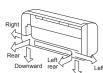
Incorrect wiring connection can cause malfunction or fire

6. FORMING PIPING AND DRAIN HOSE

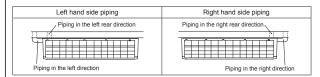
1. Forming pipingPiping is possible in the right, rear, downward, left, left rear or left downward direction

NOTE

Sufficient care must be taken not to damage the panels when connecting pipes.



Left dov



Forming of pipings.

• Hold the bottom of the piping and fix direction before stretching it and shaping it.

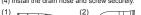


- Taping of the exterior
 Tape only the portion that goes through the wall.
 Always tape the wiring with the piping.

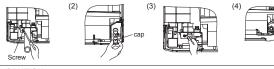


2. Drain change procedures

- Remove the screw and drain hose.
 Remove the drain cap by hand or pliers.
- (3) Insert the drain cap which was removed a (4) Install the drain hose and screw securely. Insert the drain cap which was removed at procedure (2) securely using a hexagonal wrench etc.







⚠ CAUTION

Incorrect installation of drain hose and cap can cause water leakage

7. DRAINAGE WORK

Arrange the drain hose in a downward angle. Avoid the following drain piping.









133 The drain hose is in the gutter.

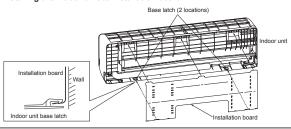
⚠ CAUTION

Incorrect drainage work can cause water leakage



8. INSTALLING INDOOR UNIT

Installing the indoor unit to installation board



(1) Pass the pipe through the hole in the wall, and hook the upper part of the indoor unit to the installation board.



(1) Dress the connecting pipes (both liquid and gas pipes) with insulation to prevent it from heating and 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.

(2) Wrap the refrigerant pipings of indoor unit with indoor unit heat insulation using tape.

(3) Cover the flare-connected joints (indoor side) with the indoor unit heat insulation and wrap it with an in-

(2) Gently push the lower part to fix the indoor unit base lower latch to installation board.

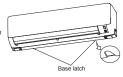


Removing the indoor unit from installation board

Since this air-conditioner is designed to collect dew drops on the rear surface to the drain pan, do not install the connecting wire above the gutter.

- (1) Push up at the marked portion of the indoor unit base latch, and slightly pull it toward you (both right and left hand sides). (The indoor unit base latch can be removed from the installation
- (2) Push up the indoor unit upward so that it can be removed from

3. Heating and condensation prevention



Connecting cable

Liquid pipe

ea faces upward.

Gas pipe

Ø O

9. CONNECTING PIPING WORK

1. Preparation of connecting pipe

1.1. Selecting connecting pipe
Select connecting pipe according to the following table.

	Model SRK63	Model SRK71/80	Model SRK100	
Gas pipe	φ12.7	φ 15.88	φ15.88	
Liquid pipe $\phi 6.35$ $\phi 6.35$ $\phi 9.52$				
Discount this land on the control to the control to 0.0 cm (-45,00.4,00m)				

- Pipe wall thickness must be greater than or equal to 0.8 mm (ø15.88:1.0mm)
- Pipe material must be O-type (Phosphorus deoxidized seamless copper pipe ICS 23.040.15, ICS 77.150.30).

1.2. Cutting connecting pipe

- Cut the connecting pipe to the required length with pipe cutter.
 Hold the pipe downward and remove the burrs. Make sure that no foreign material enters the pipe.
 Cover the connecting pipe ends with the tape.

2. Piping work

2.1. Flaring pipe

2.1. Haring pipe (1) Take out flare nuts from the operation valves of indoor unit and engage them onto connecting pipes. (2) Flare the pipes according to table and figure shown below. Flare dimensions for R32 are different from those for conventional refrigerant. Although it is recommended to use the fairing tools designed specifically for R32 or R410A, conventional flaring tools can also be used by adjusting the dimension B with a flare adjustment gauge.

	Copper pipe outer diameter	А
−li∥	φ 6.35	9.1
	φ 9.52	13.2
	φ 12.7	16.6
1 (11	φ 15.88	19.7



	Copper pipe	B [Rigid (clutch) type]		
	outer diameter	R32 or R410A	Conventional	
8	Φ6.35			
9	φ9.52	0-0.5	1.0-1.5	
	φ12.7	0-0.5	1.0-1.5	
	φ15.88			

2.2 Connecting pipes
(1) Connect pipes on both liquid and gas sides.
(2) Tighten nuts to specified torque shown in the table below

Operation valve size (mm)	Tightening torque (N·m)
φ6.35 (1/4")	14-18
φ9.52 (3/8")	34-42
φ12.7 (1/2")	49-61
φ 15.88 (5/8")	68-82



⚠ 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. Finishing work

⚠ CAUTION

(2)

NOTE

4. Final Initial Work
4. Final Initial 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 malfunction and failure.

sulation pad (standard accessory provided with indoor unit).

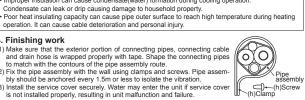
(4) Wrap the connecting pipes, connecting cable and drain hose with the tape

Position it so that the slit a

Improper insulation can cause condensate(water) formation during cooling operation.

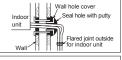
Locations where relative humidity exceeds 70%, both liquid and gas pipes need to be dressed with 20mm or thicker heat insulation materials.

(3)



⚠ WARNING (only for R32)

- To avoid the risk of fire or explosion, the flared connection must/shall be installed outdoors.
- Reusable mechanical connectors and flared joints are not allowed indoors



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.

10. HOW TO OPEN, CLOSE, REMOVE AND INSTALL THE AIR INLET PANEL

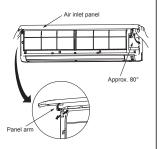
Pull the air inlet panel at both ends of lower part and release latches, then pull up the panel until you feel resistance. (The panel stops at approx. 60° open position)

2. Close

Hold the panel at both ends of lower part, lower it downward slowly, then push it slightly until the latch works.

3. Removing
Open the panel by 80° (as shown in the right illustration) and then pull it forward.

4. Installing
Seert the panel arm into the slot on the front 4. Installing Insert the panel arm into the slot on the front panel from the position shown in right illustra-tion, hold the panel at both ends of lower part, lower it downward slowly, then push it slightly until the latch works.



Installing remote control holder

 Select the place where the unit can receive signals. (2) Fix the holder to pillar or wall with wood

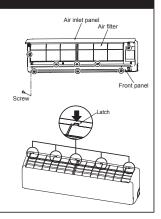
11. HOW TO REMOVE AND INSTALL FRONT PANEL

1. Removing

- (1) Remove the air inlet panel and the air filters.
 (2) Remove the 8 screws.
 (3) Remove the 5 upper latches and then front panel can be removed.

- panel cart be removed.

 2. Installing
 (1) Cover the unit with the front panel and fix 5 upper latches.
 (2) Secure the front panel with the 8 screws.
 (3) Install the air inlet panel and the air filters.



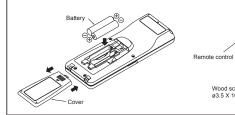
12. INSTALLING REMOTE CONTROL

Mount the batteries

- (1) Slide and take out the cover of backside.
 (2) Mount the batteries [R03 (AAA, Micro), ×2 pieces] in the body properly.
 (Fit he poles with the indication marks + & -)
- (3) Set the cover again.

NOTE

- Do not use new and old batteries together.
 In case the unit is not operated for a long time, take out the batteries

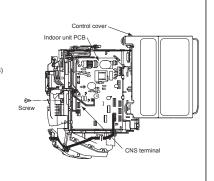


13. TERMINAL CONNECTION FOR AN INTERFACE

- (1) Remove the air inlet panel and
- front panel.
 (2) Remove the control cover.
 (Remove the screw.)
 (3) There is a terminal
 (respectively marked with CNS)
 for the indeper extent hourd. for the indoor control board. While connecting an interface, connect to the respective terminal securely with the connection harness supplied with an optional "Interface connection kit SC-BIKN2-E" and fasten the

connection harness onto the indoor control box with the clamp and screw supplied with

For more details, refer to the user's manual of "Interface connection kit SC-BIKN2-E"



14. INSTALLING TWO AIR-CONDITIONERS IN THE SAME ROOM

In case two air-conditioners are installed in the same room, apply this setting so that one unit can be operated with only one remote control.

- Setting one remote control
 (1) Slide and take out the cover and batteries.
 (2) Cut the switching line next to the battery
- with wire cutters.
 (3) Set the batteries and cover again.



- Setting one indoor unit

 (1) Turn off the power source and turn it on after 1 minute.

 (2) Send the signal by pressing the ACL switch on the remote control that was set according to the procedure described on the left side.

 (3) Check that the reception buzzer sound "peep" is emitted from the indoor unit. Since the signal is sent about 6 seconds after the ACL switch is pressed, point the remote control to the indoor unit for a while.

If no reception buzzer is emitted, restart the setting from the beginning.





15. PUMP DOWN WORK

For the environmental protection, be sure to pump down when relocating or disposing of the unit. Pump down is the method of recovering refrigerant from the indoor unit to the outdoor unit before the connecting pipes are removed from the unit. When pump down is carried out, forced cooling operation is needed.

Forced cooling operation

- (1) Turn off the power source and turn it on again after 1 miniute.
 (2) Press the ON/OFF button continuously for at
- least 5 seconds. Then operation will start

For the detail of pump down, refer to the installation manual of outdoor unit.



16. INSTALLATION CHECK AND TEST RUN

After finishing the installation work, check the following points again before turning on the power. Conduct a test run and ensure that the unit operates properly. At the same time, explain to the customer how to use the unit and how to take care of the unit following the user's manual.

Before test run

Before test run, check following points.

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 operation valves are fully open.	
No gas leaks from the joints of the operation valves.	
Indoor and outdoor side pipe joints have been insulated.	
Hole on the wall is completely sealed with putty.	
Drain hose and cap are installed properly.	
Screw of the lid is tightened securely.	

Test run
Check following points during test run.

Indoor unit receives signal of remote control.	
Air-conditioning operation is normal.	
There is no abnormal noise.	
Water drains out smoothly.	
Display of remote control is normal.	

After test run

Explain the operating and maintenance methods to the user according to the user's manual.	
Keep this installation manual together with user's manual.	

NOTE

During restart or change in operation mode, the unit will not start operating for approximately 3 minutes. This is to protect the unit and it is not malfunction.

(7) Effective range of cool/hot wind (Reference)

(a) FDT series

Guideline for ceiling height

Ean annual autting		Mo	odel	
Fan speed setting	FDT50VH, 60VH	FDT71VH	FDT100VH	FDT125VH, 140VH
Hi	2.7m	3.0m	3.2m	3.6m
P-Hi	3.5m	3.8m	4.3m	4.5m

Note (1) If the ceiling height is over 3m, please consider to add circulators.

This table shows reference values in case of four outlet.

If you shut some outlets, they are different.

Fan speed setting can be changed by using a wired remote control.

(b) FDE series

Model	Effective range
FDE50VH	7.5m
FDE60VH, 71VH	8.0m
FDE100VH, 125VH, 140VH	9.0m

[Conditions] 1. Height of unit: 2.4 - 3.0 (m) above floor level

2. Fan speed: Hi

3. Location: Free space without obstacles

4. The effective range means the horizontal distance for wind to reach the floor.

5. Wind speed at the effective range: 0.5 m/s

1.10.2 Electric wiring work installation • FDT, FDTC, FDU, FDUM, FDE series

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. Always do it according to the instruction. 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 fire

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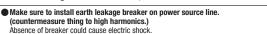
- •Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal. Loose connections or hold could result in abnormal heat generation or fire
- Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property. Improper fitting may cause abnormal heat and fire.
- Ouse the genuine option parts. And installation should be performed by a
- If you install the unit by yourself, it could cause water leakage, electric shock and 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.
- 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 4 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



 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 should be used.

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.

... accuser, or not mingle uniference capacity solid or stranded cord.

Inappropriate cord setting could cause loosing screw on terminal block, bad electrical contact, 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.

	Control mode switching			
•	The control content of i	t of indoor units can be switched in following way. (is the default setting)		
	Switch No.	Contro	Control Content	
	SW2	Indoor	Indoor unit address (0-Fh)	
	SW5-1	Master/Slave Switching (plural /Slave unit Setting)		1
	SW5-2	waster/stave switching (plural/stave unit setting)		
	SW6-1-4	Model capacity setting		
	SW7 —1	ON Operation check, Drain pump motor test run		
	5W7 — I	OFF Normal operation		1

PSC012D117A

- 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:
- Connect ground wires before connecting wires between the indoor and outdoor units and Nonnect ground wires 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 by the Class D grounding connection.

 Duse the round crimp terminals for connections to the terminal block.

- Ouse the round crimp terminals for connections to the terminal block.

 Use dedicated branch circuits, avoiding combination with other devices. Otherwise, it could 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 control, we will be not a retain the control of the protect that the control of the protect them using copper or other pipes control of the protect them.
- against assault by rat, or other.
- against assault by rat, or other.

 Dit is up to 3.5 mm² the size of power source cables connected to indoor units. When using cables of 5.5 mm² 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. Oi Even if the power source of 202/40308415 vis connected mistakenly, it could burn down all PCBs.

 ② If the remote control fails to detect the unit No. (address) at 15 minutes after turning the power on, check and repair all signal.
- © in the remote control hairs to detect the timin to, ignoress, at its immutes after turning the power on, circle, after tepart an signal cables for misconnection.

 ③ Out the jumper wire JOSL of burnt PCB, and reconnect connections CRK (yellow) and CRK (white) to CRK2 (black).

 ④ If any anomaly is found on wires between the AB terminal block and the PCB, replace them.

 ◆ At the outside of indoor and outdoor units, take care to avoid direct contacts between remote control and power source cables.
- In no event connect the power source of 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
- Other connecting wires between units, ground wire after remote control cable
 () When connecting wires between units, ground wire or remote control wire, connect them according to the number of terminals on the power source terminal block or signal terminal block in the control box. Connect the ground wire to the ground terminal on the power source terminal block or signal terminal on the power source terminal block or signal terminal block in the control box. Connect the ground wire to the ground terminal on 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 isolating switch (Switch + Class 8 fuse) or wring circuit breaker in series to the earth leakage breaker.

 4 Install the isolating switch close to the unit.

 Connect wires securing by tightening screws firmly. Confirm also no connector or wire (from terminals) is disconnected in the control box.

- terminal) is disconnected in the control box.

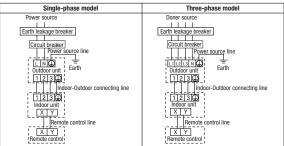
 When installing an auxiliary electric heater, consult the electric heater manual or technical data.

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 source, 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.



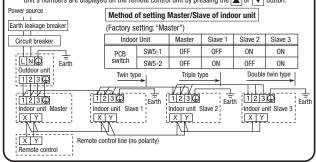
Cable connection for a V multi configuration installation

- (1)Connect 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).

 ③Set slave indoor unit as "slave 1" through "slave 3" by address switch SW5-1, 5-2 on PCB.

 ④When 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
- ①Places exposed to direct sunlight
- 2Places near heat devices
- (3)High 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

①Install remote control referring to the attached installation manual.

②Wiring of remote control should use 0.3mm²×2 cores 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 0.5mm². 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.

100 - 200m	0.5mm ² × 2 cores
Under 300m	0.75mm ² × 2 cores
Under 400m	1.25mm ² × 2 cores
Under 600m	2.0mm ² × 2 cores

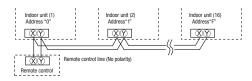
- 4) Avoid using multi-core cables to prevent malfunction.
- ⑤Keep remote control line away from earth (frame or any metal of building).
- 6)Make sure to connect remote control line to the remote control and terminal block of indoor unit. (No polarity)

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 cores remote control line.

③Set 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

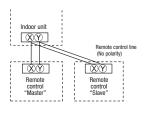
A maximum of two remote control units can be connected to one indoor unit (or one group of indoor units.)

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 control", "one (1) wired remote control and one (1) wireless kit" or "two (2) wireless kits".

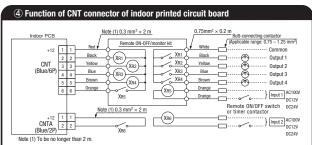
Set one to "Master" and the other to "Slave".

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 controller (RC-EX series)	Operation from the standard remote control (RC-E series)
1	Check the number of units connected in the multi remote control system.	[Menu] ⇒ [Service setting] ⇒ [Service & Maintenance] ⇒ [Service password] ⇒ [IU address]	 Press the AIR CON NO button to display the IU address. Press the A or ▼ button and check addresses of connected indoor units one by one.
2	Check if each unit is connected properly in the remote control system.	[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 A or ▼ button and select one of IU addresses. ③ Press the ② (MODE) button. The unit starts to blow air.
3	Setting main/sub remote controls	[Menu] ⇒ [Service setting] ⇒ [R/C function settings] ⇒ [Service password] ⇒ [Main/Sub of R/C]	Set SW1 to "Sub" for the sub remote contro unit.
4	Checking operation data	Menu] ⇒ [Service setting] ⇒ [Service & Maintenance] ⇒ [Service password] ⇒ [Operation data]	Press the ☐HECK button. ⇒ "DIFFICIAN V" is displayed. ⇒ Press the ⑤ (SET) button ⇒ "MATHUMPN" is displayed. ⇒ Select one of addresses for connected indoor units by pressing the ☑ or [D button. ⇒ Press the ⑥ (SET) button. ⇒ "MATHUMPN" 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 [CHECK] button. → "OFFRIATA ▼" i displayed. → Press the [▼] button. → "FRRIR DATA A" is displayed. → Press the [○] (SET) button. → "GRALDADING" is displayed. → Data is displayed.
Installation settings ⇒		② Select *\$\tilde{x}\$ (Cool)\(^2\) with the ③ (MODE) button. 3 Press the ISSI button for 3 seconds or longer. The screen display will switch to *\$\tilde{x}\$ (ET) button, while the *\$\tilde{x}\$ (ET) button, while the *\$\tilde{x}\$ (ET) button, while the cooling test run. The screen display will solve the	
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 \(\begin{align*} \owner{DONOFF} \) button. The display will chang to "\$TER IND *". ② Press the \(\begin{align*} \overline{\text{D}} \) button once to display "FRENTIFF *". ③ Pressing the \(\overline{\text{U}} \) button starts the drain pump operation. The display will show "-\(\overline{\text{D}} \) TESTIF ".

The menu configuration may vary depending on models of the remote control. If the model of your remote 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 100 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

1	RUN output	8	Fan ON output 3
2	Heating output	9	Defrost/oil return output
3	Compressor ON output	10	Ventilation output
4	Inspection (error) output	11)	Heater output
(5)	Cooling output	(12)	Free cleaning output
6	Fan ON output 1	(13)	Indoor overload error output
7	Fan ON output 2		
Input			
(1)	RUN/STOP	(5)	Setting temp_shift

<u> </u>	HOW/3101	L		octung temp. omit
2	RUN permit prohibition			Compulsory thermostat OFF
3	Emergency stop	ſ	7	Temporary stop
4	Cooling/Heating		8	Silent mode
Eacto	ry default cetting			

CNT-2	Output 1	RUN output	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

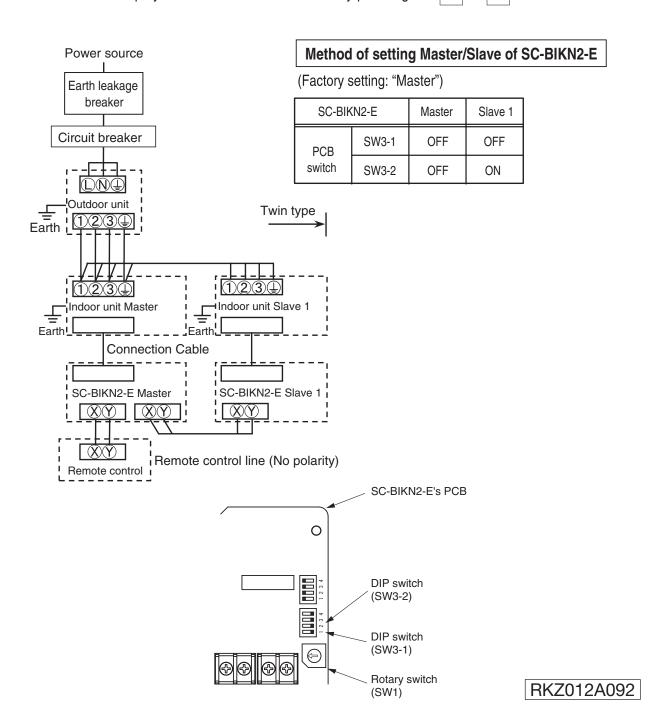
For the setting method, refer to the technical data

(5) Operation and setting from remote control A: Refer to the instruction manual for RC-EX series ○ : Nearly same function setting and operations are possible. *1: Remote controls before RC-EX1A don't have this function. B: Refer to the installation manual for RC-EX series \triangle : Similar function setting and opperations are possible. *2: Remote controls before RC-EX3 don't have this function C : Loading a utility software vie Internet Setting & display item Description RC-FX3A RC-F5 1.Remote Control network 1 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). An address is set to each indoor unit. 2 Main/sub setting of remote control A pair of remote control (including option wireless remote control) can be connected within the remote control network В Set one to "Main" and the other to "Sub' 2.TOP scrren, Switch manipulation "Control", "State", or "Details" can be selected. (3-8) 1 Menu 2 Operation mode "Cooling", "Heating", "Fan", "Dry" or "Auto" can be set. 3 Set temp. 4 Air flow direction "Set temperature" can be set by 0.5°C interval. "Air flow direction" [Individual flap control] can be set. Select Enable or Disable for the "3D AUTO" (in case of FDK). *1 \triangle Α 5 Fan speed "Fan speed" can be set. 6 Timer setting 7 ON/OFF "Timer operation" can be set "On/Off operation of the system" can be done. The system operates and is controlled according to the function specified to the F1 switch. The system operates and is controlled according to the function specified to the F2 switch. 8 F1 SW Α Select the language to display on the remote control. - Select from English, German, French, Spanish, Italian, Dutch, Turkish, Portuguese, Russian, Polish, Japanese and Chinese 10 Select the language Α 11 Zone ON/OFF operation "On/Off for each zone" can be set. Α 3.Useful functions The moving range (the positions of upper limit and lower limit) of the flap for individual flap can be set. Α Set also the left and right limit positions for FDK. *1 Anti draft setting Α When the panel with the anti-draft function is assembled 3 Timer settings Set On timer by hour he period of time to start operation after stopping can be set. The period of set time can be set within range of 1 hour-12 houres (1hr interval). The operation mode, set temp. and fan speed at starting operation can be set. \triangle Α The period of time to stop operation after starting can be set Set Off timer by hour Α \triangle The period of set time can be set within range of 1 hour-12 houres (1hr interval). The clock time to start operation can be set. The set clock time can be set by 5 minutes interval. Once (one time only) or (Everyday) operation can be switched. The operation mode, set temp. and fan speed at starting operation can be set. Set On timer by clock Α The clock time to stop operation can be set. The set clock time can be set by 5 minutes interval Set Off timer by clock Α [Once (one time only)] or [Everyday] operation can be switched Confirmation of timer settings Status of timer settings can be seen. 4 Favorite setting Set the operation mode, setting temperature, air flow capacity and air flow direction for the choice setting operations, Α [Administrator] 5 Weekly timer Set them for the Favorite set 1 and the Favorite set 2 respectively 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. Holiday setting is available. The operation mode, set temp. and fan speed at starting operation can be set. When leaving home for a long period like a vaction leave, the unit can be operated to maintain the room temperature not to be 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. 6 Home leave mode [Administrator password] The set temp. and fan speed can be set. On/Off operation of the external ventilator can be done. 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. 7 External Ventilation When the ventilator is combined. Α 8 Select the language Select the language to display on the remote control. Α Select from English, German, French, Spanish, Italian, Dutch, Turkish, Portuguese, Russian, Polish, Japanese and Chinese. *1 The period of time to operate the unit by prioritizing the quietness can be set. 9 Silent mode control Α Start and end can be set for the silent mode 4.Energy-saving setting Administrator password To prevent the timer from keeping ON, set hours to stop operation automatically with this timer. The selectable range of setting time is from 30 to 240 minutes. (10 miuutes interval) When setting is "Enable", this timer will activate whenever the ON timer is set. Power consumption can be reduced by restructing the maximum capacity Set the [Start time], the [End time] and the capacity limit % (Peak-cut %). 2 Peak-cut timer 4-operation patterns per day can be set at maximum. The setting time can be changed by 5-minute interval. The selectable range of capacity limit % (Peak-cut %) is from 0% to 40-80% (20% interval) Holiday setting is available. Α After the elapse of the set time period, the current set temp. will be set back to the [Set back time.] • 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). 3 Automatic temp set back Set the [Set back temp.] by 1°C interval. 4 Motion sensor control When the motion sensor is used, it is necessary to set Enable or Disable for the "Power control" and the "Auto-off" Α When the panel with the motion sensor is assembled. 1 Filter sign reset Filter sian reset The filter sign can be reset Setting next cleaning date The next cleaning date can be set 6.User setting Clock setting 1 Internal settings The current date and time can be set or revised Α If a power failure continues no longer than 80 hours, the clock continues to tick by the built-in power source Date and time display [Display] or [Hide] the date and/or time can be set, and [12H] or [24H] display can be set When select [Enable], the +1hour adjustment of current time can be set. When select [Disable], the [Summer time] adjustment can be reset Summer time Contrast The contrast of LCD can be adjusted higher or lower. Backlight Switching on/off a light can be set and period of the lighting time can be set within the range of 5 sec.-90 sec. (5 sec. interval). It can set with or without [Control sound (beep sound)] at touch panel Control sound Operation lamp luminance Permission/Prohibition setting This is used to adjust the luminance of operation lamp 2 Administrator settings Permission/Prohibition setting of operation can be set. [0n/0ff] [Change set temp] [Change operation mode] [Change flap direction] [Change fan speed] [High power operation] [Administrator password] [Energy-saving operation] [Timer] Request for administrator can be set. Α [Individual flap control] [Weekly timer] [Select the language] [Anti draft setting] *1 The period of time to operate the outdoor unit by prioritizing the quiteness can be set. 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 timer Α \triangle The upper/lower limit of temp. setting range can be set. The limitation of indoor temp. setting range can be set for each operation mode in cooling and heating. Setting temp range \triangle Α

tting & display item	<u> </u>	Description	RC-EX3A	RC-E
Administrator settings	Temp increment setting	The temp increment setting can be changed by 0.5°C or 1.0°C.	Α	
Administrator settings	Set temp display	Ways of displaying setting temperatures can be selected.	A	
[Administrator password]	R/C display setting	Register [Room name] [Name of I/U] [Zone name] Display [Indoor temp display] or not.		
		Display [Indoor terrip display] or not.	Α	
		Display [Heating stand-by display] [Defrost operation display] [Auto cooling/heating display] [Display temp of R/C, Room, Outdoor] or not	A	
	Change administrator password	The administrator password can be changed. (Default setting is "0000") The administrator password can be reset.		
	F1/F2 function setting *1	Functions can be set for F1 and F2. Selectable functions: [Anti draft ON/OFF] *2	В	
	,	[High power operation], [Energy-saving operation], [Silent mode cont.], [Home leave mode], [Favorite set 1], [Favorite set 2] and [Filter sign reset].	A	
ervice setting	Installation date	The [Installation date] can be registed.		
Installer settings	installation date	When registering the [Instaration date], the [Next service date] is displayed automatically.	В	
inotalior octango		(For changing the [Next service date], please refer the item of [Service & Maintenance])		
[Service password]	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.		
	Cooling test run	The [Cooling test run] can be done at 5°C of set temp. for 30 minutes.	В	c
	Drain pump test run	Only drain pump can be operated.		
	Duct unit settings			
	Static 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. It can be set for each indoor unit individually.	В	
	Zone settings	Set when performing zone control.		
	Change auto address	Resets all zone control settings. The cet address of each index unit decided by outs address cetting method can be changed to any other address. (For multiple MV units only).	D	
	Change auto-address Address setting of	The set address of each indoor unit decided by auto-address setting method can be changed to any other address. (For multiple KX units only) Main indoor unit address can be set.	В	
	main IU	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.		
	IU back-up function	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	В	
	Motion sensor setting *1	[IU 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.		<u> </u>
	When the panel with the motion	If Disable is selected, it cannot be control the motion sensor control for the energy-saving setting.	В	
D. 10 (11)	sensor is assembled.		_	<u> </u>
R/C function setting	Main/Sub R/C	The R/C setting of [Main/Sub] can be changed.	В	C
[Service password]	Return air temp	When two or more indoor units are connected to one unit of remote control, suction sensors, which are used for the judgement by thermostat, can be selected.	В	
		It can be selected from [Individual], [Master IU] and [Average temp].	5	
	R/C sensor	It can be set the mode to switch to the remote control sensor. It can be selected from cooling and heating.	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 °C / °F	Enable or Disable can be set for each operation mode. Set the unit for setting temperatures.	В	
	671	• °C or °F can be selected.	В	
	Fan speed	Fan speeds can be selected.	В	С
	External input	When two or more indoor units are connected to one unit of remote control, the range to apply CNT inputs can be set.	В	<u> </u>
	Upper/lower flap control Left/right flap control *1	[Stop at fixed position] or [Stop at any position] can be selected for the upper and lower louvers. [Fixed position stop] or [Stop at any position] can be selected for the right and left louvers.	B B	
	Ventilation setting	Combination control for ventilator can be set.	В	
	Auto-restart	The operation control method after recovery of power failure happened during operation can be set.	В	Č
	Auto temp setting	[Enable] or [Disable] of [Auto temp setting] can be selected.	В	
III aattinaa	Auto fan speed	[Enable] or [Disable] of [Auto fan speed] can be selected. The fan speed for indoor units can be set.	B B	
IU settings	Fan speed setting Filter sign	The setting of filter sign display timer can be done from following patterns.	В	
[Service password]	External input 1	The connect of control by external input 1 can be changed.	В	Č
	External input 1 signal	The type of external input 1 signal can be changed.	В	С
	External input 2	The connect of control by external input 2 can be changed.	В	
	External input 2 signal	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 reating themo-orr can be adjusted within the range from 0 to ± 3 C (1 C interval) 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	C
		Fan control, when the heating thermostat is turned OFF, can be changed.	В	C
	Anti-frost temp	Judgment temperature for the anti-frost control during cooling can be changed.	В	2
	Anti-frost control Drain pump operation	When the anti-frost control of indoor unit in cooling is activated, the fan speed can be changed. In any operation mode in addition to cooling and dry mode, the setting of drain pump operation can be done.	B B	
		The time period residual fan operation after stopping or thermo-off in cooling mode can be set.	В	1
	Keep fan operating after heating is stopped	The time period residual fan operation after stopping or thermo-off in heating mode can be set.	В	Č
		The fan operation rule following the residual fan operation after stopping or themo-off in heating mode can be set.	В	
	Fan circulator operation Control pressure adjust	In case that the fan is operated as the circulator, the fan control rule can be set.	B B	\vdash
	Auto operation mode	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.	В	
	Thermo. rule setting	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	
	IU overload alarm	If the difference between the setting temperature and the suction temperature becomes larger than the temperature difference set for	В	
	External output setting *1	the 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	IU 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	
		The indoor unit conforming to the address No. can be identified by selecting the address No. and tapping [Check] to operate the indoor fan.	D	
[Service password]	Next service date	The [Next service date] can be registered. • The [Next service date] and [Company information] is displayed on the message screen.	AB	_ C
	Operation data	The [Operation data] for indoor unit and outdoor unit can be displayed.	В	С
	Error display			ΙĬ
	Error history	The error history can be displayed.	В	
	Display anomaly data	a The operation data just before the latest error stop can be displayed.		
	Erase anomaly data Reset periodical check	Anomaly operation data can be erased. 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	
		Address No. and capacities of indoor units connected to the remote control are displayed.	В	
ontact company		Shows registered [Contact company] and [Contact phone].		\vdash
Spection Confirmation of Inspection		This is displayed when any error occurs.	A	
PC connection		πιο το ατοριαγού whom any οποί σοσαίο.	А	\vdash
O CONTINUED IN CON				_

SRK series

- ①Connect the same pairs number of terminal block "①,②,and ③"and " 🛇 and 🈗 " between master and slave indoor units.
- ②Do the same address setting of all inside units belong to same refrigerant system by rotary switch SW1 on SC-BIKN2-E's PCB (Printed circuit board).
- ③Set slave indoor unit as "slave 1" through" slave 2" by address switch SW3-1, 3-2 on SC-BIKN2-E's PCB.
- ④When 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.



1.10.3 Installation of wired remote control (Option parts)
(1) Model RC-EX3A

PJZ012A171A

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.

∴ WARNING	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.



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.

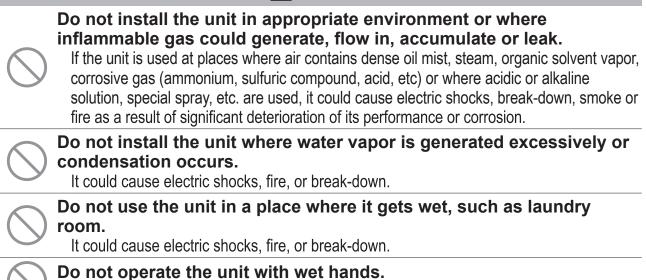
- Shut OFF the main power source before starting electrical work. Otherwise, it could result in electric shocks, break-down or malfunction.
- Do not modify the unit.

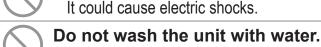
 It could cause electric shocks, fire, or break-down.

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

Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.

! WARNING





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 (φ 3.5 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 ² x 2 pcs.)	As required	See right table when longer than 100m

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 ² x 2 cores
≦ 300m	0.75 mm ² x 2 cores
≦ 400m	1.25 mm ² x 2 cores
≦ 600m	2.0 mm ² x 2 cores

3) Installation place

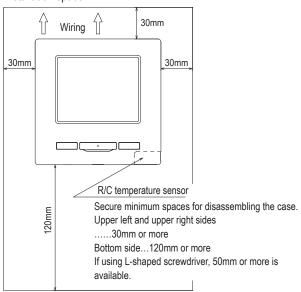
Secure the installation space shown in the figure.

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.

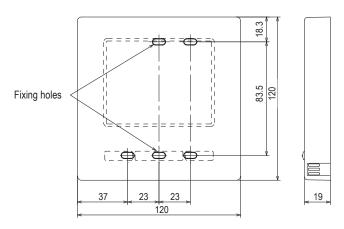
Installation space



4) Installation procedure

Perform installation and wiring work for the remote control according to the following procedure.

Dimensions (Viewed from front)



To disassemble the R/C case into the upper and lower pieces after assembling them once

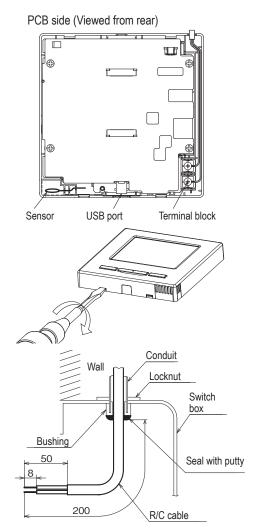
· Insert the tip of flat head screwdriver or the like in the recess at the lower part of R/C and twist it lightly to remove. It is recommended that the tip of the screwdriver be wrapped with tape to avoid damaging the case.

Take care to protect the removed upper case from moisture or dust.

In case of embedding wiring

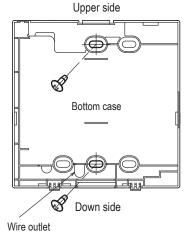
(When the wiring is retrieved "Backward")

① Embed the switch box and the R/C wires beforehand. Seal the inlet hole for the R/C wiring with putty.

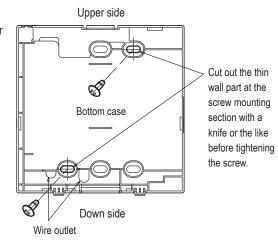


② When wires are passed through the bottom case, fix the bottom case at 2 places on the switch box.

Switch box for 1 pc.



Switch box for 2 pcs.

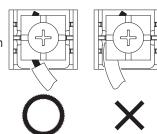


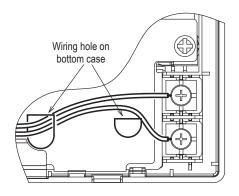
- ③ Connect wires from X and Y terminals of R/C to X and Y terminals of indoor unit. R/C wires (X, Y) have no polarity. Fix wires such that the wires will run around the terminal screws on the top case of R/C.
- 4 Install the upper case with care not to pinch wires of R/C.

Cautions for wire connection

Use wires of no larger than 0.5 mm² for wiring running through the remote control case. Take care not to pinch the sheath.

Tighten by hand $(0.7 \text{ N} \cdot \text{m} \text{ or less})$ the wire connection. If the wire is connected using an electric driver, it may cause failure or deformation.





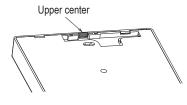
In case of exposing wiring

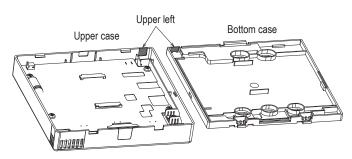
(When the wiring is taken out from the "upper center" or "upper left" of R/C)

1) Cut out the thin wall sections on the cases for the size of wire.

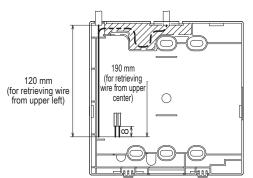
When taking the wiring out from the upper center, open a hole before separating the upper and bottom cases. This will reduce risk of damaging the PCB and facilitate subsequent work.

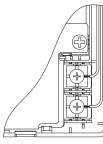
When taking the wiring out from the upper left, take care not to damage the PCB and not to leave any chips of cut thin wall inside.





- 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.



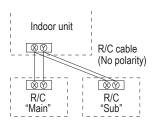


5) Main/Sub setting when more than one remote control are used

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.



R/C operation	Main	Sub			
Run/Stop, Change set temp., Change flap direction, Auto swing, Change fan speed operations				0	
High power o	High power operation, Energy-saving operation				
Silent mode of	0	×			
Useful Individual flap control				×	
functions	Anti draft se	etting	0	×	
	Timer		0	0	
	Favorite se	tting	0	0	
	Weekly tim	er	0	×	
	Home leave	e mode	0	×	
	External ventilation		0	0	
	Select the language		0	0	
Silent mode control				×	
Energy-saving setting				×	
Filter	Filter sign r	0	0		
User setting	User setting Initial settings		0	0	
	Administrator settings	Permission/ Prohibition setting	0	x	
		Outdoor unit silent mode timer	0	х	
		Setting temp. range	0	×	
		Temp increment setting	0	х	
		Set temp. display	0	0	
R/C display setting Change administrate password		R/C display setting	0	0	
		Change administrator password	0	0	
		F1/F2 function setting	0	0	

○ : operable ×: not operable							
R/C operat	Main	Sub					
Service	Installation	Installati	on date	0	×		
setting	settings	Compan	0	0			
		Test run		0	×		
		Static pr	essure adjustment	0	×		
		Change	auto-address	0	×		
		Address setting of main IU			×		
		IU back-	0	×			
		Motion s	ensor setting	0	×		
	R/C function	Main/Su	b of R/C	0	0		
	settings	Return a	nir 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	Left/right flap control				
	Ventilation Auto-resta	Ventilation	on setting	0	×		
		tart	0	×			
		Auto ten	np. setting	0	×		
		Auto fan	0	×			
	IU settings		0	×			
	Service &	IU addre	0	0			
	Maintenance	Next ser	0	×			
		Operation	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	×		
			CPU reset	0	0		
			Restore of default setting	0	×		
			Touch panel calibration	0	0		
		Indoor unit capacity display			×		

Advice: Connection to personal computer

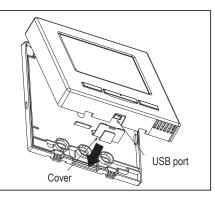
It can be set from a personal computer via the USB port (mini-B).

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.



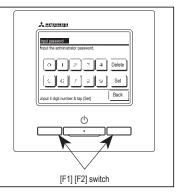
Advice: Initializing of password

Administrator password (for daily setting items) and service password (for installation, test run and maintenance) are used.

 The 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.

Service password is "9999", which cannot be changed.
 When the administrator password is input, the service password is also accepted.



Advice

When connecting two or more FDT/FDTC to one R/C, unify the panel type either to a panel with anti draft function or a standard panel.

(2) Model RC-E5

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.



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
- (2) Places near heat devices
- (5) Places exposed to oil mist or steam directly
- (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.



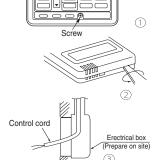
 Accessories
 Remote control, wood screw (φ 3.5×16) 2 pieces

 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

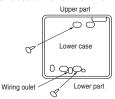
- Open the cover of remote control, and remove the screw under the buttons without fail.
- ② Remove the upper case of remote control. Insert a flat-blade screwdriver into the dented part of the upper part of the remote control, and wrench slightly.

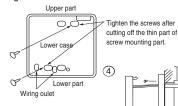


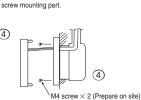
[In case of embedding cord]

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.



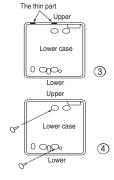




- Connect the remote control cord to the terminal block. Connect the terminal of remote control (X,Y) with the terminal of indoor unit (X,Y). (X and Y are no polarity)
- Install the upper case as before so as not to catch up the remote control cord, and tighten with the screws.

[In case of exposing cord]

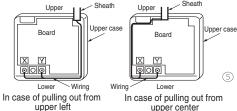
- ③ You can pull out the remote control cord from left upper part or center upper part. Cut off the upper thin part of remote control lower case with a nipper or knife, and grind burrs with a file etc.
- ④ Install the lower case to the flat wall with attached two wooden screws.



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 0.3mm² (recommended) to 0.5mm². 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 0.3mm² × 2 cores wires or cables. (on-site configuration)
- 2 Maximum prolongation of remote control wiring is 600 m.

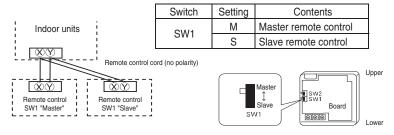
If the prolongation is over 100m, change to the size below.

But, wiring in the remote control case should be under 0.5mm². 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.

100 - 200m	$\cdots 0.5$ mm ² × 2 cores
Under 300m	······0.75mm ² × 2 cores
Under 400m	······1.25mm ² × 2 cores
Under 500m	$\dots 2.0 \text{mm}^2 \times 2 \text{ cores}$

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.



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.

1. When ② 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.

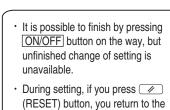
How to set upper and lower limit value

1. Stop the air-conditioner, and press (SET) and (MODE) button at the same time for over three seconds.

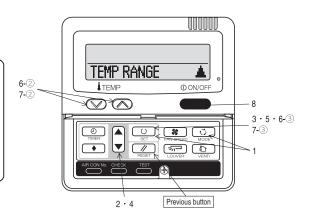
The indication changes to "FUNCTION SET ▼".

- 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 \blacktriangledown " or "LOWER LIMIT \blacktriangle " by using $\boxed{\blacktriangle}$ $\boxed{\blacktriangledown}$ 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 ☑ ⚠. 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: " \bigcirc $\lor \land$ SET UP" \rightarrow "LOWER 18°C \land "
 - 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.



previous screen.



The functional setting

The initial fortion 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 "O", 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

O. (SET) + O. (MODE) buttons at the same time for over three seconds

Note 1: The initial setting marked "%" is decided by connected indoor and outdoor unit, and is automatically defined as following table ndoor and outdoor unit, and is automatically defined as f Model
"Auto-RIN" mode selectable indoor unit.
Indoor unit without "Auto-RIN" mode
Indoor unit without "Auto-RIN" mode
Indoor unit with two or three step of air flow setting
Indoor unit with only one of air flow setting
Indoor unit with automatically swing Jouver
Indoor unit with three step of air flow setting
Indoor unit with three step of air flow setting
Indoor unit with three step of air flow setting
Indoor unit with two step of air flow setting Note 1: The Initial setting marked % is decided by Out Function No. Item Default Remote control (AUTO RIN SET AUTO RIN OF Remote control function02 (SSDFAN SPEED SW 6-583 TWM-LID function07 (SSDFAN SPEED SW 6-583 TWM-LID function07) Remote control function07
Remote control function13 I/II FAN Indoor unit with only one of air flow setting
Heat pump unit
Exclusive cooling unit Remote control MODEL TYPE function15 HEAT PUMP COOLING ONLY

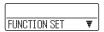
Note 3: As for plural indoor unit, set indoor functions to each master and slave indoor unit.

But only master indoor unit is received the setting change of indoor unit function "05 EXTERNAL INPUT" and "06 PERMISSION / PROHIBISHION".

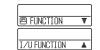
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operation of indoor unit.			LOW FAN SPEED O	When heating thermostat is OFF,	, fan speed is low speed.		
Operation of indoor drift.	or ventilation device is linked with ti	e	SET FAN SPEED	When heating thermostat is OFF,	, tan speed is set speed.		
In case of Single split series, by connecting ventilati	ion device to CNT of the indoor printed		INTERMITTENCE	When heating thermostat is OFF,	, fan speed is operated intermittently.		
circuit board (in case of VRF series, by connecting it	it to CND of the indoor printed circuit		FAN OFF	When heating thermostat is OFF,	, the fan is stopped.		
board), you can operate /stop the ventilation device	e independently by 🕒 (VENT) butto	1.			orking, "FAN OFF" is set automatically. indoor unit's thermistor is working.		
If you change the range of set temperature, t	the indication of set temperature			DO HOUSEL I AIN OFF WHICH SHE	muodi unita urenniator la working.		
If you change the range of set temperature, the will vary following the control.	are manuation of set temperature	* 11 FROST PREVENTION TEMP		Change of indoor heat exchange	r temperature to start frost prevention or	ontrol.	
If you change the range of set temperature, t			TEMP HIGH				
will not vary following the control, and keep t	the set temperature.		TEMP LOW				
X Air flow of fan becomes the three speed of all	- क्ष्मां - क्ष्मां orक्ष्मां - क्ष्मां - क्ष्मां - क्ष्मां	* 12 FROST PREVENTION CONTROL		Working only with the Single split	tsories		
※ Air flow of fan becomes the two speed of ¾	at - \$a(1).		FAN CONTROL ON	To control frost prevention, the in	ndoor fan tap is raised.		
	at - %at) .	Lea Innerty pump (TMZ)	FAN CONTROL OFF				
All llow of fair is fixed at one speed.		* 13 TORHTH LOUIS (TUK)	Iza	Drain numn is run during cooling	and dry		
			© O AND ₩	Drain pump is run during cooling,	, dry and heating.		
			\$ ∆ AND I AND III	Drain pump is run during cooling,	, dry, heating and fan.		
	e tour.	* 14 TS FAN REMAINING T	© O AND≅	Drain pump is run during cooling,	, dry and fan.		
		- 14 lacturation	NO REMAINING O	After cooling is stopped is OFF. II	the fan does not perform extra operation	l.	
*			0.5 HOUR	After cooling is stopped is OFF, t	the fan perform extra operation for half a	an hour.	
<u>1.*</u>				After cooling is stopped is OFF, t	the fan perform extra operation for an ho	our.	
If you input signal into CnT of the indoor prin	nted circuit hoard from external the	* 15 1% FAN REMAINING	o nduk	Arter cooling is stopped is OFF, t	ne ran perform extra operation for six hi	Jurs.	
I indoor unit will be operated independently a	according to the input from externa			After heating is stopped or heating	ng thermostat is OFF, the fan does not p	erform extra opr	eration.
If you input into CNT of the indoor printed circuit	it board from external, all units which			After heating is stopped or heating	ng thermostat is OFF, the fan perform ex	tra operation for	r half an h
connect to the same remote control are operate	ea according to the input from externa	·					
10 1		* 16 * FAN INTERMITTENCE		Anter rieduring is stupped of neatin	ig arennostat is OFF, tile tati perform ex	ла ореганой 101	UUII Ale i
		OW.	NO RENAINING O	1			
			zominOFF sminON			intermittent oper	ation for
(Only the master remote control can be indi	icated.)	1				intermittent ones	ration for
(Only the master remote control can be indi	licated.)	1					
10	,		SminOFF SminON	with low fan speed after five minu	utes' OFF.		
(Only the master remote control can be indi Heating preparation indication should not be	,	* 17 PRESSURE CONTROL			utes' OFF.		
10	,	* 17 PRESSURE CONTROL	STANDARD X	with low fan speed after five minu		4	
Heating preparation indication should not be	,	* 17 PRESSURE CONTROL		with low fan speed after five minu	utes' OFF.	d.	
Heating preparation indication should not be Temperature indication is by degree C.	,	* 17 PRESSURE CONTROL	STANDARD X	with low fan speed after five minu		d.	
	Wall flow of fan becomes the two speed of % Afritow of fan becomes the two speed of % Afritow of fan is fixed at one speed. If you change the remote control function "1 you must change the indoor function "04 ≈ "0" You can select the louver stop position in the The louver can stop at any position. Wall flow input signal into CnT of the indoor privation of the property of	War flow of fan becomes the two speed of ₩at - ₹ac.]. Air flow of na becomes the two speed of ₩at - ₹ac.]. Air flow of na is fixed at one speed. War flow of na is fixed at one speed. If you change the remote control function 114 - ₹=PRSITION*, you must change the indoor function 104 - ₹=PRSITION* accordingly. You can select the louver stop position in the four. The fourer can stop at any position. War flower can stop at any position. War flower can stop at any position. If you input signal into CnT of the indoor printed circuit board from external, the indoor unit will be operated independently according to the input from external if you may not to Oxf of the indoor printed circuit board from external, and in your put into Oxf of the indoor printed circuit position and units which connect to the same remote control are operated according to the input from external.	If you injut signal into CnT of the indoor printed circuit board from external. They unjut signal into CnT of the indoor printed circuit board from external. If you injut signal into CnT of the indoor printed circuit board from external. If you injut signal into CnT of the indoor printed circuit board from external. If you injut signal into CnT of the indoor printed circuit board from external. If you injut signal into CnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of the indoor printed circuit board from external into SnT of SnT	If flow of fan becomes the two speed of #kar-#kd]. Air flow of fan becomes the two speed of #kar-#kd]. Air flow of fan becomes the two speed of #kar-#kd]. If flow of fan is fixed at one speed. If you change the remote control function "14 \$\simeq \text{POSITION"}, you must change the indoor function "04 \$\simeq \text{POSITION"}, you must change the indoor function "04 \$\simeq \text{POSITION"}, you must change the indoor function "04 \$\simeq \text{POSITION"}, you must change the indoor function "04 \$\simeq \text{POSITION"}, you must change the indoor function "04 \$\simeq \text{POSITION"}, you must change the indoor function "04 \$\simeq \text{POSITION"}, you must change the indoor function in the four. X	Mark flow of fan becomes the two speed of Nati - Nation	If Nov of fan becomes the two speed of R ₄₄ -R ₄₆₁ .	If you of not becomes the two speed of \$\(\(\) \) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \

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)
- 4. Press ▲ or ▼ button. Selecct "■ FUNCTION ▼" (remote control function) or "I/U FUNCTION A" (indoor unit function).

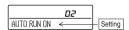


5. Press O (SET) button.

- 6. [On the occasion of remote control function selection]
 - ① "DATA LOADING" (Indication with blinking) Display is changed to "01 ₺♥₺ ESP SET".
 - 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)



③ Press (SET) button. The current setting of selected function is indicated. (for example) "AUTO RUN ON" \leftarrow If "02 AUTO RUN SET" is selected



④ Press ▲ or ▼ button. Select the setting.



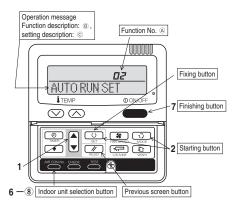
⑤ Press ◯ (SET)

"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.



7. Press ON/OFF button. Setting is finished.



[On the occasion of indoor unit function selection]

① "DATA LOADING" (Blinking for 2 to 23 seconds to read the data) Indication is changed to "02 FAN SPEED SET". Go to ②.

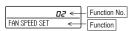
[Note]

(1) 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.

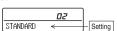


- (2) Press ▲ or ▼ button. Select the number of the indoor unit you are to set If you select "ALL UNIT ▼", you can set the same setting with
- (3) Press (SET) button.
- ② Press ▲ or ▼ button.

"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



- ④ Press ▲ or ▼ button. Select the setting
- S 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 \(\bigsize \)")

- It is possible to finish by pressing ON/OFF button on the way, but unfinished change of setting is
- 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

(But, if you select "ALL UNIT ▼ ", the setting of the lowest number indoor unit is displayed.)

1.10.4 Installation of outdoor unit Models FDC200VSA-W, 250VSA-W, 280VSA-W

PSC012D154B ⚠

Inverter driven split PAC FDC200VSA-W, FDC250VSA-W, FDC280VSA-W Designed for R32 refrigerant

 This installation manual deals with outdoor units and general installation specifications only. For indoor units, refer to page 93.
 When install the unit, be sure to check whether the selection of installation place, power supply specifications, usage limitation (piping length, height differences between indoor and outdoor units, power supply 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 mishandling.
- avoin mainincuon due to mismanding.

 The precations 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.



For 3 phase power supply 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 supply 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.

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.

Check before installation work

[Accessory] Edging Accessory pipe piece ID23 ID22.22 P-11 ID22.22 sory pipe B

- Model name and power supply
- Refrigerant piping length
- Piping, wiring and miscellaneous small parts
- Indoor unit installation manual

WARNING Æ Installation must be carried out by the qualified installer. If you restall the system by yourself, it may cause serious brushes are water leaks, electric shocks, fire and personal injury, as a result of a system maffunction. Incorrect restallation may cause bursts, personal injury, water leaks, electric shocks and fire. We then the original accessories and the specified components for installations. If parts other than those prescribed by us are used, it may cause fail of the unit, water leaks, electric shocks, fire, refrigerant leak, substandard performance, court failure and prescribed by us are used. It may cause fail of the unit, water leaks, electric shocks, fire, refrigerant leak, substandard performance, court failure and prescribed prior. When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage accordance with INSTS48. Tighten the flare nut by using double spanners and torque wrench according to prescribed method. Be sure not to tighten 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 0 y result in lack of oxygen. not open the service valves for liquid line and gas line until completed refrigerant piping work, air tightness test and evacuation. If the compressor is operated in state of opening service valves before completed connection of refrigerant piping work, you may incur frost bits or injury from an abrupt refrigerant outflow and air can be sucked into refrigerant circuit, which can cause burst or personal injury due to anomalously high pressure in the refrigerant Only use prescribed optional parts. The installation must be carried out by the qualified installer. If you install the system by yourself, if can cause entous trouble such as water leaks, electric shocks, fire. 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. performance, control failure and personal injury. When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage accordance with ISOS149. Consult be expert about prevention measures. If the density of refrigerant exceeds the limit in the event of leakage, lack of oxygen can occur, which 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. In case of R32, the refrigerant could be ignited because of its flammability. Be sure to switch off the power supply in the event of installation, inspection or servicing. If the power supply is not shut off, there is a risk of electric shocks, unit failure or personal injury due to the unexpected start of fan. After completed installation, check that no retrigerant leaks from the system. I refigerant leaks into the room and comes into contact with an oven or other hot surface, poisonous gas is produced. Hang up the unit at the specified points with repse which can support the weight in lifting for portage. And to avoid joiling out of align be sure to hang up the unit at 4-point support. An improper manner of portage such as 3-point support can cause death or serious personal injury due to failing of the unit ler or an expert regarding removal of the unit. tion can cause water leaks, electric shocks or fire **RICOTIECT INSURING THE CHIEF THE C 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 wear protective goggles and gloves while at work. This unit is designed specifically for R32. Using any other refrigerant can cause unit failure and personal inju • The electrical installation must be carried out by the qualified electrician in accordance with "the norm for electrical work" and "national witning regulation", and the system must be connected to the dedicated circuit. Power spays with installicating capacity and incorrect function done by improper work can cause electric shocks and fire, 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. Power supply with insufficient capacity and incorrect function done by improper work can cause electric shocks and fire, Be sure to shut of the power before satirting electrical work. Failure to shut of the power before satirting electrical work. Failure to shut of the power can cause electric inclose, unit failure or incorrect function of equipment. Be sure to use the cables conformed to sately standard and cables ampacity for power distribution work. Unconformable cables can cause electric leak, anomalous heat production or fire. Use the prescribed cables or exclusive classical connection, lighten 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. Arrange the writing in the control box so that it cannot be pushed up further into the box. Install the service panel correctly, functions only good in reventability and fire. 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 shoots. 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 fire. Do not process or splice the power cord, or shart the socket with other power plugs. This may cause fire or electric shock due to defecting contact, defecting insulation and over-current etc. Do not bundle or wind or process the power cord. Do not deform the power cord by treading it. This may cause fire or heating. Do not perform brazing work in the airtight room Use the prescribed pipes, flare nuts and tools for R32. Using existing parts (for R22 or R407C) can cause the unit failure and serious accidents due to burst of the refrigerant circuit.

CAUTION Æ Carry out the electrical work for ground lead with care Do not connect the ground lead to the gas line, where the line, lightning conductor or telephone line's ground lead, boorned grounding can cause electric shocks due to shart-exturality, lever connect the grounding wise to a gas pipe because if gas tested, could cause explosion or spritton. Use the chronic breaker first all public willin connect capacity. In the chronic breaker first all public willin connect capacity. In the chronic breaker first all public willin connect capacity. The solution reductor or disconnect switch or the grower supply winking in accordance with the local codes and regulations. The solution should be locked in accordanced with EMBODS-1. ● 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 occredit or special sprays are often used. -locations with erect opcourse of or inset and steem such as kitchen and machine plant. -locations with every machines with givename the light frequency harmonics are used. -locations with eavy sorow if restalled, the sure to provide base flame and snow hood mentioned in the manual -locations with the bent alls seponded to chimmey answer -locations at high altitude (more than 1000m high) -locations at high altitude (more than 1000m high) • e unit faults such as 0 Penal landator or disconnect selection on the power supply winting in accordance were were recommended and the landation of the RMSOG-1. The color strictly disconnect selection of the RMSOG-1. The color strictly one of the 2004 is must be carried by the 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 fire. Dispose of any packing materials conceredly. Any remaining packing materials conceredly. Any remaining packing materials conceredly. Any remaining packing materials conceredly. Any streamling packing materials conceredly. Physical strain on Library and Library and Library and Library and Library and Library. Physical strain on the damage the drain pan by weld spatter when welding work is done near the indoor unit. Provide pathering on the bandward and the strain of the st - Locations at high altitude (more than 1000m high) - Locations with amount cambephines (a. organic fertilizer), - Locations with active microbines (e.g. on more million appendix - Locations with active microbines (e.g. nown mellion appendix - Locations with one of the control of the contr Do not install the outdoor with in the locations listed below. Locations where discharged hot air or operating sound of the outdoor will can bother neighborhood. Locations where obstrained hot air or operating sound of the outdoor will can bother neighborhood. Locations where wheation can be amplified and transmitted due to insufficient strength of structure. Locations where wheation can be amplified and transmitted due to insufficient strength of structure. Locations where wheation and operation sound generated by the outdoor with can fitted seriously, (on the wall or at the place near bed root Locations where an equipment affected by high harmonics is placed. (If set or radio receiver is placed within 5m) Locations where an equipment affected by high harmonics is placed. (If set or radio receiver is placed within 5m) Perform assances where the property of the pr \bigcirc Do not use the unit for special purposes such as storing foods, cooling precision instruments and preservation of animals, plants or art. It can cause the damage of the items. Unit result in the unit war are decision where eachige or commissioning spaces can occur. I helded giases excumilate smooth the suit, it can couse the "I helded giases excumilate source the suit, it can couse the "I helded giases excumilate source the suit, it can couse the "I helded giases excumilate source the suit, it can couse the "I helded giases and suit Do not touch any buttons with wet hands It can cause electric shocks It Lot user receive more above. On the control to t It can cause electric shocks Do not operate the outdoor unit with any article placed on it. You may incur properly damage or personal injure from a fall of the article Do not step onto the outdoor unit. You may incur injury from a drop or fall. Do not touch the suction or aluminum fin on the outdoor unit. This may cause injury.

Notabilia as a unit designed for R32

- Do not use any refrigerant other than R32. R32 will rise to pressure about 1.6 times higher than that of a conventional refrigerant.
 A cylinder containing R32 has a light blue indication mark on the top.
 A unit designed for R32 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 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 arrange dedicated R32 tools listed in the table on the right before installing or servicing this unit.

 All indoor units must be models designed exclusively for R32. Check connectable indoor unit models in a catalog, etc. (A wrong indoor unit, if connected into the system, will impair proper system operation)

	Dedicated R32 tools
a)	Gauge manifold
b)	Charge hose
c)	Electronic scale for refrigerant charging
d)	Torque wrench
e)	Flare tool
f)	Protrusion control copper pipe gauge
g)	Vacuum pump adapter
h)	Gas leak detector

MITSURISHI HEAVY INDUSTRIES THERMAL SYSTEMS LTD.

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.)

ACAUTION 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

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. 3) Selection of installation location for the outdoor unit

) Selection of installation location for the outdoor unit

Be sure to select a suitable installation place in consideration of flowing conditions.

A place where it is horizontal, stable and can endure the unit weight and will not allow wibration transmittance of the 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 it can be free from danger of flammable gas leakage.

A place where it can be free from danger of flammable gas leakage.

A place where it can be free from danger of flammable gas leakage.

A place where the unit will not be affected by heart nadation from other heat source.

A place where the unit will not be affected by the affection of the place where in order to avoid any radio or IV interference.

A place where the unit will not be affected by the only service space can be secured from the service of the unit safety.

A place where there unit will not be affected by electromagnetic waves and/or high-harmonic waves generated by other equipment.

A place where chemical substances like sulture gas, chorice gas, acid and aftall (including ammonia), which can harm the unit, will not be generated and not remain.

A place where strong wind will not blow against the outlet air blow of the unit.

A place where strong wind will not blow against the outlet air blow of the unit.

So constal arealy or calcium chloride (e.g. snow melting agent), exposed to ammonia substance (e.g. organic fertilizer).

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.







Since drain water generated by defrost control may freeze, following measures are required.

Don't execute drain piping work by using a drain ablow and drain grommets (optional parts). [REFER TO DRAIN PIPING WORK.]

Recommend setting Defrost Control (SW3-1) and Snow Guard Fan Control (SW3-2). [Refer to Setting SW3-1, SW3-2]

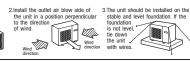
Attach heater on a base pipile on sell; if there is possibility to freeze drain water.

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.

(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 anomalous stop of the unit due to rising of high pressure.

1.Install the outlet air blow side of the





2) Portage

●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 corner column section.

5) Installation space

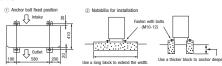
- Walls surrounding the unit in the four sides are not acceptable.
 There must be a 1-meter or larger space in the above.
 Where a danger of short-circuiting exists, install guide flowers.
 When more than one unit are installed, provide sufficient intake space consciously so that short-circuiting may not occur.
 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.
 A barrier wall placed in front of the exhaust diffuser must not be higher than the unit.

Size

case that outdoor temperature is 44°C or lower						ature is h	igher tha			Z
			(mm)					(mm)	- 1	
e Example installation	I	II	Ш		Size Example installation	I	II	Ш	K	L2
L1	Open	Open	500		L1	Open	Open	2400	V	I⊏
L2	300	5	Open		L2	300	750	Open	K	Intake
L3	150	300	150		L3	300	300	300	V	ł
L4	250 (5)	250 (5)	250 (5)		L4	750	300	1500		
If unit is installed in I 4 sna	ce with ()'s cond	ition seco	un	e snace of 250mm in lateral (I	1) by unit	moveme	nt at the		Z



6) Installation



Marks appearing in the drawing

- In installing the unit, fix the unit's legs with bolts specified on the left.
 The profrusion 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 left illustrations for information regarding concrete foundations.
 Install the unit a level area. (With a gardlent of 5 mm or less.)

Improper installation can 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 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 >

2. REFRIGERANT PIPING WORK

1) Restrictions on unit installation and use

RIORS OIL UTILITY INSTALLATION ATTO.Though goints against the specification of the indoor unit and the installation site. following points against the specification of the indoor unit and the installation site. following restrictions regarding unit installation and use. Improper installation can cause compressor failure or degradation of performance, util piping length of the system is restricted by the equivalent length (Le). and length (Le) is a virtual length corresponding to an equivalent length of liquid piping using a diameter of 12.7mm.

Restricti		Dimensional restrictions	Marks appearing in the drawing						
Hestricti	on	Dimensional restrictions	Single	Twin	Triple (A)	Triple(B)(2)	W-twin		
Total equivalent length (Liquid	piping)	≤ 70 m	Le	Le	Le	Le	Le		
	Liquid piping	≤ 40m (L: φ 9.52) 40-70m(L: φ 12.7)							
One-way pipe length of refrigerant piping	Gas piping	≤ 70m	L	L+L1 L+L2	L+L1, L+L2, L+L3	L+L1 (1)	L+La+L1, L+La+L2 L+Lb+L3, L+Lb+L4		
	Liquid piping	≤ 70m							
Main pipe length Gas piping		≦ 35m (L : φ 22.22) 35-70m (L : φ 25.4 or φ 28.58)	L	L	L	L	L		
One way pipe length from the first branching point to the second branching point		≤ 5m	-	-	-	La	-		
One-way pipe length after the first branching point		≤ 30m	-	L1,L2	L1,L2,L3	L1	La+L1, La+L2 La+L3, La+L4		
One-way pipe length from the first branching point to indoor units through the second branching point		≤ 27m	-	-	-	La+L2,La+L3	-		
One-way pipe length difference from the first branching point to the indoor	Twin Type, W-Twin	≤ 10m	-	IL1-L2I	-	-	(L1+La)-(L3+Lb), (L1+La)-(L4+Lb), (L2+La)-(L3+Lb), (L2+La)-(L4+Lb), (L1-L2), L3-L4		
units	Triple Type(A)	≤ 3m	-	-	IL1-L2I,IL2- L3I,IL3-L1I	-	-		
	Triple Type(B)	3m ~ 10m	-	-	-	L1-(La+L2), L1-(La+L3)(1)	-		
One-way pipe length differen branching point to the indoor	ce from the second unit	≤ 10m	-	-	-	IL2-L3I	IL1-L2UL3-L4I		
Total pipe length after the second branching point		≤ 15m	-	-	-	-	L1+L2,L3+L4		
Elevation difference between	When the outdoor unit is positioned higher	≤ 50m ⁽³⁾	н	н	н	н	н		
indoor and outdoor units	When the outdoor unit is positioned lower	≤ 15m	"	"	"	ri ri	н		

△CAUTION

- For model 200V, always use \$\phi\$12.7mm liquid main pipe when one-way piping length exceeds 40m and \$\phi\$9.52mm if it is 40m or less.

 If \$\phi\$8.52mm liquid pipe is used in an installation having one-way pipe length than \$40m\$ it may consider than \$40m\$ it is \$\phi\$1.50mm. It do 9.52mm liquid pipe is used in an installation having one-way pipe longer than 40m, it may cause degradation of peformance and/or water drops in the indoor unit. Always use dy5.5 mm or dx35.55mm gas man pipe "L" when the length of "L" exceeds 55m or dx 22.25mm gas pipe is used in an installation having one-way pipe longer than 55m, it may cause degradation of performance and/or water drops in the indoor unit.

			Single	Twin	Triple	W-twin
Total equivalent length(Liquid piping)		[250V] ≦ 70m [280V] ≦ 60m	Le	Le		Le
One-way pipe length of refrigerant piping		[250V] ≤ 70m [280V] ≤ 60m	L	L+L1 L+L2		L+La+L1, L+La+L2 L+Lb+L3, L+Lb+L4
	Liquid piping	[250V] ≦ 70m [280V] ≦ 60m]	
Main pipe length	≤ 35m (L; φ 22.22) [250V] 35-70m [280V] 35-80m (L; φ 25.4 or φ 28.58)		L	L		L
One-way pipe length after the first branching point		≤ 30m	-	L1,L2]	La+L1, La+L2 La+L3, La+L4
One-way pipe length difference from the first branching point to the indoor units		≤ 10m	-	L1-L2	-	I(L1+La)-(L3+Lb)I, I(L1+La)-(L4+Lb)I, I(L2+La)-(L3+Lb)I, I(L2+La)-(L4+Lb)I, IL1-L2I, IL3-L4I
One-way pipe length difference from the second branching point to the indoor unit		≤ 10m	-	-	1	IL1-L2IJL3-L4I
Total pipe length after the second branching point		≦ 15m	-	-	1	L1+L2,L3+L4
Elevation difference between	When the outdoor unit is positioned higher	$\leq 50m^{(3)}$	н	н]	н
indoor and outdoor units	When the outdoor unit is positioned lower	≤ 15m	н	н		н
Elevation difference between	indoor units	≤ 0.5m	-	h	1	h1.h2.h3.h4.h5.h6

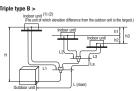
In case of new piping	Le = (length of ϕ 12.7) + 0.52 × (length of ϕ 9.52)
In case of existing piping	Le = (length of ϕ 12.7) + 0.52 × (length of ϕ 9.52) + 1.56 × (length of ϕ 15.88)

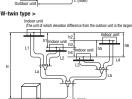
Notes: (1) Install the indoor units so that L + L1 becomes the longest one-way pipe.

(2) Connect the indoor unit with the maximum capacity to L1.

(3) If the outdoor temperature is above 43°C, the dimensional restriction is \leq 30m.

< Triple type B >





2) Determination of pipe size

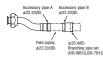
the following guidelines based on the indoor unit specifications.

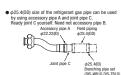
	Model	2007	Model 250V, 280V					
		Gas pipe ### ### ### ### #####################	Liquid pipe	Gas pipe	Liquid pipe	Gas pipe	Liquid pipe	
	Outdoor unit connected		φ9.52	ф22.22	φ12.7	ф22.22	φ12.7	
Outo	oor unit connected	Brazing	Flare	Brazing	Flare	Brazing	Flare	
Refrigerant	piping (main pipe L)	φ22.22 or φ25.4 or φ28.58	φ9.52 or φ12.7	φ22.22 or φ25.4 or φ28.58	φ12.7	φ22.22 or φ25.4 or φ28.58	φ12.7	
In the case of a single type	Indoor unit connected	φ25.4	φ12.7	φ25.4	φ12.7			
ill the case of a single type	Capacity of indoor unit		Model 200V		OV, 280V			
	Branching pipe set	DIS-	WB1G	DIS-	WB1G			
In the case of a twin type	Refrigerant piping (branch pipe L1,L2)	φ15.88	φ9.52	φ15.88	φ9.52			
iii die case oi a twiii type	Indoor unit connected	φ15.88	φ9.52	ф15.88	φ9.52			
	Capacity of indoor unit	Model 100V×2		Model 125V×2, 140V×2		I		
	Branching pipe set	DIS-TB1G						
	Refrigerant piping (branch pipe L1,L2,L3)	φ15.88	φ9.52					
In the case of a triple type A	Indoor unit connected	φ15.88	φ9.52				-	
	Capacity of indoor unit	Model 71V×3						
	Branching pipe set		DIS-WB1G		DIS-WB1G		/B1G	
	Refrigerant piping (branch pipe La,L1)	φ15.88	φ9.52	φ15.88	φ9.52	φ15.88	φ9.52	
In the case of a triple type B	Branching pipe set		NA1G	DIS-WA1G		DIS-WA1G		
in the case of a tipe type o	Refrigerant piping (branch pipe L2,L3)	φ15.88	φ9.52	φ12.7	φ9.52	φ15.88	ф9.52	
	Indoor unit connected	φ15.88	φ9.52	φ12.7	φ6.35	ф15.88	φ9.52	
	Capacity of indoor unit	Model	71V×3	Model 60V×2+ Model 125V		Model 71V×2+ Mode	100V, 71V×2+ 140V	
	Branching pipe set	DIS-V	WB1G	DIS-I	WB1G	DIS-V	/B1G	
	Refrigerant piping (branch pipe La,Lb)	φ15.88	φ9.52	φ15.88	ф9.52	φ15.88	ф9.52	
In the case of a W-twin type	Branching pipe set		WA1G	DIS-W	11G × 2	DIS-W.	N1G×2	
	Refrigerant piping (branch pipe L1,L2,L3,L4)	φ12.7	φ9.52	φ12.7	φ9.52	φ15.88	φ9.52	
1	Indoor unit connected	φ12.7	φ9.52	ф12.7	φ6.35	φ15.88	φ9.52	
	Capacity of indoor unit	Model	50V×4	Model 60%	1×4, 71V×4	Model 71V×4		

ACAUTION

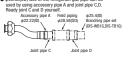
. I manual supplied with your branching pipe set.

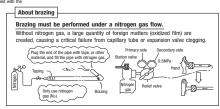
3) How to use pipe reducer.





used by using accessory pipe A and joint pipe C,D.
Ready joint C and D yourself.
Accessory pipe A Field plant





4) 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 uses 832. Always use 1/2H pipes having a 1.0mm or thicker wall for φ19.05 or larger pipes, because 0-type pipes do not meet the pressure resistance requirement.

Pipe diameter [mm]	6.35	9.52	12.7	15.88	22.22	25.4	28.58
Minimum pipe wall thickness [mm]	0.8	0.8	0.8	1.0	1.0	1.0	1.0
Pipe material*	0-type pipe	0-type pipe	0-type pipe	O-type pipe	1/2H-type pipe	1/2H-type pipe	1/2H-type pip
*Phosphorus deoxidized seamless copper pipe C1220T, JIS H 3300							

Copper pipe outer diameter ϕ 6.35 ϕ 9.52 A _0.4

NOTE

elect pipes having a wall thickness larger

5) On-site piping work

⚠ IMPORTANT

■ Take 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.

How to remove the service panel

First remove screws (x mark) of the service panel and push it down into the direction of the arrow mark and then remove it by pulling it toward you.

How to remove the Service panie!

™ he pipe can be laid in any other following directions: side right, front, rear and downward.

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 before laying a pip pipe.

**Please close the gap of piping connecting part with putty or insulation material (locally procured) after piping connection. Small animals or insects may intude into the outdoor unit and it will cause electrical short.

Carry out the on site piping work with the operation valve fully closed.

Carry out the on site piping work with the operation valve fully closed.

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.

Flare connection is used between the unit and refrigerant pipe. Flare a pipe after engaging a flare nut onto it. Flare dimension for R32 are different from those for conventional R22 and R407c. Although we recommend the use of flaring tools design specifically for R32, conventional flaring tools can also be used by adjusting the measurement of protrusion B with a protrusi control gauge.

#Do not reuse existing flare, make new flare.

The pipe should be anchored every 1.5m or less to isolate the vibration.

Tighten a flare joint securely with a double spanner.

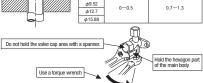
⚠ CAUTION

Do not apply force beyond proper fastening torque in tightening the flare nut.

Fix both liquid and gas service valves at the valve main bodies a flustrated on the right, and then fasten them, applying appropriate fastening torque

Ob not apply reingerating machine oil to the flared valurace. It can cause refrigerant leakage.

φ6.35 (1/4") φ9.52 (3/8") φ12.7 (1/2") φ19.05 (3/4") 100-130

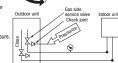


Copper pipe outer diameter ϕ 6.35

6) Air tightness test

AIT TIGNTHESS TEST

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 check joint equipped on the outdoor all Raise the pressure to 0.5 MPa, and 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 minutes to see if the pressure drops.
c) Hen raise the pressure to the specified leave (1.5 MPa), and record the makinet temperature and the pressure.
c) Hen raise the pressure to the specified leave (1.5 MPa), and record the makinet temperature and the pressure.
c) Hen raise the pressure to the specified leave (1.5 MPa), and record the makinet temperature and the pressure and the pressure and the pressure and the pressure are the specified leave (1.5 MPa), and record the makinet temperature and the pressure also fall approximately 0.01 MPa. The pressure, if changed, should be compensated for.
c) If a pressure does jo is observed in checking e) and 3—(a), alse exists somewhere. Find a leak by applying bubble test liquid to welded parts and flare joints and repair it. After repair, conduct an air-lightness test again.
c) 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.



<Work flow> When the system has remaining moisture inside or a leaky point, the vacuum gauge indicator will rice.

Run the vacuum pump for at least one hour after the vacuum gauge shown -101kPa or lower. (-755mmHg or lower) Check the system for a leaky point and then draw air to create a vacuum gagain.

Confirm that the vacuum gauge indicator does not rise even if the system is left for one hour or more.

Airtighteness test completed Vacuuming begins Vacuum gauge check Fill refrigerant

For side right co

Pay attention to the following points in addition to the above for the R32 and compatible machines.

On prevent a different oil from meleting, assign 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, R410A etc.).

Olise a counterflow prevention adapter to prevent vacuum pump oil from entering the refrigerant system.

8) Additional refrigerant charge

(1) Determine if the factory refrigerant charge of the outdoor unit is sufficient to cover the total liquid piping length.

Capacity	Factory refrigerant charge (kg)	Liquid piping length covered with factory refrigerant charge (m)
200V	4.3	
250V	5.1	30
280V	5.6	

(2) If the factory charge does not cover the total liquid piping length, an addition of refrigerant is necessary.

Step1 - Calculate the total equivalent length, Le:

[Formula to calculate equivalent length (Le)]

(3) Charging refrigerant

In case of new piping	Le = (length of ϕ 12.7) + 0.52 × (length of ϕ 9.52)
In case of existing piping	Le = (length of ϕ 12.7) + 0.52 × (length of ϕ 9.52) + 1.56 × (length of ϕ 15.88)

Model FDC200 50<Le≦60 m 40<Le≦50 m 60<Le≦70 m Additional refrigerant charge (kg) Okg 2.11kg

Step2 - Determine from the table below the additional refrigerant charge:

Examples

Examipues:

FDCSSVIS.4W + W-twin system with L(ϕ 12.7) = 35 m; La(ϕ 9.52) = Lb(ϕ 9.52) = 5 m; L1(ϕ 9.52) = L2(ϕ 9.52) = L3(ϕ 9.52) = L3(ϕ 9.52) = L3(ϕ 9.52) = L3(ϕ 9.52) = L3(ϕ 9.52) = L3(ϕ 9.52) = L3(ϕ 9.52) = L3(ϕ 9.53) = L4(ϕ 9.52) = L3 m Colorado poing length = 57 m, additional refrigerant charge = 1.31 kg = L3(ϕ 1.54) = L3(ϕ 1.5

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 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 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 large upon the unit.

In charging refrigerant, always charge a calculated value by using a scale to measure the charge volume. When refrigerant is charged with the unit being run, complete a charge portation 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 label attached on the back side of the service panel.

9) Heating and condensation prevention

(1) Dress refrigerant pipes (both gas and liquid bipes) for pleat 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.

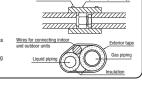
- Improper heat insulation-leve dressing can result in a water leak or diriping causing damage to household effects, etc.

- All gas pipes must be securely heat insulated in order to prevent damage from dipping 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.

- Wray indoor units frace points with heat insulating parts (pipe cover) for heat insulation grant place and liquid a light operation.

- Wray indoor units frace points with heat insulating parts (pipe cover) for heat insulation granterial and a pipe dipth (operation so that no gaps may be left between them and wrap them together with a connecting cash) in the direction to the contraction of the direction to the contraction of the direction to the contraction of the plants of the direction to the contraction of the

five heat insulation to both gas and liquid side pipes. Bundle a neat msurating material and a paper ugner,



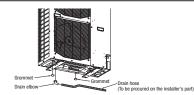
3. DRAIN PIPING WORK

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

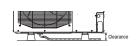
separately as opunous parts, where water unained in this fluctuous thin is a problem.
Problem.
When yield his promises with putty or adequate caulting material.
Condensed water may flow out from vicinity of service valse or connected pipes.
Where you are likely to have several days of sub-zero temperatures 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.)

Do not use drain elbow and grommet made of plastic for drain in piping when base heater for outdoor unit is used. Plastic grommet and elbow will be damaged and burnt in worst case.

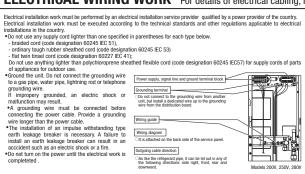
Prepare another drain tray made of metallic material for collecting drain when base heater is used.



 When condensed water needs to be led to a drain, etc., install the unit on a flat base (supplied separately as an optional part) or concrete blocks.
Then, please secure space for the drain elbow and the drain hose.



4. ELECTRICAL WIRING WORK For details of electrical cabling, refer to the indoor unit installation manual.



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)

Do not use a condensive capacitor for power factor improvement under any circumstances. (It dose not improve power factor, while it can cause an ahomand overheat accident)
For power supply 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.

Pasten 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-ore cable for an indoor-outdoor connecting able.

Connect a pair bearing a common terminal number with an indoor-outdoor connecting wire.

Connect a pair bearing a common terminal number with an indoor-outdoor connecting wire.

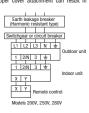
In cabling, fasten cables securely with cable clamps so that no external force may work on terminal connections.

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.

______ CAUTION Always use an earth leakage circuit breaker designed for inverter circuits to prevent a faulty operation.



Model	Power supply	Power cable size (mm²)	MAX. over current (A)	Power cable length (m)	Earth wire size	Indoor-outdoor wire size × number				
200V	3 phase 4 wire		19	72						
250V	380-415V 50Hz			69	φ1.6mm	ϕ 1.6mm \times 3				
280V	380V 60Hz		20	69						
**In case of FDU indoor unit combination.										
Model	Power supply	Power cable size (mm²)	MAX. over current (A)	Power cable length (m)	Earth wire size	Indoor-outdoor wire size × number				
200V	3 phase 4 wire		23	60						
250M	200 44545011-		or.	rr.	1					

	nit combination.						
Model	Power supply	Power cable size (mm²)	MAX. over current (A)	Power cable length (m)	Earth wire size	Indoor-outdoor wire size × number	
200V	3 phase 4 wire 380-415V 50Hz		19	72	φ1.6mm	φ1.6mm × 3	
250V		5.5	20	69			
280V	380V 60Hz		22	62			

5. COMMISSIONING

- Before conduct a test run, make sure that the service valves are opened.
 Turn on power 6 hours prior to a test run to energize the crank case heater.
 It may not be the first operation after turning on power, even if the unit does not move for 30 minutes, it is not a breakdown.
 Naveys give a 3-minute or longer interval before you start the unit again whenever it is stopped.
 Removing the service panel will expose high-valtage tive 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 roley (CSD) is energized during a heating operation.
 When power supply 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"

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 setting.

 (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

Use check joints provided on the piping before and after the four-way valve installed inside the 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.

Check joint of the pipe		gas service valve
Cooling operation	Discharge pressure (High pressure)	Suction pressure (Low pressure)
Heating operation	Suction pressure (Low pressure)	Discharge pressure (High pressure)

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 is turned ON, the unit will run in the defrost mode more frequently.

Set this Switch to Unit, when instantion in a signal peration.

(2) Snow 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 0N.

4) Failure diagnosis in a test run

	Printed circuit board LED	(The cycles of 5 seconds)	Failure event	Action
remote control unit	Red LED	Green LED		ACIOII
E40	Blinking once	Blinking continuously		Check whether the service valves are open. If an error has been canceled when 3 minutes have elapsed.
E49	Blinking once	Blinking continuously	Low pressure error or operation with service valves shut (occurs mainly during a cooling operation)	since a compressor stop, you can restart the unit by effecting Check Reset from the remote control unit.

• 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.									
When power is turned on		When the unit com	nes to a normal stop	When the unit comes to an abnormal stop					
	When power is turned 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				

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 startun), 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. 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 refrigerant back to compressor. If that is the case, do not suspect a unit failure.

A failure to observe these instructions can result in a compressor breakdown.

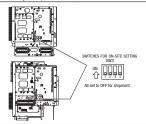
Items to check before a test run

• When you leave the outdoor unit with power supplied to it, be sure to close the panel. Item No.used in the ins<u>tallation manual</u> Item Check item

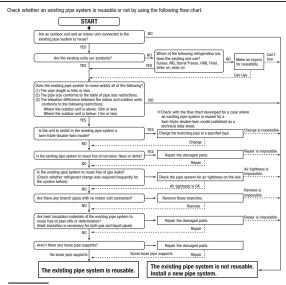
Test run procedure Always carry out a test run and check the following in order as listed

Tum	The contents of operation	Check
1	Open the gas side service valve fully.	
2	Open the liquid side service valve fully.	
3	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.	
(5)	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.	
6	When the unit starts operation, press the wind direction button provided on the remote control unit to check its operation.	
7	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.	
9	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.	

<200V, 250V, 280V>



6. UTILIZATION OF EXISTING PIPING



/\sumbox WARNING <Where the existing unit can be run for a cooling operation.

- Carry out the following steps with the excising unit. (in the order of (1), (2), (3) and (4))

 (1) Run the unit for 30 minutes for a cooling operation.

 (2) Stop the indoor fan and run the unit for 3 minutes for a cooling operation (returning liquid)

 (3) Close the liquid side service valve of the outdoor unit and pump down (refrigerant recovery)

 (4) Blow with nitrogen gas. 3% if discolored refrigeration oil or any foreign matters is discharged by the blow, wash the pile system or install a new pile 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 R32.

 Turn on-site setting switch SW5-1 to the ON position. (Where the gas pipe size is \$\phi\$ 19.05)

- Where the existing unit cannot be run for a cooling operation.> Wash the pipe system or install a new pipe system.
 If you choose to wash the pipe system, contact our distributor in the area.

<Table of pipe size restrictions>

< rature of pipe size combination is restricted by the following table.</p>
Pipe length is limited according to the total refrigerant charge amount.
For additional charging amount of refrigerant, refer to 2.8) Additional refrigerant charge.
Standard pipe size ():Usable
-:Restricted to shorter pipe length limits ×:Not usable

Pipe size	Liquid pipe	φ9.52	φ9.52	φ9.52	φ12.7	φ12.7	φ12.7	φ 15.88	φ 15.88	φ15.88
ripe size	Gas pipe	φ 22.22	φ25.4	φ 28.58	φ22.22	φ 25.4	φ 28.58	ф 22.22	φ25.4	φ 28.58
200V		0	○#2	○#2	Δ	0	0			×
250V 280V	Usability	×	×	×	0	0	0	Δ	Δ	Δ

			Aft	er 1st bra	anch #3	Afte	2nd bra	nch
Pipe size	Liqui	Liquid pipe				φ9.52		
Pipe size	Gas	pipe	φ12.7	φ15.88	φ19.05 ^{®1}	φ12.7	φ15.88	φ19.05 ^{®1}
Model	Combination type	Combination of capacity						
	Twin	100+100	×	0	0	-	-	-
200V	Triple A	71+71+71	×	0	0	-	-	-
200V	Triple B	71+71+71	×	-0	○ ※4	×	0	0
	Double twin	50+50+50+50	×	0	0	0	0	×
	Twin	125+125, 140+140	×	- 0	0	-	-	-
250V	Triple A	-	-	-	-	-	-	-
280V	Triple B	60+60+125, 71+71+140	×	0	○ 964	0	×	×
20UV	Triple B	71+71+100	×	0	○ #4	×	0	×
	Double twin	60+60+60+60, 71+71+71+71	×	-0	0	-0	0	×

#1 Because of this instifficient pressure resistance, turn the DIP switch SWS-1 provided on the outdoor unit board to the Oil position for p 19.05 × 11.0. (in the case of a brin-triple-double-twin model, the also applies to the case where p 19.05 × 11.0 seed in a pipe system after the first branching point.) However, you need not turn the DIP switch SWS-1 to the Oil position (17.197 pipes no pipe hading) 2 contineer walls are used. *2* When the main pipe length exceeds 40m, a significant capacity drop may be experienced due to pressure loss in the liquid pipe system. Use p 12.7 for the liquid minimal.

- <The model types of existing units of which branching pipes are reusable.> Models later than Type 8.
 •FDC ** * * 8 □ □ □ •FDCP ** * 8 □ □ □

** * are numbers representing noisepower.

Formula to calculate additional charge volume

Refer to "2. REFRIGERANT PIPING WORK", "8) Additional refrigerant charge'

1.10.5 Method for connecting the accessory pipe Models FDC200VSA-W, 250VSA-W, 280VSA-W



- 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) (D) applicable to the connecting direction.
- ② Firstly, use the accessory pipe to assemble the connecting pipe assembly <u>outside the outdoor unit.</u>

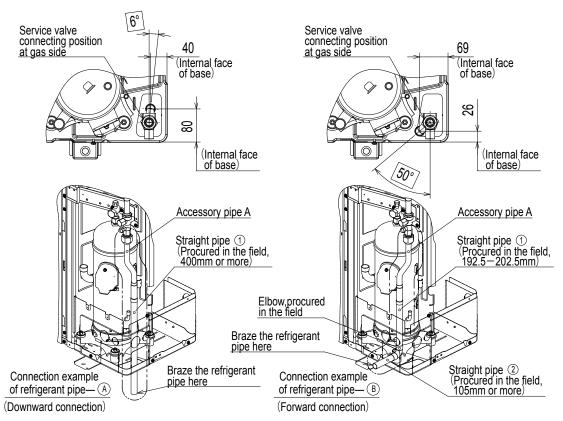
 (As shown in the figure of connecting examples (A) (D).)
- 3 After assembling the connecting pipe, connect it to the service valve on the gas side inside the outdoor unit. Tighten the flare nut with appropriate torque.

Proper torque						
ϕ 19.05	100-130N·m					

- 4 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 electtric shock.)

[Connection example \bigcirc — \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.



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)						
Single type	200V	≦35(m)	φ 22.22 x t1.0					
	250V	≦70(m)	ϕ 25.4 x t1.0 or ϕ 28.58 x t1.0					
	2001/	≦35(m)	φ 22.22 x t1.0					
		≦60(m)	ϕ 25.4 x t1.0 or ϕ 28.58 x t1.0					

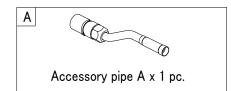
■ Be sure to use pipes of 1/2H material, and wall thickness above 1mm. (Pressure resistance of O-type pipe is not enough.)

Table 2 Parts used for the connecting pipe assembly

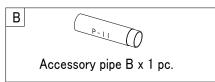
No.	Name	Quantity	Remark		
1	Accessory pipe A	1	Accessory		
2	Straight pipe 1	1	Procured at the field		
3	Straight pipe ②	1 or 0	Procured at the field (Not required for downward direction)		
4	Elbow	1 or 0	Procured at the field (Not required for downward direction)		

Table 3 Length and specification of straight pipe (Procured in the field)

	(A) Downward	® 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



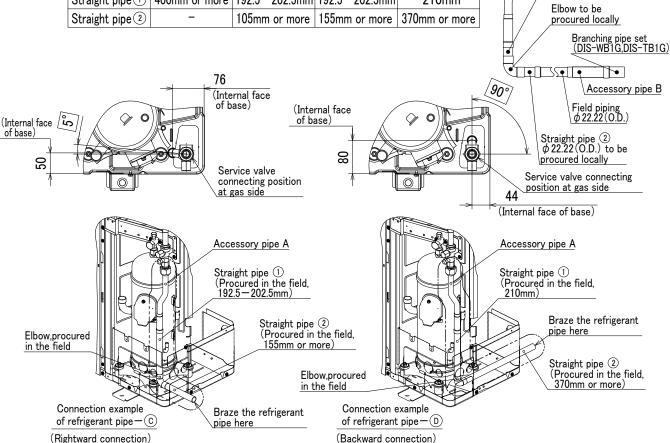
Heat insulating material is attached to the accessory pipe with band. When installing the heat insulating material, cut the band and retrieve it.



 Branching pipe set can be used by using the accessory pipe B.
 When φ 22.22 (O.D.) size of the indoor unit gas pipe is used, the accessory pipe B is unnecessary.

Accessory pipe A

Straight pipe \bigcirc ϕ 22.22 (O.D.) to be procured locally



1.10.6 Instructions for branching pipe set (DIS-WA1G, WB1G, TA1G, TB1G)

PSB012D865 A

♠ WARNING / CAUTION

- This set is for R410A and R32 refrigerant.

 Select a branching size at the second sec
- 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

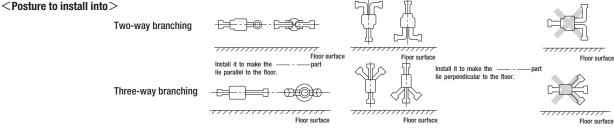
(1) Please make sure that you have chosen the right branching pipe set and the specifications of the parts contained in it by checking with the table below.

(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	el Branching pipe set for a liquid pipe Branchi 109.52 109.52 1 piece 109.52 1 piece 109.52 1 piece 109.52 1 piece 109.52 1 piece	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 ===== 2 pieces	
DIS-WA1G	7111	1.5HP+2.5HP	①\ ([®]	① [] @	Flare joint (for indoor unit side connection)	
(Two-way branching set)	5HP	2.5HP+2.5HP			(101 IIIdoor dilit side colliection)	
(Two way branching bot)		2HP+3HP	ID9.52 🕌 ③	ID15.88 3 ID15.00	Joint B 2 pieces	
	6HP	3HP+3HP		1 piece	OD15.88 D12.7	One each for liquid and gas
		2HP+4HP	i piece	i piece		, ,
	8HP	4HP+4HP				
DIS-WB1G (Two-way branching set)		3HP+5HP			Joint C 1 piece 0D12.7 D9.52	
	10HP 12HP	5HP+5HP 6HP+6HP	ID9.52	1D25.4 ID15.88		One each for liquid and gas
DIS-TA1G (Three-way branching set)	6НР	2HP+2HP+2HP	1 (D).52 (4)	ID12.7 ① 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Joint A ID9.52	One each for liquid and gas
DIS-TB1G (Three-way branching set)	8HP	3HP+3HP+3HP		1 piece	ID9.52 Joint A 2 pieces Flare joint (for indoor unit side connection) Joint B 1 piece 0D15.88 DID12.7 Joint D 1 piece ID12.7 0D9.52	One each for liquid and gas

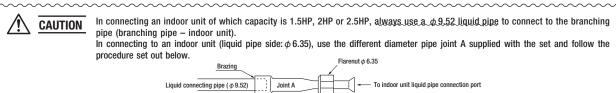
(3) To connect pipes for a Double Twin installation (involving 4 indoor units), please see 2-7. "Double Twin configuration."
(4) A branching pipe set must always be installed into the posture as illustrated in the drawing below.

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-WA1G

Supported of		Liquid branching pipe	Gas branching pipe		
utdoor unit model	1.5HP+1.5HP		ID12.7 Joint B		
	2HP+2HP	Flare joint (φ6.35) Joint A	Joint B 3 ID12.7		
4НР	1.5HP+2.5HP	Connecting pipe (\$\phi 9.52)	Joint B J ID12.7 # A		
	2.5HP+2.5HP	(φ6.35)	Joint B ID15.88		
5НР	2HP+3HP	Flare joint $(\phi 6.35)$ Joint A Connecting pipe $(\phi 9.52)$ ID9.52 \triangle CAUTION ID9.52 Reference	Joint B 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
	3HP+3HP	ID9.52 ID9.52 ID9.52	ID15.88 © ID15.88 3		
6НР	2HP+4HP	Flare joint $(\phi 6.35)$ Joint A Connecting pipe $(\phi 9.52)$ $(\phi 9.$	Joint B — D12.7 Joint B — D15.88		

2-2 DIS-WB1G

	combinations	Liquid branching pipe	Gas branching pipe
Outdoor unit model	Indoor unit model	Elquid Drailolling pipo	ado Branoming pipo
8HP	3HP+5HP	ID9.52	ID15.88
	4HP+4HP	Joint C ID9.52	ID15.88
10HP 12HP	5HP+5HP 6HP+6HP	ID9.52 ID12.73————————————————————————————————————	ID15.88 ID25.4

2-3 DIS-TA1G Applicable to the difference in length of pipes after the branch being less than 3m * Connection is not allowed when the difference in length of pipes is larger than 3m.

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)	1012.7 ① ② ③ ④

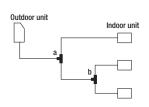
2-4 DIS-TB1G Applicable to the difference in length of pipes after the branch being less than 3m * Connection is not allowed when the difference in length of pipes is larger than 3m.

Supported c	ombinations	Lieuid bronching nine	Coo branching since
Outdoor unit model	Indoor unit model	Liquid branching pipe	Gas branching pipe
8НР	3HP+3HP+3HP	ID9.52 3————————————————————————————————————	① ② ③ ④ D15.88

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 pipes after the branch is longer than 3m and shorter than 10m

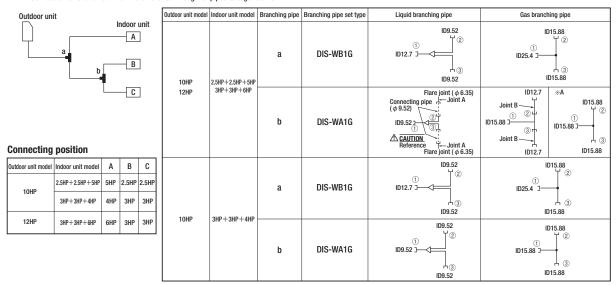


pes aπer tn	e branch is	longer than 3	3m and shorter th	an 10m	
Outdoor unit model	Indoor unit model	Branching pipe	Branching pipe set type	Liquid branching pipe	Gas branching pipe
		a		Flare joint $(\phi 6.35)$ Joint A Connecting pipe $(\phi 9.52)$ $(\phi 9.$	Joint B (2) ID15.88 ID15.88
бНР	2HP+2HP+2HP	b	DIS-WA1G	Flare joint (ϕ 6.35) Connecting pipe (ϕ 9.52) ID9.52 \bigcirc CAUTION Reference \bigcirc Flare joint (ϕ 6.35)	Joint B Joint B Joint B ID12.7
OND	OND LOND LOND	a	DIS-WB1G	ID9.52 ID9.52 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	ID15.88 ID25.4 J 3 3 ID15.88
8HP :	3HP+3HP+3HP	b	DIS-WA1G	ID9.52 (2) (2) (3) (109.52 (10	ID15.88 ID15.88 ID15.88

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 3m

* Connection is not allowed when the difference in length of pipes is larger than 3m.



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

nected as follows for a Double Twin installation (4 connected indoor units. The capacity of an outdoor unit available for this configuration

Outdoor unit capacity	Indoor unit capacity	Branching pipe	Branching pipe set type	Outdoor unit model	Liquid branching pipe	Gas branching pipe			
8HP 10HP	2HP×4 units 2.5HP×4 units		DIO MIDAO	8HP	ID9.52 (1) (2) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	ID15.88 ① ② ID25.4 3 → ③ ID15.88			
Outdoor unit b	3HP×4 units	a	DIS-WB1G	10HP 12HP	ID9.52 ID12.7 3 2 ID9.52				
			DIG WAY	8НР	Flare joint (ϕ 6.35) Connecting pipe Joint A (ϕ 9.52)	Joint B JU12.7			
		b	DIS-WA1G	10HP 12HP	CAUTION Reference Flare joint (φ6.35)	#A Joint B — ID15.88 J — Joint B — ID15.88 J — Joint B —			

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.

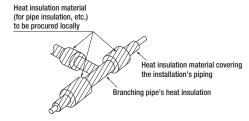
3. Heat insulation work

(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.



1. It has an adhesive laver 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.

1.10.7 Safety precautions in handling air-conditioners with flammable refrigerant

R32 REFRIGERANT USED

PSA012B839G



This equipment uses flammable refrigerants. If the refrigerant is leaked, together with an external ignition source, there is a possibility of ignition.



There is information included in the user's manual and/or installation manual.



The user's manual should be read carefully.

A service personnel should be handing this equipment with reference to the installation manual.

- This safety precaution sheet is for R32 refrigerant. If you want to know the type of refrigerant in the unit, check the label attached to the outdoor unit.
- The precautionary items mentioned below are distinguished into two levels, Marning and Marning and Marning

⚠ WARNING: Wrong installation would cause serious consequences such as injuries or death.

⚠ CAUTION : Wrong installation might cause serious consequences depending on circumstances

⚠ WARNING

- Strict compliance of the domestic laws must be observed when disposing the appliance.
- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater.
- · Do not pierce or burn.
- Be aware that refrigerants may not contain an odour.
- The ducts connected to an appliance shall not contain a potential ignition source.

⚠ CAUTION

1. General

- The installation of pipe-work shall be kept to a minimum.
- Pipe-work shall be protected from physical damage.Compliance with national gas regulations shall be
- Mechanical connections shall be accessible for maintenance purposes.
- maintenance purposes.

 Keep any required ventilation openings clear of obstruction
- Servicing shall be performed only as recommended by the manufacturer.
- Equipment piping in the occupied space shall be installed in such a way to protect against accidental damage in operation and service.
- Precautions shall be taken to avoid excessive vibration or pulsation to refrigerating piping.
 Protection devices, piping and fitting shall be
- Protection devices, piping and fitting shall be protected as far as possible against adverse effects for example, the danger of water collection and freezing in relief pipes or the accumulation of dirt and debris.
- Provision shall be made for expansion and contraction of long runs of piping.
- Piping in refrigerating systems shall be designed and installed to minimize the likelihood hydraulic shock damaging the system.
- The indoor equipment and pipes shall be securely mounted and guarded to avoid accidental rupture of equipment from moving furniture or reconstruction activities.
- Instructions for wiring to external zoning dampers and/or mechanical ventilation, to ensure that upon detection of a leak, the zoning dampers are driven fully open and additional mechanical ventilation is activated.
- For appliances using A2L refrigerants, connected via an air duct system to one or more rooms, the supply and return air shall be directly ducted to the space.
 Open areas such as false ceilings shall not be used as a return air duct.
- The following information requirements apply for enhanced tightness refrigerating systems using A2L refrigerants.
- Where safety shut off valves are specified, the minimum room area may be determined based on the maximum amount of refrigerant that can be leaked as determined in GG.12.2. (IEC 60335-2-40:2018)
- Where safety shut off valves are specified, the location of the valve in the refrigerating system relative to the occupied spaces shall be as described in GG.12.1.(IEC 60335-2-40:2018)

Unventilated areas

- The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.
- If the refrigerant charge amount in the system is ≥1.84 kg, an unventilated area where the appliance is installed shall be so constructed that should any refrigerant leak, it will not stagnate so as to create a fire or explosion hazard.

3. Qualification of workers

 The staff in servicing operations must hold the national qualification or other relevant qualifications

4. Information on servicing

- 4.1 Checks to the area
- Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimised
- For repair to the refrigerating system, 4.2 to 4.6 shall be completed prior to conducting work on the system.
- 4.2 Work procedure
- Work shall be undertaken under a controlled procedure so as to minimise the risk of a flammable gas or vapour being present while the work is being performed.

4.3 General work area

- All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out.
- Work in confined spaces shall be avoided.
- 4.4 Checking for presence of refrigerant
- The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially toxic or flammable atmospheres.
 Ensure that the leak detection equipment being
- Ensure that the leak detection equipment being used is suitable for use with all applicable refrigerants, i.e. non-sparking, adequately sealed or intrinsically actions.
- 4.5 Presence of fire extinguisher
- If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO₂ fire extinguisher adjacent to the charging area.

- 4.6 No ignition sources
- No person carrying out work in relation to a refrigerating system which involves exposing any pipe work shall use any sources of ignition such a manner that it may lead to the risk of fire or explosion.
- All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which refrigerant can possibly be released to the surrounding space.
- Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks.
- "No Smoking" signs shall be displayed.
- 4.7 Ventilated area
- Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work.
- A degree of ventilation shall continue during the period that the work is carried out.
 The ventilation should safely disperse any released
- The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.
- 4.8 Checks to the refrigerating equipment
- Where electrical components are being changed, they shall be fit for the purpose and to the correct specification
- At all times the manufacturer's maintenance and service guidelines shall be followed.

 If in doubt consult the manufacturer's technical.
- If in doubt consult the manufacturer's technical department for assistance.
- The following checks shall be applied to installations using flammable refrigerants:
- the actual refrigerant charge size is in accordance with the room size within which the refrigerant containing parts are installed.
- the ventilation machinery and outlets are operating adequately and are not obstructed;
- if an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant,
- marking to the equipment continues to the visible and legible. Markings and signs that are illegible shall be corrected.
- refrigerating pipe or components are installed in a position where they are unlikely to e exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

⚠ CAUTION

- 4.9 Checks to electrical devices
- Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures.
- If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with.
- It the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used.
- This shall be reported to the owner of the equipment so all parties are advised
- Initial safety checks shall include:
- that capacitors are discharged; this shall be done in a safe manner to avoid possibility of sparking;
- that no live electrical components and wiring are exposed while changing, recovering or purging
- that there is continuity of earth bonding

5. Repairs to sealed components

- During repairs to sealed components, all electrical supplies shall be disconnected from the equipment being worked upon prior to any removal of sealed
- If it is absolutely necessary to have an electrical supply to equipment during servicing then a permanently operating from of leak detection shall be located at the most critical point to warm of a potentially hazardous situation.
- Particular attention shall be paid to the following to ensure that by working on electrical components, the casing is not altered in such a way that the level of protection is affected.
- This shall include damage to cables, excessive number of connections, terminals not made to original specification, damage to seals, incorrect fitting of glands, etc.
- Ensure that the apparatus is mounted securely
- Ensure that seals or sealing materials have not degraded to the point that they no longer serve the purpose of preventing the ingress of flammable atmospheres
- Replacement parts shall be in accordance with the manufacturer's specifications.

6. Repair to intrinsically safe components

- · Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use
- Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere.
- The test apparatus shall be at the correct rating. Replace components only with parts specified by the manufacturer.
- Other parts may result in the ignition of refrigerant in the atmosphere from a leak.

NOTE

The use of silicone sealant can inhibit the effectiveness of some types of leak detection equipment. Intrinsically sate components do not have to be insulated prior to working on them.

7. Cabling

Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans

8. Detection of flammable refrigerants

- Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks.
- A halide torch (or any other detector using a naked flame) shall not be used. Electronic leak detectors may be used to detect
- refrigerant leaks but, in the case of flammable refrigerants, the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.)
- Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used.
- Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed, and the appropriate percentage of gas (25 % maximum) is confirmed.
- Leak detection fluids are suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.

Examples of leak detection fluids are

- bubble method
- fluorescent method agents
- If a leak is suspected, all naked flames shall be removed/extinguished.
- If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak. Removal of refrigerant shall be according to Item.9.

9. Removal and evacuation

- When breaking into the refrigerant circuit to make repairs - or for any other purpose - conventional procedures shall be used. However, for flammable refrigerants it is important that best practice is followed since flammability is a consideration.
- The following procedure shall be adhered to:

 remove refrigerant;
 - purge the circuit with inert gas; (Option for A2L)
- evacuate;(Option for A2L)
 purge with inert gas;(Option for A2L) - open the circuit by cutting or brazing.
- The refrigerant charge shall be recovered into the
- correct recovery cylinders.
 For appliances containing flammable refrigerants, other than A2L refrigerants, the system shall be "flushed" with OFN to render the unit safe for flammable refrigerants.
- This process may need to be repeated several times
- Compressed air or oxygen shall not be used for purging refrigerant systems.
- For appliances containing flammable refrigerants. other than A2L refrigerants, refrigerants purging shall be achieved by breaking the vacuum in the to system with oxygen-free nitrogen and continuing fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum.
- This process shall be repeated until no refrigerant is within the system.
- When the final oxygen-free nitrogen charge is used, the system shall be vented down to atmospheric pressure to enable work to take place.
- This operation is absolutely vital if brazing operations on the pipe-work are to take place.
- Ensure that the outlet for the vacuum pump is not close to any ignition sources and that ventilation is

10. Charging procedures

- In addition to conventional charging procedures, the following requirements shall be followed.

 – Ensure that contamination of different refrigerants
- dose not occur when using charging equipment. Hoses of lines shall be as short as possible to minimise the amount of refrigerant contained in
- Cylinders shall be kept in an appropriate according to the instructions.
- Ensure that the refrigerating system is earthed prior to charging the system with refrigerant. Label the system when charging is complete (if
- not already).
- Extreme care shall be taken not to overfill the refrigerating system.
- Prior to recharging the system, it shall be pressuretested with the appropriate purging gas.

 The system shall be leak-tested on completion of
- charging but prior to commissioning
- A follow up leak test shall be carried out prior to leaving the site.

11. Decommissioning

- Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail.
- It is recommended good practice that all
- refrigerants are recovered safely.
 Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is
- required prior to re-use of recovered refrigerant. It is essential that electrical power is available before the task is commenced.
- a) Become familiar with the equipment and its operation.
- b) Isolate system electrically.
- c) Before attempting the procedure ensure that
- mechanical handling equipment is available, if required, for handling refrigerant cylinders,
- all personal protective equipment is available and being used correctly, the recovery process is supervised at all times by
- a competent person,
- recovery equipment and cylinders conform to the appropriate standards.
- d) Pump down refrigerant system, if possible
- e) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
- f) Make sure that cylinder is situated on the scales before recovery takes place.
- g) Start the recovery machine and operate in accordance with instructions
- h) Do not overfill cylinders. (No more than 80 % volume liquid charge).
- i) Do not exceed the maximum working pressure of the cylinder, even temporarily j) When the cylinders have been filled correctly
- and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
- k) Recovered refrigerant shall not be charged into another refrigerating system unless it has been cleaned and checked.

12. Labelling

- Equipment shall be labelled stating that it has been de-commissioned and emptied of refrigerant. The label shall be dated and signed.
 For appliances containing flammable refrigerants,
- ensure that there are labels on the equipment stating the equipment contains flammable refrigerant

⚠ CAUTION

13. Recovery

- When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely. When transferring refrigerant into cylinders, ensure
- that only appropriate refrigerant recovery cylinders are employed.
- Ensure that the correct number of cylinders for
- holding the total system charge is available. All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e. special cylinders for the recovery of refrigerant).
- Cylinders shall be complete with pressure relief valve and associated shut-off valves in good working order.
- Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs
- The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of all appropriate refrigerants
- including, when applicable, flammable refrigerants. In addition, a set of calibrated weighing scales shall be available and in good working order.

- · Hoses shall be complete with leak-free disconnect couplings and in good condition.
- Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release. Consult manufacturer if in doubt.
- The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant Waste Transfer Note arranged.Do not mix refrigerants in recovery units and especially not in cylinders.
- If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant dose not remain within the lubricant.
- The evacuation process shall be carried out prior to returning the compressor to the suppliers.

 Only electric heating to the compressor body shall
- be employed to accelerate this process
- When oil is drained from a system, it shall be carried out safely.

14. Other safety precautions

- A brazed, welded, or mechanical connection shall be made before opening the valves to permit refrigerant to flow between the refrigerating system parts.
- Flammable refrigerant used, refrigerant tubing protected or enclosed to avoid mechanical damage (IEC/EN 60335-2-40/A1).
- Tubing protected to extent that it will not be handled or used for carrying during moving of product (IEC/EN 60335-2-40/A1).
- Flammable refrigerant used, low temperature solder alloys, such as lead/tin alloys, not acceptable for pipe connections (IEC/EN 60335-2-40/A1).
- Do not use flare nut indoor which is locally procured.

Selection of installation location for the indoor unit

• Minimum installation area for indoor unit

⚠ CAUTION

The indoor unit shall be installed in a room with minimum installation area or more according to the refrigerant charge amount (factory refrigerant charge +additional refrigerant charge).

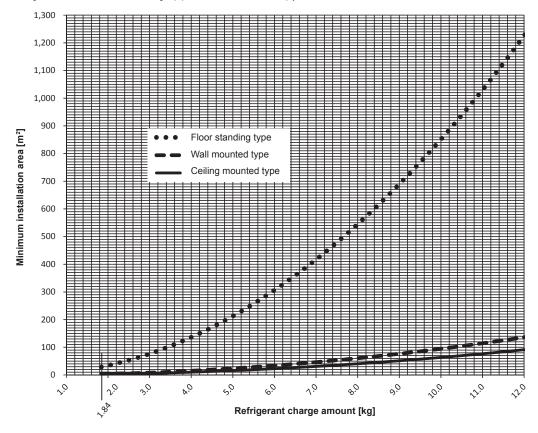
For factory refrigerant charge, refer to the outdoor unit label model name or installation sheet.

For additional refrigerant charge, refer to the outdoor unit installation sheet.

- If the refrigerant charge amount in the system is < 1.84 kg, there are no additional minimum floor area requirements.
- If the refrigerant charge amount in the system is \geq 1.84 kg, you need to comply with additional minimum floor area requirements as described in the following table.
- For further details regarding the installation location of indoor unit, refer to technical manual.

	frigerant amount [kg]	1.00	1.50	1.84	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50
Minimum Wall mo installation area [m²] H:	Ceiling mounted type H=2.2m	No requirements		3.7	4.0	4.5	5.0	5.5	6.0	6.7	7.8	9.0	10.2	11.5	12.9
	Wall mounted type H=1.8m			3.7	4.0	4.5	5.0	7.2	8.6	10.0	11.6	13.3	15.2	17.1	19.2
	Floor standing type H=0.6m*			29	34	43	53	64	77	90	104	120	136	154	172
	frigerant amount [kg]	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	12.0
	Ceiling mounted type H=2.2m	16	19	23	27	31	36	41	46	51	57	63	70	77	91
Minimum installation area [m²]	Wall mounted type H=1.8m	24	29	34	40	46	53	61	68	77	85	95	104	115	136
	Floor standing type H=0.6m*	213	258	306	360	417	479	545	615	689	768	851	938	1030	1226

*For floor standing units, the value of installation height (H) is considered 0.6 m to comply to IEC 60335-2-40:2018 Clause GG.2.



Ceiling opening area

⚠ CAUTION

In case of installing the indoor unit in an enclosed ceiling space, ensure there is a sufficient ventilation opening around the unit. In the event of refrigerant leakage, this countermeasure would prevent an increased concentration of refrigerant.

1.11 TECHNICAL INFORMATION

(1) Ceiling cassette-4 way type(FDT)

Model FDT200VSAWPVH

Model(s): FDC200VSA-W / FDT100VH (x2 units)											
Outdoor side heat exchanger of air-conditioner : 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							
	Prated,c	20.0	kW	cooling energy	η s,c	262.3	%				
				efficiency							
Declared cooling capacity for part load at g	iven 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 factor	or for part load at given outdoor temp	peratures T	ij				
			1				1				
Tj=+35°C	Pdc	20.0	kW	Tj=+35°C	EERd or	379.0	%				
T:- 120°0	Dda	44.7	1,,,,		GUEc,bin / AEFc,bin		-				
Tj=+30°C	Pdc	14.7	kW	Tj=+30°C	EERd or	570.0	%				
Tj=+25°C	Pdc	9.5	kW	T: .05°0	GUEc,bin / AEFc,bin						
17-1200	i de	3.0]^**	Tj=+25°C	EERd or	776.0	%				
Tj=+20°C	Pdc	7.4	kW	Tj=+20°C	GUEc,bin / AEFc,bin EERd or		-				
,, 1200]	1j=+20 C	GUEc,bin / AEFc,bin	946.0	%				
Degradation			1		GOEC,DITT AEFC,DIT		1				
coefficient for	Cdc	0.25	_								
air-conditioners**	040										
			1								
Power consumption in other than 'active mo	ode'										
Off mode	P_{OFF}	0.008	kW	Crankcase heater me	ode P _{CK}	0.012	kW				
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_{SB}	0.008	kW				
Other items					1		1				
			1	For air-to-air air-cond	ditioner:	8880	m³/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 CO2eq.								
refrigerant		675	(100years)								
Temgerant			1								
Contact details Mitsubish	ni heavv indu	stries therm	ıal systems,L	TD							
** If Cdc is not determined by measuremen					all be 0,25.						
*** from 26 September 2018											
Where information relates to multi-spilt air-o	conditioners.	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 in											
	. ,		-	•							

Information to identify the model(s) to which the	ne information	relates :		FDC200VS	A-W / FDT100VH (x2 ι	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 sup	olementary hea			1	No			
if applicable : electric motor	,							
Parameters shall be declared for the average	heating seaso	n naramete	ers for the wa	armer and c	older heating seasons a	are ontional		
				annor and o			\/-l	11-4
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heating capacity	Prated,h	22.4	kW		Seasonal space heating	ng energy efficiency ηs,h	179.0	%
	i iateu,ii	22.4	KVV				173.0	70
				-				
Declared heating capacity for part load at indo	or temperatur	e 20°C				f performance or gas utilization effi		
and outdoor temperature Tj					auxiliary energy factor	for part load at given outdoor tem	peratures Tj	
			1					1
T _j =-7°C	Pdh	11.1	kW		T _j =-7°C	COPd or	345.0	%
			1			GUEh,bin / AEFh,bin		
T _j =+2°C	Pdh	6.7	kW		T _j =+2°C	COPd or	469.0	%
			,			GUEh,bin / AEFh,bin		
T _j =+7°C	Pdh	6.6	kW		T _j =+7°C	COPd or	545.0	%
						GUEh,bin / AEFh,bin		
T _j =+12°C	Pdh	8.0	kW		T _j =+12°C	COPd or	663.0	%
			•	1		GUEh,bin / AEFh,bin		-
T _{biv} =bivalent temperature	Pdh	12.5	kW	1	T _{biv} =bivalent	COPd or	289.0	%
			_		temperature	GUEh,bin / AEFh,bin	209.0	, o
T _{OL} =operation limit	Pdh	12.5	kW		T _{OL} =operation limit	COPd or	200.0	0/
			-	1		GUEh,bin / AEFh,bin	289.0	%
For air-to-water heat pumps :	Pdh	-	kW		For air-to-water heat	COPd or		0/
T _i =-15°C			•		pumps:T _i =-15°C	GUEh,bin / AEFh,bin	-	%
(if T _{OL} <-20°C)					(if T _{OL} <-20°C)		<u> </u>	
Bivalent temperature	T _{biv}	-10.0	°c		For water-to-air heat]
	DIV		4		pumps:Operation limit		-	°C
Degradation			1		T _{ol} temperature			
coefficient	C_{dh}	0.25	_					ı
heat pumps**	- un							
			ı					
				1				
Davis and the state of the stat					0	_		1
Power consumption in modes other than 'activ	e mode.				Supplementary heater	eibu	-	kW
Off mode	P _{OFF}	0.008	kW		back-up heating capac	city		J
Thermostat-off mode	P _{TO}	-	kW					1
			1		Type of energy input	P_{SB}	0.008	kW
Crankcase heater mode	P _{CK}	0.012	kW		Standby mode			ļ
				-				
Other items								1
		labla	1		For air-to-air heat pum	•	8040	m ³ /h
Capacity control		variable	j		air flow-rate,outdoor m	neasured		ļ
			1					1
Sound power level,	L_{WA}	74.0	dB		For water-/brine-to-air	heat pumps :		2
outdoor measured]		Rated brine or water fl	low-rate,	-	m ³ /h
			1		outdoor side heat exch	hanger		
Emissions of nitrogen	NOx		mg/kWh					
oxides(if applicable)	***	-	fuel input					
			GCV					
				1				
GWP of the		675	kg CO2eq.					
refrigerant		0.0	(100years)					
				1				
Contact details Mitsubish	i heavy indust	ries thermal	systems,LTI	D				
** If Cdh is not determined by measurement the					ners shall be 0,25.			
*** from 26 September 2018								
Where information relates to multi-spilt air-cor	ditioners,the to	est result an	d performan	ice data be o	obtained on the basis of	f the performance		
of the outdoor unit, with a combination of indo								
L								

Model FDT250VSAWPVH

Model(s): FDC250VSA-W / FD	T125VH (x2	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			
	Prated,c	25.0	kW	cooling energy efficiency	η s,c	244.8	%
Declared cooling capacity for part load at gi	ven outdoor	temperatur	es	Declared energy eff	ficiency ratio or gas utilization efficien	ncv /	ı
Tj and indoor 27°C/19°C(dry/wet bulb)		·			tor for part load at given outdoor ten	-	Tj
Tj=+35°C	Pdc	25.0	kW	Tj=+35°C	EERd or		1
			J	., 55 5	GUEc,bin / AEFc,bin	314.0	%
Tj=+30°C	Pdc	18.4	kW	Tj=+30°C	EERd or		
				,	GUEc,bin / AEFc,bin	525.0	%
Tj=+25°C	Pdc	11.8	kW	Tj=+25°C	EERd or		
				,	GUEc,bin / AEFc,bin	711.0	%
Tj=+20°C	Pdc	7.3	kW	Tj=+20°C	EERd or		
				,	GUEc,bin / AEFc,bin	927.0	%
Degradation							_
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other than 'active mo Off mode Thermostat-off mode	P _{OFF}	0.009	kW kW	Crankcase heater n Standby mode	node P_{CK} P_{SB}	0.012	kW kW
Other items							1
Canacity control		variable]	For air-to-air air-con		8880	m³/h
Capacity control		variable] ,	air flow-rate,outdoor	r measured]
Sound power level,	L_WA	73.0	dB				
outdoor	****						
			1				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
			1				
GWP of the		675	kg CO2eq.				
refrigerant			(100years)				
			nal systems,L				
** If Cdc is not determined by measuremen	t then the de	fault 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	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	er.		

Information to identify the model(s) to which the	e information	relates :		FDC250VS	SA-W / FDT125VH (x2 ı	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 supp	elementary he	eater :		I	No			
if applicable : electric motor								
Parameters shall be declared for the average	heating seas	on , parame	ters for the	warmer and	colder heating seasons	s are optional.		
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heating capacity					Seasonal space			
	Prated,h	28.0	kW		heating energy	η s,h	171.1	%
				1	efficiency			
Declared heating capacity for part load at indo	or temperatu	re 20°C			Declared coefficient of	f performance or gas utilization of	efficiency /	
and outdoor temperature Tj					auxiliary energy factor	for part load at given outdoor to	emperatures Tj	
			ı					1
T _j =-7°C	Pdh	12.6	kW		T _j =-7°C	COPd or	303.0	%
			ı		_	GUEh,bin / AEFh,bin		
T _j =+2°C	Pdh	7.7	kW		T _j =+2°C	COPd or	443.0	%
			l			GUEh,bin / AEFh,bin		
T_j =+7°C	Pdh	5.7	kW		T _j =+7°C	COPd or	527.0	%
		6.7	l			GUEh,bin / AEFh,bin		
T _j =+12°C	Pdh	6.7	kW		T _j =+12°C	COPd or	648.0	%
	D. II	44.2	l		T 11 11 11	GUEh,bin / AEFh,bin		
T _{biv} =bivalent temperature	Pdh	14.2	kW		T _{biv} =bivalent temperature	COPd or	276.0	%
T	Ddl	15.1	14/4/			GUEh,bin / AEFh,bin		1
T _{OL} =operation limit	Pdh	15.1	kW		T _{OL} =operation limit	COPd or	194.0	%
			l			GUEh,bin / AEFh,bin		
For air-to-water heat pumps :	Pdh	-	kW		For air-to-water heat	COPd or GUEh,bin / AEFh,bin	-	%
T_j =-15°C (if T_{OL} <-20°C)					pumps:T _j =-15°C	GUEN,DIN / AEFN,DIN		l
(II 1 _{OL} <-20 C)					(if T _{OL} <-20°C)			
Bivalent temperature	т	-10.0	°c		For water-to-air heat			1
Bivalent temperature	T _{biv}	-10.0			pumps:Operation limit	•		°C
Degradation			ĺ		T _{ol} temperature	•		ľ
coefficient	C_{dh}	0.25	_					J
heat pumps**	oan							
		ļ	ı					
				1				
Power consumption in modes other than 'activ	e mode'				Supplementary heater	r		l <i></i>
·					back-up heating capac	eit	ou -	kW
Off mode	P _{OFF}	0.009	kW		, , , , , , , , , , , , , , , , , , ,			•
Thermostat-off mode	P _{TO}	0.032	kW		Type of energy input			
Crankcase heater mode	P _{CK}	0.012	kW		Standby mode	Ps	0.009	kW
								•
Other items				1				
					For air-to-air heat pum	nps:	9180	m ³ /h
Capacity control		variable			air flow-rate,outdoor m	neasured	3100	111.711
								_
Sound power level,	L _{WA}	75.0	dB		For water-/brine-to-air	heat pumps :		
outdoor measured	LWA	75.0	uв		Rated brine or water fl	low-rate,	-	m ³ /h
					outdoor side heat excl	hanger		
Emissions of nitrogen	110		mg/kWh					
oxides(if applicable)	NOx ***	-	fuel input					
			GCV					
			-					
GWP of the		675	kg CO2eq.					
refrigerant		0/0	(100years)	1				
Contact details Mitsubishi	heavy indust	tries thermal	systems,L	TD				
** If Cdh is not determined by measurement th	en the defau	It degradation	on coefficier	nt air-conditi	oners shall be 0,25.			_
*** from 26 September 2018								
Where information relates to multi-spilt air-con	ditioners,the	test result a	nd performa	ance data be	e obtained on the basis	of the performance		
of the outdoor unit, with a combination of indo	or unit(s) reco	ommended b	y the manu	ufacturer or i	importer.			

Model FDT280VSAWPVH

	V / FDT140VH (x2						
Outdoor side heat exchanger of air-co		air					
Indoor side heat exchanger of air-con	iditioner :	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item Seasonal space	Symbol	Value	Unit
Rated cooling capacity	Prated,c	27.0	kW	cooling energy	n c c	245.5	%
	i iateu,c	27.0	KVV	efficiency	η s,c	240.0	70
Declared cooling capacity for part loa	d at given outdoor	temperatu	res	-	fficiency ratio or gas utilization e	efficiency /	
Tj and indoor 27°C/19°C(dry/wet bulb	-	, , , , , ,			ctor for part load at given outdoo	•	Tj
Tj=+35°C	Pdc	27.0	kW	Tj=+35°C	EERd or	300.0	%
					GUEc,bin / AEFc,bin	300.0	
Tj=+30°C	Pdc	19.9	kW	Tj=+30°C	EERd or	512.0	%
			_		GUEc,bin / AEFc,bin	012.0	
Tj=+25°C	Pdc	12.8	kW	Tj=+25°C	EERd or	739.0	%
			_		GUEc,bin / AEFc,bin	700.0]
Tj=+20°C	Pdc	8.2	kW	Tj=+20°C	EERd or	931.0	%
			٦		GUEc,bin / AEFc,bin]
Degradation							
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other than 'act Off mode Thermostat-off mode	ive mode' P_{OFF} P_{TO}	0.009	kW kW	Crankcase heater r Standby mode	mode P_{CK} P_{SB}	0.012	kW kW
Other items							7
Capacity control		variable]	For air-to-air air-col		8160	m ³ /h
Sound power level,	L _{WA}	75.0	dB				
outdoor	LWA	75.0	αВ				
			7				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
			_				
GWP of the		675	kg CO2eq.				
refrigerant			(100years)				
Contact details Mits	subishi heavy indu	stries therr	nal systems I	_TD			
** If Cdc is not determined by measur					shall be 0,25.		
*** from 26 September 2018		_					
Where information relates to multi-spi	ilt air-conditioners.	the test res	sult and perfo	rmance data be obta	ined on the basis of the perform	nance	
of the outdoor unit, with a combination			-		•		
, 200000000000000000000000000	(5)		,				

Information to identify the model(s) to which the	ne information	relates :		FDC280V	SA-W / FDT140VH (x2 i	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 sup	olementary he	eater :			No				
if applicable : electric motor									
Parameters shall be declared for the average	heating seaso	on , parame	ters for the	warmer an	d colder heating season:	s are optional.			
Item	Symbol	Value	Unit		Item	Symbol		Value	Unit
Rated heating capacity	- Cymbol	70.00	J		Seasonal space	- Cymbol		Value	O.I.I.
Trace reading suppost,	Prated,h	30.0	kW		heating energy	η s,h		165.6	%
				-	efficiency				
Declared heating capacity for part load at indo	or temperatu	re 20°C			Declared coefficient of	f performance or gas utiliza	ation efficienc	cy /	
and outdoor temperature Tj					auxiliary energy factor	r for part load at given outd	loor temperat	ures Tj	
T _j =-7°C	Pdh	16.2	kW		T _j =-7°C	COPd or GUEh,bin / AEFh,bin		285.0	%
T _i =+2°C	Pdh	9.6	kW		T _i =+2°C	COPd or			
1, .20	i un		1,,,,		1, .20			410.0	%
T _j =+7°C	Pdh	6.3	kW		T=+7°C	GUEh,bin / AEFh,bin COPd or			
11j-+7 C	Full	0.0	Ivvv		T _j =+7°C			553.0	%
T-140°0	D-II-	6.5	1		T-140°0	GUEh,bin / AEFh,bin			
T _j =+12°C	Pdh	6.5	kW		T _j =+12°C	COPd or		622.0	%
	D. //	47.0	1			GUEh,bin / AEFh,bin	-		
T _{biv} =bivalent temperature	Pdh	17.8	kW		T _{biv} =bivalent temperature	COPd or		231.0	%
			1		temperature	GUEh,bin / AEFh,bin	_		
T _{OL} =operation limit	Pdh	17.8	kW		T _{OL} =operation limit	COPd or		231.0	%
			1			GUEh,bin / AEFh,bin			
For air-to-water heat pumps :	Pdh	-	kW		For air-to-water heat	COPd or		-	%
T _j =-15°C					pumps:T _j =-15°C	GUEh,bin / AEFh,bin			
(if T _{OL} <-20°C)					(if T _{OL} <-20°C)				
			1				_		ī
Bivalent temperature	T_biv	-10.0	°C		For water-to-air heat				
			_		pumps:Operation limit	t		-	°C
Degradation					T _{ol} temperature				
coefficient	C_{dh}	0.25	-						
heat pumps**									
							г		1
Power consumption in modes other than 'activ	re mode'				Supplementary heater	r	elbu	-	kW
	_		1		back-up heating capa	city			
Off mode	P _{OFF}	0.009	kW				_		Ī
Thermostat-off mode	P _{TO}	0.032	kW		Type of energy input		P _{SB}	0.009	kW
Crankcase heater mode	P _{CK}	0.012	kW		Standby mode				
Other items							_		ı
			1		For air-to-air heat pun	nps:		8400	m ³ /h
Capacity control		variable			air flow-rate,outdoor n	neasured			
			1				_		ī
Sound power level,	L_{WA}	77.0	dB		For water-/brine-to-air	heat pumps :			
outdoor measured	-wa		""		Rated brine or water f	low-rate,		-	m ³ /h
			_		outdoor side heat exc	hanger			
Emissions of nitrogen			mg/kWh				Ť		
oxides(if applicable)	NOx ***	-	fuel input						
			GCV						
			•						
GWP of the			kg CO2eq.						
refrigerant		675	(100years)						
Contact details Mitsubishi	heavy indust	ries thermal	systems I	TD	1				
** If Cdh is not determined by measurement the					ioners shall be 0.25.				
*** from 26 September 2018		3							
· ·	ditioners th -	toot rooult -	nd norfor-	anno date l	o obtained on the heri-	of the performance			
Where information relates to multi-spilt air-cor						от тте репоглалсе			
of the outdoor unit, with a combination of indo	or unit(s) reco	mmenaed t	by the mant	uiacturer or	широптег.				

Model FDT200VSAWTVH

	SA-W / FDT71VH (x3 u	nits)					
Outdoor side heat exchanger of a		air					
Indoor side heat exchanger of air-	-conditioner :	air					
Type: vapour compression							
if applicable : electric mo	tor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space			
	Prated,c	20.0	kW	cooling energy	η s,c	262.3	%
				efficiency			
Declared cooling capacity for part	load at given outdoor	temperatur	es	Declared energy e	efficiency ratio or gas utilization e	efficiency /	
Tj and indoor 27°C/19°C(dry/wet b	oulb)			auxiliary energy fa	ctor for part load at given outdoo	or temperatures	Гј
		1	7				7
Tj=+35°C	Pdc	20.0	kW	Tj=+35°C	EERd or	377.0	%
_			٦		GUEc,bin / AEFc,bin		
Tj=+30°C	Pdc	14.7	kW	Tj=+30°C	EERd or	571.0	%
_			1		GUEc,bin / AEFc,bin		
Tj=+25°C	Pdc	9.5	kW	Tj=+25°C	EERd or	781.0	%
			1		GUEc,bin / AEFc,bin		_
Tj=+20°C	Pdc	8.3	kW	Tj=+20°C	EERd or	952.0	%
			1		GUEc,bin / AEFc,bin		
Degradation							
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other than	'active mode'						
			7				٦
Off mode	P_{OFF}	0.008	kW	Crankcase heater		0.012	kW
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_{SB}	0.008	kW
Other items					p.e		1
Capacity control		variable	7	For air-to-air air-co		8880	m ³ /h
Capacity Control		variable	_	air flow-rate,outdo	or 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 CO2eq.				
		675	(100years)				
refrigerant			J · ´				
Contact details	Mitsubishi heavy indu	stries tharm	nal systems !	TD.			
** If Cdc is not determined by me					shall be 0,25.		
*** from 26 September 2018				22	, - -		
·	i spilt air sanditioness t	ho toot ===	ilt and next-	manoo data ba akta	inad on the basis of the mark-	anco	
Where information relates to mult						ance	
of the outdoor unit, with a combin	ation of indoor unit(s) r	ecommend	ed by the ma	muracturer or import	er.		
L							

Information to identify the model(s) to which the	e information	relates :		FDC200VS	SA-W / FDT71VH (x3 un	nits)		
Outdoor side heat exchanger of heat pump :		air			,	,		
Indoor side heat exchanger of heat pump :		air						
Indication if the heater is equipped with a supp	lementary hea			١	No			
if applicable : electric motor								
Parameters shall be declared for the average h	neating season	n , paramete	ers for the w	armer and c	older heating seasons a	are optional.		
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heating capacity	- Cymbol	74.40				ng energy efficiency ηs,h	74.00	01.11.
reacting capacity	Prated,h	22.4	kW		ocasonal space neath	ig chargy chiciently 1/5,11	179.0	%
Declared heating capacity for part load at indoor	or temperature	20°C		1	Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj	or temperature	200				for part load at given outdoor		
and outdoor temperature 1					duxiliary cricigy lactor	Tor part load at given databor	temperatures 1	
T _i =-7°C	Pdh	11.1	kW		T _i =-7°C	COPd or		
1, 10			1		.,		323.0	%
T;=+2°C	Pdh	6.7	kW		T _i =+2°C	GUEh,bin / AEFh,bin COPd or		
1,120			1		., .2.0	GUEh,bin / AEFh,bin	490.0	%
T _j =+7°C	Pdh	6.6	kW		T _i =+7°C	COPd or		
١١٠٠٠٥	i un		1,,,,		1,		532.0	%
T;=+12°C	Pdh	8.0	kW		T _i =+12°C	GUEh,bin / AEFh,bin COPd or		
1,-1120	i un	0.0	I.vv		1,-1120		636.0	%
T. =hivalent temperature	Ddh	12.5	LW.		T. =biyalent	GUEh,bin / AEFh,bin		
T _{biv} =bivalent temperature	Pdh	12.0	kW		T _{biv} =bivalent temperature	COPd or	276.0	%
T = aparation limit	Ddb	12.5	LW.			GUEh,bin / AEFh,bin		
T _{OL} =operation limit	Pdh	12.5	kW		T _{OL} =operation limit	COPd or	276.0	%
	İ		1			GUEh,bin / AEFh,bin		
For air-to-water heat pumps :	Pdh		kW		For air-to-water heat	COPd or	-	%
T _j =-15°C					pumps:T _j =-15°C	GUEh,bin / AEFh,bin		
(if T _{OL} <-20°C)					(if T _{OL} <-20°C)			
	1		1.					1
Bivalent temperature	T _{biv}	-10.0	°C		For water-to-air heat			0.0
	1		1		pumps:Operation limit		_	°C
Degradation					T _{ol} temperature			
coefficient	C_{dh}	0.25	-					
heat pumps**								
								Ì
Power consumption in modes other than 'active	e mode'				Supplementary heater		elbu -	kW
	ı	1	1		back-up heating capac	city		
Off mode	P _{OFF}		kW					1
Thermostat-off mode	P _{TO}		kW		Type of energy input		P _{SB} 0.008	kW
Crankcase heater mode	P _{CK}	0.012	kW		Standby mode			
Other items								1
	1	1	1		For air-to-air heat pum	ips:	8040	m ³ /h
Capacity control		variable			air flow-rate,outdoor m	neasured		
	ı		1					ı
Sound power level,	L _{WA}	74.0	dB		For water-/brine-to-air	heat pumps :		
outdoor measured	****				Rated brine or water fl	ow-rate,	-	m ³ /h
					outdoor side heat exch	nanger		
Emissions of nitrogen	NO		mg/kWh					
oxides(if applicable)	NOx ***	-	fuel input					
			GCV					
	·]				
	_							_
GWP of the		675	kg CO2eq.					
refrigerant		6/5	(100years)					
	'		•					
Contact details Mitsubishi	heavy industr	ries thermal	systems,LT	D				
** If Cdh is not determined by measurement th					ners shall be 0,25.			
*** from 26 September 2018								
Where information relates to multi-spilt air-cond	ditioners the te	est result an	d performan	ice data he c	obtained on the basis of	the performance		
of the outdoor unit, with a combination of indoor								
and a sombiliation of muot	(0,10001			51 1111				
I								

Model FDT200VSAWDVH

	attache and attache and a con-						
Outdoor side heat exchanger of a		air					
Indoor side heat exchanger of air	-conditioner :	air					
Type: vapour compression							
if applicable : electric mo	otor						
Item	Symbol	Value	Unit	Item .	Symbol	Value	Unit
Rated cooling capacity	Prated,c	20.0	kW	Seasonal space cooling energy efficiency	η s,c	262.3	%
Declared cooling capacity for par Tj and indoor 27°C/19°C(dry/wet	•	temperatu	res	1	fficiency ratio or gas utilization ef ctor for part load at given outdoo	=	Tj
Tj=+35°C	Pdc	20.0	kW	Tj=+35°C	EERd or GUEc,bin / AEFc,bin	355.0	%
Tj=+30°C	Pdc	14.7	kW	Tj=+30°C	EERd or GUEc,bin / AEFc,bin	537.0	%
Tj=+25°C	Pdc	9.5	kW	Tj=+25°C	EERd or GUEc,bin / AEFc,bin	799.0	%
Tj=+20°C	Pdc	8.2	kW	Tj=+20°C	EERd or GUEc,bin / AEFc,bin	1020.0	%
Degradation							
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other than Off mode	P _{OFF}	0.008	kW	Crankcase heater		0.012	kW
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_SB	0.008	kW
Other items				For air-to-air air-co	nditioner:		m³/h
Capacity control		variable]	air flow-rate,outdoo	or measured	8880	
Sound power level, outdoor	L_WA	72.0	dB				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
GWP of the		675	kg CO ₂ eq.				
refrigerant], , ,				
Contact details	Mitaubiahi hagaring	otrioo the	aal avatama !	TD			
** If Cdc is not determined by me	Mitsubishi heavy indu				shall be 0,25.		
*** from 26 September 2018		20910		23.10.1010			
Where information relates to mult	ti-snilt air-conditioners	the test rec	ult and nerfo	rmance data he obto	nined on the basis of the perform	ance	
of the outdoor unit, with a combir						u.100	
o. 2.0 oddoor urin, with a combin		. 55571111611	204 Dy 1116 III	and desired of impor			

Information to identify the model(s) to which the	information	relates :		FDC200VS	A-W / FDT50VH (x4 un	nits)		
Outdoor side heat exchanger of heat pump :		air			•			
Indoor side heat exchanger of heat pump :		air						
Indication if the heater is equipped with a suppl	ementary hea	ater :		١	10			
if applicable : electric motor								
Parameters shall be declared for the average h	eating seasor	n , parameter	s for the wa	armer and c	older heating seasons a	are optional.		
Item	Symbol	Value l	Jnit		Item	Symbol	Value	Unit
Rated heating capacity					Seasonal space			
	Prated,h	22.4	kW		heating energy efficiency	η s,h	171.9	%
Declared heating capacity for part load at indoc	r temnerature	20°C			-	f performance or gas utilization	ion efficiency /	
and outdoor temperature Tj	i temperature	3 20 0				for part load at given outdoo		
T _j =-7°C	Pdh	11.1 k	κW		T _j =-7°C	COPd or	302.0	%
T _j =+2°C	Pdh	6.7	κW		T _j =+2°C	GUEh,bin / AEFh,bin COPd or	458.0	%
T _j =+7°C	Pdh	6.6	κW		T _j =+7°C	GUEh,bin / AEFh,bin COPd or	548.0	%
T _j =+12°C	Pdh	8.0 k	κW		T _j =+12°C	GUEh,bin / AEFh,bin COPd or	619.0	%
T _{biv} =bivalent temperature	Pdh	12.5 k	κW		T _{biv} =bivalent temperature	GUEh,bin / AEFh,bin COPd or	256.0	%
T _{OL} =operation limit	Pdh	12.5 k	κW		T _{OL} =operation limit	GUEh,bin / AEFh,bin COPd or	256.0	%
For air-to-water heat pumps :	Pdh	- k	κW		For air-to-water heat	GUEh,bin / AEFh,bin COPd or	-	%
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 pumps:Operation limit			°c
Degradation					T _{ol} temperature			
coefficient	C _{dh}	0.25						
heat pumps**	- un							
	!							
Power consumption in modes other than 'active	mode'				Supplementary heater	•		T
					back-up heating capac		elbu -	kW
Off mode	P _{OFF}	0.008 k	κW		J, J,	. ,		
Thermostat-off mode	P _{TO}	0.030 k	κW		Type of energy input		D 0000	1.347
Crankcase heater mode	P _{CK}	0.012 k	κW		Standby mode		P _{SB} 0.008	kW
	·							
Other items					For air to air boot num	ane:		
Capacity control		variable			For air-to-air heat pum air flow-rate,outdoor m		8040	m ³ /h
Sound power level,	ļ				For water-/brine-to-air	heat numps :		7
outdoor measured	L_{WA}	74.0	dΒ		Rated brine or water fl		_	m ³ /h
outdoor measured	ļ				outdoor side heat exch			
Emissions of nitrogen			ng/kWh		outdoor side near exci	lalige		
oxides(if applicable)	NOx ***		uel input					
oxides(ii applicable)	***		GCV					
	!	· · · · ·						
GWP of the		67- k	kg CO2eq.					
refrigerant			(100years)					
	,							
Contact details Mitsubishi	heavy industr	ries thermal s	ystems,LTE)				
** If Cdh is not determined by measurement the	en the default	degradation	coefficient a	air-condition	ers shall be 0,25.			
*** from 26 September 2018								
Where information relates to multi-spilt air-cond	litioners,the te	est result and	performano	ce data be o	obtained on the basis of	f the performance		
of the outdoor unit, with a combination of indoo	r unit(s) recor	nmended by	the manufa	cturer or im	porter.			

Model FDT250VSAWDVH

Model(s): FDC250VSA-W / FD	T60VH (x4 ι	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			
	Prated,c	25.0	kW	cooling energy	η s,c	338.5	%
				efficiency			
Declared cooling capacity for part load at g	iven outdoor	temperatu	res	Declared energy effi	ciency ratio or gas utilization efficien	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fact	or for part load at given outdoor tem	nperatures	Tj
Tj=+35°C	Pdc	25.0	kW	Tj=+35°C	EERd or]
			1	1,7 100 0	GUEc,bin / AEFc,bin	353.0	%
Tj=+30°C	Pdc	18.4	kW	Tj=+30°C	EERd or		1
			1	1, 100 0	GUEc,bin / AEFc,bin	601.0	%
Tj=+25°C	Pdc	11.8	kW	Tj=+25°C	EERd or		1
			1	1, 1200	GUEc,bin / AEFc,bin	1106.0	%
Tj=+20°C	Pdc	7.8	kW	Tj=+20°C	EERd or		1
			_	,, 200	GUEc,bin / AEFc,bin	1636.0	%
Degradation			1		000,511177121 0,5111		1
coefficient for	Cdc	0.25	_				
air-conditioners**							
			_				
Power consumption in other than 'active mode' Thermostat-off mode	ode' P _{OFF} P _{TO}	0.009	kW kW	Crankcase heater m	ode P _{CK} P _{SB}	0.012	kW kW
memostat-on mode	гто	0.027	JKVV	Standby mode	FSB	0.009	KVV
Other items							1
			1	For air-to-air air-con	ditioner:	8880	m³/h
Capacity control		variable	J	air flow-rate,outdoor	measured]
			1				
Sound power level,	L_WA	73.0	dB				
outdoor]				
			1				
If engine driven:	NOx	_	mg/kWh				
Emissions of nitrogen	***		fuel input GCV				
oxides]GCV				
GWP of the			kg CO2eq.				
refrigerant		675	(100years)				
reingerant			1				
Contact details Mitsubish	i heavy indu	strips there	nal systems,L ⁻	TD.			
** If Cdc is not determined by measuremen					nall be 0,25.		
*** from 26 September 2018		5 -					
Where information relates to multi-spilt air-	conditioners	the test res	ult and perfor	mance data he obtains	ed on the basis of the performance		
of the outdoor unit, with a combination of ir			-		•		
The state of the s				zaza za oportor			

Indoor side heat exchanger of heat pump: air indocation if the heater is equipped with a supplementary heater: No Tapicables: Rated in a place is electric motor Parameters shall be declared for the average heating season, parameters for the warmer and codder heating seasons are optional. Item Symbol Value Unit Rated heating capacity Prated.h 28.0 LW Declared heating capacity for part load at indoor temperature 20°C and outdoor temperature Tj T;-7°C Pdh 12.6 W T;-7°C Pdh 7;-7°C Pdh 7;-7°C Pdh 7;-7°C Pdh 7;-7°C Pdh 7;-7°C Pdh 7;-7°C Pdh 7;-7°C Pdh 7;-7°C Pdh 7;-1°C Pdh 14.2 Pdh 15.0 Pdh 16.0	Information to identify the model(s) to which t	he information	n relates :		FDC250VS	SA-W / FDT60VH (x4 u	nits)		
Includation in the header is evarypoole with a supplementary header is evarypoole with a supplementary header in such prediction and included in the everypoole selection relater. Plearneters and the declared for the everypoole selection please on participal selection please on participal selection please on participal selection please on participal selection please on participal selection please please pleas	Outdoor side heat exchanger of heat pump :		air						
Indication in the header is ecupped with a supplementary between participations are professional. Parameters shall be declared for the average heating season, parameters for the warmer and collect heating seasons are optional. Parameters shall be declared for the average heating season, parameters for the warmer and collect heating passons are optional. Parameters shall be declared for the average heating season, parameters for the warmer and collect heating passons are optional. Parameters shall be declared for the average heating seasons. Parameters for the warmer and collect heating passons are optional. Parameters shall be declared for the average heating seasons. Parameters for the warmer and collect heating passons are optional. Parameters shall be declared for the average heating seasons. Parameters for the warmer and collect heating passons are optional. Parameters shall be declared for the average heating seasons. Parameters for the warmer and collect heating passons are optional. Parameters shall be declared for the average heating seasons. Parameters for the warmer and collect heating passons are optional. Parameters shall be declared for the average heating seasons. Parameters for the warmer and collect heating passons are optional. Parameters shall be declared for the average heating seasons. Parameters for the parameters of the parame	Indoor side heat exchanger of heat pump :		air						
The processor is decided notice. Final Processor Shall be decided for the average heating season. parameters for the warmer and color heating seasons are optional. Final Processor Shall be decided for the average heating season. parameters for the warmer and color heating seasons are optional. Final Processor Symbol. Final Symbol. Final State of the seasons o	Indication if the heater is equipped with a sup	plementary h			1	No			
Determinent shall be declared for the average heating season, parameters for the warroar and colder heating seasons are optioned. Determinent operators are proposed of the performance		. ,							
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Declared heating capacity for part load at indoor temperature 20°C and outdoor temperature 1 T _p -2°C Pan 12.6 NW T _p -2°C Pan 17.7 NW T _p -2°C Pan 17.7 NW T _p -2°C Pan 17.7 NW T _p -2°C Pan 17.7 NW T _p -2°C Pan 17.7 NW T _p -2°C Pan 17.7 NW T _p -2°C Pan 17.7 NW T _p -2°C Pan 18.2 NW P _p -2°C Pan 18.2 NW		Prated,fi	28.0	KVV			η s,n	185.6	%
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T_++2°C Pdh	and outdoor temperature Tj					auxiliary energy factor	r for part load at given outdoor tem	peratures Tj	
T_++2°C Pdh									_
T_=+2°C Pdh 7.7 MV T_=+2°C COP-or COP	T _j =-7°C	Pdh	12.6	kW		T _j =-7°C	COPd or	311.0	%
T_=+7°C Pdh S_2 kW T_=+7°C CoPe or GIERbin / AEPh bin GIERbin / AEPh bin GIERbin / AEPh bin GIERbin / AEPh bin GIERbin / AEPh bin GIERbin / AEPh bin GIERbin / AEPh bin GIERbin / AEPh bin GIERbin / AEPh bin GIERbin / AEPh bin GIERbin / AEPh bin GIERbin / AEPh bin GIERbin / AEPh bin GIERbin / AEPh bin GIERbin / AEPh bin GIERbin / AEPh bin To, "operation limit Pdh Is.0 kW To, "obvailent lemperature QUEbbin / AEPh bin To, "operation limit COPe or QUEbbin / AEPh bin To, "operation limit COPe or QUEbbin / AEPh bin GIERbin / AEPh bin GIErbin / AE				_			GUEh,bin / AEFh,bin	01110	
T_e+12°C Pdh	T _j =+2°C	Pdh	7.7	kW		T _j =+2°C	COPd or	444.0	0/.
T_=+12°C Pdh 6.1 kW T_=+12°C OUEAbin / AEPh.bin Seed of T_=+12°C O							GUEh,bin / AEFh,bin	444.0	/0
T_=+12°C Pdh 6.1 kW T_=+12°C OUEAbin / AEPh.bin Seed of T_=+12°C O	T _i =+7°C	Pdh	5.2	kW		T _i =+7°C	COPd or		.,
T_++12°C Ond or GURShir AEFh.bin GURShir AEFh.bin	,			•		,	GUEh bin / AEEh bin	635.0	%
T _{ss} -ehvalent temperature Pdh 14.2 kW T _{ss} -ehvalent temperature Pdh 15.0 kW T _{ss} -ehvalent temperature OUthon / AEFh.bin CPH or semperature OUthon / AEFh.bin (CPH or semperature OUthon / AEFh.bin (CPH or semperature OUthon / AEFh.bin (If T _{ac} < 20°C) Bivalent temperature T _{ss} 15.0 kW For air-to-water heat CPH or pumps: T _e -15°C GUBh.bin / AEFh.bin (If T _{ac} < 20°C) Bivalent temperature T _{ss} 15.0 kW For air-to-water heat CPH or pumps: T _e -15°C GUBh.bin / AEFh.bin (If T _{ac} < 20°C) For water-to-air heat pumps in modes other than 'active mode' Supplementary heater back-up heating capacity Off mode Themostati-off mode P _{ros} 0.032 kW Type of energy input Standby mode Other items Capacity control Variable ACF Company (Input Standby mode) Capacity control Variable ACF Company (Input Standby mode) For air-to-air heat pumps: Asade brine or water-fore-roate, outdoor measured air flow-rate, outdoor measured For water-fore-our heat pumps: Rated brine or water-fore-our heat pumps: Outdoor side heat exchanger OWP of the Refigerant According (10°C) GWP of the Refigerant According (10°C) GWP of the Refigerant According (10°C) Contact details Missubish heavy industries thermal systems LTD ***Ton 28 September 2018* Where information relates to multi-split air-conditioners, the test result and performance data be obtained on the basis of the performance	T:=+12°C	Pdh	6.1	kW		T:=+12°C			
Tu_Phivalent temperature	1			1		J		857.0	%
Supplementary Supplementar	T. =hivalent temperature	Ddh	14.2	kW		T. =hivalent			
To "eoperation limit Pdh 15.0 WW To water heat pumps: Pdh WW Pdh 16.0 Pdh WW Pdh 16.0 Pdh WW Pdh 16.0 Pdh WW Pdh	- DIV S. Valoric temperature	1 (11)		1				282.0	%
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For air-to-water heat pumps: Pdh NW For air-to-water heat COPd or pumps: Tp-15°C GUEh,bin / AEFh,bin (ff To_K < 20°C) Bivalent temperature Tpw -10.0 °C	1 _{OL} -operation limit	ruii		Ivan		1 _{OL} -operation limit		206.0	%
T_=15°C (if T _{CX} < 20°C) Bivalent temperature T _{UV} 10.0 °C For water-to-air heat pumps: Operation limit T _C temperature Power consumption in modes other than 'active mode' Off mode Porr Thermostat-off mode Pox Crankcase heater mode Pox Other items Capacity control Supplementary heater back-up heating capacity Type of energy input Standby mode For air-to-air heat pumps: air flow-rate, outdoor measured Pox Outdoor measured Type of energy input Pox Standby mode For water-thrine-to-air heat pumps: air flow-rate, outdoor measured Type of energy input Pox Standby mode For water-thrine-to-air heat pumps: air flow-rate, outdoor side heat exchanger Type of the temperature Type of energy input Pox Standby mode For water-thrine-to-air heat pumps: air flow-rate, outdoor measured Type of energy input Pox Standby mode For water-thrine-to-air heat pumps: air flow-rate, outdoor side heat exchanger Type of energy input Pox Standby mode Type of energy input Pox Standby mode For water-thrine-to-air heat pumps: air flow-rate, outdoor or water flow-rate, outdoor side heat exchanger Type of energy input Pox Standby mode Type of energy input Type of energy input Pox Standby mode Type of energy input T				1					
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Degradation coefficient Can 0.25 - CC officient Can 0.				1_					1
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coefficient heat pumps** Power consumption in modes other than 'active mode' Off mode PorF 0.009 kW Thermostat-off mode Pro 0.032 kW Crankcase heater mode Pro 0.012 kW Other items Capacity control Supplementary heater back-up heating capacity Type of energy input Standby mode For air-to-air heat pumps: air flow-rate, outdoor measured For water-/brine-to-air heat pumps: air flow-rate, outdoor side heat exchanger Mitsubishi heavy industries thermal systems.LTD **If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0.25. ***If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0.25. ***If rom 26 September 2018 Where information relates to multi-spitt air-conditioners, the test result and performance data be obtained on the basis of the performance				1			t	-	°C
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Other items Capacity control Sound power level, outdoor measured Emissions of nitrogen oxides(if applicable) Mitsubishi heavy industries thermal systems,LTD Contact details Mitsubishi heavy industries thermal systems,LTD ** If Cdh 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	Crankcase heater mode	P _{CK}	0.012	kW		Standby mode	' SB	0.009	KVV
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outdoor measured Emissions of nitrogen oxides(if applicable) NOX	Sound power level.			4D		For water-/brine-to-air	heat pumps :		1
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Emissions of nitrogen oxides(if applicable) NOX									
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*** 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	-					ionoro ob - II b - 0 05			
Where information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance		inen ine defau	iii uegradatii	on coefficier	ιι air-condit	ioners shall be 0,25.			
	·								
of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.	Where information relates to multi-spilt air-co	nditioners,the	test result a	and performa	ance data b	e obtained on the basis	s of the performance		
	of the outdoor unit, with a combination of inde	oor unit(s) rec	ommended	by the manu	ufacturer or	importer.			

Model FDT280VSAWDVH

Model(s): FDC280VSA-W	/ / FDT71VH (x4 u	ınits)					
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			
	Prated,c	27.0	kW	cooling energy	η s,c	279.8	%
				efficiency			
Declared cooling capacity for part load	d at given outdoor	temperatu	res	Declared energy e	fficiency ratio or gas utilization ef	ficiency /	
Tj and indoor 27°C/19°C(dry/wet bulb))			auxiliary energy fac	ctor for part load at given outdoor	r temperatures	Tj
			_				_
Tj=+35°C	Pdc	27.0	kW	Tj=+35°C	EERd or	370.0	%
			_		GUEc,bin / AEFc,bin	370.0	/0
Tj=+30°C	Pdc	19.9	kW	Tj=+30°C	EERd or	550.0	%
					GUEc,bin / AEFc,bin	330.0	/0
Tj=+25°C	Pdc	12.8	kW	Tj=+25°C	EERd or	870.0	%
					GUEc,bin / AEFc,bin	070.0	/0
Tj=+20°C	Pdc	8.2	kW	Tj=+20°C	EERd or	1236.0	%
					GUEc,bin / AEFc,bin	1230.0	/0
Degradation							_
coefficient for	Cdc	0.25	-				
air-conditioners**							
			_				
Power consumption in other than 'acti	ve mode'						
Off mode	P _{OFF}	0.009	kW	Crankcase heater	mode P _{CK}	0.012	kW
Thermostat-off mode	P _{TO}	0.032	kW	Standby mode	P_SB	0.009	kW
			=				_
Other items							
			_	For air-to-air air-co	inditioner:	8160	m ³ /h
Capacity control		variable		air flow-rate,outdoo	or measured	0100	
			_				_
Sound power level,	1	75.0	4D				
outdoor	L_WA	75.0	dB				
			-				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
	'		_				
GWP of the		675	kg CO2eq.				
refrigerant		675	(100years)				
-			-				
Contact details Mits	ubishi heavy indus	stries thern	nal systems,L	ΓD			
** If Cdc is not determined by measur					shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spi	It air-conditioners.t	the test res	ult and perfor	mance data be obtair	ned on the basis of the performan	nce	
of the outdoor unit, with a combination			-		•		
The state of the s			,		-		

Information to identify the model(s) to which t	he information	n relates :		FDC280V	SA-W / FDT71VH (x4 ui	nits)			
Outdoor side heat exchanger of heat pump :		air			,				
Indoor side heat exchanger of heat pump :		air							
Indication if the heater is equipped with a sup	plementary h				No				
if applicable : electric motor									
Parameters shall be declared for the average	heating seas	on , parame	eters for the	warmer an	d colder heating seasor	ns are optional.			
Item	Symbol	Value	Unit		Item	Symbol		Value	Unit
Rated heating capacity					Seasonal space			-	
	Prated,h	30.0	kW		heating energy	η s,h		158.9	%
]	efficiency				<u> </u>
Declared heating capacity for part load at inde	oor temperatu	ire 20°C			Declared coefficient of	f performance or gas utiliz	ation efficie	ncy /	
and outdoor temperature Tj					auxiliary energy factor	r for part load at given outo	loor temper	atures Tj	
	,		_				_		-
T _j =-7°C	Pdh	16.2	kW		T _j =-7°C	COPd or		240.0	%
			-			GUEh,bin / AEFh,bin		240.0	
T _j =+2°C	Pdh	9.6	kW		T _j =+2°C	COPd or		400.0	%
	•		_			GUEh,bin / AEFh,bin		400.0	<u></u>
T _j =+7°C	Pdh	6.3	kW		T _j =+7°C	COPd or	ſ	530.0	%
	'		_			GUEh,bin / AEFh,bin		555.0	,,,
T _j =+12°C	Pdh	6.7	kW		T _j =+12°C	COPd or	ſ	740.0	%
	•		_			GUEh,bin / AEFh,bin		7-3.0	<u></u>
T _{biv} =bivalent temperature	Pdh	17.8	kW		T _{biv} =bivalent	COPd or	ſ	230.0	%
	'		_		temperature	GUEh,bin / AEFh,bin		255.0	,,,
T _{OL} =operation limit	Pdh	17.8	kW		T _{OL} =operation limit	COPd or	Ī	230.0	%
	•		_			GUEh,bin / AEFh,bin		230.0	_
For air-to-water heat pumps :	Pdh	-	kW		For air-to-water heat	COPd or	Ī	_	%
T _j =-15°C	•				pumps:T _j =-15°C	GUEh,bin / AEFh,bin			
(if T _{OL} <-20°C)					(if T _{OL} <-20°C)		_		
			•				_		,
Bivalent temperature	T _{biv}	-10.0	°C		For water-to-air heat				
			•		pumps:Operation limit	t		-	°C
Degradation					T _{ol} temperature		L]
coefficient	C_{dh}	0.25	-						
heat pumps**]						
				1					
							-		1
Power consumption in modes other than 'acti	ve mode'				Supplementary heater	r	elbu	-	kW
	1	1	1		back-up heating capa	city	L]
Off mode	P _{OFF}	0.009	kW				-		1
Thermostat-off mode	P _{TO}	0.032	kW		Type of energy input		P _{SB}	0.009	kW
Crankcase heater mode	P _{CK}	0.012	kW		Standby mode		L		J
				4					
Other items							г		1
	ĺ		1		For air-to-air heat pur	nps:		8400	m³/h
Capacity control		variable	j		air flow-rate,outdoor n	neasured	L]
	1		1				г		1
Sound power level,	L_{WA}	77.0	dB		For water-/brine-to-air	heat pumps :			2.0
outdoor measured			J		Rated brine or water f	low-rate,		-	m ³ /h
	1		1		outdoor side heat excl	hanger	L]
Emissions of nitrogen	NOx		mg/kWh						
oxides(if applicable)	***	-	fuel input						
			GCV						
				4					
	I		1						
GWP of the		675	kg CO2eq. (100years)						
refrigerant			(Tooyears	<u>'</u>					
T				1					
	heavy indust								
** If Cdh is not determined by measurement t	nen the defau	ııt degradati	on coefficie	ent air-condi	tioners shall be 0,25.				
*** from 26 September 2018									
Where information relates to multi-spilt air-coi	nditioners,the	test result a	and perform	nance data t	be obtained on the basis	s of the performance			
of the outdoor unit, with a combination of indo	or unit(s) rec	ommended	by the man	ufacturer or	importer.				

Models FDT50VH, 60VH, 71VH, 100VH, 125VH, 140VH

Model(s): FDT50VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Cooling capacity (sensible)	$P_{\text{rated,c}}$	4.4	kW	Total electric power input	P_{elec}	0.040	kW
Cooling capacity (latent)	P _{rated,c}	0.6	kW	Sound power level (per speed setting,if applicable)	L_{WA}	55.0	dB
Heating capacity	$P_{\text{rated,h}}$	5.4	kW				
Contact details	Mitsubishi h	neavy indu	ustries the	rmal systems,LTD			

Model(s): FDT60VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Cooling capacity (sensible)	$P_{rated,c}$	5.5	kW	Total electric power input	P _{elec}	0.070	kW
Cooling capacity (latent)	$P_{\text{rated,c}}$	0.1	kW	Sound power level (per speed setting,if applicable)	L_{WA}	58.0	dB
Heating capacity	$P_{rated,h}$	6.7	kW				
Contact details	Mitsubishi h	neavy indu	ustries the	rmal systems,LTD			

Model(s): FDT71VH									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Cooling capacity (sensible)	$P_{rated,c}$	6.2	kW	Total electric power input	P _{elec}	0.080	kW		
Cooling capacity (latent)	P _{rated,c}	0.9	kW	Sound power level (per speed setting,if applicable)	L_WA	59.0	dB		
Heating capacity	P _{rated,h}	8.0	kW						
Contact details	Mitsubishi h	Mitsubishi heavy industries thermal systems,LTD							

Model(s): FDT100VH									
Item	Symbol	Value	Unit	Item	Symbol	Value	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_{WA}	62.0	dB		
Heating capacity	$P_{rated,h}$	11.2	kW						
Contact details	Mitsubishi h	Mitsubishi heavy industries thermal systems,LTD							

Model(s): FDT125VH									
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Cooling capacity (sensible)	$P_{rated,c}$	9.6	kW	Total electric power input	P _{elec}	0.140	kW		
Cooling capacity (latent)	P _{rated,c}	2.9	kW	Sound power level (per speed setting,if applicable)	L _{WA}	63.0	dB		
Heating capacity	$P_{rated,h}$	14.0	kW						
Contact details	Mitsubishi h	Mitsubishi heavy industries thermal systems,LTD							

Model(s): FDT140VH										
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Cooling capacity (sensible)	$P_{\text{rated,c}}$	10.4	kW	Total electric power input	P_{elec}	0.140	kW			
Cooling capacity (latent)	P _{rated,c}	3.6	kW	Sound power level (per speed setting,if applicable)	L _{WA}	63.0	dB			
Heating capacity	$P_{rated,h}$	16.0	kW							
Contact details	Mitsubishi h	Mitsubishi heavy industries thermal systems,LTD								

(2) Ceiling cassette-4 way compact type(FDTC) Model FDTC200VSAWDVH

Model(s): FDC200VSA	-W / FDTC50VH (4 units)				
Outdoor side heat exchanger of a	ir-conditioner: air				
Indoor side heat exchanger of air-	conditioner : air				
Type: vapour compression					
if applicable : electric motor	ſ				
Item	Symbol Value Unit	Item	Symbol	Value	Unit
Rated cooling capacity		Seasonal spa	ice cooling energy		
	Prated,c 20.0 k	efficiency ηs,	C	235.6	%
Declared cooling capacity for part	load at given outdoor temperatu	ures Declared ene	rgy efficiency ratio or gas utiliza	tion efficiency /	
Tj and indoor 27°C/19°C(dry/wet b	oulb)	auxiliary ener	gy factor for part load at given o	outdoor tempera	tures Tj
					1
Tj=+35°C	Pdc 20.0 kW	Tj=+35°C	EERd or	297.0	%
T' : 00°0	5. 4. -		GUEc,bin / AEFc,bin		
Tj=+30°C	Pdc 14.7 kW	Tj=+30°C	EERd or	482.0	%
Ti-125°C	Pdc 9.5 kW		GUEc,bin / AEFc,bin		
Tj=+25°C	Puc 9.5 kw	Tj=+25℃	EERd or	698.0	%
Tj=+20°C	Pdc 7.7 kW		GUEc,bin / AEFc,bin		
1]-120 0	Tuc 1.1	Tj=+20℃	EERd or	990.0	%
Degradation			GUEc,bin / AEFc,bin		J
coefficient for	Cdc 0.25				
air conditioners**	Cuc Siller				
all conditioners	<u> </u>				
Power consumption in other than	'active mode'				
Off mode	P _{OFF} 0.008 kW	Crankcase he	eater mode P _{CK}	0.012	kW
Thermostat-off mode	P _{TO} 0.024 kW	Standby mode	e P _{SB}	0.008	kW
	<u> </u>				-"
Other items					
		For air-to-air a	air-conditioner:	8880	m ³ /h
Capacity control	variable	air flow-rate,o	outdoor measured		
Sound power level,	L _{WA} 72.0 dB				
outdoor					
If engine driven:	NOx mg/k	11			
Emissions of nitrogen		input			
oxides	GCV	′			
GWP of the					
		O ₂ eq. years)			
refrigerant					
Contact details Mit	subishi heavy industries thermal	I systems.LTD			
** If Cdc is not determined by mea			-conditioners shall be 0,25.		
*** from 26 September 2018	· ·				
Where information relates to multi	i-spilt air-conditioners.the test re	sult and performance	data be obtained on the basis of	of the performan	ce
of the outdoor unit, with a combination				- P	-
		•			

Information to identify the model(s) to which	ch the inform	ation relat	es:		FDC200VSA-W / FD	TC50VH (x4 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			N	lo						
if applicable : electric motor		.,									
Parameters shall be declared for the average heating season , parameters for the warmer and colder heating seasons are optional.											
		Value	Unit			Symbol	Value	Unit			
Item	Symbol	value	Offic		Item		value	Offic			
Rated heating capacity	Prated,h	22.4	kW		Seasonal space neat	ing energy efficiency ηs,h	166.1	%			
	i idica,ii	22.4	IXVV				100.1	/0			
			0.0				<i></i>				
Declared heating capacity for part load at	indoor tempe	erature 20	C			of performance or gas utilization					
and outdoor temperature Tj					auxiliary energy facto	r for part load at given outdoor te	emperatures	s Ij			
T 700	ъ., Т	44.4	1		T 790	000.					
T _j =-7°C	Pdh	11.1	kW		T _j =-7°C	COPd or	293.0	%			
	I		1			GUEh,bin / AEFh,bin					
T _j =+2°C	Pdh	6.7	kW		T _j =+2°C	COPd or	464.0	%			
			,			GUEh,bin / AEFh,bin					
T _j =+7°C	Pdh	6.6	kW		T _j =+7°C	COPd or	495.0	%			
			,			GUEh,bin / AEFh,bin					
T _j =+12°C	Pdh	8.0	kW		T _j =+12°C	COPd or	555.0	%			
			,			GUEh,bin / AEFh,bin					
T _{biv} =bivalent temperature	Pdh	12.5	kW		T _{biv} =bivalent	COPd or	248.0	%			
	•		=		temperature	GUEh,bin / AEFh,bin	240.0	/6			
T _{OL} =operation limit	Pdh	12.5	kW		T _{OL} =operation limit	COPd or	040.0	0/			
			-			GUEh,bin / AEFh,bin	248.0	%			
For air-to-water heat pumps :	Pdh	-	kW		For air-to-water heat						
T _i =-15°C			4		pumps:T _i =-15°C	GUEh,bin / AEFh,bin	-	%			
(if T _{OL} <-20°C)					(if T _{OL} <-20°C)						
(· · · · · · · · · · · · · · · · · · ·					(OL 1 = 1 - 7						
Bivalent temperature	T _{biv}	-10.0	°c		For water-to-air heat						
Divaicht temperature	1 DIV		J		pumps:Operation limit	t	_	°C			
Dogradation			1		T _{ol} temperature						
Degradation coefficient	_	0.25			1 of temperature						
	C _{dh}	0.23	_								
heat pumps**]								
Power consumption in modes other than 'a	active mode'				Supplementary heate	er elbu	-	kW			
			,		back-up heating capa	acity					
Off mode	P _{OFF}	0.008	kW								
Thermostat-off mode	P _{TO}	0.030	kW		Type of energy input	P_{SB}	0.008	kW			
Crankcase heater mode	P _{CK}	0.012	kW		Standby mode	. 38	0.000				
Other items											
					For air-to-air heat pur	mps:	9040	m ³ /h			
Capacity control		variable			air flow-rate,outdoor i	measured	8040	··· /··			
			•								
Sound power level,			1		For water-/brine-to-ai	r heat numns ·					
outdoor measured	L _{WA}	74.0	dB		Rated brine or water		-	m ³ /h			
outdoor medadred					outdoor side heat exc						
Emissions of nitrogen	1		mg/kWh		outdoor side riedt ext	manger					
oxides(if applicable)	NOx	_	-								
oxides(ii applicable)	***		fuel input								
			GCV								
OWD - Sith -	1		1								
GWP of the		675	kg CO ₂ eq. (100years)								
refrigerant			(100years)								
T											
	i heavy indu										
** If Cdh is not determined by measureme	nt then the d	efault deg	radation co	efficient air	-conditioners shall be	0,25.					
*** from 26 September 2018											
Where information relates to multi-spilt air	-conditioners	the test re	esult and pe	erformance	data be obtained on t	he basis of the performance					
of the outdoor unit, with a combination of i	ndoor unit(s)	recomme	nded by the	manufact	urer or importer.						

PJF000Z736 🚖

Model FDTC250VSAWDVH

Model(s): FDC250VSA-W	/ / FDTC60VH	l (x4 units)					
Outdoor side heat exchanger of air-	conditioner :	air					
Indoor side heat exchanger of air-co	onditioner :	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated,c	25.0	kW	Seasonal space cooling energy efficiency	η s,c	249.5	%
Declared cooling capacity for part lo	oad at given o	Declared energy efficiency ratio or gas utilization efficiency /					
Tj and indoor 27°C/19°C(dry/wet bul	lb)			auxiliary energy	factor for part load at given out	door temper	atures Tj
Tj=+35°C	Pdc	25.0	kW	Tj=+35°C	EERd or GUEc,bin / AEFc,bin	272.0	%
Tj=+30°C	Pdc	18.4	kW	Tj=+30°C	EERd or GUEc,bin / AEFc,bin	480.0	%
Tj=+25°C	Pdc	11.8	kW	Tj=+25°C	EERd or GUEc,bin / AEFc,bin	715.0	%
Tj=+20°C	Pdc	7.7	kW	Tj=+20°C	EERd or GUEc,bin / AEFc,bin	1285.0	%
Degradation					GOLC, DITT ALT C, DIT		1
coefficient for	Cdc	0.25	-				
air conditioners**							
Power consumption in other than 'ad	ctive mode'						
Off mode	P_{OFF}	0.009	kW	Crankcase heate	er mode P _{CK}	0.012	kW
Thermostat-off mode	P _{TO}	0.027	kW	Standby mode	P_{SB}	0.009	kW
Other items				For air-to-air air-	aanditionar:]
Capacity control		variable		air flow-rate,outd		8880	m ³ /h
Sound power level, outdoor	L_{WA}	73.0	dB				
If engine driven: Emissions of nitrogen oxides	NOx ***	-	mg/kWh fuel input GCV				
GWP of the refrigerant		675	kg CO2eq. (100years)				
Contact details Mitsu ** If Cota is not determined by meas:	bishi heavy in				- 4545		

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.

^{**} If Cdc is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25.

^{***} from 26 September 2018

Information to identify the model(s) to whi	ch the inform	ation relate	s:	FDC250V	'SA-W / FDTC60VH (x	4 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				No			
if applicable : electric motor								
Parameters shall be declared for the aver	age heating s	season, pa	rameters fo	or the warm	ner and colder heating	seasons are optional.		
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heating capacity	Суппрог	Value	I I		Seasonal space	Cymbol	Value	- Crinc
Trated Heating Capacity	Prated,h	28.0	kW		heating energy	η s,h	160.4	%
					efficiency			
Declared heating capacity for part load at	indoor tompo	ratura 20 °	<u> </u>	-		of performance or gas utiliz	ration officionay /	
and outdoor temperature Tj	maoor tempe	rature 20 V	0			or for part load at given out		Ti
and outdoor temperature 1					duxiliary chergy lacte	in for part load at given out	addi temperatares	.,
T _i =-7°C	Pdh	12.6	kW		T _i =-7°C	COPd or		1
,			1		,	GUEh,bin / AEFh,bin	259.0	%
T _i =+2°C	Pdh	7.7	kW		T _i =+2°C	COPd or		1
,			1		,	GUEh,bin / AEFh,bin	393.0	%
T _i =+7°C	Pdh	5.2	kW		T _j =+7°C	COPd or		1
1			1		,	GUEh,bin / AEFh,bin	557.0	%
T _i =+12°C	Pdh	6.1	kW		T _i =+12°C	COPd or		
1			1		,	GUEh,bin / AEFh,bin	682.0	%
T _{biv} =bivalent temperature	Pdh	14.2	kW		T _{biv} =bivalent	COPd or		1
DIV THE STATE OF T			1		temperature	GUEh,bin / AEFh,bin	235.0	%
T _{OI} =operation limit	Pdh	15.1	kW		T _{OL} =operation limit	COPd or		
TOE SPECIALISM			1		OL SPECIAL STREET	GUEh,bin / AEFh,bin	175.0	%
For air to water heat number:	Pdh		kW		For air to water best			•
For air-to-water heat pumps : T _i =-15°C	ruii		JKVV		For air-to-water heat pumps:T _i =-15°C	GUEh,bin / AEFh,bin	-	%
(if T _{OL} <-20°C)					(if T _{OL} <-20°C)	OCEN,ON / ALT II, ON		J
(II TOL <-20 0)					(II 10L <-20 0)			
Bivalent temperature	T _{biv}	-10.0	°c		For water-to-air heat			1
Bivalent temperature	biv	10.0	10		pumps:Operation lim	it	_	°C
Degradation]		T _{ol} temperature			
coefficient	C_{dh}	0.25	_		· 0/ · · · · · · · · · · · · · · · · · ·			1
heat pumps**	Odn							
linear painipo			1					
				-				
Power consumption in modes other than '	active mode!				Supplementary heate	ar.		1
l ower concumption in modes other than	dollve mode						elbu -	kW
Off mode	P _{OFF}	0.009	kW		back-up heating capa	icity		ı
Thermostat-off mode	P _{TO}	0.032	kW		Type of energy input			1
Crankcase heater mode	P _{CK}	0.012	kW		Standby mode		P _{SB} 0.009	kW
	OK .		1		Staridby mode			ı
Other items				-				
					For air-to-air heat pur	mns:		1
Capacity control		variable	1		air flow-rate,outdoor		9180	m ³ /h
Capacity control			1		all llow-rate,outdoor	measured		1
Sound power level,			1		For water /brine to ai	r hoat numne :		1
outdoor measured	L_{WA}	75.0	dB		For water-/brine-to-ai		_	m ³ /h
outdoor measured			J		Rated brine or water outdoor side heat exc		[
Emissions of nitrogen			mg/kWh		Salubor side rieat ext	and ige	<u> </u>	J
-	NOx	_	-					
oxides(if applicable)	***		fuel input					
			GCV					
				1				
GWP of the			ka 00 :					
		675	kg CO2eq. (100years)					
refrigerant		<u> </u>] , , , ,					
Contest details	hi baara ta t	atrice the	aal aveter	1.TD	1			
·	hi heavy indu				conditioners shall be 0	1.25		
** If Cdh is not determined by measureme	ant unem the O	ciauli degra	auauun coe	molent alf-	Conditioners strait be t	,		
*** from 26 September 2018		41-4-1			death be able to the con-	a basis af the		
Where information relates to multi-spilt air						e basis of the performance	9	
of the outdoor unit, with a combination of	ndoor unit(s)	recommen	aea by the	manutactu	irer or importer.			

Models FDTC50VH, 60VH

Model(s): FDTC50VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Cooling capacity (sensible)	$P_{rated,c}$	3.8	kW	Total electric power input	P _{elec}	0.050	kW
Cooling capacity (latent)	P _{rated,c}	1.2	kW	Sound power level (per speed setting,if applicable)	L _{WA}	59.0	dB
Heating capacity	$P_{rated,h}$	5.4	kW				
Contact details	Mitsubishi	heavy ind	ustries the	rmal systems,LTD			

Model(s): FDTC60VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Cooling capacity (sensible)	P _{rated,c}	3.9	kW	Total electric power input	P_{elec}	0.060	kW
Cooling capacity (latent)	P _{rated,c}	1.7	kW	Sound power level (per speed setting,if applicable)	L _{WA}	60.0	dB
Heating capacity	$P_{\text{rated,h}}$	6.7	kW				
Contact details	Mitsubishi	heavy ind	ustries the	rmal systems,LTD			

(3) Duct connected-High static pressure type(FDU) Model FDU200VSAWVH

Model(s): FDC200VSA-W /	FDU200V	Н					
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			
	Prated,c	20.0	kW	cooling energy	η s,c	200.9	%
				efficiency			
Declared cooling capacity for part load at g	iven outdoo	r temperature	es	Declared energy effic	ciency ratio or gas utilization efficient	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy facto	or for part load at given outdoor ten	nperatures	Tj
T:-+25°C	Pdc	20.0	kW				1
Tj=+35°C	Fuc	20.0] _{VAA}	Tj=+35°C	EERd or	325.0	%
Tj=+30°C	Pdc	14.7	kW	T: .00%	GUEc,bin / AEFc,bin		
, 100 0	. 40]	Tj=+30°C	EERd or	462.0	%
Tj=+25°C	Pdc	9.9	kW	T:- 125°C	GUEc,bin / AEFc,bin		
			J	Tj=+25°C	EERd or	656.0	%
Tj=+20°C	Pdc	7.8	kW	Tj=+20°C	GUEc,bin / AEFc,bin EERd or		1
				1]=120 0	GUEc,bin / AEFc,bin	740.0	%
Degradation]		OOLC,DIII / ALI C,DIII		ı
coefficient for	Cdc	0.25	_				
air-conditioners**							
			_				
Power consumption in other than 'active me	ode'						
			_				_
Off mode	P_{OFF}	0.014	kW	Crankcase heater mo	ode P _{CK}	0.008	kW
Thermostat-off mode	P_{TO}	0.270	kW	Standby mode	P _{SB}	0.014	kW
Other items							1
			1	For air-to-air air-cond	litioner:	8880	m³/h
Capacity control		variable]	air flow-rate,outdoor	measured]
			ا ا				
Sound power level,	L_WA	72.0	dB				
outdoor			J				
			1				
If engine driven:	NOx	_	mg/kWh				
Emissions of nitrogen oxides	***		fuel input GCV				
oxides			JGCV				
GWP of the		_	kgCO2eq.				
refrigerant		675	(100years)				
			_				
Contact details Mitsubish	ni heavy indu	stries therma	al systems,L	TD			
** If Cdc is not determined by measuremen	nt then the d	efault degrad	lation coeffic	cient air-conditioners sh	nall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air-	conditioners	the test resu	ılt and perfo	rmance data be obtaine	ed on the basis of the performance		
of the outdoor unit, with a combination of in	ndoor unit(s)	recommend	ed by the ma	anufacturer or importer			

Judicion de la meta rechanger of head quary :	Information to identify the model(s) to which the	information r	relates :	FD	C200VSA-W /	FDU200VH		
indicated in the treating excipated with a supprementary healthy guessor. I provide the control of the treating excipated with a supprementary healthy guessor. I provided in the declaration for the average healthy guessor. I provided in the declaration for the average healthy guessor. I provided in the declaration for the average healthy guessor. I provided in the declaration for the average healthy guessor. I provided in the declaration for the average healthy guessor. I provided in the declaration of the supprementary of the threating capacity for part load at indicate temperature 20°C. Declarated healthy capacity for part load at indicate temperature 20°C. Point 12.1 MW Healthy greatly greatly for part load at indicate temperature 20°C. Point 12.1 MW Healthy greatly greatly for part load at indicate temperature 20°C. Point 7.4 MW Healthy greatly for part load at indicate temperature 20°C. Point 7.4 MW Healthy greatly for part load at indicate temperature 17 manufacture 17 manufacture 17 manufacture 17 manufacture 17 manufacture 17 manufacture 17 manufacture 17 manufacture 17 manufacture 17 manufacture 17 manufacture 17 manufacture 19 m	•			1.0		. 30200711		
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Targeticals Section corporation Parameters shall be declared for the verification of the professional position of the professional position are optional.		ementary hea			No			
Parameters shall be declared for the average heating season. parameters for the waters and coder heating seasons are optional. Imm Symbol Value Probes. In 22.4 INV Seasons space Aborting capacity Probes. In 22.4 INV Seasons space Aborting energy In 3.5 IN Seasons space Aborting energy In 3.5 IN Seasons space Aborting energy In 3.5 IN Seasons space Aborting energy In 3.5 IN Seasons space Aborting energy In 3.5 IN Seasons space Aborting energy In 3.5 IN Seasons space Aborting energy In 3.5 IN Seasons space Aborting energy In 3.5 IN Seasons space Aborting energy In 3.5 IN Seasons space Aborting energy In 3.5 IN Seasons space Aborting energy In 3.5 IN Seasons space Aborting energy In 3.5 IN Seasons space Aborting energy In 3.5 IN Seasons space In 3.5 IN Seasons spac								
team Symbol Value Unit later Symbol Value Unit later Symbol Value Unit later hashing capacity? Praided, It 22.4 kW Seasonal space in the later of the performance or gas utilization afficiency and uniting energy right in the later of the l		eating seasor	n , parameter	s for the war	mer and colder heating s	easons are optional.		
Seasonal agreements and the control of the control						<u>-</u>	Value	Unit
Protect. 22.4 IVW should be a selected to the performance or gas utilization officiency and but the performance or gas utilization officiency and but the performance or gas utilization officiency and but the performance or gas utilization officiency and but the performance or gas utilization officiency and but the performance or gas utilization officiency and but the performance or gas utilization officiency and but the performance or gas utilization officiency and but the performance or gas utilization officiency and but the performance or gas utilization officiency and but the performance or gas utilization officiency and but the performance or gas utilization officiency and but the performance or gas utilization of the performance or gas utilization of the performance or gas utilization of the performance or gas utilization of the performance or gas utilization of the performance or gas utilization of the displayment of the performance or gas utilization of the displayment of the performance or gas utilization of the displayment of the performance or gas utilization of the displayment of the performance or gas utilization of the displayment of the performance or gas utilization of the displayment of the performance or gas utilization of the displayment of the performance or gas utilization of the displayment of the performance or gas utilization of the displayment of the performance or gas utilization of the displayment of the performance or gas utilization of the displayment of the dis		0,111001	Value	J.III		- Cymbol	- Taide	1
auxiliary energy factor for part load at given outdoor temperature Tj	ration realing capability	Prated,h	22.4	kW	heating energy	ηs,h	139.1	%
auxiliary energy factor for part load at given outdoor temperature Tj	Declared heating capacity for part load at indoo	r temperature	20°C		Declared coefficient of	performance or gas utilization	on efficiency /	
Fig. 2°C Pdh 7.4 kW Tip-12°C ODR or GUERbin / AERbin Signal Signal Pdf (1) Signal Sign	and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoo	r temperatures Tj	
F=2°C	T _j =-7°C	Pdh	12.1	kW	T _j =-7°C		304.0	%
F=TC	T _j =+2°C	Pdh	7.4	kW	T _j =+2°C	COPd or	338.0	%
	T _j =+7°C	Pdh	6.5	kW	T _j =+7°C	COPd or	443.0	%
The probablent temperature	T _j =+12°C	Pdh	7.4	kW	T _j =+12°C	COPd or	543.0	%
Tour-operation limit Poth 13.7 kW Tour-operation limit COPG or COPG or GUERbin / AEFR.bin GUERbin / AEFR.bin GUERbin / AEFR.bin GUERbin / AEFR.bin (If Tour-COPG or GUERbin / AEFR.bin If Tour-Operator limit COPG or GUERbin / AEFR.bin GUERbin / AEFR.bin (If Tour-COPG or Guerbin / AEFR.bin (If Tour-COPG or Guerbin / AEFR.bin (If Tou	T _{biv} =bivalent temperature	Pdh	13.7	kW		COPd or	245.0	%
For air-to-water heat pumps: Pdh	T _{OL} =operation limit	Pdh	13.7	kW		COPd or	245.0	%
Sindent temperature Tuw 10.0 °C For water-to-air heat pumps: Concertificient Concertif	For air-to-water heat pumps :	Pdh	-	kW		COPd or	-	%
pumps:Operation limit To temperature Degradation	T _j =-15°C (if T _{OL} <-20°C)					GUEN,DIN / AEFN,BIN		_
Degradation coefficient C _{dh} 0.25 . T _{ul} temperature Supplementary heater back-up heating capacity Diff mode P _{OFF} 0.014 kW Type of energy input Standby mode Differenciase heater mode P _{OK} 0.008 kW Standby mode Differenciase heater mode P _{OK} 0.008 kW Standby mode Differenciase heater mode P _{OK} 0.008 kW Standby mode For air-to-air heat pumps: air flow-rate, outdoor measured air flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger SWP of the G75 kg CO:seq. (100-years) For lift Chi 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-split air-conditioners, the test result and performance data be obtained on the basis of the performance	Bivalent temperature	T_biv	-10.0]℃			_	°c
Power consumption in modes other than 'active mode' 20 Diff mode Pore 0.014 kW Thermostat-off mode Pro 0.1660 kW Trankcase heater mode Pox 0.008 kW 21 Dither items 22 Dapacity control Variable For air-to-air heat pumps: 23 alar flow-rate, outdoor measured 25 Emissions of nitrogen wides(if applicable) 26 Emissions of nitrogen wides(if applicable) 27 Aug Ag Cozeq, (100 years) 28 Ag Cozeq, (100 years) 28 Ag Cozeq, (100 years) 29 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 21 Ag Cozeq, (100 years) 22 Ag Cozeq, (100 years) 23 Ag Cozeq, (100 years) 24 Ag Cozeq, (100 years) 25 Ag Cozeq, (100 years) 26 Ag Cozeq, (100 years) 27 Ag Cozeq, (100 years) 28 Ag Cozeq, (100 years) 29 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 20 Ag Cozeq, (100 years) 21 Ag Cozeq, (100 years) 22 Ag Cozeq, (100 years) 23 Ag Cozeq, (100 years) 24 Ag Cozeq, (100 years) 25 Ag Cozeq, (100 years) 26 Ag Cozeq, (100 years) 27 Ag Cozeq, (100 years)	Degradation]	II			
Power consumption in modes other than 'active mode' Supplementary heater back-up heating capacity Type of energy input Standby mode Type of energy input Standby mode Type of energy input Standby mode Type of energy input Standby mode Type of energy input Standby mode Type of energy input Standby mode Type of energy input Standby mode Type of energy input Standby mode Type of energy input Standby mode Type of energy input Standby mode For air-to-air heat pumps: air flow-rate, outdoor measured Type of energy input Standby mode For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger Type of energy input Standby mode For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger Type of energy input Standby mode For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger Type of energy input Standby mode For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger Type of energy input Standby mode For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger Type of energy input Standby mode For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger Type of energy input Standby mode For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger Type of energy input Standby mode For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger Type of energy input Standby mode For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger Type of energy input Standby mode For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger Type of energy input Standby mode For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger	coefficient	C_{dh}	0.25	-				_
Diff mode Por Uniterior Miles (Por Uniterior Miles) (Por Uniterior	heat pumps**							
Diff mode Por Uniformation relates to multi-split air-conditioners, the test result and performance data be obtained on the basis of the performance			,	•				
Diff mode Por Uniformation relates to multi-split air-conditioners, the test result and performance data be obtained on the basis of the performance								_
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Thermostat-off mode Pro D-INC DATE of the performance details Promote Process (100 years) Type of energy input Standby mode Process (100 years) Type of energy input Standby m				7	back-up heating capaci	ity	0.54	
Crankcase heater mode Pox O.008 kW Standby mode Standby mode Standby mode For air-to-air heat pumps: air flow-rate, outdoor measured For water-/brine-to-air heat pumps: air flow-rate, outdoor measured For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat excha	Off mode		-					7
Character mode Pox Other items Capacity control Count power level, Outdoor measured Count power level, Outdoor measured Count power level, Outdoor measured Count power level, Outdoor measured Count power level, Outdoor measured Count power level, Outdoor measured Count power level, Outdoor measured Count power level, Outdoor measured Count power level, Outdoor measured Count power level, Outdoor measured For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger Outdoor side heat e	Thermostat-off mode				Type of energy input		P _{SB} 0.014	kW
Capacity control Capacity control c	Crankcase heater mode	P _{CK}	0.008	kW	Standby mode			
Capacity control Sound power level, Sound power le	Other items							
Sound power level, Juddoor measured LWA 74.0 dB For water-/brine-to-air heat pumps: Rated brine or water flow-rate, outdoor side heat exchanger mg/kWh fuel input GCV GCV GWP of the efrigerant Mitsubishi heavy industries thermal systems,LTD Contact details Mitsubishi heavy industries thermal systems,LTD ** fod 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				1			8040	m ³ /h
Putdoor measured Putdoor meas	Capacity control		variable]	air flow-rate,outdoor me	easured		_
Rated brine or water flow-rate, outdoor side heat exchanger SWP of the G75 kg CO2eq. (100 years)	Sound power level,	L_{WA}	74.0	dB	For water-/brine-to-air l	neat pumps :		
Emissions of nitrogen (NOx	outdoor measured	****		J	Rated brine or water flo	ow-rate,	-	m ³ /h
SWP of the efrigerant Contact details Mitsubishi heavy industries thermal systems,LTD * If Cdh 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				1	outdoor side heat exch	anger		J
SWP of the efrigerant Contact details Mitsubishi heavy industries thermal systems,LTD * If Cdh 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	Emissions of nitrogen	NOx		-				
SWP of the efrigerant Contact details Mitsubishi heavy industries thermal systems,LTD * If Cdh 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	oxides(if applicable)		-					
efrigerant Mitsubishi heavy industries thermal systems,LTD * If Cdh 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				GCV				
efrigerant Mitsubishi heavy industries thermal systems,LTD * If Cdh 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	GWP of the			ka CC:				
Contact details Mitsubishi heavy industries thermal systems,LTD * If Cdh 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			675	(100years)				
* If Cdh 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	garant			1				
* If Cdh 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								
* If Cdh 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	Contact details Mitsubishi	heavy indust	ries thermal s	systems,LTD				
** 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					r-conditioners shall be 0,	25.		
Where information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance	*** from 26 September 2018							
	•	itioners,the te	est result and	performance	data be obtained on the	basis of the performance		
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PJG000Z625 🛕

Model FDU250VSAWVH

Model(s): FDC250VSA-W	/ FDU250VH	Н					
Outdoor side heat exchanger of a	air-conditioner :	air					
Indoor side heat exchanger of air	-conditioner :	air					
Type: vapour compression							
if applicable : electric mo	otor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated,c	25.0	kW	Seasonal space cooling energy efficiency	η s,c	192.4	%
Declared cooling capacity for par	t load at given outdoor	temperatur	es	Declared energy	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 outd	oor temperatures	s Tj
Tj=+35℃	Pdc	25.0	kW	Tj=+35°C	EERd or GUEc,bin / AEFc,bin	303.0	%
Tj=+30°C	Pdc	18.4	kW	Tj=+30°C	EERd or	434.0	%
Tj=+25°C	Pdc	11.8	kW	Tj=+25°C	GUEc,bin / AEFc,bin EERd or GUEc,bin / AEFc,bin	588.0	%
Tj=+20°C	Pdc	7.8	kW	Tj=+20°C	EERd or GUEc,bin / AEFc,bin	720.0	%
Degradation			7				_
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other than Off mode Thermostat-off mode	'active mode' $P_{OFF} \\ P_{TO}$	0.014 0.270	kW kW	Crankcase heater Standby mode	mode P_{CK} P_{SB}	0.008 0.014	kW kW
Other items							1
Capacity control		variable]	For air-to-air air-coair flow-rate,outdo		8880	m ³ /h
Sound power level, outdoor	L_{WA}	73.0	dB				
If engine driven: Emissions of nitrogen oxides	NOx ***	-	mg/kWh fuel input GCV				
GWP of the refrigerant		675	kgCO2eq. (100years)				
	Γ						
Contact details	Mitsubishi heavy indu		_				
** If Cdc is not determined by me *** from 26 September 2018 Where information relates to multof the outdoor unit, with a combin	ti-spilt air-conditioners,	the test res	ult and perfor	mance data be obt	ained on the basis of the perfor	rmance	
<u>I</u>							

Information to identify the model(s) to which the	e information	relates :	FD	C250VSA-W /	FDU250VH		
Outdoor side heat exchanger of heat pump :		air					
Indoor side heat exchanger of heat pump :		air					
Indication if the heater is equipped with a supp	lementary he	ater :		No			
if applicable : electric motor							
Parameters shall be declared for the average	heating seaso	n , paramete	rs for the wa	rmer and colder heating	seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space			
	Prated,h	28.0	kW	heating energy	η s,h	138.7	%
				efficiency			1
Declared heating capacity for part load at indo	or temperatur	e 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 Tj	
		40.0	1	0-			٦
T _j =-7°C	Pdh	12.6	kW	T _j =-7°C	COPd or	303.0	%
T = 12°0	Dale	7.7	1.34	T - 10°0	GUEh,bin / AEFh,bin		-
T _j =+2°C	Pdh	7.7	kW	T _j =+2°C	COPd or	338.0	%
T = 17%	Pdh	6.7	kW	T = 17°C	GUEh,bin / AEFh,bin		-
T _j =+7°C	Pull	0.7	IKVV	T _j =+7°C	COPd or	440.0	%
T _i =+12°C	Pdh	7.4	kW	T _i =+12°C	GUEh,bin / AEFh,bin COPd or		-
1,-+12 0	Pull	/	IKVV	1 _j -+12 C		540.0	%
T -bivalent temperature	Pdh	14.2	kW	T _{biv} =bivalent	GUEh,bin / AEFh,bin COPd or		-
T _{biv} =bivalent temperature	Pull	14.2	IKVV	temperature		240.0	%
T = aparation limit	Pdh	14.2	kW	·	GUEh,bin / AEFh,bin		-
T _{OL} =operation limit	Pull	17.2	IKVV	T _{OL} =operation limit	COPd or	240.0	%
En elete estado de estado estado estado estado estado estado estado estado estado estado estado estado estado e	D.III	-	l	For the standard	GUEh,bin / AEFh,bin		-
For air-to-water heat pumps : T _i =-15°C	Pdh		kW	For air-to-water heat pumps:T _i =-15°C	COPd or GUEh,bin / AEFh,bin	-	%
(if T _{OL} <-20°C)				(if T _{OL} <-20°C)	GOEII,BIII / AEI II,BIII		_
(ii · OL (25 5)				(102 < 25 5)			
Bivalent temperature	T _{biv}	-10.0	°C	For water-to-air heat			7
Division tomporatore	• DIV		l ,	pumps:Operation limit		_	°C
Degradation			1	T _{ol} temperature			
coefficient	C_{dh}	0.25	_				_
heat pumps**	- 011						
			ı				
Power consumption in modes other than 'activ	e mode'			Supplementary heater			٦
				back-up heating capac	itv	elbu -	kW
Off mode	P_{OFF}	0.014	kW		,		_
Thermostat-off mode	P _{TO}	0.160	kW	Type of energy input		D 0044	kW
Crankcase heater mode	P _{CK}	0.008	kW	Standby mode		P _{SB} 0.014	KVV
Other items							
				For air-to-air heat pum	ps:	9180	m ³ /h
Capacity control		variable		air flow-rate,outdoor m	easured	0.00	
							_
Sound power level,	L _{WA}	75.0	dB	For water-/brine-to-air	heat pumps :		
outdoor measured	WA			Rated brine or water flo	ow-rate,	-	m ³ /h
			,	outdoor side heat exch	anger		
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	-	fuel input				
			GCV				
			1				
GWP of the		675	kg CO ₂ eq. (100years)				
refrigerant			(Tooyears)				
<u> </u>				1			
	i heavy indust		•		25		
** If Cdh is not determined by measurement th	en me aetaul	ı degradation	coenticient a	ıı-conditioners shall be 0	J,20.		
*** from 26 September 2018							
Where information relates to multi-spilt air-con					e basis of the performance		
of the outdoor unit, with a combination of indoo	or unit(s) reco	mmended by	the manufac	cturer or importer.			
L							

PJG000Z625 🛕

Model FDU280VSAWVH

Model(s): FDC280VSA-W /	FDU280VI	Н					
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			
	Prated,c	27.0	kW	cooling energy	η s,c	194.0	%
				efficiency			
Declared cooling capacity for part load at g	iven outdoor	temperature	es	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 ten	nperatures '	Tj
Ti-+25°C	Pdc	27.0	kW				1
Tj=+35°C	Fuc	27.0	Jrvv	Tj=+35°C	EERd or	295.0	%
Tj=+30°C	Pdc	19.9	kW	T: +0000	GUEc,bin / AEFc,bin		
1,7 100 0	1 40	10.0]	Tj=+30°C	EERd or	425.0	%
Tj=+25°C	Pdc	12.8	kW	Tj=+25°C	GUEc,bin / AEFc,bin EERd or		
			J	1]-123 0	GUEc,bin / AEFc,bin	595.0	%
Tj=+20°C	Pdc	7.6	kW	Tj=+20°C	EERd or		•
			·	1,7 120 0	GUEc,bin / AEFc,bin	730.0	%
Degradation							
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other than 'active me	ode'						
			,				1
Off mode	P _{OFF}	0.014	kW	Crankcase heater m		0.008	kW
Thermostat-off mode	P _{TO}	0.270	kW	Standby mode	P_{SB}	0.014	kW
Other items							1
Capacity control		variable	1	For air-to-air air-cond		8160	m ³ /h
Capacity control		variable	J	air flow-rate,outdoor	measured		J
Sound nower level			1				
Sound power level, outdoor	L_{WA}	75.0	dB				
outdoor			J				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
		1	•				
GWP of the		675	kgCO2eq.				
refrigerant			(100years)				
·		stries therma					
** If Cdc is not determined by measuremen	t then the de	efault degrad	ation coeffic	ient air-conditioners s	hall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air-o	conditioners,	the test resu	It 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)	recommende	ed by the ma	anufacturer or importe	r.		

Information to identify the model(s) to which t	he information	relates :	FD0	C280VSA-W /	FDU280VH		
Outdoor side heat exchanger of heat pump :		air					
Indoor side heat exchanger of heat pump :		air					
Indication if the heater is equipped with a sup	plementary h	eater :		No			
if applicable : electric motor							
Parameters shall be declared for the average	heating seas	on , paramet	ers for the wa	armer and colder heating	g seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space			
	Prated,h	30.0	kW	heating energy	η s,h	145.0	%
				efficiency			
Declared heating capacity for part load at inde	oor temperatu	ire 20°C		Declared coefficient of	performance or gas utilization efficie	ncy /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor temper	atures Tj	
			7				1
T _j =-7°C	Pdh	14.2	kW	T _j =-7°C	COPd or	282.0	%
			7		GUEh,bin / AEFh,bin		
T _j =+2°C	Pdh	8.7	kW	T _j =+2°C	COPd or	372.0	%
			7		GUEh,bin / AEFh,bin		
T _j =+7°C	Pdh	6.9	kW	T _j =+7°C	COPd or	450.0	%
			7	_	GUEh,bin / AEFh,bin		
T _j =+12°C	Pdh	8.2	kW	T _j =+12°C	COPd or	530.0	%
	D.::		7		GUEh,bin / AEFh,bin		
T _{biv} =bivalent temperature	Pdh	16.0	kW	T _{biv} =bivalent temperature	COPd or	245.0	%
T constitute limit	Dalla	40.0	7	· ·	GUEh,bin / AEFh,bin		
T _{OL} =operation limit	Pdh	16.0	kW	T _{OL} =operation limit	COPd or	245.0	%
			7		GUEh,bin / AEFh,bin		
For air-to-water heat pumps :	Pdh		kW	For air-to-water heat	COPd or	-	%
T _j =-15°C				pumps:T _j =-15°C	GUEh,bin / AEFh,bin		ļ
(if T _{OL} <-20°C)				(if T _{OL} <-20°C)			
Bivalent temperature	т	-10.0	°c	For water-to-air heat			1
Bivalent temperature	T _{biv}	-10.0] c	pumps:Operation limit		_	°C
Degradation			1	T _{ol} temperature		-	
coefficient	C_{dh}	0.25		1 of temperature			J
heat pumps**	Odh	0.20					
Theat pumps			J				
Power consumption in modes other than 'acti	ve mode'			Supplementary heater			1
Power consumption in modes other than acti	ve mode			back-up heating capac	elbu	-	kW
Off mode	P _{OFF}	0.014	kW	back-up fleating capac	Sity		J
Thermostat-off mode	P _{TO}	0.160	kW	Type of energy input	_]
Crankcase heater mode	P _{CK}	0.008	kW	Standby mode	P_{SB}	0.014	kW
	O.C		_	Claridby mode			ı
Other items							
				For air-to-air heat pum	ips:		3/1-
Capacity control		variable	1	air flow-rate,outdoor m		8400	m ³ /h
			_				1
Sound power level,		77.0	J.D	For water-/brine-to-air	heat pumps :		
outdoor measured	L_{WA}	77.0	dB	Rated brine or water fl		-	m ³ /h
			_	outdoor side heat exch			
Emissions of nitrogen			mg/kWh		•		•
oxides(if applicable)	NOx ***	-	fuel input				
			GCV				
			-				
			_				
GWP of the		675	kg CO2eq.				
refrigerant		0/3	(100years)				
		<u>-</u>					
	i heavy indus						
** If Cdh is not determined by measurement t	hen the defau	ılt degradatio	n coefficient	air-conditioners shall be	0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air-col	nditioners,the	test result ar	nd performan	ce data be obtained on	the basis of the performance		
of the outdoor unit, with a combination of indo	or unit(s) rec	ommended b	y the manufa	cturer or importer.			

Model FDU200VH, 250VH, 280VH

Model(s): FDU200VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Cooling capacity (sensible)	$P_{rated,c}$	14.9	kW	Total electric power input	P _{elec}	1.180	kW
Cooling capacity (latent)	$P_{\text{rated,c}}$	5.1	kW	Sound power level (per speed setting,if applicable)	L _{WA}	78.0	dB
Heating capacity	$P_{rated,h}$	22.4	kW				
Contact details	Mitsubishi	heavy ind	ustries the	ermal systems,LTD			

Model(s): FDU250VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Cooling capacity (sensible)	$P_{rated,c}$	20.8	kW	Total electric power input	P_{elec}	1.180	kW
Cooling capacity (latent)	P _{rated,c}	4.2	kW	Sound power level (per speed setting,if applicable)	L _{WA}	78.0	dB
Heating capacity	$P_{\text{rated,h}}$	28.0	kW				
Contact details	Mitsubishi	heavy ind	ustries th	ermal systems,LTD			

Model(s): FDU280VH												
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit					
Cooling capacity (sensible)	$P_{\text{rated,c}}$	22.5	kW	Total electric power input	P_{elec}	1.180	kW					
Cooling capacity (latent)	P _{rated,c}	4.5	kW	Sound power level (per speed setting,if applicable)	L_WA	78.0	dB					
Heating capacity	$P_{rated,h}$	30.0	kW									
Contact details	Mitsubishi	heavy ind	ustries the	ermal systems,LTD								

(4) Duct connected-Low/Middle static pressure type(FDUM) Model FDUM200VSAWPVH

Model(s): FDC200VSA-W /	FDUM100	VH (2 units)				
Outdoor side heat exchanger of air-cond	ditioner :	air					
Indoor side heat exchanger of air-condit	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	20.0	kW	efficiency ηs,c		259.8	%
Declared cooling capacity for part load a	at given outdoo	r temperatu	res	Declared energy	y efficiency ratio or gas utilization eff	ciency /	
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	20.0	kW	T: 25°0	550 (1
1, 100 0	1 40	20.0],,,,	Tj=+35°C	EERd or	326.0	%
Tj=+30°C	Pdc	14.7	kW	Tj=+30°C	GUEc,bin / AEFc,bin		1
, , , , ,]	113-+30 C	EERd or	539.0	%
Tj=+25°C	Pdc	9.5	kW	Tj=+25°C	GUEc,bin / AEFc,bin EERd or		1
			1	1, 1200	GUEc,bin / AEFc,bin	832.0	%
Tj=+20°C	Pdc	7.4	kW	Tj=+20°C	EERd or		1
			1	1, 1200	GUEc,bin / AEFc,bin	934.0	%
Degradation			1		COLO,BITT NET O,BITT		1
coefficient for	Cdc	0.25	_				
air-conditioners**							
			'				
Power consumption in other than 'active	mode'						
·							
Off mode	P_{OFF}	0.008	kW	Crankcase heat	er mode P _{CK}	0.012	kW
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_{SB}	0.008	kW
Other items							1
Congeity control		dabla	1	For air-to-air air-		8,880	m ³ /h
Capacity control		variable]	air flow-rate,out	door measured		J
			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			1				
		675	kgCO2eq. (100years)				
refrigerant]				
Contact details Mitsub	ishi heavy indu	etries thern	nal eveteme l	TD			
** If Cdc is not determined by measuren					ers shall be 0,25.		
*** from 26 September 2018		- 3			•		
Where information relates to multi-spilt a	air-conditioners	the test res	sult and nerfo	ormance data be o	obtained on the basis of the performa	ance	
of the outdoor unit, with a combination of					,		
and many output of					p = -400		

Information to identify the model(s) to w	hich the inform	ation relates	s: F	DC200VSA-W	FDUM100VH (2 units)		
Outdoor side heat exchanger of heat pu	ump :	air					
Indoor side heat exchanger of heat pun	np :	air					
Indication if the heater is equipped with	a supplementa	ry heater :		No			
if applicable : electric motor							
Parameters shall be declared for the av	erage heating s	season , par	ameters for	the warmer and colder h	eating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity					ng energy efficiency ηs,h		
	Prated,h	22.4	kW			182.8	%
						1	
Declared heating capacity for part load and outdoor temperature Tj	at indoor tempe	erature 20°C	;		performance or gas utilization for part load at given outdoor	-	e Ti
and outdoor temperature 1)				auxiliary energy factor	ioi part load at giveri outdoor	temperature	5 1)
T _j =-7°C	Pdh	11.1	kW	T _j =-7°C	COPd or	330.0	%
			,		GUEh,bin / AEFh,bin	330.0	70
T _j =+2°C	Pdh	6.7	kW	T _j =+2°C	COPd or	506.0	%
T _i =+7°C	Pdh	6.7	kW	T _i =+7°C	GUEh,bin / AEFh,bin COPd or		
1,7 3	T GIT	0.7	IKVV	1,-170	GUEh,bin / AEFh,bin	544.0	%
T _i =+12°C	Pdh	8.0	kW	T _j =+12°C	COPd or	608.0	0/
			,		GUEh,bin / AEFh,bin	608.0	%
T _{biv} =bivalent temperature	Pdh	12.5	kW	T _{biv} =bivalent	COPd or	283.0	%
T _{OI} =operation limit	Pdh	12.5	kW	temperature T _{OI} =operation limit	GUEh,bin / AEFh,bin COPd or		
Tot-operation in it	i un	12.0	IKVV	TOL-Operation limit	GUEh,bin / AEFh,bin	283.0	%
For air-to-water heat pumps :	Pdh	-	kW	For air-to-water heat			0/
T _j =-15°C			·	pumps:T _j =-15°C	GUEh,bin / AEFh,bin	_	%
(if T _{OL} <-20°C)				(if T _{OL} <-20°C)			
Divolent temperature	т.	-10.0	°C	For water to air boot			1
Bivalent temperature	T_{biv}	-10.0]°C	For water-to-air heat pumps:Operation lim		_	°C
Degradation			1	T _{ol} temperature			
coefficient	C_{dh}	0.25	-				
heat pumps**							
Power consumption in modes other that	n 'active mode'			Supplementary heater	or.		1
Tower consumption in modes other tha	iii active iiioue			back-up heating capa	eibu	_	kW
Off mode	P_{OFF}	0.008	kW	Just up nousing out	20.19		ı
Thermostat-off mode	P _{TO}		kW	Type of energy input	P _{SB}	0.008	kW
Crankcase heater mode	P _{CK}	0.012	kW	Standby mode	05		
Other items							
Other items				For air-to-air heat pu	mps:		3#
Capacity control		variable		air flow-rate,outdoor	•	8040	m ³ /h
			,				•
Sound power level,	L_{WA}	74.0	dB	For water-/brine-to-a			m ³ /h
outdoor measured]	Rated brine or water		_	111-711
Emissions of nitrogen			mg/kWh	outdoor side heat ex	changer		l
oxides(if applicable)	NOx ***		fuel input				
,			GCV				
GWP of the			1				
refrigerant		675	kg CO2eq. (100years)				
reingerant]` ′ ′				
Contact details Mitsul	bishi heavy indu	stries therm	nal systems,l	LTD			
** If Cdh is not determined by measure	ment then the d	efault degra	dation coeffi	cient air-conditioners sh	all be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt	air-conditioners	the test res	sult and perfo	ormance data be obtaine	ed on the basis of the performa	nce	
of the outdoor unit, with a combination							
	,		-				

Model FDUM250VSAWPVH

Model(s): FDC250VSA-W /	FDUM125	VH (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	ing energy		
	Prated,c	25.0	kW	efficiency ηs,c		245.1	%
Declared cooling capacity for part load at given	ven outdoor	temperatur	res	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 ⁻	Гј
Tj=+35°C	Pdc	25.0	kW	Tj=+35°C	EERd or	301.0	%
			_		GUEc,bin / AEFc,bin	301.0	70
Tj=+30°C	Pdc	18.4	kW	Tj=+30°C	EERd or	513.0	%
					GUEc,bin / AEFc,bin	313.0	70
Tj=+25°C	Pdc	11.8	kW	Tj=+25°C	EERd or	724.0	%
					GUEc,bin / AEFc,bin	724.0	/0
Tj=+20°C	Pdc	6.9	kW	Tj=+20°C	EERd or	945.0	%
					GUEc,bin / AEFc,bin	345.0	/0
Degradation							_
coefficient for	Cdc	0.25	-				
air-conditioners**							
			-				
Power consumption in other than 'active mo	de'						
			_		_		_
Off mode	P_{OFF}	0.009	kW	Crankcase heater mo	ode P _{CK}	0.012	kW
Thermostat-off mode	P_{TO}	0.027	kW	Standby mode	P_{SB}	0.009	kW
Other items					-		-
			_	For air-to-air air-cond	litioner:	8880	m ³ /h
Capacity control		variable		air flow-rate,outdoor	measured]
			_				
Sound power level,	L _{WA}	73.0	dB				
outdoor	LVVA	70.0					
			_				
If engine driven:	No		mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
			_				
GWP of the		675	kgCO2eq.				
refrigerant		0.0	(100years)				
Contact details Mitsubishi	heavy indu	stries thern	nal systems,L	TD			
** If Cdc is not determined by measurement	then the de	fault degra	dation coeffic	ient air-conditioners sh	nall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air-co	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	ded by the ma	nufacturer or importer			

Information to identify the model(s) to	which the informa	tion relates	s: FD0	C250VSA-W /	FDUM125VH (2 units)			
Outdoor side heat exchanger of heat	pump :	air						
Indoor side heat exchanger of heat pu	ımp :	air						
Indication if the heater is equipped with	th a supplementar	y heater :		No				
if applicable : electric motor								
Parameters shall be declared for the a	average heating s	eason , pai	rameters for the	he warmer and colder h	neating seasons are option	al.		
Item	Symbol	Value	Unit	Item	Symbol		Value	Unit
Rated heating capacity	,				ing energy efficiency ηs,h			
3,	Prated,h	28.0	kW		3 - 3 - 3 - 3 - 3 - 3		172.9	%
Declared heating capacity for part loa and outdoor temperature Tj	d at indoor tempe	rature 20°C	•		of performance or gas utilizer for part load at given out		-	Tj
T _j =-7°C	Pdh	12.6	kW	T _j =-7°C	COPd or		298.0	%
T _j =+2°C	Pdh	7.7	kW	T _j =+2°C	GUEh,bin / AEFh,bin COPd or		430.0	%
T _j =+7°C	Pdh	5.2	kW	T _j =+7°C	GUEh,bin / AEFh,bin COPd or		565.0	%
T _j =+12°C	Pdh	6.2	kW	T _j =+12°C	GUEh,bin / AEFh,bin COPd or	ļ	667.0	%
T _{biv} =bivalent temperature	Pdh	14.2	kW	T _{biv} =bivalent temperature	GUEh,bin / AEFh,bin COPd or	ļ	268.0	%
T _{OL} =operation limit	Pdh	15.1	kW	T _{OL} =operation limit			200.0	%
For air-to-water heat pumps : T _i =-15°C	Pdh	-	kW	For air-to-water hea pumps:T _i =-15°C	GUEh,bin / AEFh,bin t COPd or GUEh,bin / AEFh,bin	ļ	-	%
(if T _{OL} <-20°C)				(if T _{OL} <-20°C)		L		1
Bivalent temperature	T_{biv}	-10.0	°C	For water-to-air hea			_	°C
Degradation			7	T _{ol} temperature				
coefficient	C_{dh}	0.25	-			L		_
heat pumps**								
Power consumption in modes other th	an 'active mode'			Supplementary hea		elbu	_	kW
Off mode	P _{OFF}	0.009	kW	J	, ,	_		_
Thermostat-off mode	P _{TO}	0.032	kW	Type of energy input		_ [
Crankcase heater mode	P _{CK}	0.012	kW	Standby mode		P _{SB}	0.009	kW
Other items								
Capacity control		variable]	For air-to-air heat pur air flow-rate,outdoor i			9180	m ³ /h
			_			_		7
Sound power level,	L_WA	75.0	dB	For water-/brine-to-ai	r heat pumps :		_	
outdoor measured	LWA .	73.0	Jub	Rated brine or water outdoor side heat exc	*		-	m ³ /h
Emissions of nitrogen			mg/kWh	Juliuson side near ext		L		1
oxides(if applicable)	NOx ***	-	fuel input GCV					
GWP of the		675	kg CO2eq.					
refrigerant		0/0	(100years)					
Contact details Mits ** If Cdh is not determined by measur	subishi heavy indu				nall be 0,25.			
*** from 26 September 2018 Where information relates to multi-spi						ormance		
of the outdoor unit, with a combination	n of indoor unit(s)	recommen	ded by the ma	anufacturer or importer.				

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Model FDUM280VSAWPVH

Model(s): FDC280VSA-W /	FDUM140VH ((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 V	Value U	nit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space cooli	ng energy		
	Prated,c 2	27.0	kW	efficiency ηs,c		241.0	%
Declared cooling capacity for part load at gi	ven outdoor temp	nperatures		Declared energy effic	iency ratio or gas utilization efficiend	cy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy factor	r for part load at given outdoor temp	peratures 7	Гј
T: .0502	D		.,		Г		,
Tj=+35°C	Pdc 2	27.0 k\	W	Tj=+35°C	EERd or	294.0	%
T:- +20°C	Dela 4	40.0	Λ/		GUEc,bin / AEFc,bin		
Tj=+30°C	Pdc 1	19.9 k\	/ V	Tj=+30°C	EERd or	476.0	%
Tj=+25°C	Pdc 1	12.8 k\	۸/		GUEc,bin / AEFc,bin		
1]= 123 0	1 400	12.0	,,	Tj=+25°C	EERd or	772.0	%
Tj=+20°C	Pdc	7.0 k\	W	T:- 120°0	GUEc,bin / AEFc,bin		
1,7 120 0	1 40	7.0		Tj=+20°C	EERd or	994.0	%
Degradation					GUEc,bin / AEFc,bin]
coefficient for	Cdc	0.25					
air-conditioners**	Cuc						
directional							
Power consumption in other than 'active mo	ode'						
, , , , , , , , , , , , , , , , , , , ,							
Off mode	P _{OFF} 0.	0.009 k\	W	Crankcase heater mo	de P _{CK}	0.012	kW
Thermostat-off mode	P _{TO} 0.).032 k\	W	Standby mode	P_{SB}	0.009	kW
		<u> </u>			_		
Other items					_		
				For air-to-air air-condi	itioner:	8160	m³/h
Capacity control	va	ariable		air flow-rate,outdoor r	measured		
Sound power level,	L _{WA}	75.0 di	В				
outdoor							
	_						
If engine driven:	NOx	m	ıg/kWh				
Emissions of nitrogen	***		iel input				
oxides		G	CV				
CWP of the							
GWP of the			gCO2eq. 00years)				
refrigerant		`	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Contact details Mitsubish	i heavy industries	ae thermal	eveteme !	[D			
** If Cdc is not determined by measurement	i heavy industries t then the default				all be 0,25.		
*** from 26 September 2018		5			•		
Where information relates to multi-spilt air-c	onditioners the to	test result	and perform	nance data he obtaine	d on the basis of the performance		
of the outdoor unit, with a combination of inc							
or are outdoor unit, with a combination of the	acor arm(s) 16601	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	a by the ma	naraotaror or importer.			

Information to identify the model(s) to wh	nich the informa	ation relates	: FD0	C280VSA-W /	FDUM140VH (2 units)		
Outdoor side heat exchanger of heat pur	mp :	air					
Indoor side heat exchanger of heat pum	p :	air					
Indication if the heater is equipped with a	a supplementa			No			
if applicable : electric motor							
Parameters shall be declared for the ave	erage heating s	eason , par	ameters for the	he warmer and colder h	eating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity					ing energy efficiency ηs,h		
Talos Housing capabily	Prated,h	30.0	kW	Soussilai opassilisaa	g chorgy children y He,	166.0	%
Declared heating capacity for part load a and outdoor temperature Tj	t indoor tempe	erature 20°C			of performance or gas utilization r for part load at given outdoor	-	Тј
T _j =-7°C	Pdh	14.2	kW	T _j =-7°C	COPd or	321.0	%
T _j =+2°C	Pdh	8.7	kW	T _j =+2°C	GUEh,bin / AEFh,bin COPd or	400.0	%
T _j =+7°C	Pdh	6.3	kW	T _j =+7°C	GUEh,bin / AEFh,bin COPd or	560.0	%
T _j =+12°C	Pdh	7.1	kW	T _j =+12°C	GUEh,bin / AEFh,bin COPd or	780.0	%
T _{biv} =bivalent temperature	Pdh	16.0	kW	T _{biv} =bivalent temperature	GUEh,bin / AEFh,bin COPd or GUEh,bin / AEFh,bin	240.0	%
T _{OL} =operation limit	Pdh	16.0	kW	T _{OL} =operation limit		240.0	%
For air-to-water heat pumps : T _i =-15°C	Pdh	-	kW	For air-to-water hear pumps:T _i =-15°C		-	%
(if T _{OL} <-20°C)				(if T _{OL} <-20°C)			4
Bivalent temperature	T_{biv}	-10.0	°C	For water-to-air hea		_	°C
Degradation]	T _{ol} temperature			
coefficient	C_{dh}	0.25	-				•
heat pumps**]				
Power consumption in modes other than	'active mode'			Supplementary hea	eibu	_	kW
Off mode	P_{OFF}	0.009	kW	3.1	,		•
Thermostat-off mode	P_{TO}	0.032	kW	Type of energy input			1
Crankcase heater mode	P_{CK}	0.012	kW	Standby mode	P_{SB}	0.009	kW
			1				4
Other items			,	For air-to-air heat pur	nps:	8400	m³/h
Capacity control		variable]	air flow-rate,outdoor r	measured	0400]
Sound power level,	L_WA	77.0	dB	For water-/brine-to-air	r heat pumps :		ma 3 //-
outdoor measured	***]	Rated brine or water to outdoor side heat exc		-	m ³ /h
Emissions of nitrogen oxides(if applicable)	NOx ***	-	mg/kWh fuel input				
GWP of the			GCV kg CO2eq.				
refrigerant		675	(100years)				
Contact details Mitsub ** If Cdh is not determined by measurem	ishi heavy indu				all be 0.25		
· ·	ioni ulen tile 0	ciauit uegiā	uauon coenii	oon an-conditioners sn	un <i>D</i> ⊂ U,∠J.		
*** from 26 September 2018	in and 200	41 7	المستقلين		al and the back of the		
Where information relates to multi-spilt a						ice	
of the outdoor unit, with a combination o	r indoor unit(s)	recommend	aed by the ma	anutacturer or importer.			

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Model FDUM200VSAWTVH

	, ==:	11.75					
Model(s): FDC200VSA-W	/ FDUM71V	H (3 units))				
Outdoor side heat exchanger of a	r-conditioner :	air					
Indoor side heat exchanger of air-	conditioner :	air					
Type: vapour compression							
if applicable : electric mot	or						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space	e cooling energy		
	Prated,c	20.0	kW	efficiency ηs,c		259.8	%
Declared cooling capacity for part	load at given outdoor	temperati	ures	Declared energ	y efficiency ratio or gas utilization	efficiency /	
Tj and indoor 27°C/19°C(dry/wet b	ulb)			auxiliary energy	factor for part load at given outdo	oor temperatures	Tj
Tj=+35°C	Pdc	20.0	kW	Tj=+35°C	EERd or		0,
			_		GUEc,bin / AEFc,bin	326.0	%
Tj=+30°C	Pdc	14.7	kW	Tj=+30°C	EERd or		1
				1, 100 0	GUEc,bin / AEFc,bin	546.0	%
Tj=+25°C	Pdc	9.5	kW	Tj=+25°C	EERd or		
			_	1j=+25 C		828.0	%
Tj=+20°C	Pdc	7.4	kW	T:- 120°C	GUEc,bin / AEFc,bin		-
1, 1200	1 40	7		Tj=+20°C	EERd or	926.0	%
5			7		GUEc,bin / AEFc,bin		_
Degradation		0.25					
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other than Off mode Thermostat-off mode	P _{OFF} P _{TO}	0.008	kW kW	Crankcase head	ter mode P_{CK} P_{SB}	0.012	kW kW
Other items							
Other Rema				For air-to-air air	-conditioner] ,,,
Capacity control		variable				8,880	m ³ /h
,,			_	air flow-rate,out	door measured		
0			7				
Sound power level,	L_WA	72.0	dB				
outdoor							
			٦				
If engine driven:	NOx	_	mg/kWh				
Emissions of nitrogen	***		fuel input				
oxides			GCV				
			٦				
GWP of the		675	kgCO ₂ eq. (100years)				
refrigerant			(100years)				
	Mitsubishi heavy indu						
** If Cdc is not determined by mea	surement then the de	efault degr	adation coeff	icient air-conditior	ners shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi	-spilt air-conditioners,	the test re	sult and perf	ormance data be	obtained on the basis of the perform	rmance	
of the outdoor unit, with a combina	ation of indoor unit(s)	recommer	nded by the n	nanufacturer or im	porter.		
1							

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Information to identify the model(s) to which the informa	ation relates	: F	DC200VSA-W	FDUM71VH (3 units)		
Outdoor side heat exchanger of he	eat pump :	air					
Indoor side heat exchanger of hea	at pump :	air					
Indication if the heater is equipped	d with a supplementar	y heater :		No			
if applicable : electric mot	or						
Parameters shall be declared for t	he average heating s	eason , para	ameters for	the warmer and colder he	eating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity					g energy efficiency ηs,h		
	Prated,h	22.4	kW			182.8	%
Declared heating capacity for part	load at indoor tempe	rature 20°C			performance or gas utilization		- T:
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor	temperature	SIJ
T _j =-7°C	Pdh	11.1	kW	T _j =-7°C	COPd or GUEh,bin / AEFh,bin	327.0	%
T _j =+2°C	Pdh	6.7	kW	T _j =+2°C	COPd or	506.0	%
T _j =+7°C	Pdh	6.7	kW	T _j =+7°C	GUEh,bin / AEFh,bin COPd or	546.0	%
T _j =+12°C	Pdh	8.0	kW	T _j =+12°C	GUEh,bin / AEFh,bin COPd or GUEh,bin / AEFh,bin	615.0	%
T _{biv} =bivalent temperature	Pdh	12.5	kW	T _{biv} =bivalent temperature	COPd or	276.0	%
T _{OL} =operation limit	Pdh	12.5	kW	T _{OL} =operation limit	GUEh,bin / AEFh,bin COPd or	276.0	%
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 _j =-15°C (if T _{OL} <-20°C)	GUEh,bin / AEFh,bin]~
Bivalent temperature	T_biv	-10.0	°C	For water-to-air heat	_		
Degradation				pumps:Operation limi	it	_	°C
coefficient	C_{dh}	0.25	_	1 _{ol} temperature			
heat pumps**	- un						
Power consumption in modes other	er than 'active mode'			Supplementary heater	eibu	_	kW
Off mode	P _{OFF}	0.008	kW	back-up heating capa	acity		
Thermostat-off mode	P _{TO}		kW	Type of energy input			1
Crankcase heater mode	P _{CK}	-	kW	Standby mode	P_{SB}	0.008	kW
						<u> </u>	1
Other items							1
		variable		For air-to-air heat pur	·	8040	m³/h
Capacity control		variable		air flow-rate,outdoor i	measured		J
Sound power level,		740	ID.	For water-/brine-to-ai	ir heat pumps :		1
outdoor measured	L_{WA}	74.0	dB	Rated brine or water		_	m³/h
				outdoor side heat exc	changer		
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***		fuel input				
			GCV				
GWP of the			kg CO2eq.				
refrigerant		0/0	(100years)				
0. 1. 1. 1. "			.1	L TD			
	Mitsubishi heavy indu				all he 0.25		
** If Cdh is not determined by mea	asurement then the de	ziauit uegrat	uation coeffi	Gent an-conditioners sha	an DE 0,20.		
*** from 26 September 2018							
Where information relates to multi	-spilt air-conditioners,	the test resi	ult and perfo	rmance data be obtained	d on the basis of the performa	ance	
of the outdoor unit, with a combina	ation of indoor unit(s)	recommend	led by the m	anufacturer or importer.			

Models FDUM71VH, 100VH, 125VH, 140VH

Model(s): FDUM71VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	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 I	neavy ind	ustries the	ermal systems,LTD			

Model(s): FDUM100VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	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 I	neavy ind	ustries the	ermal systems,LTD			

Model(s): FDUM125VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	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 I	neavy ind	ustries the	ermal systems,LTD			

Model(s): FDUM140VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	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	neavy ind	ustries therr	nal systems,LTD			

(5) Ceiling suspended type(FDE)

Model FDE200VSAWPVH

Model(s): FDC200VS	A-W	FDE100\	/H (2units)				
Outdoor side heat exchanger of	air-conditioner :	air					
Indoor side heat exchanger of a	ir-conditioner :	air					
Type: vapour compression							
if applicable : electric mo	tor						
Item	Symbol	Value	Unit	Item .	Symbol	Value	Unit
Rated cooling capacity	Drotod o	20.0	kW	Seasonal space		260.7	%
	Prated,c	20.0	KVV	cooling energy efficiency	η s,c	260.7	70
Declared earling conseils for no	ant load at aluan au	t d a a v t a va			v officional ratio as see utiliza	tion officional /	
Declared cooling capacity for partial triand indoor 27°C/19°C(dry/we	•	taoor tem	peratures		y efficiency ratio or gas utiliza factor for part load at given c	-	sturos Ti
Tri and indoor 27 C/19 C(dry/we	t buib)			auxiliary eriergy	lactor for part load at given c	outdoor terripera	ilures ij
Tj=+35°C	Pdc	20.0	kW	Tj=+35°C	EERd or		1
			1		GUEc,bin / AEFc,bin	331.0	%
Tj=+30°C	Pdc	14.7	kW	Tj=+30°C	EERd or		,
			1		GUEc,bin / AEFc,bin	551.0	%
Tj=+25°C	Pdc	9.5	kW	Tj=+25°C	EERd or	847.0	%
			.		GUEc,bin / AEFc,bin	047.0	70
Tj=+20°C	Pdc	7.3	kW	Tj=+20°C	EERd or	885.0	%
			-		GUEc,bin / AEFc,bin	003.0	
Degradation							
coefficient for	Cdc	0.25	-				
air-conditioners**]				
Power consumption in other that	in 'active mode'						
Off mode	P _{OFF}	0.008	kW	Crankagas hoot	or made D	0.012	kW
Thermostat-off mode	P _{TO}	0.008	kW	Crankcase heat Standby mode	er mode P _{CK} P _{SB}	0.012	kW
memostat-on mode	' то	0.024]ĸvv	Starious mode	' SB	0.008]ĸvv
Other items							
Other items				For air-to-air air-	-conditioner		1
Capacity control		variable	1	air flow-rate,out		8,880	m ³ /h
			1				1
Sound power level,]				
outdoor	L_{WA}	72.0	dB				
			•				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
			7				
GWP of the		675	kgCO2eq.				
refrigerant			(100years)				
	Mitsubishi heavy inc				anditioners shall be 0.25		
** If Cdc is not determined by m	easurement thên t	ne uetault	uegradatio	n coemcient aif-co	onumoners shall be 0,25.		
*** from 26 September 2018							
Where information relates to mu	-					of the performar	nce
of the outdoor unit, with a comb	ination of indoor ur	nit(s) recor	nmended b	y tne manufacture	er or importer.		

Information to identify the model(s) to	which the in	formation re	elates	FDC200VSA-W /	FDE100VH (2units)		
Outdoor side heat exchanger of heat		air	ciales	1 DO200 V 3A-VV /	T DE 100 VIT (Zurilis)		
Indoor side heat exchanger of heat p		air					
Indication if the heater is equipped wi	th a supplem	entary hea	ter	No			
if applicable: electric motor							
Parameters shall be declared for the	average hea	ting season	paramete	ers for the warmer and o	colder heating seasons are o	ntional	
Item	Symbol		Unit	Item	Symbol	Value	Unit
Rated heating capacity	Cymbo	Value	T		Gymber	Value	T T
Rated fleating capacity	D ()	00.4	1.14/	Seasonal space		4=0.0	0/
	Prated,h	22.4	kW	heating energy	η s,h	178.0	%
				efficiency			
Declared heating capacity for part loa	id at indoor to	emperature	20°C	Declared coefficient of	of performance or gas utiliza	tion efficie	ncy /
and outdoor temperature Ti		•		lauxiliary energy facto	or for part load at given outdo	or temper	atures Ti
			7				1
T _j =-7°C	Pdh	11.1	kW	T _j =-7°C	COPd or	320.0	%
			_		GUEh,bin / AEFh,bin	320.0	70
T . 200	Б. II		1	T .000			1
T _j =+2°C	Pdh	6.7	kW	T _j =+2°C	COPd or	493.0	%
			='		GUEh,bin / AEFh,bin	450.0	/0
T-+7°C	Pdh		kW	T _i =+7°C	COPd or		1
T _j =+7°C	Full	6.6	KVV	1 j=+1 C	COPU 01	529.0	%
					GUEh,bin / AEFh,bin		
T _j =+12°C	Pdh	8.0	kW	T _i =+12°C	COPd or		1
1,1,1,2,0	1 011	0.0	1			600.0	%
			-		GUEh,bin / AEFh,bin		_
T _{biv} =bivalent temperature	Pdh	12.5	kW	T _{biv} =bivalent	COPd or		0.1
DIV I			1			269.0	%
			7	temperature	GUEh,bin / AEFh,bin		4
T _{OL} =operation limit	Pdh	12.5	kW	T _{OL} =operation limit	COPd or	260.0	%
			_		GUEh,bin / AEFh,bin	269.0	70
For air to water boot number.	Dale		TLAM	For air to water boot			1
For air-to-water heat pumps :	Pdh	-	kW	For air-to-water heat	COPa or	_	%
T _i =-15°C				pumps:T _i =-15°C	GUEh,bin / AEFh,bin	_	/0
(if T _{OL} <-20°C)				(if T _{OL} <-20°C)			1
(II 1 _{OL} <-20 C)				(II 1 _{OL} \-20 C)			
			_				
Bivalent temperature	T_biv	-10.0	°C	For water-to-air heat			
2.va.o toporataro	- DIV	-10.0] ~				00
			-	pumps:Operation limit	it	-	°C
Degradation				T _{ol} temperature			
"	0	0.25					1
coefficient	C_{dh}	0.25	-				
heat pumps**							
			1				
L							7
Power consumption in modes other the	nan 'active m	ode		Supplementary heate	er elbu	_	kW
				back-up heating capa	acity	_	IX V V
Off mode	P_{OFF}	0.008	kW	' ' ' '	•		-
Oli illode		0.008	LVV				7
Thermostat-off mode	P_{TO}	0.030	kW	Type of energy input	5		
Crankagas haster made	D	0.042	LAM	''	P_{SB}	0.008	kW
Crankcase heater mode	P_{CK}	0.012	kW	Standby mode]
Other items							
				For air-to-air heat pur	mne:		1 .
			1		•	8,040	m ³ /h
Capacity control		variable		air flow-rate,outdoor i	measured]
Sound power level,			1.5	For water-/brine-to-ai	r heat pumps :		
outdoor measured	L_WA	74.0	dB	Rated brine or water		_	m³/h
outdoor measured			1				
		-		outdoor side heat exc	Shanger]
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	-	fuel input				
			GCV				
			J				
			7				
GWP of the		6	kg CO2eq.				
refrigerant		675					
I chigerant		<u> </u>	(100years)				
				11			
Contact details Mitsuk	oishi heavy in	dustries the	ermal syste	ms,LTD	<u> </u>		
** If Cdh is not determined by measur					ners shall be 0.25		
*** from 26 Sentember 2018	oment then	and acidall (acgradation	i occinoloni ali-conditioi	11010 011011 00 0,20.		

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.

Model FDE250VSAWPVH

Model(s): FDC250V	SA-W	FDE125\	/H (2units)				
Outdoor side heat exchanger	of air-conditioner :	air					
Indoor side heat exchanger of	air-conditioner :	air					
Type: vapour compression	1						
if applicable : electric me	otor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space			
	Prated,c	25.0	kW	cooling energy	η s,c	244.8	%
				efficiency			
Declared cooling capacity for p	oart load at given out	door tem	peratures	Declared energy	efficiency ratio or gas utilization	on efficiency /	
Tj and indoor 27°C/19°C(dry/w	ret bulb)			auxiliary energy fa	actor for part load at given ou	tdoor tempera	atures Tj
			-				-
Tj=+35°C	Pdc	25.0	kW	Tj=+35°C	EERd or	314.0	%
			_		GUEc,bin / AEFc,bin	014.0]"
Tj=+30°C	Pdc	18.4	kW	Tj=+30°C	EERd or	516.0	%
			_		GUEc,bin / AEFc,bin	310.0	70
Tj=+25°C	Pdc	11.8	kW	Tj=+25°C	EERd or	721.0	%
			_		GUEc,bin / AEFc,bin	121.0	
Tj=+20°C	Pdc	6.8	kW	Tj=+20°C	EERd or	912.0	%
	'		_		GUEc,bin / AEFc,bin	912.0	/0
Degradation							_
coefficient for	Cdc	0.25	-				
air-conditioners**							
	!		_				
Power consumption in other th	nan 'active mode'						
, , , , , , , , , , , , , , , , , , ,							
Off mode	P _{OFF}	0.009	kW	Crankcase heater	r mode P _{CK}	0.012	kW
Thermostat-off mode	P _{TO}	0.027	kW	Standby mode	P _{SB}	0.009	kW
	ı		1				1
Other items							
				For air-to-air air-c	onditioner		1.
Capacity control		variable	1	air flow-rate,outdo		8880	m ³ /h
, ,			1	all now-rate,outue	on measured		1
Sound nower level			1				
Sound power level, outdoor	L_{WA}	73.0	dB				
outdoor			J				
If a marine additions							
If engine driven:	NOx	_	mg/kWh				
Emissions of nitrogen	***		fuel input				
oxides			GCV				
CWP of the	1		1				
GWP of the		675	kgCO ₂ eq. (100years)				
refrigerant]````				
				<u> </u>			
	Mitsubishi heavy ind				dition and all the O.C.		
** If Cdc is not determined by	measurement then the	ie detault	uegradation	i coeπicient air-cond	aluoners snall be 0,25.		
*** from 26 September 2018							
Where information relates to n	nulti-spilt air-condition	ners,the to	est result an	d performance data	be obtained on the basis of t	he performan	ce
of the outdoor unit, with a com	bination of indoor un	it(s) reco	mmended by	the manufacturer of	or importer.		

nformation to identify the model(s) to which the information relates : FDC250VSA-W / FDE125VH (2units)											
Outdoor side heat exchanger of heat pu		air									
Indoor side heat exchanger of heat pun	np :	air									
Indication if the heater is equipped with	a supplen	nentary hea	iter:	No							
if applicable : electric motor		tina acces		for the		tional.					
Parameters shall be declared for the av Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heating capacity	Cyllibol	Value	Offic	Seasonal space	Cymbol	value	Offic				
and the same of the same	Prated,h	28.0	kW	heating energy	η s,h	167.0	%				
				efficiency	• *						
Declared heating capacity for part load	at indoor t	emperature	20°C		of performance or gas utilization						
and outdoor temperature Tj				auxiliary energy fact	tor for part load at given outdoo	r tempera	itures Tj				
							,				
T _j =-7°C	Pdh	12.6	kW	T _j =-7°C	COPd or	286.0	%				
			-		GUEh,bin / AEFh,bin	200.0	70				
T _j =+2°C	Pdh	7.7	kW	T _j =+2°C	COPd or	411.0	%				
			•		GUEh,bin / AEFh,bin	411.0	70				
T _j =+7°C	Pdh	5.2	kW	T _i =+7°C	COPd or	^	0,				
,			1	,	GUEh,bin / AEFh,bin	557.0	%				
T _j =+12°C	Pdh	6.2	kW	T _i =+12°C	COPd or		1				
1		<u> </u>	J	,	GUEh,bin / AEFh,bin	663.0	%				
T _{biv} =bivalent temperature	Pdh	14.2	kW	T _{hiv} =bivalent	COPd or		•				
- Bly Stratetic temperature		17.2]	temperature	GUEh,bin / AEFh,bin	261.0	%				
T _{OL} =operation limit	Pdh	15.1	kW	T _{OL} =operation limit							
	i uii	15.1	I K V V	1 OL-operation limit	GUEh,bin / AEFh,bin	193.0	%				
For air-to-water heat pumps :	Pdh	-	kW	For air-to-water heat							
T _i =-15°C	run		IVAA	pumps:T _i =-15°C	GUEh,bin / AEFh,bin	-	%				
				l. , ,	GOEII,DIII / AEI II,DIII]				
(if T _{OL} <-20°C)				(if T _{OL} <-20°C)							
	_		lo-				1				
Bivalent temperature	T_biv	-10.0	°C	For water-to-air hea			_				
			1	pumps:Operation lin	nit	-	°C				
Degradation				T _{ol} temperature							
coefficient	C_{dh}	0.25	-								
heat pumps**											
Power consumption in modes other tha	n 'active m	node'		Supplementary hear	Alhii l	-	kW				
	_		1	back-up heating cap	pacity]				
Off mode	P_{OFF}	0.009	kW		·		,				
Thermostat-off mode	P_{TO}	0.032	kW	Type of energy inpu	t P _{SB}	0.009	kW				
Crankcase heater mode	P_{CK}	0.012	kW	Standby mode	' SB	0.003	K V V				
			'				•				
Other items							_				
				For air-to-air heat pu	umps:	9180	m ³ /h				
Capacity control		variable		air flow-rate,outdoor	measured	3100					
			1				,				
Sound power level,	L_{WA}	75.0	dB	For water-/brine-to-a			m ³ /h				
outdoor measured			l	Rated brine or wate outdoor side heat ex		-	1119/11				
Emissions of nitrogen			mg/kWh	outdoor side rieat ex	Change		J				
oxides(if applicable)	NOx	_	fuel input								
	***		GCV								
			•								
GWP of the		675	kg CO2eq.								
refrigerant		6/5	(100years)								
			. ,/								
			ermal system								
** If Cdh is not determined by measurer	ment then	the default	degradation	coefficient air-conditi	oners shall be 0,25.	_					
*** from 26 September 2018											
Where information relates to multi-spilt						erformand	ce				
of the outdoor unit, with a combination of	ot indoor u	ınıt(s) recon	nmended by	tne manufacturer or i	mporter.						

PFA004Z088 🛕

Model FDE280VSAWPVH

Model(s): FDC280V	SA-W /	FDE140\	/H (2units)				
Outdoor side heat exchanger of	of air-conditioner :	air					
Indoor side heat exchanger of	air-conditioner :	air					
Type: vapour compression							
if applicable : electric me	otor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated,c	27.0	kW	Seasonal space cooling energy efficiency	η s,c	233.8	%
Declared cooling capacity for p Tj and indoor 27°C/19°C(dry/w	_	itdoor tem	peratures		efficiency ratio or gas utiliza actor for part load at given o	-	
Tj=+35°C	Pdc	27.0	kW	Tj=+35°C	EERd or GUEc,bin / AEFc,bin	290.0	%
Tj=+30℃	Pdc	19.9	kW	Tj=+30°C	EERd or GUEc,bin / AEFc,bin	460.0	%
Tj=+25°C	Pdc	12.8	kW	Tj=+25°C	EERd or GUEc,bin / AEFc,bin	687.0	%
Tj=+20°C	Pdc	7.2	kW	Tj=+20°C	EERd or GUEc,bin / AEFc,bin	970.0	%
Degradation							
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other th Off mode Thermostat-off mode	an 'active mode' P _{OFF} P _{TO}	0.009	kW kW	Crankcase heater Standby mode	mode P_{CK} P_{SB}	0.012	kW kW
Other items							
Capacity control		variable]	For air-to-air air-co		8160	m³/h
Sound power level, outdoor	L_WA	75.0	dB				
If engine driven: Emissions of nitrogen oxides	NOx ***	-	mg/kWh fuel input GCV				
GWP of the refrigerant		675	kgCO2eq. (100years)				
Contact details	Mitsubishi heavy in	dustries th	ermal syster	ms,LTD			
** If Cdc is not determined by r	measurement then t	he default	degradation	coefficient air-cond	itioners shall be 0,25.		
*** from 26 September 2018 Where information relates to most the outdoor unit, with a com						f the performan	ce

Information to identify the model(s) to	which the in	nformation r	relates :	FDC280VSA-W /	FDE140VH (2units)		
Outdoor side heat exchanger of heat p		air					
Indoor side heat exchanger of heat put		air		Na			
Indication if the heater is equipped with if applicable : electric motor	ı a suppier	nentary nea	ater:	No			
Parameters shall be declared for the a	verage hea	ating season	n naramete	rs for the warmer and	I colder heating seasons are or	ntional	
Item	Symbol		Unit	Item	Symbol	Value	Unit
Rated heating capacity	-,			Seasonal space			
	Prated,ł	30.0	kW	heating energy	η s,h	154.8	%
				efficiency			
Declared heating capacity for part load	at indoor	temperature	e 20 °C		t of performance or gas utilizati		
and outdoor temperature Tj				auxiliary energy fac	tor for part load at given outdoo	or tempera	itures 1
T - 7°0	Dale	440	1,,,,,	T - 7°0	0004		1
T _j =-7°C	Pdh	14.2	kW	T _j =-7°C	COPd or	294.0	%
T = 12°0	Dale		1,,,,,	T-12°0	GUEh,bin / AEFh,bin		-
T _j =+2°C	Pdh	8.7	kW	T _j =+2°C	COPd or	361.0	%
T . 700	Б. II		1	T . 700	GUEh,bin / AEFh,bin		.
T _j =+7°C	Pdh	5.8	kW	T _j =+7°C	COPd or	521.0	%
T . 1000	Б. II		1, , , ,	T . 1000	GUEh,bin / AEFh,bin		
T _j =+12°C	Pdh	6.9	kW	T _j =+12°C	COPd or	685.0	%
T birdent to an anatom	Dalla		1,,,,,	T bireland	GUEh,bin / AEFh,bin		-
T _{biv} =bivalent temperature	Pdh	16.0	kW	T _{biv} =bivalent	COPd or	230.0	%
	D. II		1, , , ,	temperature	GUEh,bin / AEFh,bin		
T _{OL} =operation limit	Pdh	16.0	kW	T _{OL} =operation limit		230.0	%
	Б. II	_	1		GUEh,bin / AEFh,bin		.
For air-to-water heat pumps :	Pdh	-	kW	For air-to-water heat		-	%
T _j =-15°C				pumps:T _j =-15°C	GUEh,bin / AEFh,bin]
(if T _{OL} <-20°C)				(if T _{OL} <-20°C)			
	_		10-				,
Bivalent temperature	T_{biv}	-10.0]°C	For water-to-air hea			
			,	pumps:Operation lir	nit	-	°C
Degradation				T _{ol} temperature]
coefficient	C_{dh}	0.25	-				
heat pumps**]				
Power consumption in modes other that	an 'active n	node'		Supplementary hea	tor		, l
Tower consumption in modes other the	all active i	iloue		back-up heating car	elhii	-	kW
Off mode	Poff	0.009	kW	back up ricating cap	sucity		1
Thermostat-off mode			kW				1 l
	P _{TO}		-	Type of energy inpu	P _{SB}	0.009	kW
Crankcase heater mode	P_{CK}	0.012	kW	Standby mode]
Other items							
Other items				For air-to-air heat p	impe:		1.
Capacity control		variable	1 I	air flow-rate,outdoor	•	8400	m ³ /h
Capacity control		variable	1	all now-rate,outdoor	measured		1
Sound power level,	1	77.0	dD.	For water-/brine-to-	air heat pumps :		1
outdoor measured	L_{WA}	77.0	dB	Rated brine or wate	r flow-rate,	-	m ³ /h
			,	outdoor side heat e	xchanger]
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	-	fuel input GCV				
			JGC V				
GWP of the] 				
refrigerant		675	kg CO2eq. (100years)				
			I(100)cais)				
Contact details Mitsubis	shi heavy ir	ndustries the	ermal systen	ns,LTD			
** If Cdh is not determined by measure					oners shall be 0,25.		
*** from 26 September 2018			-				
Where information relates to multi-spilt						performan	ce
of the outdoor unit, with a combination	of indoor u	ınıt(s) recon	nmended by	tne manufacturer or	importer.		

PFA004Z088 🛕

Model FDE200VSAWTVH

Model(s): FDC200VSA-	W /	FDE71VI	H (3units)				
Outdoor side heat exchanger of ai	r-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	9		
	Prated,c	20.0	kW	cooling energy	η s,c	260.7	%
				efficiency			
Declared cooling capacity for part	load at given out	door tem	peratures	Declared energ	y efficiency ratio or gas utilizat	ion efficiency /	
Tj and indoor 27°C/19°C(dry/wet b	ulb)			auxiliary energy	factor for part load at given or	utdoor tempera	atures Tj
	Ī		1			-	1
Tj=+35°C	Pdc	20.0	kW	Tj=+35°C	EERd or	328.0	%
T. 000-	<u> </u>		1		GUEc,bin / AEFc,bin		4
Tj=+30°C	Pdc	14.7	kW	Tj=+30°C	EERd or	516.0	%
T: .05%	D. [1		GUEc,bin / AEFc,bin		4
Tj=+25°C	Pdc	9.5	kW	Tj=+25℃	EERd or	806.0	%
Ti- 120°0	Pdc	8.2	kW		GUEc,bin / AEFc,bin		4
Tj=+20°C	Fuc	0.2	KVV	Tj=+20°C	EERd or	1080.0	%
Dd-45	[1		GUEc,bin / AEFc,bin]
Degradation	04-	0.25					
coefficient for	Cdc	0.20	-				
air-conditioners**	l						
Power consumption in other than '	active mode'						
·							
Off mode	P _{OFF}	0.008	kW	Crankcase heat	ter mode P _{CK}	0.012	kW
Thermostat-off mode	P _{TO}	0.024	kW	Standby mode	P_{SB}	0.008	kW
Other items							-
	r		,	For air-to-air air	-conditioner:	8,880	m³/h
Capacity control		variable		air flow-rate,out	door measured		_
	ı		7				
Sound power level,	L _{WA}	72.0	dB				
outdoor							
	ľ		1				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides	Į		GCV				
01170 611	1		7				
GWP of the		675	kgCO2eq. (100years)				
refrigerant	l		_(.00)00.0)				
Contact details Mits	subishi heavy ind	ustries th	ermal evete	ms I TD			
** If Cdc is not determined by mea					onditioners shall be 0,25.		
*** from 26 September 2018			-		,		
Where information relates to multi-	-spilt air-conditio	ners.the to	est result ar	nd performance da	ata be obtained on the basis o	f the performan	nce
of the outdoor unit, with a combina				•		200111101	
, , , , , , , , , , , , , , , , , , , ,		. ,	~		•		

Information to identify the model(s) to wi		ormation re	elates	FDC200VSA-W /	FDE71VH (3units)		
Outdoor side heat exchanger of heat pu		air					
Indoor side heat exchanger of heat pum		air					
Indication if the heater is equipped with	a suppleme	entary heat	ter	No			
if applicable : electric motor							
Parameters shall be declared for the ave	erage heati	ing season	, paramete	rs for the warmer and o	colder heating seasons are o		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space			
	Prated,h	22.4	kW	heating energy	η s,h	178.0	%
				efficiency			
Declared heating capacity for part load a	at indoor te	mperature	20°C		of performance or gas utilization		
and outdoor temperature Tj				auxiliary energy facto	or for part load at given outdo	or temper	atures T
			_				
T _j =-7°C	Pdh	11.1	kW	T _i =-7°C	COPd or	040.0	0/
,			1	,	GUEh,bin / AEFh,bin	312.0	%
T _j =+2°C	Pdh	6.7	kW	T _i =+2°C	COPd or		1
1,-120	run	0.7]KVV	1j-12 C		495.0	%
			1		GUEh,bin / AEFh,bin		
T _j =+7°C	Pdh	6.6	kW	T _j =+7°C	COPd or	529.0	%
					GUEh,bin / AEFh,bin	020.0	/0
T _j =+12°C	Pdh	8.0	kW	T _i =+12°C	COPd or	0450	0,
,			.	,	GUEh,bin / AEFh,bin	615.0	%
T _{biv} =bivalent temperature	Pdh	12.5	kW	T _{biv} =bivalent	COPd or		1
1 biv = bivalent temperature	run	12.5]KVV			267.0	%
	5		1	temperature	GUEh,bin / AEFh,bin		4
T _{OL} =operation limit	Pdh	12.5	kW	T _{OL} =operation limit	COPd or	267.0	%
			_		GUEh,bin / AEFh,bin		
For air-to-water heat pumps :	Pdh	-	kW	For air-to-water heat	COPd or		%
T _i =-15°C				pumps:T _i =-15°C	GUEh,bin / AEFh,bin	-	70
(if T _{OL} <-20°C)				(if T _{OL} <-20°C)		<u> </u>	1
(ii 10L < 20 0)				(11 10[< 20 0)			
Division to the second section of	-	40.0	1 ₀				1
Bivalent temperature	T_{biv}	-10.0	°C	For water-to-air heat			
			-	pumps:Operation limi	it	-	°C
Degradation				T _{ol} temperature			
coefficient	C_{dh}	0.25	_				_
heat pumps**	- un						
			1				
Power consumption in modes other than	'active mo	nde		Supplementary heate	ar.		1
l ower consumption in modes other than	i active inc	Juc		back-up heating capa	einii	-	kW
O#	D	0.000	1,347	back-up fleating capa	icity		J
Off mode	P_{OFF}		kW				1
Thermostat-off mode	P_{TO}	0.030	kW	Type of energy input	Р	0.008	kW
Crankcase heater mode	P_{CK}	0.012	kW	Standby mode	P_{SB}	0.000	KVV
	OIC		1	Ctanaby mode			1
Other items							
Caron terms				For air-to-air heat pur	mns.		1 .
Capacity control		variable	1	air flow-rate,outdoor r	•	8,040	m ³ /h
		variable	J	all llow-rate,outdoor i	illeasureu		1
Sound power level,			1	For water-/brine-to-ai	r heat numns :		1
outdoor measured	L_{WA}	74.0	dB	Rated brine or water			m³/h
l dutuooi measureu			J	outdoor side heat exc		_	111-711
Emissions of nitrogen			mg/kWh	outdoor side fleat ext	Shanger]
oxides(if applicable)	NOx		fuel input				
	***	_	GCV				
			JGCV				
OMD -f-H			,				
GWP of the		675	kg CO2eq.				
refrigerant			(100years)				
			ermal syster				
** If Cdh is not determined by measuren	nent then th	ne default d	degradation	coefficient air-condition	ners shall be 0,25.		
*** from 00 Contombor 0010							

*** 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.

Model FDE200VSAWDVH

Model(s): FDC200VSA-W	/	FDE50VH	H (4units)				
Outdoor side heat exchanger of air-con-	ditioner :	air					
Indoor side heat exchanger of air-condi	tioner :	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space			
	Prated,c	20.0	kW	cooling energy	η s,c	260.7	%
				efficiency			
Declared cooling capacity for part load	at given ou	tdoor temp	peratures	Declared energy e	fficiency ratio or gas utilization e	fficiency /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fa	ctor for part load at given outdoo	or tempera	tures Tj
Tj=+35°C	Pdc	20.0	kW	Tj=+35°C	EERd or		0.4
			•		GUEc,bin / AEFc,bin	327.0	%
Tj=+30°C	Pdc	14.7	kW	Tj=+30°C	EERd or		.,
			4	, , ,	GUEc,bin / AEFc,bin	513.0	%
Tj=+25°C	Pdc	9.5	kW	Tj=+25°C	EERd or		
			1	1,7 120 0	GUEc,bin / AEFc,bin	812.0	%
Tj=+20°C	Pdc	8.5	kW	Tj=+20°C	EERd or		
			1	1]=+20 C		1080.0	%
Dogradation			1		GUEc,bin / AEFc,bin		
Degradation coefficient for	Cdc	0.25					
	Cuc	0.20	-				
air-conditioners**			1				
Power consumption in other than 'active	e mode'						
	_		1				l
Off mode	P _{OFF}	0.008	kW	Crankcase heater	-		kW
Thermostat-off mode	P _{TO}	0.024	kW	Standby mode	P_{SB}	0.008	kW
Other items					Í		.
			,	For air-to-air air-co	onditioner:	8,880	m ³ /h
Capacity control		variable]	air flow-rate,outdoo	or measured		
			,				
Sound power level,	L_WA	72.0	dB				
outdoor	WA]				
			_				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
GWP of the		675	kgCO2eq.				
refrigerant		675	(100years)				
· · · · · · · · · · · · · · · · · · ·		<u> </u>	4				
Contact details Mitsubish	ni heavy ing	dustries th	ermal syste	ms.LTD			
** If Cdc is not determined by measurer					litioners shall be 0,25.		
*** from 26 September 2018				2010	· · · · · · · · · · · · · · · · · · ·		
	nir conditi-	nore the t	net rocult co	d porformance data	he obtained on the basis of the	norforms-	
Where information relates to multi-spilt						penorman	UE .
of the outdoor unit, with a combination of	ווומססר ur	III(S) recor	iiiiienaea b	y me manutacturer c	л шроцег.		

Information to identify the model(s) to	which the inf	formation re	elates	FDC200VSA-W /	FDE50VH (4units)		
Outdoor side heat exchanger of heat p		air	ciatos	1 00200 07(11/2	1 BEOUVIT (Hariito)		
Indoor side heat exchanger of heat put		air					
Indication if the heater is equipped with	n a supplem	entary heat	ter	No			
if applicable : electric motor							
Parameters shall be declared for the a Item	verage neat Symbol	ing season Value	, paramete Unit	Item	Symbol	ptional. Value	Unit
Rated heating capacity	Зуппоп	Value	Onit	Seasonal space	Symbol	Value	Offic
Tutou Housing Supusity	Prated,h	22.4	kW	heating energy efficiency	η s,h	178.1	%
Declared heating capacity for part load and outdoor temperature Tj	at indoor te	emperature	2CC		of performance or gas utiliza or for part load at given outdo		
T _j =-7°C	Pdh	11.1	kW	T _j =-7°C	COPd or GUEh,bin / AEFh,bin	327.0	%
T _j =+2°C	Pdh	6.7	kW	T _j =+2°C	COPd or GUEh,bin / AEFh,bin	507.0	%
T _j =+7°C	Pdh	6.6	kW	T _j =+7°C	COPd or GUEh,bin / AEFh,bin	502.0	%
T _j =+12°C	Pdh	7.9	kW	T _j =+12°C	COPd or GUEh,bin / AEFh,bin	575.0	%
T _{biv} =bivalent temperature	Pdh	12.5	kW	T _{biv} =bivalent temperature	COPd or GUEh,bin / AEFh,bin	278.0	%
T _{OL} =operation limit	Pdh	12.5	kW	T _{OL} =operation limit	COPd or GUEh,bin / AEFh,bin	278.0	%
For air-to-water heat pumps : T _i =-15°C	Pdh	-	kW	For air-to-water heat pumps:T _j =-15°C	COPd or GUEh,bin / AEFh,bin	-	%
(if T _{OL} <-20°C)				(if T _{OL} <-20°C)			_
Bivalent temperature	T_{biv}	-10.0]℃	For water-to-air heat pumps:Operation lim		_	ြင
Degradation			1	T _{ol} temperature			
coefficient	C_{dh}	0.25	-				
heat pumps**	dii]				
Power consumption in modes other that	an 'active mo	ode		Supplementary heater back-up heating capa	elnii	-	kW
Off mode	P_{OFF}	0.008	kW	back-up neating cape	acity		_
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input]
Crankcase heater mode	P _{CK}	0.012	kW	Standby mode	P_SB	0.008	kW
Other items							
Capacity control		variable]	For air-to-air heat pur air flow-rate,outdoor	•	8,040	m³/h
Sound power level, outdoor measured	L_WA	74.0	dB	For water-/brine-to-ai	flow-rate,	-	m³/h
Emissions of nitrogen oxides(if applicable)	NOx ***	-	mg/kWh fuel input GCV	outdoor side heat exc	changer		J
GWP of the refrigerant		675	kg CO2eq. (100years)				
Contact details Mitsubis	shi heavy inc ment then the				ners 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.

Model FDE250VSAWDVH

Model(s): FDC250VSA-		FDE60VI	H (4units)				
Outdoor side heat exchanger of air		air					
Indoor side heat exchanger of air-o	conditioner :	air					
Type: vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item .	Symbol	Value	Unit
Rated cooling capacity	Prated,c	25.0	kW	Seasonal space cooling energy efficiency	η s,c	274.6	%
Declared cooling capacity for part Tj and indoor 27°C/19°C(dry/wet b	•	tdoor tem	peratures		efficiency ratio or gas utilization actor for part load at given outd	-	
Tj=+35°C	Pdc	25.0	kW	Tj=+35°C	EERd or GUEc,bin / AEFc,bin	328.0	%
Tj=+30°C	Pdc	18.4	kW	Tj=+30°C	EERd or GUEc,bin / AEFc,bin	532.0	%
Tj=+25°C	Pdc	11.8	kW	Tj=+25°C	EERd or GUEc,bin / AEFc,bin	781.0	%
Tj=+20°C	Pdc	7.8	kW	Tj=+20°C	EERd or GUEc,bin / AEFc,bin	1340.0	%
Degradation							_
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other than '	active mode'	0.009	kW	Crankcase heater	mode P _{CK}	0.012	kW
Thermostat-off mode	P_{TO}	0.027	kW	Standby mode	P_SB	0.009	kW
Other items				For air-to-air air-co	onditioner:		1
Capacity control		variable		air flow-rate,outdo		8880	m ³ /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		675	kgCO2eq.				
refrigerant			(100years)				
Contact datails	ushiohi hasaaa !	luoteia - 1º	ormel a t				
Contact details Mits ** If Cdc is not determined by mea	subishi heavy inc				itioners shall be 0.25		
-		io uciaull	. acgrauatioi	. Socialistic dii-collu	moners shall DC 0,20.		
*** from 26 September 2018	onilt oir carrells	nore H '	oot recult -	d norforment - 4-4	he obtained on the basis of the	norfe	
Where information relates to multi-						e регтогтаn	ce
of the outdoor unit, with a combina	uion of Indoor un	III(S) FECOI	mmenaea by	, uie manutacturer o	і іпірогіег.		

Information to identify the model(s) to which the information relates : FDC250VSA-W / FDE60VH (4units)											
Outdoor side heat exchanger of heat pu		air			, ,						
Indoor side heat exchanger of heat pun		air									
Indication if the heater is equipped with	a supplen	nentary hea	ater:	No							
if applicable : electric motor											
Parameters shall be declared for the av	erage hea	ting seasor	n , paramete	rs for the warmer and	d colder heating seasons are op	otional.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heating capacity				Seasonal space							
	Prated,h	28.0	kW	heating energy	η s,h	179.1	%				
		<u> </u>	2202	efficiency			L ,				
Declared heating capacity for part load	at indoor t	emperature	e 20 ℃		t of performance or gas utilizati						
and outdoor temperature Tj				auxiliary energy fac	tor for part load at given outdoo	or tempera	itures 1				
_			,				,				
T _j =-7°C	Pdh	12.6	kW	T _j =-7°C	COPd or	304.0	%				
		•			GUEh,bin / AEFh,bin	004.0	/0				
T _j =+2°C	Pdh	7.7	kW	T _i =+2°C	COPd or	440.0	0/				
,			1	,	GUEh,bin / AEFh,bin	442.0	%				
T _j =+7°C	Pdh	5.2	kW	T _i =+7°C	COPd or		1				
,,,,,	1 411	3.2	1	11, 17 0		591.0	%				
T _j =+12°C	Dale		TLAAZ	T-140°0	GUEh,bin / AEFh,bin		1				
1 _j =+12 C	Pdh	6.2	kW	T _j =+12°C	COPd or	728.0	%				
	Б. II		1, , , ,		GUEh,bin / AEFh,bin		-				
T _{biv} =bivalent temperature	Pdh	14.2	kW	T _{biv} =bivalent	COPd or	275.0	%				
			<u>,</u>	temperature	GUEh,bin / AEFh,bin						
T _{OL} =operation limit	Pdh	15.1	kW	T _{OL} =operation limit	COPd or	203.0	%				
			•		GUEh,bin / AEFh,bin	203.0	70				
For air-to-water heat pumps :	Pdh	-	kW	For air-to-water heat	COPd or		0/				
T _j =-15°C				pumps:T _i =-15°C	GUEh,bin / AEFh,bin	-	%				
(if T _{OL} <-20°C)				(if T _{OL} <-20°C)			1				
(OL (= 0)				(OL (= 0 0)							
Bivalent temperature	T_biv	-10.0	l°c	For water-to-air hea	nt .		1				
Divalent temperature	I biv	-10.0	1 ~				00				
			, l	pumps:Operation lir	mit	-	°C				
Degradation				T _{ol} temperature]				
coefficient	C_{dh}	0.25	-								
heat pumps**			1								
							_				
Power consumption in modes other that	n 'active n	node'		Supplementary hea	einii	_	kW				
			,	back-up heating cap	pacity]				
Off mode	P_{OFF}	0.009	kW								
Thermostat-off mode	P_{TO}	0.032	kW	Type of energy inpu	ıt _		1				
Crankcase heater mode	P _{CK}	0.012	kW	Standby mode	P _{SB}	0.009	kW				
Granicado ficator modo	· CK	0.012	1	Staridby mode			J				
Other items											
				For air-to-air heat p	umps:		2 //-				
Capacity control		variable	ī l	air flow-rate,outdoor	•	9180	m ³ /h				
		Tarrabio	1				J				
Sound power level,		75.0	-ID	For water-/brine-to-a	air heat pumps :		1				
outdoor measured	L_{WA}	75.0	dB	Rated brine or wate	er flow-rate,	-	m³/h				
			-	outdoor side heat ex	xchanger						
Emissions of nitrogen	NOx		mg/kWh				•				
oxides(if applicable)	***	-	fuel input								
			GCV								
			, I								
GWP of the		675	kg CO2eq.								
refrigerant			(100years)								
O		alcount to the									
			ermal systen								
** If Cdh is not determined by measurer	ment then	tne default	degradation	coefficient air-conditi	ioners shall be 0,25.						
*** from 26 September 2018	ala e !!!!			d manfance 1 1 1 1	a abtained on the high St						
Where information relates to multi-spilt						pertorman	ce				
of the outdoor unit, with a combination of	ווועטטויו וכ	mm(s) recor	mnended by	une manufacturer of	importer.						

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Model FDE280VSAWDVH

Model(s): FDC280V		FDE71VH	l (4units)				
Outdoor side heat exchanger		air					
Indoor side heat exchanger of Type : vapour compression		air					
Type: vapour compression if applicable: electric m							
		Makes	11-24	14	O) / = l	1.1-24
Item	Symbol	Value	Unit	Item Seasonal space	Symbol	Value	Unit
Rated cooling capacity	Prated,c	27.0	kW	cooling energy efficiency	η s,c	252.0	%
Declared cooling capacity for Tj and indoor 27°C/19°C(dry/w	-	itdoor temp	peratures		efficiency ratio or gas utilizatio factor for part load at given out	-	itures Tj
Tj=+35°C	Pdc	27.0	kW	Tj=+35℃	EERd or GUEc,bin / AEFc,bin	306.0	%
Tj=+30°C	Pdc	19.9	kW	Tj=+30°C	EERd or GUEc,bin / AEFc,bin	478.0	%
Tj=+25°C	Pdc	12.8	kW	Tj=+25℃	EERd or GUEc,bin / AEFc,bin	762.0	%
Tj=+20°C	Pdc	8.2	kW	Tj=+20°C	EERd or GUEc,bin / AEFc,bin	1092.0	%
Degradation							4
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other the	nan 'active mode' P _{OFF}	0.009	kw	Crankcase heate	ermode P _{CK}	0.012	lkW
Thermostat-off mode	P _{TO}	0.032	kW	Standby mode	P _{SB}	0.009	kW
Other items							1
Capacity control		variable		For air-to-air air-		8160	m ³ /h
Sound power level, outdoor	L_WA	75.0	dB				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
GWP of the		675	kgCO2eq.				
refrigerant			(100years)				
	I			. ==			
Contact details ** If Cdc is not determined by	Mitsubishi heavy income measurement then to				ditioners shall be 0.25		
*** from 26 September 2018							
•	nulti-spilt air-conditio	ners the te	est result and	l performance date	a be obtained on the basis of th	ne performan	ce
of the outdoor unit, with a com						.c ponomian	
saassa ain, min a con		(5) 10001	on by				

Information to identify the model(s) to w			elates :	FDC280VSA-W /	FDE71VH (4units)		
Outdoor side heat exchanger of heat pure Indoor side heat exchanger of heat pure		air air					
Indication if the heater is equipped with			itor:	No			
if applicable : electric motor	a supplet	icilial y fica	itei .	140			
Parameters shall be declared for the av	erage hea	ting seasor	n paramete	rs for the warmer and	colder heating seasons are or	otional	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space			
3 11 3	Prated,h	30.0	kW	heating energy	η s,h	161.3	%
				efficiency	•		
Declared heating capacity for part load	at indoor to	emperature	20°C	Declared coefficient	t of performance or gas utilizati	on efficien	icy /
and outdoor temperature Tj				auxiliary energy fac	tor for part load at given outdoo	or tempera	itures Tj
							_
T _j =-7°C	Pdh	14.2	kW	T _j =-7°C	COPd or	302.0	%
			•		GUEh,bin / AEFh,bin	302.0	70
T _j =+2°C	Pdh	8.7	kW	T _i =+2°C	COPd or		
,			ı	'	GUEh,bin / AEFh,bin	380.0	%
T _j =+7°C	Pdh	5.8	kW	T _i =+7°C	COPd or		1
1, ., 0	i dii	3.0]'``'	1, ., .		536.0	%
T = 142°C	Dale		1.34	T-140°0	GUEh,bin / AEFh,bin		1
T _j =+12°C	Pdh	6.9	kW	T _j =+12°C	COPd or	716.0	%
			1		GUEh,bin / AEFh,bin		
T _{biv} =bivalent temperature	Pdh	16.0	kW	T _{biv} =bivalent	COPd or	236.0	%
				temperature	GUEh,bin / AEFh,bin		
T _{OL} =operation limit	Pdh	16.0	kW	T _{OL} =operation limit	COPd or	236.0	%
			•		GUEh,bin / AEFh,bin	230.0	70
For air-to-water heat pumps :	Pdh	-	kW	For air-to-water heat	COPd or		0,
T _i =-15°C			•	pumps:T _i =-15°C	GUEh,bin / AEFh,bin	-	%
(if T _{OL} <-20°C)				(if T _{OL} <-20°C)			1
(II 10L < 20 0)				(11 10) (20 0)			
Divolent temperature	т	40.0	°c				1
Bivalent temperature	T_{biv}	-10.0		For water-to-air hea			00
			,	pumps:Operation lir	nit	-	°C
Degradation				T _{ol} temperature]
coefficient	C_{dh}	0.25	-				
heat pumps**							
			-"				
							1
Power consumption in modes other tha	n 'active m	node'		Supplementary hea	einii	_	kW
			1	back-up heating cap	pacity		1
Off mode	P_{OFF}	0.009	kW				_
Thermostat-off mode	P_{TO}	0.032	kW	Type of energy inpu	ıt n		
Crankcase heater mode	P_{CK}	0.012	kW	Standby mode	P _{SB}	0.009	kW
Granicase neater mode	· CK	0.012],,,,	Staridby mode			1
Other items							
Other Remo				For air-to-air heat p	ilmus.		1 .
Capacity control		variable	1	air flow-rate,outdoor	•	8400	m ³ /h
		variable	J	all now-rate,outdoor	measured		1
Sound power level,			1	For water-/brine-to-	air heat pumps :		1
outdoor measured	L_{WA}	77.0	dB	Rated brine or wate		_	m ³ /h
			ı	outdoor side heat ex			
Emissions of nitrogen	NO		mg/kWh		ŭ		1
oxides(if applicable)	NOx ***	-	fuel input				
			GCV				
			•				
GWP of the		675	kg CO2eq.				
refrigerant		675	(100years)				
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Contact details Mitsubisl	ni heavy in	dustries the	ermal systen	ns,LTD			
** If Cdh is not determined by measurer					oners shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt	air-conditio	oners,the te	est result and	d performance data be	e obtained on the basis of the p	performan	ce
of the outdoor unit, with a combination							

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Models FDE50VH, 60VH, 71VH, 100VH, 125VH, 140VH

Model(s) : FDE50VH										
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Cooling capacity (sensible)	$P_{rated,c}$	3.8	kW	Total electric power input	P_{elec}	0.050	kW			
Cooling capacity (latent)	P _{rated,c}	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	litsubishi heavy industries thermal systems,LTD								

Model(s): FDE60VH										
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Cooling capacity (sensible)	$P_{rated,c}$	5.0	kW	Total electric power input	P_{elec}	0.080	kW			
Cooling capacity (latent)	P _{rated,c}	0.6	kW	Sound power level (per speed setting,if applicable)	L _{WA}	60.0	dB			
Heating capacity	$P_{rated,h}$	6.7	kW							
Contact details	Mitsubishi h	litsubishi heavy industries thermal systems,LTD								

Model(s) : FDE71VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	U
Cooling capacity (sensible)	$P_{rated,c}$	5.6	kW	Total electric power input	P _{elec}	0.080	k۱
Cooling capacity (latent)	P _{rated,c}	1.5	kW	Sound power level (per speed setting,if applicable)	L _{WA}	60.0	dE
Heating capacity	$P_{\text{rated,h}}$	8.0	kW				
Contact details	Mitsubishi	heavy ind	ustries the	ermal systems,LTD			

Model(s): FDE100VH										
Item	Symbol	Value	Unit	Item	Symbol	Value	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 _{WA}	64.0	dB			
Heating capacity	$P_{rated,h}$	11.2	kW							
Contact details	Mitsubishi	litsubishi heavy industries thermal systems,LTD								

Model(s): FDE125VH									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Cooling capacity (sensible)	$P_{rated,c}$	9.3	kW	Total electric power input	P_{elec}	0.130	kW		
Cooling capacity (latent)	P _{rated,c}	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	itsubishi heavy industries thermal systems,LTD							

Model(s): FDE140VH									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Cooling capacity (sensible)	$P_{rated,c}$	10.2	kW	Total electric power input	P_{elec}	0.140	kW		
Cooling capacity (latent)	P _{rated,c}	3.8	kW	Sound power level (per speed setting,if applicable)	L_WA	65.0	dB		
Heating capacity	$P_{rated,h}$	16.0	kW						
Contact details	Mitsubishi h	Mitsubishi heavy industries thermal systems,LTD							

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(6) Wall mounted type(SRK) Model SRK200VSAWPZR

Model(s): FDC200VSA-W / SRK100ZR-W(x2 units)									
Outdoor side heat exchanger of air-conditioner : air									
Indoor side heat exchanger of air-conditioner : air									
Type: vapour compression									
if applicable : electric mot	or								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated cooling capacity				Seasonal space					
	Prated,c	20.0	kW	cooling energy	η s,c	229.7	%		
				efficiency					
Declared cooling capacity for part	load at given outdoor	temperatur	res	Declared energy	efficiency ratio or gas utilization	efficiency /			
Tj and indoor 27°C/19°C(dry/wet b	_	·		auxiliary energy	factor for part load at given outdo	or temperatures	ij		
Tj=+35°C	Pdc	20.0	kW	Tj=+35°C	EERd or				
,]	1]=+35 C		272.0	%		
Tj=+30°C	Pdc	14.7	kW	Tj=+30°C	GUEc,bin / AEFc,bin				
,]	1]-+30 C	EERd or	481.0	%		
Tj=+25°C	Pdc	9.5	kW	T:- 125°0	GUEc,bin / AEFc,bin				
., -20 0	. 40		1	Tj=+25°C	EERd or	727.0	%		
Tj=+20°C	Pdc	7.2	kW	T: .00°C	GUEc,bin / AEFc,bin				
1,-1200	i do	1.2	IVAA	Tj=+20°C	EERd or	850.0	%		
Dd-4:			, l		GUEc,bin / AEFc,bin				
Degradation		0.25							
coefficient for	Cdc	0.25	-						
air conditioners**]						
Power consumpiton in other than '	active mode'								
	_		1		_				
Off mode	P _{OFF}	0.008	kW	Crankcase heate		0.012	kW		
Thermostat-off mode	P_{TO}	0.024	kW	Standby mode	P_{SB}	0.008	kW		
Other items									
			1	For air-to-air air-	conditioner:	8880	m³/h		
Capacity control		variable]	air flow-rate,outd	loor measured				
			1						
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		675	kg CO2eq.						
refrigerant			(100years)						
Contact details	Mitsubishi heavy indu	stries therm	nal systems,L	TD					
** If Cdc is not determined by mea	surement then the de	fault degra	dation coeffic	eient air-conditione	rs 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 ob	otained on the basis of the perform	mance			
of the outdoor unit, with a combina	•				•				
	(0)								

Information to identify the model(s) to which the	e information	relates :						
Outdoor side heat exchanger of heat pump : air								
Indoor side heat exchanger of heat pump :		air						
Indication if the heater is equipped with a supp	lementary hea			N	lo			
if applicable : electric motor								
Parameters shall be declared for the average	heating seaso	n , paramete	ers for the w	armer and c	older heating seasons	are optional.		
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heating capacity					Seasonal space	•		
3,	Prated,h	22.4	kW		heating energy	η s,h	171.5	%
					efficiency			
Declared heating capacity for part load at indo	or temperatur	e 20°C			Declared coefficient of	f performance or gas utilization	on efficiency /	·
and outdoor temperature Tj					auxiliary energy factor	for part load at given outdoo	or temperatures Tj	
T _j =-7°C	Pdh	11.1	kW		T _j =-7°C	COPd or	271.0	%
						GUEh,bin / AEFh,bin	271.0	70
T _j =+2°C	Pdh	6.8	kW		T _j =+2°C	COPd or	477.0	%
						GUEh,bin / AEFh,bin	477.0	70
T _j =+7°C	Pdh	6.6	kW		T _j =+7°C	COPd or	530.0	%
						GUEh,bin / AEFh,bin		,,,
T _j =+12°C	Pdh	8.0	kW		T _j =+12°C	COPd or	643.0	%
						GUEh,bin / AEFh,bin	340.0	
T _{biv} =bivalent temperature	Pdh	12.5	kW		T _{biv} =bivalent	COPd or	256.0	%
					temperature	GUEh,bin / AEFh,bin		
T _{OL} =operation limit	Pdh	12.5	kW		T _{OL} =operation limit	COPd or	256.0	%
						GUEh,bin / AEFh,bin		<u>ا</u> `` ا
For air-to-water heat pumps :	Pdh	-	kW		For air-to-water heat	COPd or	_	%
T _j =-15°C					pumps:T _j =-15°C	GUEh,bin / AEFh,bin		
(if T_{OL} <-20°C)					(if T _{OL} <-20°C)			
	i							_
Bivalent temperature	T_biv	-10.0	°C		For water-to-air heat			
	ı				pumps:Operation limit		-	°C
Degradation					T _{ol} temperature			
coefficient	C_{dh}	0.25	-					
heat pumps**								
								_
Power consumpiton in modes other than 'activ	e mode'				Supplementary heater	-	elbu -	kW
	1				back-up heating capac	city		
Off mode	P _{OFF}		kW					٦
Thermostat-off mode	P _{TO}		kW		Type of energy input		P _{SB} 0.008	kW
Crankcase heater mode	P _{CK}	0.012	kW		Standby mode			
Other items								_
	ı	1			For air-to-air heat pum	nps:	8040	m³/h
Capacity control		variable			air flow-rate,outdoor m	neasured		
	ĺ							_
Sound power level,	L_{WA}	74.0	dB		For water-/brine-to-air	heat pumps :		0.0
outdoor measured					Rated brine or water fi	iow-rate,	-	m³/h
	i				outdoor side heat exch	nanger		
Emissions of nitrogen	NOx		mg/kWh					
oxides(if applicable)	***		fuel input					
			GCV					
	ı							
GWP of the		675	kg CO2eq. (100years)					
refrigerant			()					
	heavy industr				are shall be 0.05			
** If Cdh is not determined by measurement th	en me detault	uegradation	coemicient	air-condition	iers snaii de 0,25.			
*** from 26 September 2018								
Where information relates to multi-spilt air-cor						f the performance		
of the outdoor unit, with a combination of indoo	or unit(s) recor	mmended by	the manufa	acturer or im	porter.			

PCA001Z857 🛝

Model SRK100ZR-W

Model(s): SRK100ZR-W									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Cooling capacity (sensible)	$P_{rated,c}$	7.4	kW	Total electric power input	P_{elec}	0.060	kW		
Cooling capacity (latent)	P _{rated,c}	2.6	kW	Sound power level (per speed setting,if applicable)	L_{WA}	63.0	dB		
Heating capacity	$P_{rated,h}$	11.2	kW						
Contact details	Mitsubishi h	Mitsubishi heavy industries thermal systems,LTD							

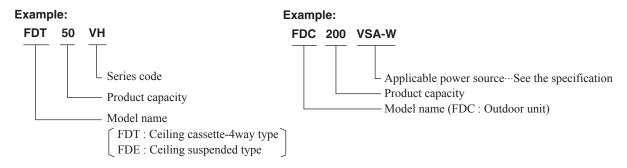
2. V MULTI SYSTEM

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2.1 GENERAL INFORMATION

2.1.1 How to read the model name



2.1.2 Table of models

Model Capacity	50	60	71	100	125	140
Ceiling cassette-4way type (FDT)	0	0	0	0	0	0
Ceiling suspended type (FDE)	0	0	0	0	0	0
Outdoor unit to be combined (FDC)	FDC200VSA- FDC250VSA- FDC280VSA-	W (10 HP)				

2.1.3 Table of system combinations

Outdoor unit	Туре	Indoor unit assembly capacity	Branch pipe set (Option)
	Twin	100+100	DIS-WB1G
	1 WIII	71+125	DIS-WIIG
FDC200VSA-W	Triple	71+71+71	DIS-TB1G or DIS-WA1G×1set DIS-WB1G×1set
	Double twin	50+50+50+50	DIS-WA1G×2set DIS-WB1G×1set
	Twin	125+125	DIS-WB1G
		60+60+125	DIS-TB1G or
FDC250VSA-W	Triple	71+71+100	DIS-WA1G×1set DIS-WB1G×1set
	Double twin	60+60+60+60	DIS-WA1G×2set DIS-WB1G×1set
	Twin	140+140	DIS-WB1G
FDC280VSA-W	Triple	71+71+140	DIS-TB1G or DIS-WA1G×1set DIS-WB1G×1set
	Double twin	71+71+71	DIS-WA1G×2set DIS-WB1G×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.

2.2 SPECIFICATIONS

(1) Indoor units

(a) Ceiling cassette-4 way type (FDT)

Item			Model	FDT50VH		
Power source	ce			1 Phase 220-240V 50Hz / 220V 60Hz		
Nominal cooling capacity		kW	5.0			
	Nominal heating capacit	У	kW	5.4		
		Cooling		55		
Operation	Sound power level	Heating		56		
data		Cooling	dB(A)	P-Hi: 41 Hi: 33 Me: 30 Lo: 26		
	Sound pressure level	Heating	' '	P-Hi: 42 Hi: 33 Me: 28 Lo: 20		
	Silent mode sound press			-		
				Unit 236 × 840 × 840		
Exterior dim	nensions (Height x Width	k Depth)	mm	Panel 35 × 950 × 950		
Exterior app				Fine snow		
(Munsell co				(8.0Y9.3/0.1) near equivalent		
(RAL color				(RAL 9003) near equivalent		
(NAL COIOI)			, , ,		
Net weight			kg	Unit 19		
				Panel 5		
Heat exchar				Louver fin & inner grooved tubing		
Fan type &			144	Turbo fan ×1		
Fan motor (Starting method)		W	50 < Direct line start >		
Air flow Cooling Heating		m³/min	P-Hi: 22 Hi: 16 Me: 13 Lo: 10			
Available ex	ternal static pressure		Pa	0		
Outside air i	intake			Possible		
Air filter, Qu	ality / Quantity			Pocket plastic net ×1(Washable)		
Shock & vib	oration absorber			Rubber sleeve(for fan motor)		
Electric hea	ter		W			
<u> </u>	Remote control			(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-T-5BW-E2		
Operation	Room temperature cont	ol		Thermostat by electronics		
control	Operation display			_		
				Internal thermostat for fan motor.		
Safety equip	pments			Frost protection thermostat		
				Liquid line: φ 6.35 (1/4")		
	Refrigerant piping size (O.D.)	mm –	Gas line: ϕ 12.7 (1/2")		
Installation	Connecting method			Flare piping		
data	Attached length of pipin		m			
	Insulation for piping	3		Necessary (both Liquid & Gas lines)		
	Drain hose			Hose connectable VP25(O.D.32)		
Drain nose Drain pump, max lift height		mm	Built-in drain pump, 850			
Drain pump IP number	, max iiit neignt		111111	IPX0		
Standard ac				Mounting kit, Drain hose		
Option parts	S 1) The data are manaured			Motion sensor : LB-T-5BW-E		

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

. ,		•			
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	ISO5151-H1

⁽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	FDT60VH		
Power source	ce			1 Phase 220-240V 50Hz / 220V 60Hz		
Nominal cooling capacity		kW	5.6			
	Nominal heating capacit		kW	6.7		
		Cooling		58		
Operation	Sound power level	Heating	1	59		
data		Cooling	dB(A)	P-Hi: 44 Hi: 34 Me: 30 Lo: 27		
	Sound pressure level	Heating	(7	P-Hi: 44 Hi: 34 Me: 30 Lo: 23		
	Silent mode sound press		1	_		
				Unit 236 × 840 × 840		
Exterior dim	ensions (Height x Width:	x Depth)	mm	Panel 35 × 950 × 950		
F. davidan and				Fine snow		
Exterior app (Munsell co				(8.0Y9.3/0.1) near equivalent		
(RAL color)	olor)			(8.0 r 9.3/0. r) near equivalent (RAL 9003) near equivalent		
(RAL COIOI)					
Net weight			kg	Unit 21		
			J J	Panel 5		
Heat exchar				Louver fin & inner grooved tubing		
Fan type & 0				Turbo fan ×1		
Fan motor (Starting method)		W	50 < Direct line start >			
Air flow Cooling Heating		m³/min	P-Hi:26 Hi:17 Me:14 Lo:11			
Available ex	ternal static pressure	, ,	Pa	0		
Outside air i	intake			Possible		
Air filter, Qu	ality / Quantity			Pocket plastic net ×1(Washable)		
	oration absorber			Rubber sleeve(for fan motor)		
Electric hea	ter	-	w	_		
	Remote control			(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-T-5BW-E2		
Operation	Room temperature cont	rol		Thermostat by electronics		
control	Operation display			_		
				Internal thermostat for fan motor.		
Safety equip	oments			Frost protection thermostat		
				Liquid line: ϕ 6.35 (1/4")		
	Refrigerant piping size (O.D.)	mm -	Gas line: ϕ 12.7 (1/2")		
Installation	Connecting method			Flare piping		
data	Attached length of pipin		m	i iale pipilig		
uala	Insulation for piping	9	m	Necessary (both Liquid & Gas lines)		
	Drain hose			Hose connectable VP25(O.D.32)		
Drain nose Drain pump, max lift height			,			
	, max lirt neight		mm	Built-in drain pump, 850		
IP number				IPX0		
Standard ac				Mounting kit, Drain hose		
Option parts	S			Motion sensor : LB-T-5BW-E		

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	ISO5151-H1	

⁽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	FDT71VH		
Power sour	ce			1 Phase 220-240V 50Hz / 220V 60Hz		
	Nominal cooling capacit	V	kW	7.1		
	Nominal heating capacit		kW	8.0		
		Cooling		59		
Operation	Sound power level	Heating	1	60		
data		Cooling	dB(A)	P-Hi: 46 Hi: 34 Me: 31 Lo: 26		
	Sound pressure level	Heating	(7	P-Hi: 46 Hi: 34 Me: 31 Lo: 26		
	Silent mode sound press		1	_		
				Unit 236 × 840 × 840		
Exterior dim	nensions (Height x Width :	x Depth)	mm	Panel 35 × 950 × 950		
Fortanian and				Fine snow		
Exterior app (Munsell co				(8.0Y9.3/0.1) near equivalent		
(RAL color	olor)			(8.0 r 9.3/0. r) near equivalent (RAL 9003) near equivalent		
(RAL COIOI)					
Net weight			kg	Unit 21		
				Panel 5		
Heat exchar				Louver fin & inner grooved tubing		
Fan type &				Turbo fan ×1		
Fan motor (Starting method)			W	50 < Direct line start >		
Air flow Cooling Heating		m³/min	P-Hi:28 Hi:18 Me:15 Lo:12			
Available ex	ternal static pressure		Pa	0		
Outside air	intake			Possible		
Air filter, Qu	ality / Quantity			Pocket plastic net ×1(Washable)		
Shock & vib	ration absorber			Rubber sleeve(for fan motor)		
Electric hea	ter		W			
	Remote control			(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-T-5BW-E2		
Operation	Room temperature conti	rol		Thermostat by electronics		
control	Operation display			_		
0 ()				Internal thermostat for fan motor.		
Safety equip	oments			Frost protection thermostat		
				Liquid line: φ 9.52 (3/8")		
	Refrigerant piping size (O.D.)	mm	Gas line: φ 15.88 (5/8")		
Installation	Connecting method			Flare piping		
data	Attached length of piping	n	m	——————————————————————————————————————		
	Insulation for piping	9		Necessary (both Liquid & Gas lines)		
	Drain hose			Hose connectable VP25(O.D.32)		
Drain pump, max lift height		mm	Built-in drain pump, 850			
IP number	, max iiit neigiit		111111	IPX0		
Standard ac	coccorios			Mounting kit, Drain hose		
				Motion sensor : LB-T-5BW-E		
Option parts	S			IVIOLIOTI SETISOT : LD-1-3DVV-E		

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	ISO5151-H1	

⁽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	FDT100VH	
Power sour	rce			1 Phase 220-240V 50Hz / 220V 60Hz	
Nominal cooling capacity		kW	10.0		
	Nominal heating capacit		kW	11.2	
Operation	Sound power level	Cooling Heating		62	
data	0	Cooling	dB(A)	P-Hi: 47 Hi: 39 Me: 36 Lo: 30	
	Sound pressure level	Heating	1	P-Hi: 47 Hi: 39 Me: 36 Lo: 29	
	Silent mode sound press		1 [-	
Exterior din	nensions (Height × Width	× Depth)	mm	Unit 298 × 840 × 840 Panel 35 × 950 × 950	
Exterior app	pearance			Fine snow	
(Munsell co	olor)			(8.0Y9.3/0.1) near equivalent	
(RAL color	.)			(RAL 9003) near equivalent	
Net weight			kg	Unit 25	
iver weight			ky	Panel 5	
Heat excha	anger			Louver fin & inner grooved tubing	
Fan type &				Turbo fan ×1	
Fan motor (Starting method)		W	140 < Direct line start >		
Air flow Cooling Heating		m³/min	P-Hi: 37 Hi: 26 Me: 23 Lo: 17		
Available ex	xternal static pressure	•	Pa	0	
Outside air	intake			Possible	
Air filter, Qu	uality / Quantity			Pocket plastic net ×1 (Washable)	
Shock & vik	bration absorber			Rubber sleeve (for fan motor)	
Electric hea	ater		W	-	
0	Remote control			(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-T-5BW-E2	
Operation	Room temperature contr	rol		Thermostat by electronics	
control	Operation display			-	
0 ()				Internal thermostat for fan motor	
Safety equi	ipments			Frost protection thermostat	
	D (: /	0.0.)		Liquid line: φ 9.52 (3/8")	
	Refrigerant piping size (O.D.)	mm	Gas line: φ 15.88 (5/8")	
Installation	Connecting method			Flare piping	
data	Attached length of piping	g	m	_	
	Insulation for piping	-		Necessary (both Liquid & Gas lines)	
	Drain hose			Hose connectable VP25 (O.D.32)	
Drain pump	o, max lift height		mm	Built-in drain pump, 850	
IP number	, - J			IPX0	
Standard a	ccessories			Mounting kit, Drain hose	
Option part				Motion sensor : LB-T-5BW-E	
	The data are measured a	t the followi	na condit	ions. The pipe length is 7.5m	

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°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	ISO5151-H1

- (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.

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Item			Model	FDT125VH		
Power sour	ce			1 Phase 220-240V 50Hz / 220V 60Hz		
Nominal cooling capacity		kW	12.5			
	Nominal heating capacit		kW	14.0		
	<u> </u>	Cooling		63		
Operation	Sound power level	Heating		64		
data		Cooling	dB(A)	P-Hi: 48 Hi: 41 Me: 39 Lo: 31		
	Sound pressure level	Heating	""	P-Hi: 48 Hi: 41 Me: 38 Lo: 31		
	Silent mode sound press		-	-		
	· · · · · · · · · · · · · · · · · · ·			Unit 298 × 840 × 840		
Exterior dim	nensions (Height × Width	× Depth)	mm	Panel 35 × 950 × 950		
Exterior app	nearance			Fine snow		
(Munsell co				(8.0Y9.3/0.1) near equivalent		
(RAL color				(RAL 9003) near equivalent		
,	,			Unit 25		
Net weight			kg	Panel 5		
Heat excha	ınger			Louver fin & inner grooved tubing		
Fan type &				Turbo fan ×1		
	(Starting method)		W	140 < Direct line start >		
Air flow Cooling Heating		m³/min	P-Hi:38 Hi:28 Me:25 Lo:18			
Available ex	xternal static pressure	riodaiiig	Pa	0		
Outside air				Possible		
	ality / Quantity			Pocket plastic net ×1 (Washable)		
	oration absorber			Rubber sleeve (for fan motor)		
Electric hea			w	— (101 101 11 11 11 11 11 11 11 11 11 11 11		
	Remote control			(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-T-5BW-E2		
Operation	Room temperature contr	വ		Thermostat by electronics		
control	Operation display	-				
				Internal thermostat for fan motor		
Safety equi	pments			Frost protection thermostat		
				Liquid line: ϕ 9.52 (3/8")		
	Refrigerant piping size (O.D.)	mm -	Gas line: ϕ 15.88 (5/8")		
Installation	Connecting method			Flare piping		
data	Attached length of piping		m	——————————————————————————————————————		
aatu	Insulation for piping	3		Necessary (both Liquid & Gas lines)		
	Drain hose			Hose connectable VP25 (O.D.32)		
Drain pump, max lift height		mm	Built-in drain pump, 850			
IP number	, max iiit noigiit		111111	IPX0		
Standard ad	ccessories			Mounting kit, Drain hose		
Option part				Motion sensor : LB-T-5BW-E		
	The data are measured a	t the followi	na conditi			

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°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	ISO5151-H1

- (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.

PJF000Z731 🛕

Item				Model			FDT140VH			
Power sou	Power source						1 Phase 220-240V 50Hz / 220V 60Hz			
Nominal cooling capacity			kW			14.0				
		ating capacity		kW		16.0				
			Cooling				63			
Operation	Sound pow	er level	Heating	İ			64			
data			Cooling	dB(A)			P-Hi: 48 Hi: 42 Me: 39 Lo: 32			
	Sound pres	sure level	Heating	4200			P-Hi: 48 Hi: 41 Me: 38 Lo: 31			
	Silent mode	sound pressu		1			_			
							Unit 298 × 840 × 840			
Exterior dir	mensions (He	ight × Width ×	Depth)	mm			Panel 35 × 950 × 950			
Exterior ap	pearance						Fine snow			
(Munsell c							(8.0Y9.3/0.1) near equivalent			
(RAL color	r) ´						(RAL 9003) near equivalent			
•							Unit 25			
Net weight	t			kg			Panel 5			
Heat excha	anger					Louver fin & inner grooved tubing				
Fan type &						Turbo fan ×1				
	(Starting met	hod)		W		140 < Direct line start >				
Air flow Cooling Heating			m³/min		P-Hi:38 Hi:29 Me:26 Lo:19					
Available e	external static	nressure	ricating	Pa			0			
Outside air		pressure		1 4			Possible			
	uality / Quanti	itv					Pocket plastic net ×1 (Washable)			
	bration absor						Rubber sleeve (for fan motor)			
Electric hea		DCI		w	— — — — — — — — — — — — — — — — — — —					
	Remote cor	atrol			(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-T-5BW-E2					
Operation		erature contro			1	Thermostat by electronics				
control	Operation of		"1			i nermostat by electronics				
	Operation	iispiay					Internal thermostat for fan motor			
Safety equ	ipments						Frost protection thermostat			
							Liquid line: φ 9.52 (3/8")			
	Refrigerant	piping size (C	D.)	mm			Gas line: φ 15.88 (5/8")			
Installation	Connection	mathad								
		method ngth of piping			-		Flare piping			
data				m	-		Necessary (both Liquid & Coo lig)			
	Insulation for	or bibing					Necessary (both Liquid & Gas lines)			
Drain hose						Hose connectable VP25 (O.D.32)				
Drain pump, max lift height			mm			Built-in drain pump, 850				
IP number							IPX0			
	accessories						Mounting kit, Drain hose			
Option par							Motion sensor : LB-T-5BW-E			
Notes (1)	<u>, </u>	measured at					The pipe length is 7.5m	1		
	Item	Indoor air t		e		temperature	Standards			
	Operation	DB 27°C	WB 10°C		DB 35°C	WB 24°C	ISO5151-T1	-		
1	L:OOIIDG				35 (2/170	1505757-17			

24°C

6°C

35°C 7°C 20°C Heating

19°C

Cooling

27°C

ISO5151-T1

ISO5151-H1

⁽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.

(b) Ceiling suspended type (FDE)

Item			Model	FDE50VH		
Power source				1 Phase 220-240V 50Hz / 220V 60Hz		
	Nominal cooling capacit	У	kW	5.0		
	Nominal heating capacit	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	nensions (Height x Width	x Depth)	mm	210 × 1070 × 690		
Exterior app (Munsell co (RAL color	olor)			Plaster white (6.8Y8.9/0.2) near equivalent (RAL 9016) near equivalent		
Net weight	<u>, </u>		kg	28		
Heat excha	nger		ıg	Louver fin & inner grooved tubing		
Fan type &	0			Centrifugal fan ×2		
	Starting method)		W	30 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:7		
Available ex	ternal static pressure		Pa	0		
Outside air	intake			Not possible		
Air filter, Qu	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-EX3A, RC-E5, RCH-E3 Wireless: RCN-E-E3		
control	Room temperature cont	rol		Thermostat by electronics		
COTILIOI	Operation display			-		
Safety equi	pments			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 pipin	g	m			
	Insulation for piping			Necessary (both Liquid & Gas lines)		
Drain hose			Hose connectable VP20(O.D.26)			
Drain pump, max lift height		mm	<u> </u>			
IP number	<u> </u>			IPX0		
Standard a	ccessories			Mounting kit, Drain hose		
Option part	S			Motion sensor : LB-E		
Notes (1) The data are measured	at the follow	ving con	ditions. The pipe length is 7.5m.		
Г						

Indoor air t	emperature	Outdoor air	temperature	Standards
DB	WB	DB	WB	Staridards
27°C	19°C	35°C	24°C	ISO5151-T1
20°C	_	7°C	6°C	ISO5151-H1
	DB 27°C	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

PFA004Z088 🛕

⁽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	Item			FDE60VH
Power sour	Power source			1 Phase 220-240V 50Hz / 220V 60Hz
	Nominal cooling capacity	/	kW	5.6
	Nominal heating capacity	/	kW	6.7
Operation data	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 press	ure level		-
Exterior din	nensions (Height x Width x	Depth)	mm	210 × 1320 × 690
Exterior app (Munsell co (RAL color	olor)			Plaster white (6.8Y8.9/0.2) near equivalent (RAL 9016) near equivalent
Net weight	<u>'</u>		kg	33
Heat excha			ING I	Louver fin & inner grooved tubing
Fan type &				Centrifugal fan ×4
	(Starting method)		W	50 < Direct line start >
Air flow	Cooling		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 & vit	oration absorber			Rubber sleeve(for fan motor)
Electric hea	ater		W	-
Operation	Remote control			(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-E-E3
control	Room temperature contro	ol		Thermostat by electronics
CONTROL	Operation display			-
Safety equi	ipments			Overload protection for fan motor Frost protection thermostat
	Refrigerant piping size (0	D.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	1	m	——————————————————————————————————————
	Insulation for piping	,		Necessary (both Liquid & Gas lines)
	Drain hose			Hose connectable VP20(O.D.26)
Drain pump	Drain pump, max lift height		mm	— — — — — — — — — — — — — — — — — — —
IP number	<u>, </u>			IPX0
Standard a	ccessories			Mounting kit, Drain hose
Option part				Motion sensor : LB-E

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°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	ISO5151-H1

- (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	Item			FDE71VH		
Power sour	Power source			1 Phase 220-240V 50Hz / 220V 60Hz		
	Nominal cooling capacity	Nominal cooling capacity (range)		7.1		
	Nominal heating capacity		kW	8.0		
Operation	Sound power level	Cooling		60		
data	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32		
	Silent mode sound pressi	ure level	1 1			
Exterior din	nensions (Height x Width x	Depth)	mm	210 × 1320 × 690		
Exterior app	olor)			Plaster white (6.8Y8.9/0.2) near equivalent		
(RAL color	<u>′</u>			(RAL 9016) 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		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-EX3A, RC-E5, RCH-E3 Wireless: RCN-E-E3		
control	Room temperature contro	ol		Thermostat by electronics		
CONTROL	Operation display			_		
Safety equi	ipments			Overload protection for fan motor Frost protection thermostat		
	Refrigerant piping size (C).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	Drain pump, max lift height		mm	-		
IP number	, 			IPX0		
Standard a	ccessories			Mounting kit, Drain hose		
Option part				Motion sensor : LB-E		
<u> </u>				Th. 1 1 1 7 5		

The pipe length is 7.5m.

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	ISO5151-H1

(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.

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Item			Model	FDE100VH		
Power sour	rce			1 Phase 220-240V 50Hz / 220V 60Hz		
	Nominal cooling capacity	v	kW	10.0		
	Nominal heating capacit		kW	11.2		
Operation data	Sound power level	Cooling Heating		64		
uata	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 48 Hi: 43 Me: 38 Lo: 34		
	Silent mode sound press	sure level				
Exterior din	mensions (Height × Width	× Depth)	mm	250 × 1620 × 690		
Exterior ap (Munsell co (RAL color	olor)			Plaster white (6.8Y8.9/0.2) near equivalent (RAL 9016) near equivalent		
Net weight			kg	43		
Heat excha	anger			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: 26 Me: 21 Lo: 16.5		
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-EX3A, 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: φ9.52 (3/8") Gas line: φ15.88 (5/8")		
Installation	Connecting method			Flare piping		
data	Attached length of piping		m	i iaie pipilig		
Julia	Insulation for piping	1		Necessary (both Liquid & Gas lines)		
	Drain hose			Hose connectable VP20 (O.D.26)		
Drain pumr	Drain pump, max lift height		mm	— — — — — — — — — — — — — — — — — — —		
IP number	, max iiit noigiit			IPX0		
Standard a	ccessories			Mounting kit, Drain hose		
Option part				Motion sensor : LB-E		
	The data are massured a					

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°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	ISO5151-H1

PFA004Z088 🛕

⁽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	FDE125VH			
Item				FDE 123VII			
Power soul	Power source			1 Phase 220-240V 50Hz / 220V 60Hz			
	Nominal cooling capacit	У	kW	12.5			
	Nominal heating capacit	У	kW	14.0			
Operation data	Sound power level	Cooling Heating		64			
uata	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 48 Hi: 45 Me: 40 Lo: 35			
	Silent mode sound press	sure level		_			
Exterior din	mensions (Height × Width	× Depth)	mm	250 × 1620 × 690			
Exterior ap (Munsell color (RAL color	olor)			Plaster white (6.8Y8.9/0.2) near equivalent (RAL 9016) near equivalent			
Net weight			kg	43			
Heat excha	anger			Louver fin & inner grooved tubing			
Fan type &		-		Centrifugal fan ×4			
	(Starting method)		W	80 < Direct line start >			
Air flow	,	Cooling Heating	m³/min	P-Hi: 32 Hi: 29 Me: 23 Lo: 17			
Available e	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				
Oneration	Remote control			(Option) Wired: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-E-E3			
Operation	Room temperature contr	rol		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 9.52 (3/8") Gas line: φ 15.88 (5/8")			
 Installation	Connecting method			, , ,			
	Attached length of piping	~	m	Flare piping			
data		<u>y</u>	m	Necessary (both Liquid & Gas lines)			
	Insulation for piping Drain hose			Hose connectable VP20 (O.D.26)			
Drain nose Drain pump, max lift height		mm	nose connectable vrzu (O.D.20)				
IP number	J, max iiit neignt		mm	IPX0			
				Mounting kit, Drain hose			
Standard a				Motion sensor : LB-E			
Option part		4 4l f-11. '					
Notes (1)) The data are measured a	t the tollowi	ng conditio	ons. The pipe length is 7.5m.			

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°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	ISO5151-H1

- (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				FDE140VH
Power sour	rce	,		1 Phase 220-240V 50Hz / 220V 60Hz
	Nominal cooling capacit	V	kW	14.0
	Nominal heating capacit		kW	16.0
Operation data	Sound power level	Cooling Heating		65
uaia	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 49 Hi: 45 Me: 40 Lo: 36
	Silent mode sound press	sure level		_
Exterior din	mensions (Height × Width	× Depth)	mm	250 × 1620 × 690
Exterior ap (Munsell co (RAL color	olor)			Plaster white (6.8Y8.9/0.2) near equivalent (RAL 9016) near equivalent
Net weight			kg	43
Heat excha	anger			Louver fin & inner grooved tubing
Fan type &	Q'ty			Centrifugal fan ×4
Fan motor	(Starting method)	,	W	90 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi:34 Hi:29 Me:23 Lo:18
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-EX3A, RC-E5, RCH-E3 Wireless: RCN-E-E3
control	Room temperature contr	rol		Thermostat by electronics
COLLLO	Operation display			-
Cofoty cons	inmonto			Overload protection for fan motor
Safety equi	ipments			Frost protection thermostat
	Refrigerant piping size (O.D.)	mm —	Liquid line: φ9.52 (3/8") Gas line: φ15.88 (5/8")
Installation	Connecting method			Flare piping
data	Attached length of piping	n	m	—
Janu	Insulation for piping	3		Necessary (both Liquid & Gas lines)
	Drain hose			Hose connectable VP20 (O.D.26)
Drain pump, max lift height		mm	_	
IP number	· , · · · · · · · · · · · · · · · · · ·			IPX0
Standard a	ccessories			Mounting kit, Drain hose
Option part				Motion sensor : LB-E
	The data are measured a	t the followi	na conditio	

The pipe length is 7.5m.

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	ISO5151-H1	

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⁽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		FDC200VSA-W		
Power sour	rce				3 Phase 380-415V 50Hz / 380V 60Hz		
	Nominal cooling capacity		kW		20.0		
	Nominal heating capacit		kW		22.4		
	5 !	Cooling			72		
Operation	Sound power level	Heating	1		74		
data		Cooling	1		58		
data	Sound pressure level	Heating	dB(A)		59		
	Silent mode	Cooling	1		55 /53 (Normal/Silent)		
	sound pressure level	Heating	1		56 /54 (Normal/Silent)		
Exterior din	mensions (Height × Width		mm		1505×970×370		
Exterior ap					Stucco white		
(Munsell co					(4.2Y7.5/1.1) near equivalent		
(RAL color			.		(RAL 7044) near equivalent		
Net weight			kg		144		
	or type & Q'ty				GTC5150SC40MF ×1		
	or motor (Starting method)		kW		Direct line start		
	oil (Amount, type)		L	1.55 (M-MB75R)			
	(Type, amount, pre-charg	ge length)	kg	R32 4.3 in outdoor unit (Incl. the amount for the piping of 30m)			
Heat excha					M shape fin & inner grooved tubing		
Refrigerant					Electronic expansion valve		
Fan type &					Propeller fan ×2		
Fan motor	(Starting method)		W	86x2 < Direct line start >			
Air flow		Cooling	m³/min	148			
All HOW		Heating	1111/1111111		134		
Shock & vil	bration absorber			R	ubber sleeve (for fan motor & compressor)		
Electric hea	ater		W		20 (Crank case heater)		
					Internal thermostat for fan motor		
Safety equi	ipments			l A	Abnormal discharge temperature protection		
					Liquid line: φ 9.52 (3/8")		
	Refrigerant piping size (O.D.)	mm		Gas line: φ 22.22 (7/8")		
	Connecting method				Liquid line: Flare / Gas: Brazing		
	Attached length of piping	g	m		_		
Installation	Insulation for piping	<u> </u>			Necessary (both Liquid & Gas lines)		
data	Refrigerant line (one wa	y) length	m		Max.70		
	,	<i>,,</i>		Max.50 (Outo	door unit is higher & Outdoor air temperature ≤ 43°C)		
	Vertical height diff. between	O/LL and I/LL	m		door unit is higher & Outdoor air temperature > 43°C)		
	Vortical Holght ann. Botwooli	5,0 and 1,0		17107.00 (000	Max.15 (Outdoor unit is lower)		
	Drain hose				Hole size $\phi 20 \times 3$ pcs.		
IP number	Diaminoso				IP24		
Standard a	ccessories		 		Connecting pipe, Edging		
Option part			 				
		t the feller:	na cond	itiono	The pine length is 7.5m		
Notes (1)) The data are measured a				The pipe length is 7.5m.		
	Item Indoor air	r temperatui	re	Outdoor air temperature	Standards		

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	ISO5151-H1

⁽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		FDC250VSA-W		
Power sour	ce				3 Phase 380-415V 50Hz / 380V 60Hz		
Nominal cooling capacity		kW		25.0			
	Nominal heating capac	ity	kW		28.0		
	0 1 1	Cooling			73		
Operation	Sound power level	Heating	1 1		75		
data		Cooling	1		58		
	Sound pressure level	Heating	dB(A)		62		
	Silent mode	Cooling	1 1		56 /55 (Normal/Silent)		
	sound pressure level	Heating	1 1		59 /58 (Normal/Silent)		
Exterior dim	nensions (Height × Width		mm		1505×970×370		
Exterior app	pearance				Stucco white		
Munsell co					(4.2Y7.5/1.1) near equivalent		
RAL color					(RAL 7044) near equivalent		
Net weight			kg		145		
	r type & Q'ty				GTC5150SC40MF ×1		
	r motor (Starting method	(k	kW		Direct line start		
	oil (Amount, type)	,	L	1.55 (M-MB75R)			
	(Type, amount, pre-char	rae lenath)	kg	R32 5.1 in outdoor unit (Incl. the amount for the piping of 30m)			
leat excha	() 1 / / 1	9-1-19-1	1.5		M shape & inner grooved tubing	,	
Refrigerant					Electronic expansion valve		
an type &					Propeller fan ×2		
	Starting method)		W	86x2 < Direct line start >			
	otarting motriou,	Cooling		148			
Air flow		Heating	m³/min	153			
Shock & vih	pration absorber	rioding			Rubber sleeve (for compressor)		
Electric hea			W		20 (Crank case heater)		
LICCUITO FICA	1101		V V		Internal thermostat for fan motor		
Safety equi	pments			^	bnormal discharge temperature protection		
	I			^	Liquid line: ϕ 12.7 (1/2")		
	Refrigerant piping size	(O.D.)	mm		Gas line: φ 12.7 (1/2)		
	Connecting method				Liquid line : Flare / Gas : Brazing		
	Attached length of pipir	20	m		Liquid lille . I late / Gas . Diazlily		
nstallation	Insulation for piping	19	111		Necessary (both Liquid & Gas lines)		
data	Refrigerant line (one w	av) length	m		Max.70		
Jaid	nemgerant line (one w	ay, lengui	111	May 50 (Out-	wax.70 loor unit is higher & Outdoor air temperature ≤	. 43°C)	
	Vertical height diff hat	O/11 and 1/11			door unit is higher & Outdoor air temperature ≥	· ,	
	Vertical height diff. between	0/0 and i/0	m	iviax.30 (Outo	Max.15 (Outdoor unit is lower)	43 ()	
	Drain hose				Hole size $\phi 20 \times 3$ pcs.		
P number	Diaiii fiose				P24		
					= .		
Standard ad					Connecting pipe, Edging		
Option part	·						
Notes (1)	The data are measured				The pipe length is 7.5m.		
		ir temperatu		Outdoor air temperature	Standards		
	noration DR	W/R		DR WR			

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	ISO5151-H1

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⁽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	FDC280VSA-W
Power sour	200			3 Phase 380-415V 50Hz / 380V 60Hz
Nominal cooling capacity		kW	27.0	
Nominal cooling ca Nominal heating ca			kW	30.0
Operation data	Norminal fleating capacit	Cooling	KVV	75
	Sound power level	Heating	-	77
•				61
data	Sound pressure level	Cooling	dB(A)	63
	Silent mode	Heating		55 /54 (Normal/Silent)
		Cooling		, , , , , , , , , , , , , , , , , , , ,
	sound pressure level	Heating		56 /55 (Normal/Silent)
Exterior din	nensions (Height × Width	× Depth)	mm	1505×970×370
Exterior app				Stucco white
(Munsell co				(4.2Y7.5/1.1) near equivalent
(RAL color)			(RAL 7044) near equivalent
Net weight			kg	155
	r type & Q'ty			GTC5150SC40MF ×1
	r motor (Starting method))	kW	Direct line start
Refrigerant	oil (Amount, type)		L	1.55 (M-MB75R)
Refrigerant (Type, amount, pre-charge length)		ge length)	kg	R32 5.6 in outdoor unit (Incl. the amount for the piping of 30m)
Heat exchanger				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 >
A: (I	,	Cooling	m³/min	136
Air flow		Heating	m³/min	140
Shock & vil	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 12.7 (1/2")
	Refrigerant piping size (O.D.)	mm	Gas line: φ 22.22 (7/8")
	Connecting method			Liquid line : Flare / Gas : Brazing
	Attached length of pipin	<u> </u>	m	—
Installation	Insulation for piping	3		Necessary (both Liquid & Gas lines)
data	Refrigerant line (one wa	v) length	m	Max.60
duta	Tromgorant into (one wa	y, longin	- '''	Max.50 (Outdoor unit is higher & Outdoor air temperature ≤ 43°C)
	Vertical height diff. between	∩/II and I/II	m	Max.30 (Outdoor unit is higher & Outdoor air temperature \ge 43°C)
	Volucial lieight ann. Detween	0,0 and 1,0	'''	Max.15 (Outdoor unit is higher & Outdoor air temperature > 43 0)
	Drain hose			Hole size $\phi 20 \times 3$ pcs.
IP number	שומוו ווטשום			Ποίε size φ 20 x 3 pcs. IP24
Standard a				Connecting pipe, Edging
Option part	S			

The pipe length is 7.5m.

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	ISO5151-H1	

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⁽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

(380-415V 50Hz/380V 60Hz)

Item	Model	FDC200VSA-W	FDC250VSA-W	FDC280VSA-W
Cooling power consumption	1-117	5.22/5.22	7.92/7.92	8.83/8.83
Heating power consumption	kW	5.01/5.01	7.09/7.09	8.67/8.67
Cooling running current		8.0/8.4	12.1/12.7	13.3/14.0
Heating running current	A	7.6/8.0	11.0/11.5	12.8/13.4
Inrush current (L.R.A) <max. current="" running=""></max.>	A	5<20>	5<20>	5<20>

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

FDT Series (220-240V 50Hz/220V 60Hz)

Item	Model	FDT50VH	FDT60VH	FDT71VH	FDT100VH	FDT125VH	FDT140VH
Cooling power consumption	kW	0.04-0.04/0.04	0.07-0.07/0.07	0.08-0.08/0.08	0.13-0.13/0.13	0.14-0.14/0.14	0.14-0.14/0.14
Heating power consumption	K W	0.04-0.04/0.04	0.07-0.07/0.07	0.08-0.08/0.08	0.13-0.13/0.13	0.14-0.14/0.14	0.14-0.14/0.14
Cooling running current		0.36-0.33/0.36	0.62-0.57/0.62	0.70-0.64/0.70	1.05-0.96/1.05	1.12-1.02/1.12	1.12-1.02/1.12
Heating running current	A	0.36-0.33/0.36	0.62-0.57/0.62	0.70-0.64/0.70	1.05-0.96/1.05	1.12-1.02/1.12	1.12-1.02/1.12

FDE Series (220-240V 50Hz/220V 60Hz)

Item	Model	FDE50VH	FDE60VH	FDE71VH	FDE100VH	FDE125VH	FDE140VH
Cooling power consumption	kW	0.05-0.05/0.05	0.08-0.08/0.08	0.08-0.08/0.08	0.13-0.13/0.13	0.13-0.13/0.13	0.14-0.14/0.14
Heating power consumption	K W	0.05-0.05/0.05	0.08-0.08/0.08	0.08-0.08/0.08	0.13-0.13/0.13	0.13-0.13/0.13	0.14-0.14/0.14
Cooling running current		0.50-0.50/0.50	0.75-0.75/0.75	0.75-0.75/0.75	1.20-1.20/1.20	1.20-1.20/1.20	1.30-1.30/1.30
Heating running current	A	0.50-0.50/0.50	0.75-0.75/0.75	0.75-0.75/0.75	1.20-1.20/1.20	1.20-1.20/1.20	1.30-1.30/1.30

Notes(1) This packaged air-conditioner is manufactured and tested in conformity with the following standard. ISO-T1 "UNITARY AIR-CONDITIONERS"

(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 specifications of each indoor unit or outdoor unit.

(i) Total power consumption

Total power consumption (kW) = Power consumption of outdoor unit + \sum (Power consumption of indoor unit)

(ii) Total running current

Total running current (A) = Running current of outdoor unit + $[\Sigma \text{ (Running current of indoor unit)} \times 1/3]$

(iii) 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

⁽²⁾ The values shown in the above table are common to both cooling and heating operations.

[Example]

(Conditions) Operation voltage ······· Indoor unit: 230 V, 50 Hz

Outdoor unit: 400 V, 50 Hz

Operation mode Cooling and Heating

Unit----- Outdoor unit: FDC250VSA-W × 1 unit

Indoor unit: FDT60VH \times 2 units, FDT125VH \times 1 unit

Operation characteristics of each unit

(Cooling/Heating)

Item Model	FDC250VSA-W	FDT60VH	FDT125VH
Power consumption (kW)	7.92/7.09	0.07/0.07	0.14/0.14
Running current (A)	12.1/11.0	0.62/0.62	1.12/1.12

① Total power consumption (kW)

(Cooling)
$$7.92 + 0.07 \times 2 + 0.14 = 8.20 \text{ (kW)}$$

(Heating)
$$7.09 + 0.07 \times 2 + 0.14 = 7.37$$
 (kW)

2 Total running current (A)

(Cooling)
$$12.1 + \left[(0.62 \times 2 + 1.12) \times \frac{1}{3}) \right] = 12.9 \text{ (A)}$$

(Heating) $11.0 + \left[(0.62 \times 2 + 1.12) \times \frac{1}{3}) \right] = 11.8 \text{ (A)}$

(Heating)
$$11.0 + \left[(0.62 \times 2 + 1.12) \times \frac{1}{3} \right] = 11.8 \text{ (A)}$$

3 Total power factor (%)

(Cooling)
$$\frac{8.20 \times 1000}{\sqrt{3} \times 12.9 \times 400} \times 100 = 92 \%$$

(Heating)
$$\frac{7.37 \times 1000}{\sqrt{3} \times 11.8 \times 400} \times 100 = 90 \%$$

2.3 EXTERIOR DIMENSIONS	
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2.7 PIPING SYSTEMSee page	67
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2.10.2 Electric wiring work installationSee page	124
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2.10.6 Instructions for branching pipe set (DIS-WA1G,WB1G,TA1G,TB1G)See page	
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2.11 TECHNICAL INFORMATION	
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$\frac{1}{1}$	

3. OPTION PARTS

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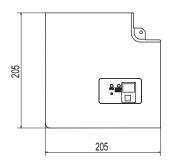
3.1 WIRELESS KIT	225
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3.1 WIRELESS KIT

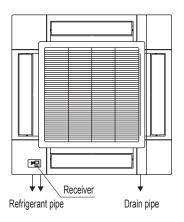
3.1.1 FDT series (RCN-T-5BW-E2, RCN-T-5BB-E2)

(1) Specification

Receiver



Installation position of wireless kit



Installation of wireless kit

Do not install the wireless 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)Uneven surface
- (7)Places affected by the direct airflow of the AC unit
- (8)Places where the receiver is influenced by the fluorescent lamp(especially inverter type) or sunlight
- (9)Places where the receiver is affected by infrared rays of any other communication devices
- (10)Places where some object may obstruct the communication with the remote control

Setting switch on PCB of receiver

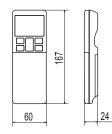
	Prevent interference during plural setting	ON:Normal OFF:Remote
SW2	Receiver master/ slave setting	ON:Master OFF:Slave
SW3	Buzzer	ON:Valid OFF:Invalid
SW4	Auto restart	ON:Valid OFF:Invalid

Default setting: mark

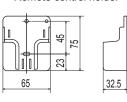
Notes

- (1)Receiver can install the position as shown.
 (2)Two LR03 AAA dry cell batteries for remote control are enclosed.
- (3)See spec sheet of "Wireless remote control" about remote control.

Remote control

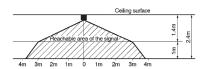


Remote control holder

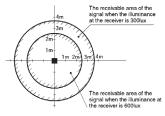


Wireless remote control's operable area

① Standard reachable area of the signal [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. The drawing in the right shows the correlation between the reachable area of the signal and illuminance at the receiver when the 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 thirds.



- ③ Installation tips when several receivers are installed close Minimum distance between the indoor units which can avoid cross communication is 5m under the condition of 300lux of illuminance at the receiver.
 - (When no lighting is installed within 1m of the receiver in an ordinary office.)

Unit:mm

PJF000Z632

(2) Installation manual

Notes:

1. Following function of FDT indoor unit series are not able to be set with this wireless remote control.

Individual flap control system

2. This wireless remote control can operate the prevention function without connecting the wired remote control.

PJF012D035C∕€

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.



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.

① Receiver	1	① Wireless remote control (RCN-E2)		
② Parts set (A)	1	② Remote control holder	Œ	
③ Installation manual	1	③ Screw for holder	\$	
		④ AAA dry cell battery (LR03)	0	
		⑤ User's manual	Ē	

②Preparation before installation

Setting on site

PCB on the receiver has the following switches to set the function.

Default setting is shown with mark.

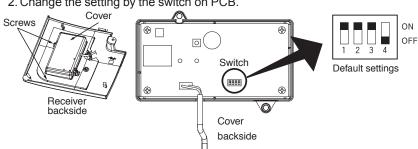
SW1	Prevents interference during plural setting	ON : Normal	OFF : Customized
SW2	Receiver master/ slave setting	ON : Master	OFF : Slave
SW3	Buzzer	ON : Valid	OFF : Invalid
SW4	Auto restart	ON : Valid	OFF : Invalid

Preparation before installation (continued)

To change setting

plural remote controls 1. Remove the cover by unscrewing two screws from the back of receiver.

2. Change the setting by the switch on PCB.



Up to two receiver or wired remote control can be installed in one indoor unit group.

Master/Slave setting when using

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 (4) Wireless remote control .

*The receivable area of the signal refer to

BRECEIVER

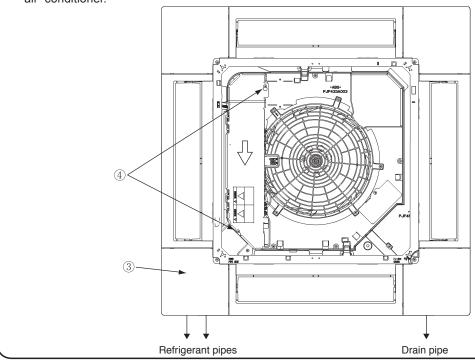
.

(3) How to install the receiver

The receiver can be installed by replacing with a corner panel on the applicable decorative panel.

Preparation before installation

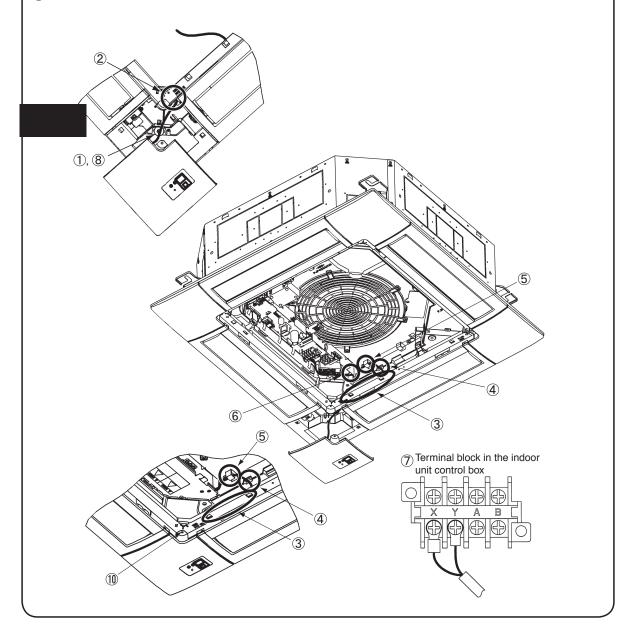
- ① Attach the decorative panel onto the air-conditioner according to the installation manual for the panel.
- ② Remove the air return grille.
- ③ Remove a corner panel located on the refrigerant pipes side.
- ④ Remove three screws and detach the cover (indicated as shadowed area) from the control box of the air- conditioner.



③ How to install the receiver(continued)

Installation of the receiver

- ① Loosen the bolts which fix the panel and make a gap between the panel and the indoor unit.
- 2 Put the wiring of the receiver through the opening.
- ③ Put the wiring on the notch on the control box so as not to be pinched by the control box and lid as shown below.
- 4 Connect the wiring to the terminal block provided in the control box. (No polarity)
- ⑤ Attach the receiver to the panel according to the panel installation manual.
- ⑥ Fix the wiring with the clamp so that the wiring do not contact the edge of control box's metal sheet.
- ? Reattach the control box lid with 3 screws removed.

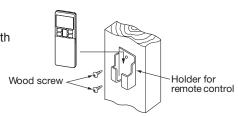


(4) Wireless remote control

Installation tips for the remote control holder

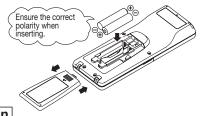
Fix the remote control holder using the screws supplied with this product.

- * 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.



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.

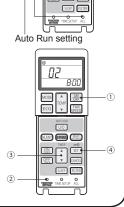
To disable the Auto Run mode, press the $\boxed{\text{ACL}}$ switch while holding down the $\boxed{\text{MODE}}$ button, or insert batteries while holding down the $\boxed{\text{MODE}}$ button.

* 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.



SLENT (NORTH (THE

4 Wireless remote control (continued)

Setting details
 The following functions can be set.

Button	Number indicator	Function setting
	00	Fan speed setting : Standard
FAN SPEED	01	Fan speed setting: Setting 1 *
	02	Fan speed setting: Setting 2 *
	00	Room heating temperature adjustment : Disable
MODE	01	Room heating temperature adjustment : +1°C
MODE	02	Room 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/D	00	Anti draft setting : Disable
(Up/Down)	01	Anti draft setting : Enable
OULENT	00	Infrared sensor setting (Motion sensor setting) : Disable
SILENT	01	Infrared sensor setting (Motion sensor setting) : Enable
	00	Infrared sensor control (Motion sensor control) : Disable
LILDOMED	01	Infrared sensor control (Motion sensor control): Power control only
HI POWER	02	Infrared sensor control (Motion sensor control) : Auto OFF only
	03	Infrared sensor control (Motion sensor control): Power control and 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
	02	Heating fan residual-period running : 2 hours
	03	Heating fan residual-period running : 6 hours
NIGHT SETBACK	00	Remote control signal receiver LED : Brightness High
	01	Remote control signal receiver LED : Brightness Low
	02	Remote control signal receiver LED : OFF

^{*} Refer to service manual.

5 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 [0] to [F] so as not to duplicate.

Restrictions on the thickness and length of wire (Maximun total extension 600m.)

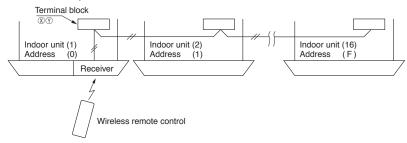
Standard Within 0.3 mm² × 100m

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 mm² × 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.

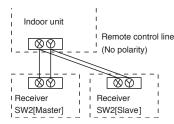


For the building air-conditioning and gas heat pump series

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.

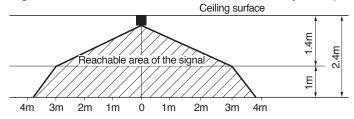


Switch	Setting	Function
SW2	ON	Master
	OFF	Slave

Wireless remote control's operable area

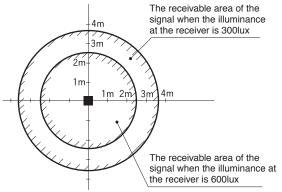
Standard reachable area of the signal [condition] Illuminance at the receiver: 300lux

(when no lighting is installed within 1m of the receiver in an ordinary office.)



5 Receiver (continued)

2. Correlation between illuminance at the receiver and reachable area of the signal in a plain view. The drawing in the right shows the correlation between the reachable area of the signal and illuminance at the receiver when the remote control is operated at 1.0m high under the condition of ceiling height of 2.4m. When the illuminance becomes double, the area is narrowed down to two thirds.



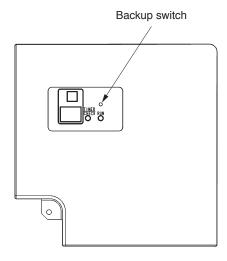
3. Installation tips when several receivers are installed close Minimum distance between the indoor units which can avoid cross communication is 5m under the condition of 300lux of illuminance at the receiver.

(When no lighting is installed within 1m of the receiver in an ordinary office)

Backup switch

A backup switch is provided on the receiver. Even when the operation from the wireless remote control is not possible (due to flat batteries, control lost, or control failure), still it possible to operate as temporary means. Press the switch directly when operating it.

- The air-conditioner starts the operation with the condition of Auto mode, 23°C of set point, High fan speed and horizontal louver position.
- 2. The air-conditioner stops the operation when the switch is pressed when in operation.



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 2-digit display

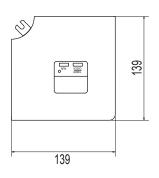
On the receiver of a wireless kit, a two-digit (7-segment) display is provided.

- 1. An indication will be displayed for one hour after power on.
- 2. An indication will be displayed for 3.5 seconds after transmitting a "STOP" command from the wireless remote control or the operation of the backup switch to stop the unit.
- 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 of all the connected units are displayed.
- 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, while the backup button is pressed.

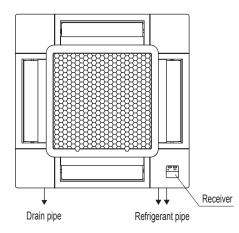
3.1.2 FDTC series (RCN-TC-5AW-E3)

(1) Specification

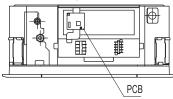
Receiver



Installation position of wireless kit



Installation position of PCB



Notes

- (1)Receiver must be installed to the position as shown.
- (2)Two LR03 AAA dry cell batteries for remote control are enclosed.
- (3)See spec sheet of "Wireless remote control" about remote control.

Installation of wireless kit

Do not install the wireless kit at the following places in order to avoid malfunction.

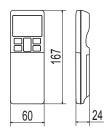
- (1)Places exposed to direct sunlight
- (2)Places near heat-generating devices
- (3)High humidity places
- (4)Hot surface or cold surface
- enough to generate condensation
 (5)Places exposed to oil mist or steam directly
- (6)Uneven surface
- (7)Places affected by the direct airflow of the AC unit
- (8)Places where the receiver is influenced by fluorescent lamp or sunlight
- (9)Places where the receiver is affected by infrared
- rays of any other communication devices (10)Places where some object may obstruct the communication with the remote control

Setting switch on PCB

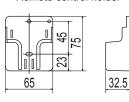
SW1	Prevents interference during multiple setting	ON:Normal OFF:Remote
SW2	Receiver master/ slave setting	ON:Master OFF:Slave
SW3	Buzzer	ON:Valid OFF:Invalid
SW4	Auto restart	ON:Valid OFF:Invalid

Default setting: ____ mark

Remote control

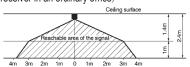


Remote control holder

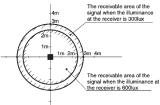


Wireless remote control's operable area

①Standard reachable area of the signal [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. The drawing in the right shows the correlation between the reachable area of the signal and illuminance at the receiver when the 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 thirds.



③ Installation tips when several receivers are installed close to one another Minimum distance between the indoor units which can avoid cross communication is 5m under the condition of 300lux of illuminance at the receiver. (When no lighting is installed within 1m of the receiver in an ordinary office)

Unit:mm

PJF000Z634

PJF012D506B ⚠

Safety precautions

•Please read this manual carefully before starting installation work to install the unit properly. All of the following are 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 symbols are used in the text.



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 the 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 shock.

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. enter 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-generating 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 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. 1) Wireless remote control (RCN-E2) Receiver 1 ⑤ Bracket mounting screw 2 Remote control holder 1 2 PCB 6 Wiring (For communication) 1 (3) Screw for holder 2 4 AAA dry cell battery (LR03) 2 ③ PCB mounting support 7 Wiring (For receiving) 1 ⑤ User's manual 1 ④ Bracket (Sheet metal) 8 Installation manual 9 Parts set

(2) Preparation before installation

Setting of PCB

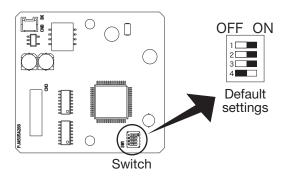
Accessory PCB has the following switches to set the functions. Default setting is shown with

SW1	Prevents interference during multiple setting	ON : Normal OFF : Remote
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. Change the setting of switches on the accessory PCB.



Master/Slave setting when using multiple remote controls

Up to two receivers or wired remote controls can be installed on one indoor unit group. In such occasion, it is necessary to change the setting to slave on either one.

To change the setting on the receiver, refer to the instruction manual of the receiver.

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.

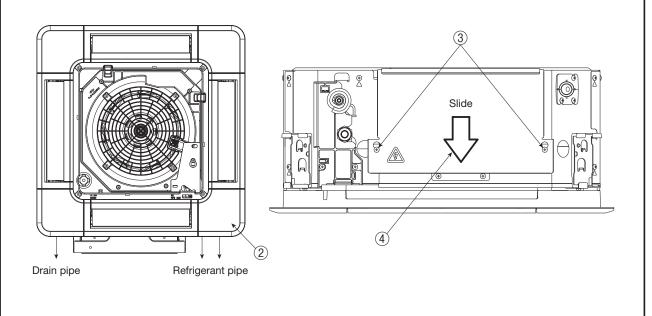
*For the receivable area of the signal, refer to ⑤ Receiver .

(3) How to install the receiver

It is possible to install the receiver by replacing the corner lid on the panel.

Preparation before installation

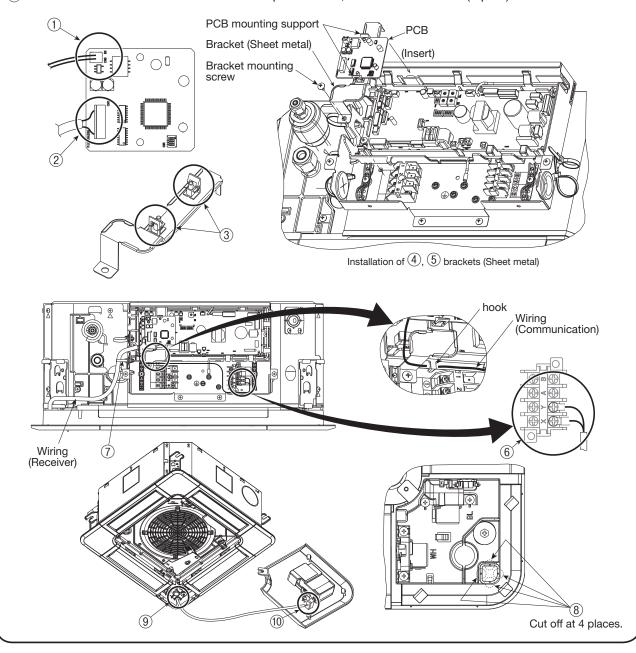
- ① Remove the inlet grille according to the installation manual of the panel.
- ② Remove the corner lid at the refrigerant pipe side.
- 3 Loosen screws (2 pcs.) on the control box of the unit.
- 4 Slide the control lid in the arrow direction, and remove it.



3 How to install the receiver (continued)

Installation of the receiver

- (1) Connect the wire connector (Communication) to CNB on PCB.
- (2) Connect the wire connector (Receiver) to CN3 on PCB.
- (3) Install the PCB mounting supports on the bracket (Sheet metal).
- (4) Install PCB on the PCB mounting supports.
- (5) Insert the bracket (Sheet metal) in one side of control box, and fix the other side with screws as shown in the figure.
- 6 Connect round terminals of wires (Communication) to the terminal block (X, Y) in the control box. The wires have no polarity.
- (7) Fix wires with bands as shown in the figure.
- (8) Cut off the half-blanks on the panel (at 4 places) as shown in the figure.
- (9) Pass the wiring (Communication) through the opening on the panel.
- (ii) Connect connectors of the wiring (Communication) and the receiver.
- (i) Install the receiver on the panel according to the installation manual of the panel.
- (2 pcs.).

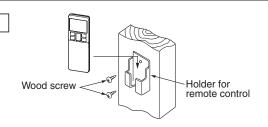


Wireless remote control

Installation tips for the remote control holder

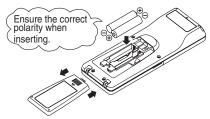
Fix the remote control holder using the screws supplied with this product.

- * 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.

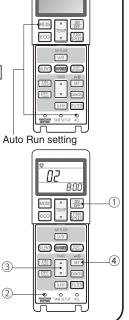
To disable the Auto Run mode, press the ACL switch while holding down the MODE button, or insert batteries while holding down the MODE button.

* 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.



4 Wireless remote control (continued)

2. Setting details The following functions can be set.

FAN SPEED 00	Button	Number indicator	Function setting
MODE	FAN SPEED	00	Fan speed setting : Standard
MODE		01	Fan speed setting: Setting 1 *
MODE		02	Fan speed setting: Setting 2 *
MODE 02		00	Room heating temperature adjustment : Disable
O2	MODE	01	Room heating temperature adjustment : +1°C
Filter sign display : OFF	MODE	02	Room heating temperature adjustment: +2°C
D1		03	Room heating temperature adjustment: +3°C
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/D U/D 00 Anti draft setting: Disable (Up/Down) 01 Anti draft setting: Enable 00 Infrared sensor setting (Motion sensor setting): Disable 101 Infrared sensor setting (Motion sensor setting): Enable 100 Infrared sensor control (Motion sensor control): Disable 101 Infrared sensor control (Motion sensor control): Power control only 102 Infrared sensor control (Motion sensor control): Power control + Auto OFF 03 Infrared sensor control (Motion sensor control): Power control + Auto OFF 04 Cooling fan residual-period running: Disable 05 Cooling fan residual-period running: 2 hours 06 Cooling fan residual-period running: 6 hours 07 Heating fan residual-period running: 2 hours 08 Heating fan residual-period running: 2 hours 09 Heating fan residual-period running: 6 hours 100 Remote control signal receiver LED: Brightness High 101 Remote control signal receiver LED: Brightness Low		00	Filter sign display: OFF
O3 Filter sign display: 1000 hours		01	Filter sign display: 180 hours
U/D (Up/Down) 00 Anti draft setting: Disable (Up/Down) 01 Anti draft setting: Enable SILENT 00 Infrared sensor setting (Motion sensor setting): Disable O0 Infrared sensor setting (Motion sensor setting): Enable O1 Infrared sensor setting (Motion sensor setting): Enable O0 Infrared sensor control (Motion sensor control): Disable O1 Infrared sensor control (Motion sensor control): Power control only O2 Infrared sensor control (Motion sensor control): Auto OFF only O3 Infrared sensor control (Motion sensor control): Power control + Auto OFF O0 Cooling fan residual-period running: Disable O1 Cooling fan residual-period running: 0.5 hours O2 Cooling fan residual-period running: 6 hours O3 Cooling fan residual-period running: 0.5 hours O4 Heating fan residual-period running: 0.5 hours O5 Heating fan residual-period running: 2 hours O6 Heating fan residual-period running: 2 hours O8 Heating fan residual-period running: 6 hours O9 Heating fan residual-period running: 9 hours O1 Heating fan residual-period running: 9 hours O2 Heating fan residual-period running: 9 hours O3 Heating fan residual-period running: 9 hours O6 Heating fan residual-period running: 9 hours O7 Heating fan residual-period running: 9 hours O8 Heating fan residual-period running: 9 hours O8 Heating fan residual-period running: 9 hours O8 Heating fan residual-period running: 9 hours O8 Heating fan residual-period running: 9 hours O8 Heating fan residual-period running: 9 hours O8 Heating fan residual-period running: 9 hours O9 Heating fan residual-period running: 9 hours	FILTER	02	Filter sign display: 600 hours
U/D		03	Filter sign display: 1000 hours
Output		04	Filter sign display : Operation stop after 1000 hours have elapsed
SILENT O0 Infrared sensor setting (Motion sensor setting): Disable Infrared sensor setting (Motion sensor setting): Enable O0 Infrared sensor control (Motion sensor setting): Disable O1 Infrared sensor control (Motion sensor control): Disable O1 Infrared sensor control (Motion sensor control): Power control only O2 Infrared sensor control (Motion sensor control): Auto OFF only O3 Infrared sensor control (Motion sensor control): Power control + Auto OFF O0 Cooling fan residual-period running: Disable O1 Cooling fan residual-period running: 0.5 hours O2 Cooling fan residual-period running: 9 hours O3 Cooling fan residual-period running: 6 hours O6 Heating fan residual-period running: 0.5 hours O7 Heating fan residual-period running: 0.5 hours O8 Heating fan residual-period running: 0.5 hours O9 Heating fan residual-period running: 9 hours O1 Heating fan residual-period running: 9 hours O3 Heating fan residual-period running: 6 hours O8 Remote control signal receiver LED: Brightness High NIGHT SETBACK	U/D	00	Anti draft setting : Disable
O1 Infrared sensor setting (Motion sensor setting): Enable 00 Infrared sensor control (Motion sensor control): Disable 01 Infrared sensor control (Motion sensor control): Power control only 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 01 Cooling fan residual-period running: 0.5 hours 02 Cooling fan residual-period running: 2 hours 03 Cooling fan residual-period running: 0 hours 04 Heating fan residual-period running: Disable 05 Heating fan residual-period running: 0.5 hours 06 Heating fan residual-period running: 0.5 hours 07 Heating fan residual-period running: 2 hours 08 Heating fan residual-period running: 2 hours 09 Heating fan residual-period running: 2 hours 09 Heating fan residual-period running: 2 hours 00 Remote control signal receiver LED: Brightness High NIGHT SETBACK	(Up/Down)	01	Anti draft setting : Enable
O1	CILENT	00	Infrared sensor setting (Motion sensor setting) : Disable
HI POWER 01	SILENI	01	Infrared sensor setting (Motion sensor setting) : Enable
HI POWER 02		00	Infrared sensor control (Motion sensor control) : Disable
ON TIMER ON TIMER OFF TIME	LILDOWED	01	Infrared sensor control (Motion sensor control) : Power control only
ON TIMER Cooling fan residual-period running : Disable 01 Cooling fan residual-period running : 0.5 hours 02 Cooling fan residual-period running : 2 hours 03 Cooling fan residual-period running : 6 hours 09 Heating fan residual-period running : Disable 01 Heating fan residual-period running : 0.5 hours 02 Heating fan residual-period running : 2 hours 03 Heating fan residual-period running : 6 hours NIGHT SETBACK 00 Remote control signal receiver LED : Brightness High NIGHT SETBACK 01 Remote control signal receiver LED : Brightness Low	HIPOWER	02	Infrared sensor control (Motion sensor control) : Auto OFF only
ON TIMER 01 Cooling fan residual-period running : 0.5 hours 02 Cooling fan residual-period running : 2 hours 03 Cooling fan residual-period running : 6 hours OFF TIMER 00 Heating fan residual-period running : Disable 01 Heating fan residual-period running : 0.5 hours 02 Heating fan residual-period running : 2 hours 03 Heating fan residual-period running : 6 hours 03 Heating fan residual-period running : 6 hours NIGHT SETBACK 00 Remote control signal receiver LED : Brightness High NIGHT SETBACK 01 Remote control signal receiver LED : Brightness Low		03	Infrared sensor control (Motion sensor control) : Power control + Auto OFF
ON TIMER 02 Cooling fan residual-period running : 2 hours 03 Cooling fan residual-period running : 6 hours 06 Heating fan residual-period running : Disable 01 Heating fan residual-period running : 0.5 hours 02 Heating fan residual-period running : 2 hours 03 Heating fan residual-period running : 6 hours 03 Heating fan residual-period running : 6 hours 00 Remote control signal receiver LED : Brightness High NIGHT SETBACK 01 Remote control signal receiver LED : Brightness Low		00	Cooling fan residual-period running : Disable
Cooling fan residual-period running : 2 hours 03 Cooling fan residual-period running : 6 hours OFF TIMER 01 Heating fan residual-period running : 0.5 hours 02 Heating fan residual-period running : 2 hours 03 Heating fan residual-period running : 6 hours NIGHT 00 Remote control signal receiver LED : Brightness High NIGHT 01 Remote control signal receiver LED : Brightness Low	ON TIMED	01	Cooling fan residual-period running : 0.5 hours
OFF TIMER 00 Heating fan residual-period running : Disable 01 Heating fan residual-period running : 0.5 hours 02 Heating fan residual-period running : 2 hours 03 Heating fan residual-period running : 6 hours 00 Remote control signal receiver LED : Brightness High NIGHT SETBACK 01 Remote control signal receiver LED : Brightness Low	ON HIVIER	02	Cooling fan residual-period running : 2 hours
OFF TIMER 01 Heating fan residual-period running : 0.5 hours 02 Heating fan residual-period running : 2 hours 03 Heating fan residual-period running : 6 hours 00 Remote control signal receiver LED : Brightness High NIGHT SETBACK 01 Remote control signal receiver LED : Brightness Low		03	Cooling fan residual-period running : 6 hours
OFF TIMER 02 Heating fan residual-period running : 2 hours 03 Heating fan residual-period running : 6 hours 00 Remote control signal receiver LED : Brightness High NIGHT SETBACK 01 Remote control signal receiver LED : Brightness Low	OFF TIMER	00	Heating fan residual-period running : Disable
02 Heating fan residual-period running : 2 hours 03 Heating fan residual-period running : 6 hours 00 Remote control signal receiver LED : Brightness High NIGHT SETBACK 01 Remote control signal receiver LED : Brightness Low		01	Heating fan residual-period running : 0.5 hours
NIGHT SETBACK 00 Remote control signal receiver LED : Brightness High Remote control signal receiver LED : Brightness Low		02	Heating fan residual-period running : 2 hours
NIGHT SETBACK 01 Remote control signal receiver LED : Brightness Low		03	Heating fan residual-period running : 6 hours
SETBACK 01 Remote control signal receiver LED : Brightness Low		00	Remote control signal receiver LED : Brightness High
OD Describe control signal manifest ED COFF		01	Remote control signal receiver LED : Brightness Low
UZ Remote control signal receiver LED : UFF		02	Remote control signal receiver LED : OFF

5 Receiver

1 Control multiple 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 note on the right.
- 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 (Maximum length is 600m.)

Standard Within 0.3 mm² × 100m

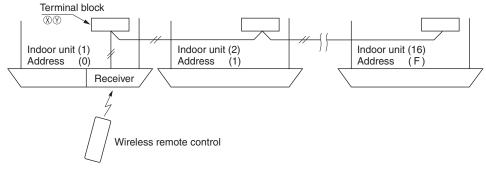
Within $0.5 \text{ mm}^2 \times 200 \text{m}$

Within $0.75mm^2 \times 300m$ Within $1.25mm^2 \times 400m$

Within 2.0 mm² × 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.



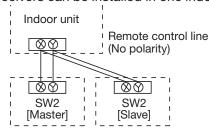
For the building air-conditioning and gas heat pump series

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 multiple remote control

Up to two receivers can be installed in one indoor unit group.



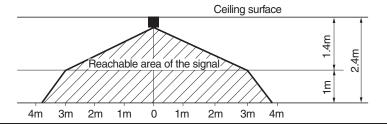
Switch	Setting	Function	
SW2	ON	Master	
	OFF	Slave	

Wireless remote control's operable area

1. Standard reachable area of the signal

[Condition] Illuminance at the receiver: 300lux

(When no lighting is installed within 1m of the receiver in an ordinary office)



(5) Receiver (continued)

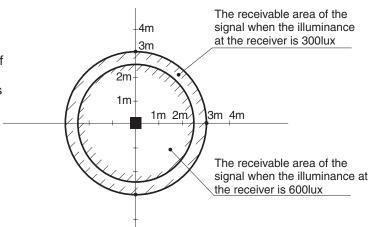
2. Correlation between illuminance at the receiver and reachable area of the signal in a plain view.

The drawing in the right shows the correlation between the reachable area of the signal and illuminance

at the receiver when the 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 thirds.



3. Installation tips when several receivers are installed close to one another.

Minimum distance between the indoor units which can avoid cross communication is 5m under the condition of 300lux of illuminance at the receiver.

(When no lighting is installed within 1m of the receiver in an ordinary office)

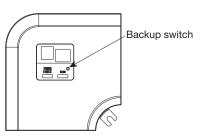
Backup switch

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.

If pressed while the air-conditioner is in a halt, it will cause the air-conditioner to start operation in the automatic mode (In case of cooling only, it is in the cooling mode).
 Wind speed: Hi fan, Temperature setting: 23°C, Louver: horizontal

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 pressed.
- 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

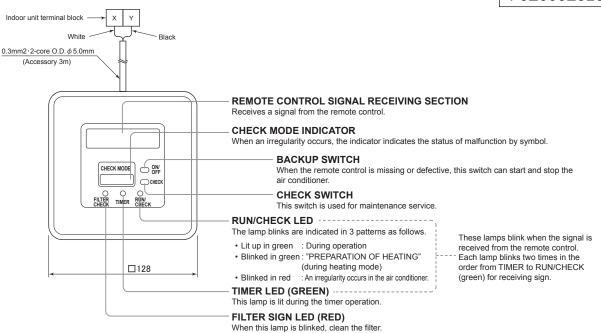
On the receiver of a wireless kit, a two-digit (7-segment) display is provided.

- 1. An indication will be displayed for one hour after power on.
- 2. An indication will be displayed for 3.5 seconds after transmitting a "STOP" command from the wireless remote control or the operation of the backup switch to stop the unit.
- 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 of all the connected units are displayed.
- 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, while the backup button is pressed.

3.1.3 FDU, FDUM series (RCN-KIT4-E2)

(1) Specification

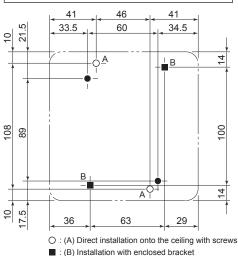
PJZ000Z323



Dimensions of ceiling or wall opening

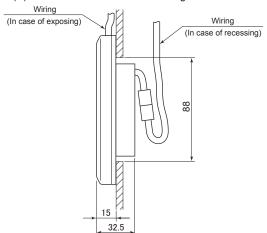
Outline of the receiver Installation method (B) Installation method (A) 88 80 1 101 108

Dimensions of the receiver installation

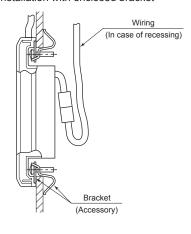


Installation of the receiver The following two methods can be used to install the receiver onto a ceiling or a wall. Select a method according to the installation position.

(A) Direct installation onto the ceiling with screws



(B) Installation with enclosed bracket



Installation precautions

Do not install it on the following placesin order to avoid malfunction.

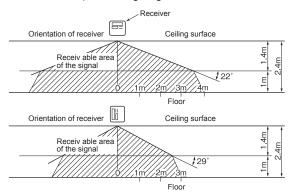
- (1) Places exposed to direct sunlight
- (2) Places near heat devices
- (3) High humidity places
- (4) Hot surface or cold surface enough to generate condensation
- (5) Places exposed to oil mist or steam directly
- (6) Uneven surface
- (7) Places affected by the direct airflow of the AC unit
- (8) Places where the receiver is influenced by the flourescent lamp (especially inverter type) or sunlight
- (9) Places where the receiver is affected by infrared rays of any other communication devices
- (10) Places where some pbject may obstruct the communication with the remote control

Adapted to RoHS directive

Wireless remote control operable area

When installed on ceiling

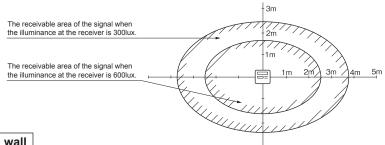
1. Standard reachable area of the signa [Condition] Illuminance at the receiver: **300lux** (when no lighting is installed within 1m of the receiver in an ordinary office.)



2. Correlation between illuminance at the receiver and reachable area of the signal in a plain view.

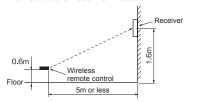
[Condition] Correlation between the reachable area of the signal and illuminance at the receiver when the wireless remote control is operated at 1m high under the condition of ceiling height of 2.4m.

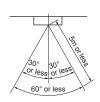
When the illuminance becomes double, the area is narrowed down to two third.



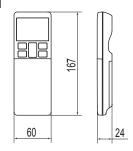
When installed on wall

[Condition] Illuminance at the receiver: 800lux

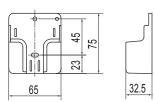




Remote control



Remote control holder



Note (1) Two LR03 AAA dry cell batteries for remote control are enclosed.

(2) Installation manual

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.

 \Diamond

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.

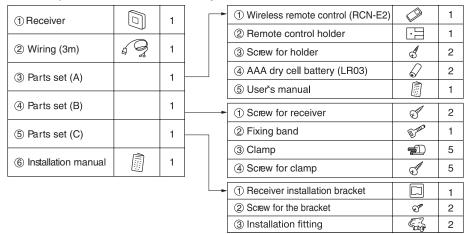
⚠CAUTION

- 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
 - (4) Hot surface or cold surface enough to 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
- (9) Places where the receiver is affected by infrared 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.

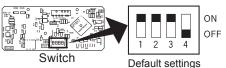
SW1	Prevents interference during plural setting	ON : Normal	OFF : Customized
SW2	Receiver master/ slave setting	ON : Master	OFF : Slave
SW3			
SW4	Auto restart	ON : Valid	OFF : Invalid

② Preparation before installation (continued)

To change setting

- 1. 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 4 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 switch 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

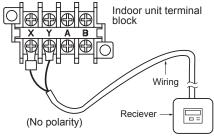
(1) Drilling of the ceiling (ceiling opening)

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

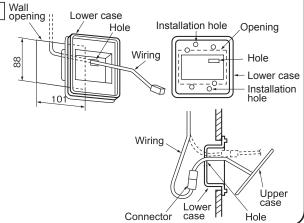
Do not connect the wiring to the power source of the terminal block. If it is connected, printed board will be damaged.

(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.

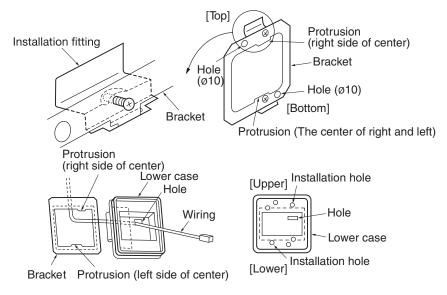


(3) How to install the receiver(continued)

- 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.

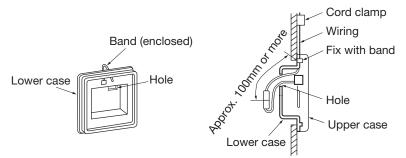


- ① Catch the two protrusion of the enclosed bracket onto the fitting as shown above, and temporarily fix with the screws. (The bracket has an Upper/Lower and front/back orientation. Confirm the Upper/Lower protrusion positions and the positional relation of the ø10 holes on the bracket and the installation 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.



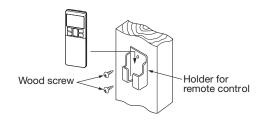
- ① Cut off the thin section on the side of the upper case with a pair of nippers or a knife, and remove the burrs with a file, etc. (The wiring is passed through this section.)
- ② Pass the enclosed band through the wiring outlet hole on the lower case.
- ③ Use on of the light detection adaptor installation 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

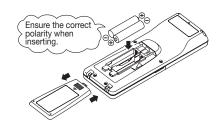
Fix the remote control holder using the screws supplied with this product.

- * 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.



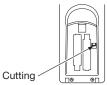
How to insert batteries

- 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.
 - 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 setting (Motion sensor setting) : Enable Infrared sensor control (Motion sensor control) : Disable

Infrared sensor control (Motion sensor control):

Infrared sensor control (Motion sensor control):

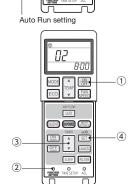
Infrared sensor control (Motion sensor control):

(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.



SIENT (IVVIE) (#

SLEEP FIL

	Button	Number indicator	Function setting	Button	Number indicator	Function setting
		00	Fan speed setting : Standard		00	Cooling fan residual-period running : Disable
F	AN SPEED	01	Fan speed setting : Setting 1 *	ON TIMER	01	Cooling fan residual-period running: 0.5 hours
		02	Fan speed setting : Setting 2 *	ONTIMER	02	Cooling fan residual-period running : 2 hours
		00	Room heating temperature adjustment : Disable		03	Cooling fan residual-period running : 6 hours
		01	Room heating temperature adjustment : +1°C		00	Heating fan residual-period running : Disable
		02	Room heating temperature adjustment: +2°C	OFF TIMER	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
	FILTER	00	Filter sign display : OFF	1	03	Heating fan residual-period running : 6 hours
		01	Filter sign display : 180 hours	NIGHT SETBACK	00	Remote control signal receiver LED : Brightness High
		02	Filter sign display : 600 hours			01
'	ILILIX	03 Filter sign display : 1000 hours	GETBACK	02	Remote control signal receiver LED : OFF	
		04	Filter sign display :	* Refer to service manual.		
		04	Operation stop after 1000 hours have elapsed	1 10101 10 00	TVICO III aliaali	•
τ	J/D	00	Anti draft setting : Disable			
	(Up/Down)	01	Anti draft setting : Enable			
_	SII ENIT	00	Infrared sensor setting (Motion sensor setting) : Disable			
SILENT	0.1	Infrared consequenting (Metion consequenting) . Facility	1			

(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.

01

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.

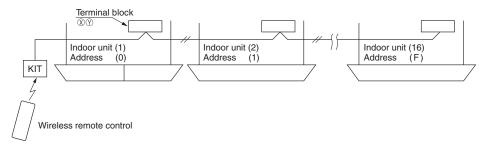
Restrictions on the thickness and length of wire (Maximun total extension 600m.)

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.

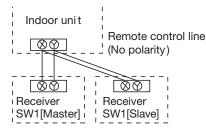


For the building air-conditioner and gas heat pump series

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.

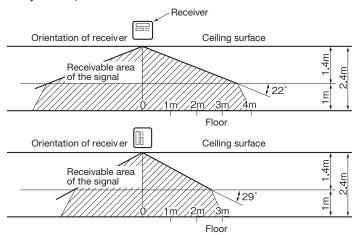


Switch	Setting	Function	
SW2	ON	Master	
	OFF	Slave	

When installed on ceiling

1. Standard reachable area of the signa

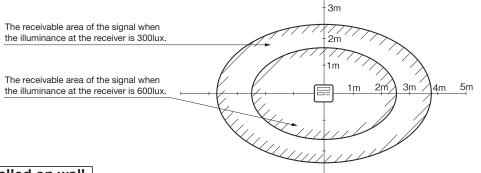
[Condition] Illuminance at the receiver: **300lux** (when no lighting is installed within 1m of the receiver in an ordinary office.)



2. Correlation between illuminance at the receiver and reachable area of the signal in a plain view.

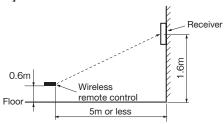
[Condition] Correlation between the reachable area of the signal and illuminance at the receiver when the wireless remote control is operated at 1m high under the condition of ceiling height of 2.4m. When the illuminance becomes double, the area is narrowed down to two third.

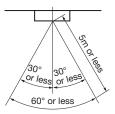
(5) Receiver (continued)



When installed on wall

[Condition] Illuminance at the receiver: 800lux.

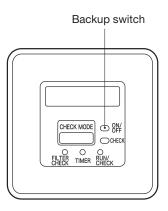




Backup switch

A backup switch is provided on the receiver section of the panel surface. When operation from the wireless remote control 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.

- 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, 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.

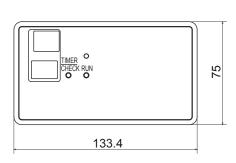
- 1. An indication will be displayed for one hour after power on.
- 2. An indication appears for 3.5 seconds when a "Stop" command is sent from the wireless remote control unit while the air-conditioner is not running.
- 3. An indication appearing in (1) or (2) above will go off as soon as the unit starts 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.

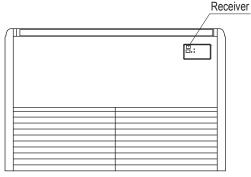
3.1.4 FDE series (RCN-E-E3)

(1) Specification

Receiver

Installation position of wireless kit





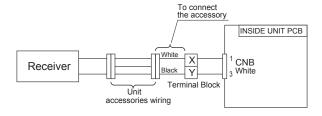
Notes

- (1) Two LR03 AAA dry cell batteries for remote control are enclosed.
- (2) See spec sheet of "Wireless remote control" about remote control.

Setting switch on PCB of receiver

SW1	i uurinu biurai settiilu	ON: Normal OFF: Remote
SW2	Receiver master/ slave setting	ON: Master OFF: Slave
SW3	Buzzer	ON: Valid OFF: Invalid
SW4	Auto restart	ON: Valid OFF: Invalid

Default setting: ____ mark



Installation of wireless kit

Do not install the wireless kit at the following places in order to avoid malfunction.

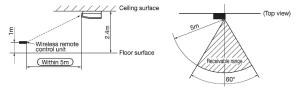
- (1) Places exposed to direct sunlight
- (2) Places near heat devices
- (3) High humidity places
- (4) Hot surface or cold surface enough to generate condensation
- (5) Places exposed to oil mist or steam directly
- (6) Uneven surface
- (7) Places affected by the direct airflow of the AC unit
- (8) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight
- (9) Places where the receiver is affected by infrared rays of any other communication devices
- (10) Places where some object may obstruct the communication with the remote control

Wireless remote control's operable area

Standard signal receiving range
[condition] Illuminance at the receiver area:360lux.

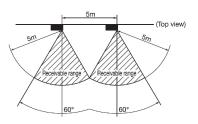
 (Mhan no lighting fixture is legated with)

(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

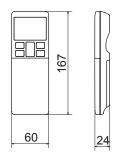
[condition] Illuminance at the receiver area:360lux.



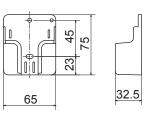
Unit:mm

PFA004Z079

Remote control



Remote control holder



(2) Installation manual

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.



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
 - generate condensation
 - 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.
 - (4) Hot surface or cold surface enough to (9) Places where the receiver is affected by infrared ravs of any other communication devices.
 - communication with the remote control

(1) Accessories

Please make sure that you have all of the following accessories.

1 Receiver	E.:	1
2 Parts set		1
3 Installation manual		1
4 Wiring		1

•					
-	① Wireless remote control (RCN-E2)		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

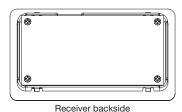
PCB on the receiver has the following switches to set the function. Default setting is shown with mark.

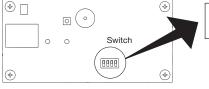
SW1	Prevents interference during plural setting	ON: Normal OFF: Customized
SW2	Receiver master/slave setting	ON : Master OFF : Slave
SW3	Buzzer	ON : Valid OFF : Invalid
SW4	Auto restart	ON : Valid OFF : Invalid

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.





OFF

Master/Slave setting when using plural remote controls

Up to two receiver or wired remote 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.

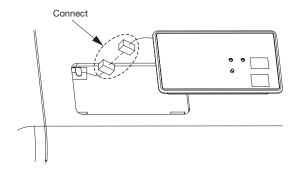
1 Remove the cover

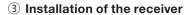
Insert a flat-blade screwdriver into the dented part (2 places), and wrench slightly so as not to damage panel surface.

Connect the wiring

Connect wiring of the receiver to the wiring in the back.

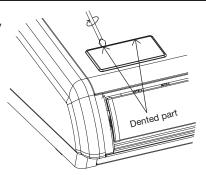
ATTENTION: Do not remove the clamp fixed the wiring.

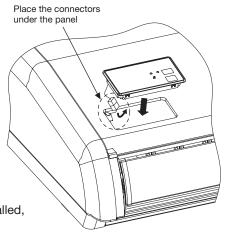




Check direction of the receiver, and fix to the panel.

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. Wiring from receiver Signal terminal block

X: White

Y: Black

CnL (3P, White)

 \bigcirc

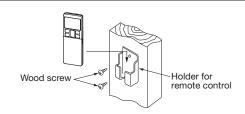
Attached wiring

(5) Wireless remote control

Installation tips for the remote control holder

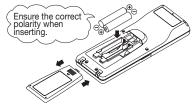
Fix the remote control holder using the screws supplied with this product.

- * 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.

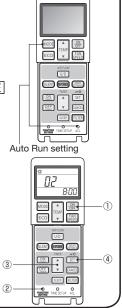
To disable the Auto Run mode, press the ACL switch while holding down the MODE button, or insert batteries while holding down the MODE button.

* 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
 - 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.



(continued) (5) Wireless remote control

2. Setting details
The following functions can be set.

Button	Number indicator	Function setting
	00	Fan speed setting : Standard
FAN SPEED	01	Fan speed setting: Setting 1 *
	02	Fan speed setting: Setting 2 *
	00	Room heating temperature adjustment : Disable
MODE	01	Room heating temperature adjustment : +1°C
MODE	02	Room 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/D	00	Anti draft setting : Disable
(Up/Down)	01	Anti draft setting : Enable
SILENT	00	Infrared sensor setting (Motion sensor setting) : Disable
SILENI	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
HIPOWEN	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 HIVIER	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 HIVIER	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
CLIDAON	02	Remote control signal receiver LED : OFF

^{*} Refer to service manual.

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.)

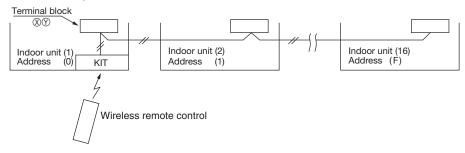
Standard Within 0.3 mm² × 100m

Within $0.5 \text{ mm}^2 \times 200 \text{m}$ Within $0.75 \text{mm}^2 \times 300 \text{m}$

Within $1.25mm^2 \times 400m$ Within $2.0 \text{ mm}^2 \times 600m$

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.

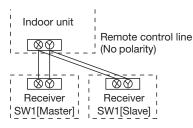


For the building air-conditioning and gas heat pump series

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.



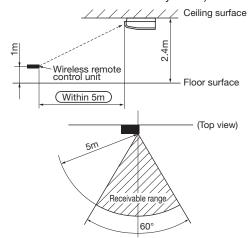
Switch	Setting	Function
SW2	ON	Master
	OFF	Slave

(6) Receiver (continued)

Wireless remote control's operable area

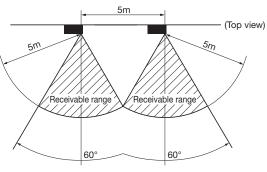
1. Standard signal receiving range [Condition]

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.



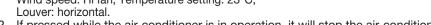
Backup switch

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).

Wind speed: Hi fan, Temperature setting: 23°C,





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.
- 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.
- Error records can be cleared by transmitting a "Stop" command from the wireless remote control unit, while the backup switch is depressed.

0

RUN

Backup switch

TIMER

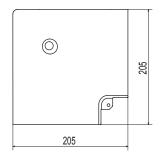
CHECK

3.2 MOTION SENSOR KIT

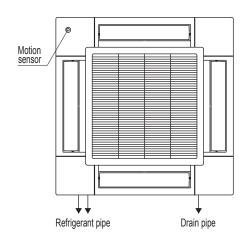
3.2.1 FDT series(LB-T-5BW-E, LB-T-5BB-E)

(1) Specification

Motion sensor kit



Installation position of motion sensor kit



Note

(1) Motion sensor must be installed to the position as shown.

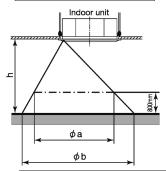
Unit:mm

Installation of motion sensor kit

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 airflow 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.
- motion sensor

Standard detectable area



Height of the ceiling h[m]		2.7	3.5	4.0
Detectable area	φ a[m]	about 4.5	about 6.4	about 7.6
	φ b[m]	about 6.4	about 8.3	about 9.5

(2) Installation manual

PJF012D036▲

⚠ 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 aboid 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

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

- 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 you have the motion sensor.

Motion sensor

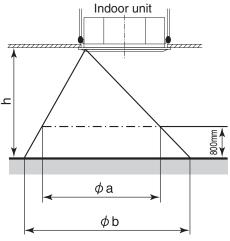


1

2 Installing the motion sensor

It is possible to install the motion sensor by replacing with a corner lid on the panel.

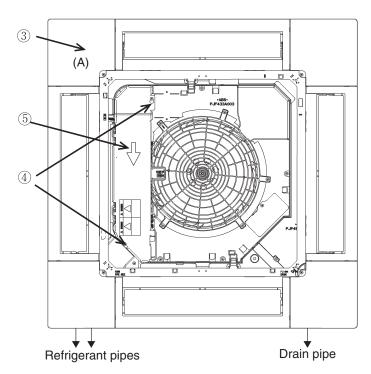
Aim of the detectable scope



Hight of the ceiling	h[m]	2.7	3.5	4.0
Detectable scope①	ϕ a[m]	about 4.5	about 6.4	about 7.6
Detectable scope2	ϕ b[m]	about 6.4	about 8.3	about 9.5

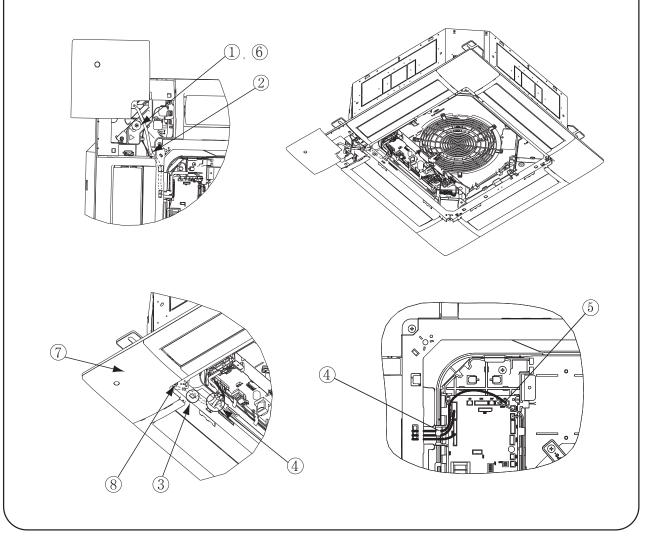
Preparation before installation

- ① Install the panel onto the indoor unit according to the installation manual for the panel.
- 2 Remove the inlet grille.
- 3 Remove the corner lid (A) located on the panel.
- 4 Loosen 2 screws for the control lid. (It is unnecessury to remove the screws.)
- 5 Slide the control lid, and open and remove it.



Installation of the motion sensor

- ① Loosen the bolts which fix the panel, and make a gap between the panel and the indoor unit.
- 2 Pass the wiring of the motion sensor through the opening of the panel.
- 3 Hang the wiring on the hook which is on the panel's inside.
- 4 Pass the wiring through the opening of the control box.
- 5 Connect the connecter to CNL(3P,Black) on PWB in the contorl box.
- 6 Tighten the bolts which fix the panel.
- 7 Install the motion sensor on the panel.
- 8 Fix the motion sensor by the screw.
- 9 Reinstall the control lid, and tighten 2 screws.



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

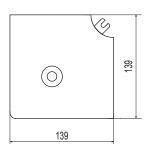
Wireless: RCN-E1R

Unit:mm

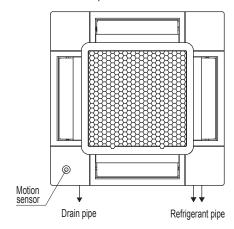
3.2.2 FDTC series (LB-TC-5W-E)

(1) Specification

Motion sensor kit



Installation position of motion sensor kit



Note

(1)Motion sensor must be installed to the position as shown.

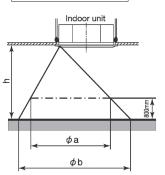
Installation of motion sensor kit

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-generating devices (3) High humidity places

- (4)Hot surface or cold surface enough to generate condensation
- (5)Places directly exposed to oil mist or steam
- (6)Places affected by the direct airflow of the indoor unit
- (7)Places where the motion sensor may be influenced by fluorescent lamp or sunlight
- (8) Places where the motion sensor may be affected by infrared rays of any other communication devices

 (9)Places where some object may obstruct the
- motion sensor
- (10)Places where there may be impact on the motion sensor
- (11)Places with strong radio wave or static electricity
- (12)Dusty place where the motion sensor lens may become tainted or be damaged

The detectable area



Height of the ceiling h[m]		2.7	3.5	4.0
Detectable area	ϕ a[m]	about 4.5	about 6.4	about 7.6
	ϕ b[m]	about 6.4	about 8.3	about 9.5

PJF000Z509

(2) Installation manual

PJF012D504A

⚠ WARNING

 Connect the wiring to the PCB in the control box on the indoor unit and fix the wiring securely so as not to apply unexpected stress on the PCB.
 Loose connection or fixing will cause abnormal heat generation or fire.



Make sure the power source is turned off during electrical wiring work.
 Otherwise, electric shock, malfunction and abnomal operation 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-generating devices
 - (3) High humidity places
 - (4) Hot surface or cold surface enough to generate condensation
 - (5) Places directly exposed to oil mist or steam
 - (6) Places affected by the direct air flow of the indoor unit
 - (7) Places where the motion sensor may be influenced by fluorescent lamp or sunlight
- (8) Places where the motion sensor may be affected by infrared rays of any other communication devices



- (9) Places where some object may obstruct the motion sensor
- (10) Places where there may be impact on the motion sensor
- (11) Places with strong radio wave or static electricity
- (12) Dusty place where the motion sensor lens may become tainted or be damaged
- 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.



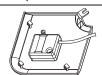
Attention

- Instruct the customer how to operate the motion sensor kit correctly by 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

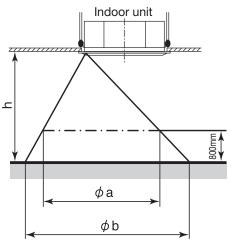


1

2 Installing the motion sensor

It is possible to install the motion sensor by replacing the corner lid on the panel.

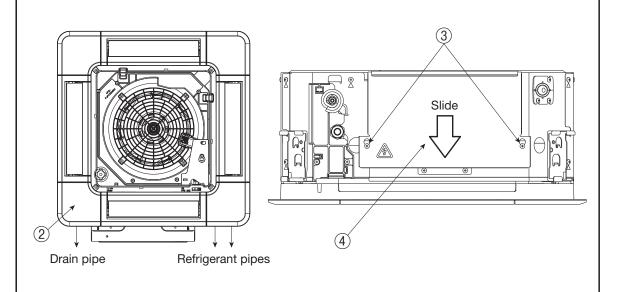
The detectable area



Height of the ceiling	h[m]	2.7	3.5	4.0
Detectable area①	ϕ a[m]	about 4.5	about 6.4	about 7.6
Detectable area②	ϕ b[m]	about 6.4	about 8.3	about 9.5

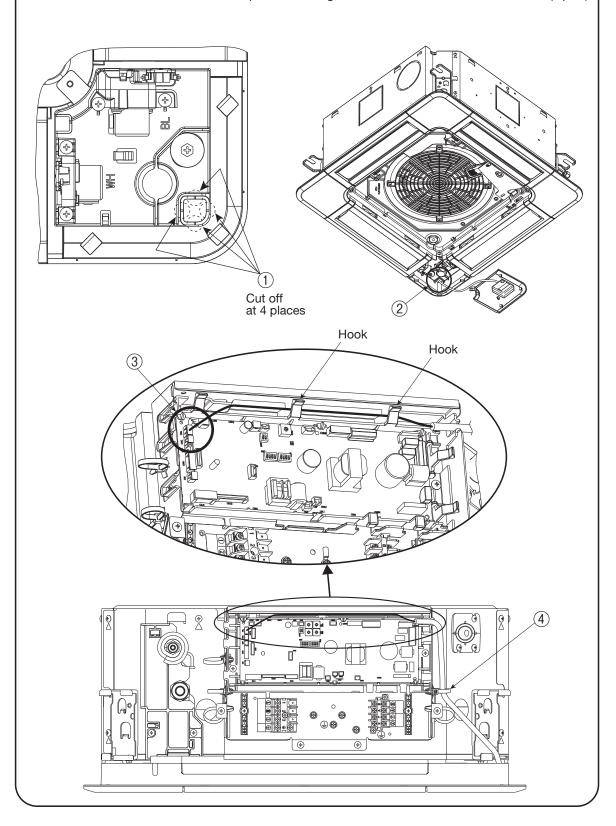
Preparation before installation

- ① Remove the inlet grille according to the installation manual of the panel.
- ② Remove the corner lid at the drain pipe side.
- 3 Loosen screws (2 pcs.) on the control box of the unit. (It is not necessary to remove the screws.)
- 4 Slide the control lid in the arrow direction, and remove it.



Installation of the motion sensor

- ① Cut the half blanking (4 sections) of the panel as shown in the following figure.
- ② Pass the motion sensor wiring through the opening of the panel.
- ③ Connect the wiring connector to CNL (3P, black) on the PCB in the control box.
- 4 Fix the wiring with a band as shown below.
- ⑤ Install the motion sensor on the panel according to the installation manual of the panel.
- (6) Install the control lid with care not to pinch the wiring, and reinstall the control lid with screws (2 pcs.).



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 ones.

Wired:RC-EX1A, RC-E5, RCH-E3

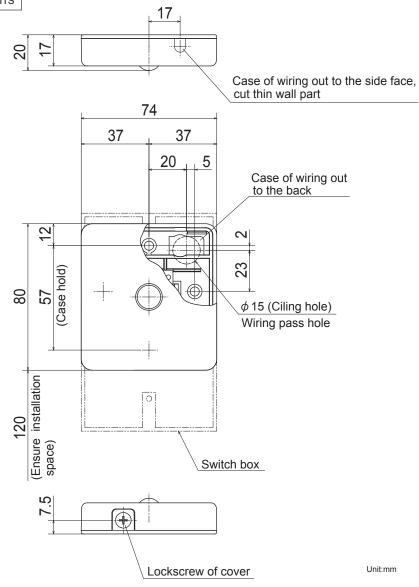
Wireless: RCN-E1R

3.2.3 FDU, FDUM series (LB-KIT2)

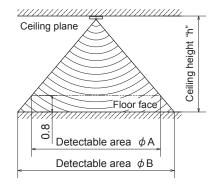
(1) Specification

External dimensions

PJZ000Z341



Detectable area



High of the ceiling h[m]	2.7	3.5	4.0
Detectable area ϕ A[m]	4.5	6.4	7.6
Detectable area ϕ B[m]	6.4	8.3	9.5

Notes

- (1) The recommended height, is lower than 4m for motion sensor. When the installation height is higher, motion detection accuracy might be reduced.
- (2) Connenction wiring (prepare on site) for signal wiring is 0.2mm² × 3 cores wire or more (Red,White,Black) and maximum total extension 8m.
- (3) Motion sensor kit can be installed on the wall, but recommend installing is the ceiling plane.
- (4) In the case of wall installation, the detectable area is 5m in front and about 100° left and right.
- (5) Refer to the installation sheet for details.

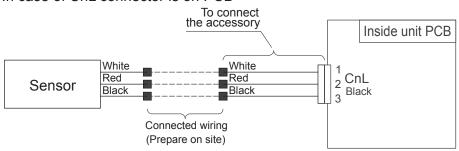
Installation precautions

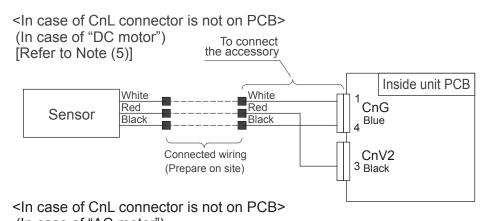
Do not install the motion sensor kit at the following places in order to avoid malfunction.

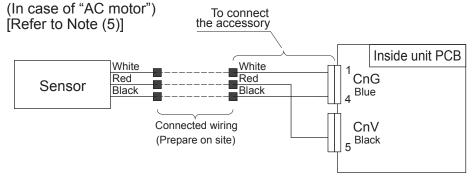
- (1) Places exposed to direct sunlight
- (2) Places near heat devices
- (3) High humidity places
- (4) Hot surface or cold surface enough to generate condensation
- (5) Places exposed to oil mist or steam directly
- (6) Uneven surface
- (7) Places affected by the direct air flow of the AC unit
- (8) Places where the motion sensor is influenced by the fluorescent lamp (especially inverter type) or sunlight
- (9) Places where the motion sensor is affected by infrared rays of any other communication devices
- (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) Do not run in parallel with strong voltage lines such as power source wiring

Wiring connection

<In case of CnL connector is on PCB>







(2) Installation manual

PJZ012D134

⚠ 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
- 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
- (5) Places exposed to oil mist or steam directly (10) Place that the motion sensor have a shock
- (6) Places affected by the direct air flow of the (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

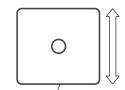
Please make sure that all components are in the package.

Motion sensor	Wiring <1>	Wiring <2>	Wiring <3>	2 screws	Manual
0	In case of CnL connector on the indoor unit PCB (FDT/FDK/FDTC)	In the case of CnV2 connector on the indoor unit PCB	In the case of CnV connector on the indoor unit PCB (FDTQ/FDFL/FDFU)	OH OH	

Ø Please prepare a relay wiring for connecting the motion sensor and indoor unit on site. (0.2mm² or thicker, triplex (red, white and black) cable for communication, with the maximum length of 8m.)

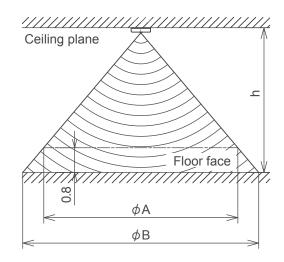
2 Installing the motion sensor

- The recommended height is lower than 4000mm 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 \(\subseteq \subseteq \mathbb{mark}. \)
- 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 5m, covering the angle of about 100 degrees.



Side of screws for fixing the case

The detectable area



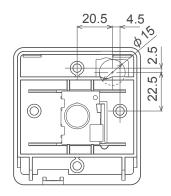
Height of the ceiling	h (m)	2.7	3.5	4.0
Detectable area	ϕ A (m)	4.5	6.4	7.6
Detectable area	φ B (m)	6.4	8.3	9.5

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>

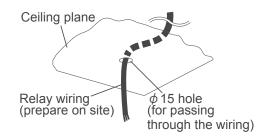
- (A) Direct installation by screws to the ceiling plane with the wiring in the ceiling space.
- (B) Direct installation by screws to the ceiling plane with the wiring in the room.
- (C) Installation with switch box (prepare at the site)

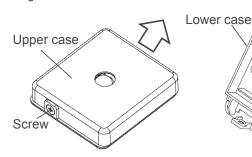


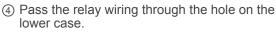
Positional relation for pulling out relay wiring hole and installing holes.

Option (A)

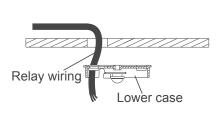
- ► Select this method if the ceiling plane has sufficient strength to install the motion sensor directly with screws.
- ① Prepare a relay wiring on site and lay out the wiring in advance.
- ② Remove the screw at the side of the motion sensor and slide the upper case in the direction of the arrow.
- 3 Pull the wiring of the motion sensor as below.

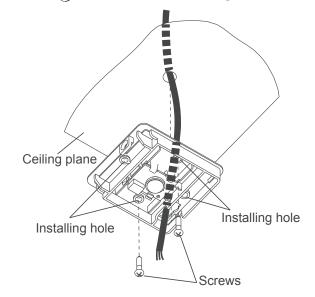






⑤ When fixing the lower case to the ceiling plane, tighten it in 2 locations of the installing holes (4 locations) with the attached screws.





(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.
- Taking care not to pinch the wirings, slip the upper case into the lower case, and tighten the screws.

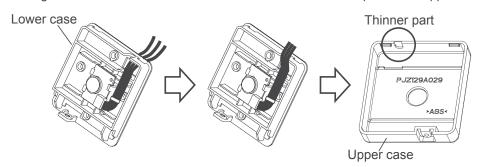


Caution:

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 the 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.



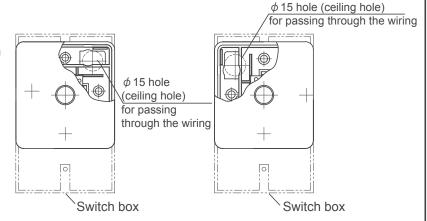
- ③ When fixing the lower case to the ceiling plane, tighten it in 2 locations of the installing holes (4 locations) with the attached screws. (The same as ⑤ of Option (A))
- 4 Using a crimping terminal, etc., connect the same color to the relay wiring (prepare on site) and the wiring of motion sensor.
 - (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.



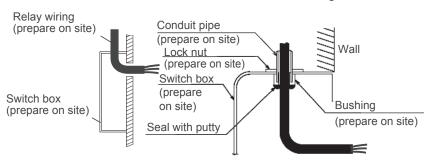
Option (C)

 Set up the switch box and relay wiring (prepare on site) in advance.

Seal the relay wiring inlet with 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).
- Lower case

 Switch box

 Installing hole

 Installing plane

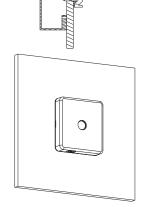
 Installing hole

Installing hole

_ower case

Switch box installing hole

- ⑥ 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))



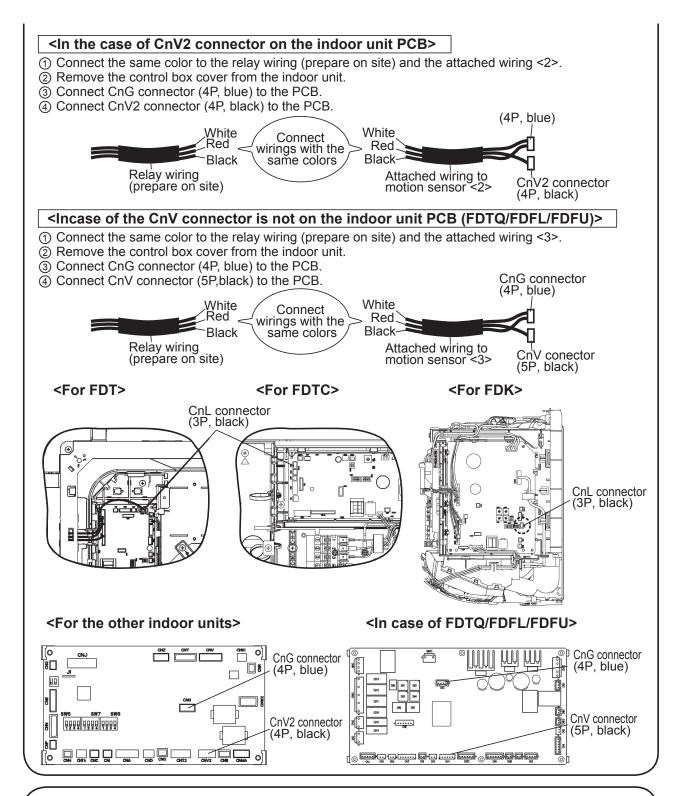
Wiring connection in the control box of indoor unit

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.





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.

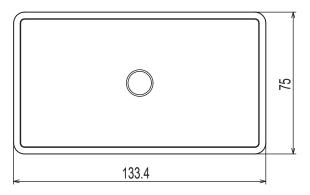
Wired:RC-EX1A, RC-E5, RCH-E3

Wireless: RCN-E1R

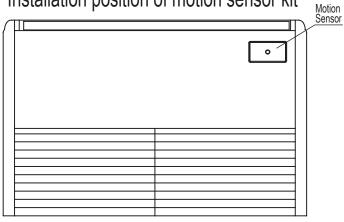
3.2.4 FDE series (LB-E)

(1) Specification

Motion sensor kit



Installation position of motion sensor kit

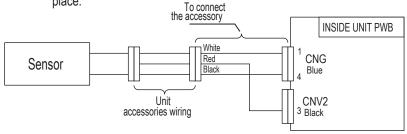


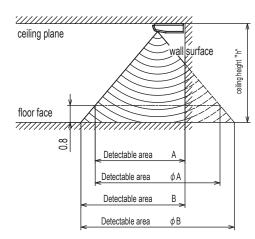
1. The recommended height, is lower than 4m for motion sensor. When the installation height is higher, motion detection accuracy might be reduced.

Installation of motion sensor kit

DO NOT install the motion sensor kit at the following places in order to avoid malfunction.

- 1) Places exposed to direct sunlight
-) Places near heat devices) High humidity places
- 4) Hot surface or cold surface
- enough to generate condensation
) Places exposed to oil mist or steam directly
- Uneven surface
-) Places affected by the direct airflow of the AC unit
- (8) Places where the motion sensor is influenced by the fluorescent lamp (especially inverter type) or sunlight
- (9) Places where the motion sensor is affected by infrared rays of any other communication devices
- 1 0) Place that the motion sensor have a shock
- 1 1) Place with the strong radio wave or static electricity
- (1 2) Place that motion sensor lens become tainted or have damaged. Dusty place.





High of the ceiling	h[m]	2.7	3.5	4.0
Detectable area	A[m]	2.9	3.9	4.5
Detectable area	ϕ A[m]	4.5	6.4	7.6
Detectable area	B[m]	3.9	4.8	5.4
Detectable area	φB[m]	6.4	8.3	9.5

PFA004Z077

(2) Installation manual

PFA012D633 🗥

⚠ 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.

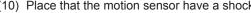


Make sure the power source is turned off when electric wiring work. Otherwise, electric shock, malfunction and improper running may occur.

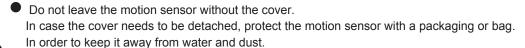


⚠ CAUTION

- 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
 - (5) Places exposed to oil mist or steam directly (10) Place that the motion sensor have a shock
 - (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



- (11) Place with the strong radio wave or Static electricity
- (12) Place that motion sensor lens become tainted or have damaged. Dusty place





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.

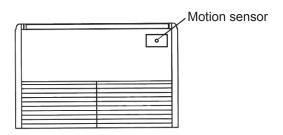
1 Accessories

Please make sure that all components are in the package.

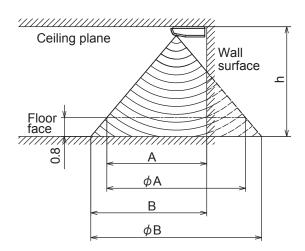
Motion sensor (*) Manual Attached wiring to the motion sensor kit * Wiring from the motion sensor and the attached wiring to the motion sensor kit have been connected when shipped from the factory. Remove the connector at the position of \bigcirc mark and connect it to the attached wiring to the indoor 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 4000mm 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	φ 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

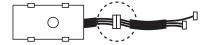
Installing the motion sensor (before installing the unit)

Motion sensor can be installed by replacing with a cover of the panel.

CAUTION: Install the motion sensor before installing the unit.

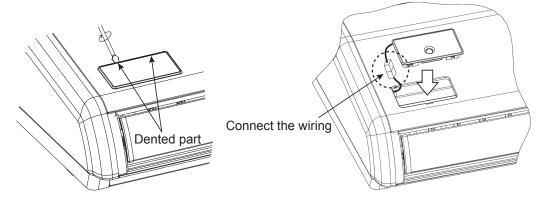
When installing the motion sensor after unit has been fixed, injury due to falling may result because of working at high place.

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

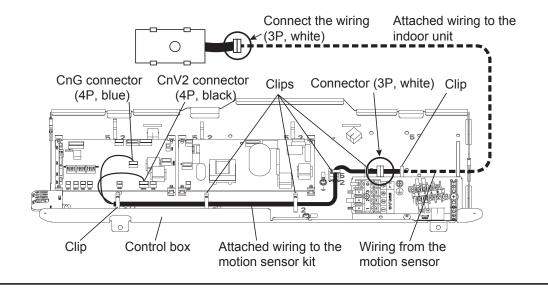
Place the connector under the panel and install it to the panel with careful attention to the direction of the motion sensor.

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.



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

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

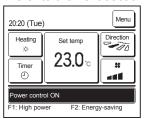
- The sensor may not detect a person near the border of detection range.
- Installation near an object with a different temperature from the surrounding may cause a false detection of human.
- Due to correction of temperature setting, some people may feel chilly.

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
Power control	Activity level is large	Lower the indoor temperature setting for comfort.	Power control ON
() Fower 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.

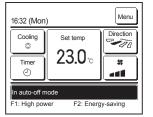
Refer to the next section for setting method.



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.



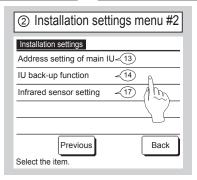
- When auto-off is enabled
 - The unit will enter the "Operation wait" state when an hour has elapsed since the last time a human presence was detected and will be in "Complete stop" state after another 12 hours.
- "Operation wait"...The unit stops but will resume operation when human presence is detected. 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.

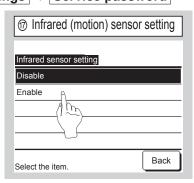
 The message "In auto-off mode" will disappear from the message display, and the operation lamp will turn off.

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

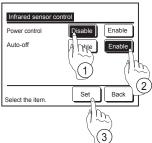






- Refer to the installation manual for eco touch remote control to set control mode.
- Infrared sensor (motion sensor) control (for IUs with motion sensors)

 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)

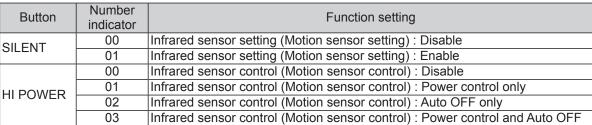
Refer to the installation manual for wireless remote control to enable motion sensor in Indoor function settings

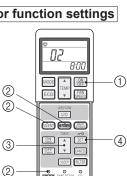
Indoor function settings

- 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.



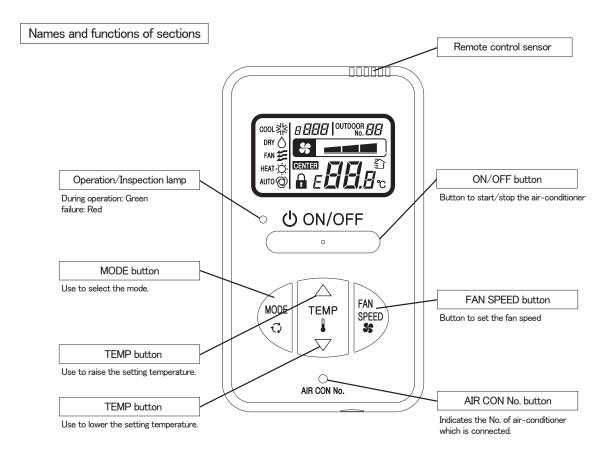


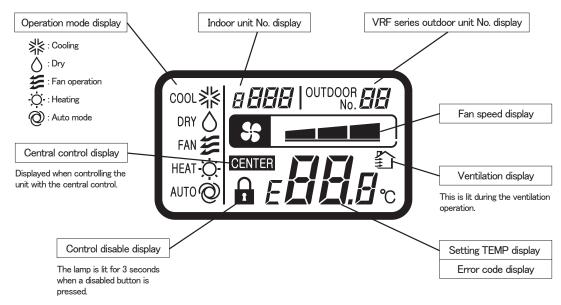


3.3 SIMPLE WIRED REMOTE CONTROL (RCH-E3)

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
- (4) Hot surface or cold surface enough to generate condensation
- (2) Places near heat devices
- (5) Places exposed to oil mist or steam directly

(3) High humidity places

(6) Uneven surface

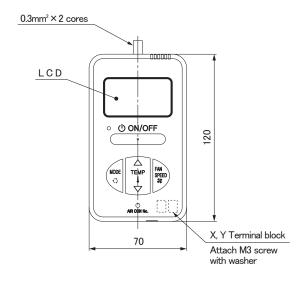
PJZ000Z272

Remote control installation dimensions

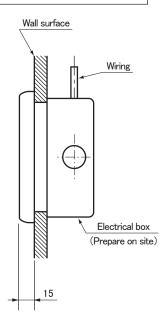
Wiring outlet (In case of embedding wiring) 12 × 7 slot hole Installation hole 9 × 4.5 slot hole (2 places)

Note: Installation screw for remote control M4 screw (2 pieces)

In case of exposing wiring

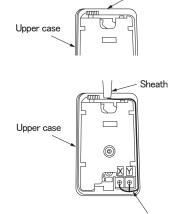


In case of embedding wiring



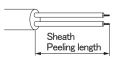
The remote control wiring can be extracted from the upper center. After the thin part in the upper side of the remote control upper case is scraped with a nipper or knife, remove burr with a file.

Thin part



The peeling length of each wiring is as follows:

X wiring : 160mm Y wiring : 150mm



Unit:mm

Wiring specifications

- (1) Wiring of remote control should use $0.3 \text{mm}^2 \times 2$ cores wires or cables. (on–site configuration)
- (2) Maximum prolongation of remote control wiring is 600m.

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	1.25mm² × 2 cores
Under 600m	2.0mm ² × 2 cores

Adapted to **RoHS** directive

Simple Remote Control Installation Manual

PJZ012D069 A

Read together with indoor unit's installation manual.

<u>∧</u>WARNING

• Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal.

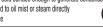


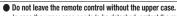
Make sure the power source is turned off when electric wiring work. Otherwise, electric shock, malfunction and improper running may occur.

⚠ 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 (5) Places exposed to oil mist or steam directly
- (2) Places near heat devices (3) High humidity places
- (6) Uneven surface





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 (ϕ 3.5 $ imes$ 16) 2 pieces	
Prepare on site	Remote control cord (2 cores) (Refer to [2. Installation and wiring of remote control]) lin 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

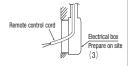
(1) Make certain to remove the screw on the bottom surface of the remote control



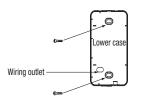
(2) Remove the upper case of the remote control. Insert a flat-blade screwdriver to a concave portion of the bottom surface of the remote control and slightly twist it, and the case is

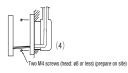


(3) Pre-bury the electrical box and remote control cord.



(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)
- (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 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.

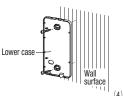


(3) The remote control cord can be extracted from the

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.



(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

The wiring route is as shown in the right.



The wiring in the remote control case should be 0.3 mm² (recommended) to 0.5 mm² 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 0.3mm² × 2 cores wires or cables, (on-site configuration)
- (2) Maximum prolongation of remote control wiring is 600 m.

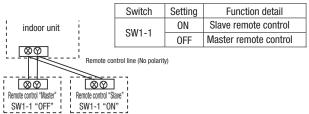
If the prolongation is over 100m, change to the size below.

But, the wiring in the remote control case should be 0.3mm² (recommended) to 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.

100 - 200m······0.5mm² × 2 cores Under 300m·············0.75mm² × 2 cores Under 400m······1.25mm² × 2 cores

3. Master/ slave setting when more than one remote control are used

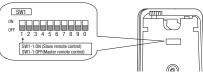
(1) Up to two remote controls can be connected to one unit (or one group) of indoor unit.



(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 temperature sensor 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 expressed.

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 established.
- (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.

E

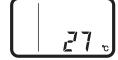
5. Confirmation method for return air temperature

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 temperature sensor is effective, detected temperature by the remote control temperature sensor is displayed.

(2) Press ON/OFF button. End.

[In the case that the remote temperature sensor 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 (3 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.

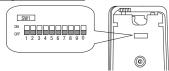
6. Function setting

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) Function setting item by switch on PCB

Switch No.	Setting	Setting detail	Initial setting
SW1-1	ON	Slave remote control	
3W1-1	0FF	Master remote control	0
SW1-2	ON	Remote control temperature sensor enabled	
3W1-2	0FF	Remote control temperature sensor disabled	0
SW1-3	ON	"MODE" button prohibited	
3W1-3	0FF	"MODE" button enabled	0
SW1-4	ON	"ON/OFF" button prohibited	
5W1-4	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
CMM C	ON	"FAN SPEED" button prohibited	※ Note 1
SW1-6 OFF	0FF	"FAN SPEED" button enabled	≫ Note 1
SW1-7 ON OFF		Auto restart function enabled	
		Auto restart function disabled	0
SW1-8, 9, 0	ON	Not used	
	0FF	Not used	



- 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

(2) 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, * a = = - * a = - * a.
	01 Ind	lada	02	Fan speed: two steps (Hi-Lo)	※ Note 1	The fan speed is two steps, % a all a - % a.
	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 temperature sensor: no offset	0	
			02	Remote control temperature sensor: +3.0 °C		At the time of cooling, in the case of remote control temperature sensor enabled, offset temperature at +3.0°C.
		Remote control	03	Remote control temperature sensor: +2.0 °C		At the time of cooling, in the case of remote control temperature sensor enabled, offset temperature at +2.0°C.
	03	thermistor at the time	04	Remote control temperature sensor: +1.0 °C		At the time of cooling, in the case of remote control temperature sensor enabled, offset temperature at +1.0°C.
		of cooling	05	Remote control temperature sensor: -1.0 °C		At the time of cooling, in the case of remote control temperature sensor enabled, offset temperature at -1.0°C.
			06	Remote control temperature sensor: -2.0 °C		At the time of cooling, in the case of remote control temperature sensor enabled, offset temperature at -2.0°C.
Remote			07	Remote control temperature sensor: -3.0 °C		At the time of cooling, in the case of remote control temperature sensor enabled, offsett temperature at -3.0°C.
control			01	Remote control temperature sensor: no offset	0	
function			02	Remote control temperature sensor: +3.0 °C		At the time of heating, in the case of remote control temperature sensor enabled, offset temperature at +3.0°C.
		Remote control	03	Remote control temperature sensor: +2.0 °C		At the time of heating, in the case of remote control temperature sensor enabled, offset temperature at +2.0°C.
	04	thermistor at the time	04	Remote control temperature sensor: +1.0 °C		At the time of heating, in the case of remote control temperature sensor enabled, offset temperature at +1.0°C.
		of heating	05	Remote control temperature sensor: -1.0 °C		At the time of heating, in the case of remote control temperature sensor enabled, offset temperature at -1.0°C.
			06	Remote control temperature sensor: -2.0 °C		At the time of heating, in the case of remote control temperature sensor enabled, offset temperature at -2.0°C.
			07	Remote control temperature sensor: -3.0 °C		At the time of heating, in the case of remote control temperature sensor 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, b 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		"Auto" operation disabled
	07	Operation permission/	01	Disabled	0	
	07	pronibition	02	Enabled		Operation permission/prohibition control is enabled.
	08		01	Level input	0	
	00	External IIIput	02	Pulse input		
		9 Fan speed setting	01	Standard	※ Note 2	
	09		02	High speed 1	※ Note 2	
			03	High speed 2	※ Note 2	
		Fi-i	01	No remaining operation	0	After cooling stopped, no fan remaining operation
	10	Fan remaining operation at the time	02	0.5 hours		After cooling stopped, fan remaining operation for 0.5 hours
	10	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 annalaina	01	No remaining operation	0	After heating stopped or after heating thermostat OFF, no fan remaining operation
	11	Fan remaining operation at the time	02	0.5 hours		After heating stopped or after heating thermostat OFF, fan remaining operation for 0.5 hours
		of heating	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	
	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.
	12	heating	03	Setting temperature offset + 2.0 °C		The setting temperature at the time of heating is offset by +2.0 °C.
		5	04	Setting temperature offset + 1.0 °C		The setting temperature at the time of heating is offset by +1.0 °C.
			01	Low fan speed	※ Note 1	At the time of heating thermostat OFF, operate with low fan speed.
		[02	Setting fan speed		At the time of heating thermostat OFF, operate with the setting fan speed.
	13	Heating fan controller	03	Intermittent operation	፠ Note 1	At the time of heatingr thermostat OFF, intermittently operate.
			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 temperature senso
			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.
		B-ti-t :	03	Return air temperature offset +1.5 °C		Offset the return air temperature of the indoor unit by +1.5 °C.
	14	Return air temperature offset	04	Return air temperature offset +1.0 °C		Offset the return air temperature of the indoor unit by +1.0 °C.
		unact	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.
	1		07	Return air temperature offset -2.0 °C		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 dete	automatically determined as follows:				
Swith No. Function No.	Function	Setting	Product model		
	"FAN SPEED"		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	Fan speed: two steps (Hi-Lo)	Product model whose indoor unit fan speed is two steps		
nemble control turiculon or	speed	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		
nemote control turiculor do	setting	"Auto" operation disabled	Product model without "Auto" mode		
Indoor unit function 13	Heating fan	Low fan speed	Product model except FDUS		
indoor unit function 13	control	Intermittent operation	FDUS		

Note 2: Fan speed of "High speed" setting

Fon annual natting	Indoor unit fan speed setting				
Fan speed setting	St m m m - St m m - St m m m - St m m m - St m m m -		50 mmm - 50 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".



(1) Stop air-conditioner, and simultaneously press AIR CON No. and T. MODE buttons at the same time for over three seconds.

The function number "01" blinks in the upper right.



- (2) Press TEMP or TEMP button. Select the function number.
- (3) **Press 7 MODE** button. Decide the function number.

(4) [In the case of selecting the remote control function (01-06)]

Function number: "01" (lighting) Setting number: "01" (blinking)



- ③ Press **① MODE** button.

The setting is completed.

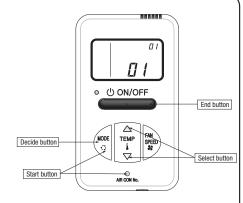
Light is on for approximately 3 to 20 seconds while data of the decided function No. and setting No. is transmitted.

(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)



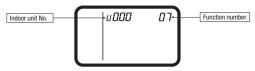
Proceed to ② .

[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 $\boxed{\mathsf{TEMP} \bigtriangledown}$ 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 is read)

When AIR CON No. button is pressed, go back to the indoor unit selection display (for example, "U 000" blinking).

② Press TEMP△ or TEMP▽ button.

Select the setting number

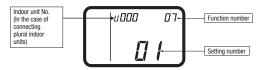
③ Press **₹ MODE** button

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)

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.

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 \(\bar{\mathcal{C}}\) MODE 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.)

3.4 OA SPACER (FDTC series)

This manual describes the installation methods for OA spacer (TC-OAS-E2) and the duct joint (TC-OAD-E).

This OA spacer is designed for assembling on the indoor unit (FDTC Series), not for be using independently.

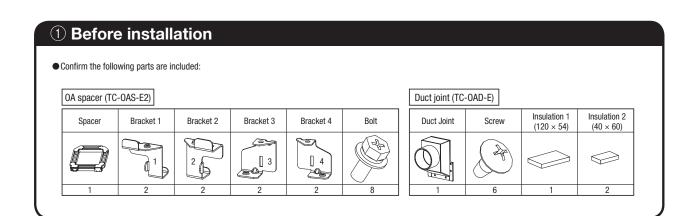


Application model	FDTC15-56KXZE1 FDTC25-60VH

OPrepare the duct (size: Ø75) and the booster fan at site.

OFor the installation of indoor unit, refer to the installation manual attached to the indoor 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. **.** 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. • 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. • 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. • Shut off the power before electrical wiring work. It could cause electric shock, unit failure and improper running. **∴CAUTION** • 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.



② Prior study before installation (Usage limitation)

(1) Temperature conditions for OA spacer

- · Adjust the temperature conditions of mixed air with outdoor air and indoor air within the usage range of suction air temperature for the air-conditioner.
- · The usage temperature conditions of intake outdoor air and indoor air around the ducts are shown in the following table.
- · If the temperature conditions of intake outdoor air do not meet, process the outdoor air

Oneration made	Usage temperature conditions			
Operation mode	Intake outdoor air	Indoor air around the ducts		
In heating	5°C DB or higher	18.5°C WB or lower and 60% RH or lower		
In cooling	29°C DB or lower and 80% RH or lower	20°C DB or higher		

(2) Intake outdoor air volume

· Intake outdoor air volume is 3.0 m³/min at the maximum (when two sets of duct joints are used). Up to two sets of duct joint can be installed on OA spacer.

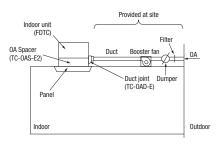
In case one set of duct joint is installed: 1.5 m³/min max.

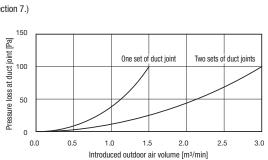
In case two sets of duct joint is installed: 3.0 m3/min max.

• Select the booster fan based on the duct resistance plus the pressure loss at the duct joint. (See the figure)

(4) Other conditions

- ${\boldsymbol{\cdot}}$ Determine the capacity of air conditioner based on the calculation of air-conditioning load including the heat load of intake outdoor air.
- · Install the filter for the intake outdoor air and the reverse flow prevention dumper during the duct work at site.
- · Insulate the duct and duct joint in order to prevent dewing.
- · Interlock the operation of booster fan with ON/OFF operation of the indoor unit. (See Section 7.)





(Suspension bolts pitch)

(TC-OAS-F2)

530 Suspension bolts pitch)

175

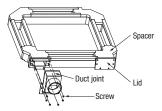
Control box

325

③ Installation of duct joint (TC-OAD-E) onto OA spacer

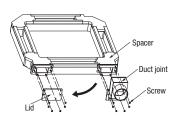
When installing one duct joint

Install OA spacer at either one of two installation places on the duct joint.



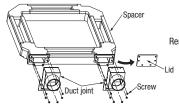
·There are two places where the duct joint can be installed.

To install the duct joint, screw it in as shown at left.



When installing the duct joint at the lid side, remove the lid and reinstall it at the other end before installing the duct joint.

When installing two duct joints



Remove the lid and then install two pieces of duct joint.

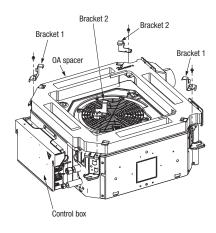
4 Installation of OA spacer on the indoor unit

OA spacer can be installed regardless whether the indoor unit has already been hanged or not. (It is recommended to install before hanging the unit for convenience of installation.)

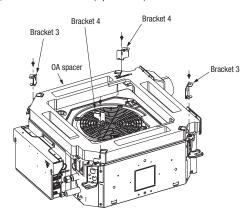
1-1. When installing OA spacer before hanging the indoor unit

① Placing OA spacer on the indoor unit, fix the brackets 1 and 2 (2 pieces each) with bolts.

Install OA spacer in the appropriate position that the duct joint side of OA spacer becomes opposite to the control box of indoor unit (FDTC).



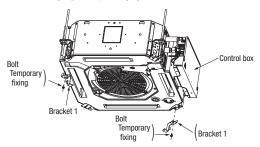
② Fix the brackets 3 and 4 (2 pieces each) with bolts.



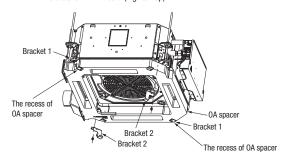
1-2. When installing OA spacer after hanging the indoor unit

 After hanging the indoor unit (*), fix the bracket 1 (2 pieces) temporarily with bolt by 2 turns as shown in the figure.

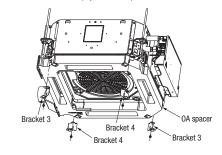
* For the height (position) of hanging the indoor unit, refer to Section 5.



- ② Install OA spacer.
 - i. Install it in the way that the recess of OA spacer will fit on the bracket
 1 fixed temporarily at the step ①.
 - ii. Tighten the bolt of bracket 1.
 - iii. Fix the bracket 2 with bolt. (Tighten up)



③ Fix the brackets 3 and 4 (2 pieces each) with bolts.

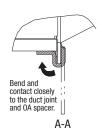


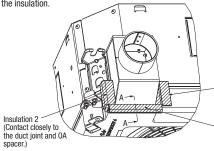
2. Applying insulation

Applying the insulation attached to duct joint set (TC-OAD-E)

- 1 Applying the insulation 1 as shown in the figure.
- 2 Applying the insulation 2 as shown in the figure.

* Be sure to cover the entire surface of sheet metal of the duct joint with the insulation.





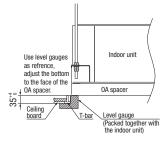
Insulation 2 (Contact closely to the duct joint and OA spacer.)

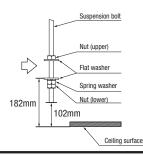
Insulation 1 (See section A-A.)

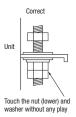
(5) Installation of indoor unit

Work procedure

- 1. This units is designed for 2 \times 2 grid ceiling.
 - If necessary, please detach the T bar temporarily before you install it.
 - If it is installed on a ceiling other than 2×2 grid ceiling, provide an inspection port on the control box side.
- 2. Arrange the suspension bolt at the right position (530mm530mm).
- 3. Make sure to use four suspension bolts and fix them so as to be able to hold 500N load.
- 4. Ensure that the lower end of the suspension bolt should be 102mm above the ceiling plane. Temporarily put the four lower nuts 182mm above the ceiling plane and the upper nuts on distant place from the lower nuts in order not to obstruct hanging the indoor unit or adjust the indoor unit position, and then hang the indoor unit.
- 5. Adjust the indoor unit position after hanging it by inserting the level gauge (Packed together with the indoor unit.) attached on the package into the air supply port and checking if the gap between the ceiling plane and the indoor unit is appropriate. (*) In order to adjust the indoor unit position, adjust the lower nuts while the upper nuts are put on distant place. Conrm there is no backlash between the hanger plate for suspension bolt and the lower nut and washer.
 - * Use the level gauge only when OA spacer has been installed before hanging (4 1-1 only).

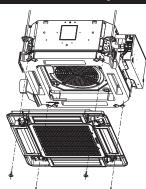








6 Installation of panel



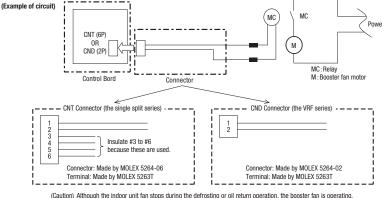
Tighten the panels to the brackets 3 and 4 with bolts. For further details, refer to the installation manual of panel.

(Caution) Connect the connector of lover motor within the control box.

Interlocking with the indoor unit fan

©Connect the Single split series and the VRF series to CNT on the indoor PCB and to CND on the indoor PCB respectively. If a ventilation device is connected been geared with the motion of indoor device (ON: DC12V output, OFF: 0V output), the ventilation device is operated/stopped.

Set it at "VENT LINK" by selecting "No. 11 VENT LINK SET" from the functional setting by remote control. For details, refer to the "ELECTRIC WIRNG WORK INSTRUCTION" of indoor unit.



Use a total heat exchanger, if necessary.

3.5 DUCT JOINT (FDTC series)

PJZ012D073A

• This product is used by assembling on the spacer (TC-0AS-E2)

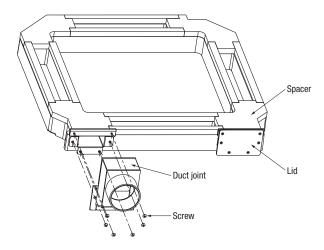
1.Before installation

• Confirm the following parts are included:

Duct joint	Screw	Insulation 1 (120 × 54)	Insulation 2 (40 × 60)
1	6	1	2

2.Regarding the use of this product

- Fix the product on the spacer (TC-OAS-E2) as shown below.
 For the installation method, refer to the installation manual of the spacer.



3.6 FILTER KIT (FDUM series)



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.

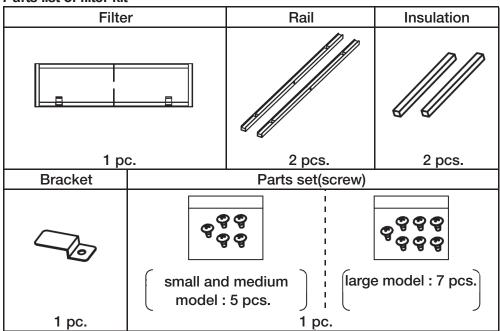


- · After unpacking, carry out this work on the ground.
- Do not carry out the work during operation, or there is a danger of being entangled in the rotating parts and getting injured.
- · Clean the air filter regularly.
- · Be sure to entrust qualified serviceman to performance on the air filter.
- · 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

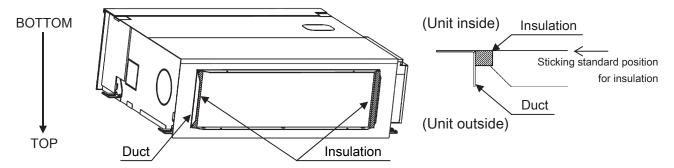
	Small model	Medium model	Large model
Single type	40, 50	60, 71	100 - 140
Multi type	22 - 56	71, 90	112 - 160
Filter Kit	UM-FL1EF	UM-FL2EF	UM-FL3EF

2. Parts list of filter kit

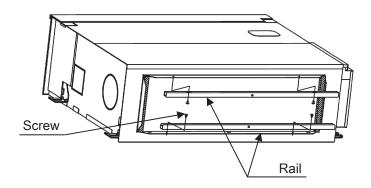


3. Installation Points

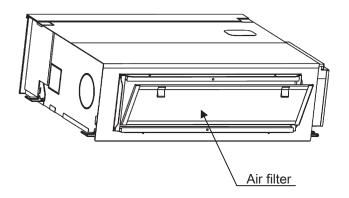
(1) Stick the insulation on both inner sides of the duct, leaving no space up and down.



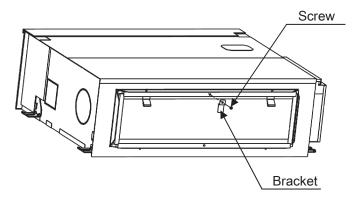
- (*) After unpacking, bottom side of the unit is located at the upper side.
- (2) Install the rail on both inner sides of the duct with the screw.

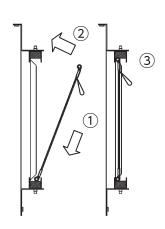


(3) Install the air filter on the rails.



(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.

3.7 BASE HEATER KIT (CW-H-E1)

PCZ012D007A

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.

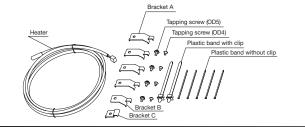
⚠ CAUTION

- 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
- Be sure to check the electrical insulation before
- Be sure to check the drain is not trapped by the
- Do not leave refrigerant oil on the base.

Components

Heater : 1 pc. Bracket A : 4 pcs. Bracket B : 1 pcs. Bracket C : 1 pcs. ■ Tapping screw (OD5) : 4 pcs.

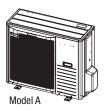
Tapping screw (OD4) : 4 pcs. Plastic band with clip : 2 pcs. Plastic band : 5 pcs.



Applicable model

This heater kit is applicable for 3 different models.

Single fan with plastic fan guard model



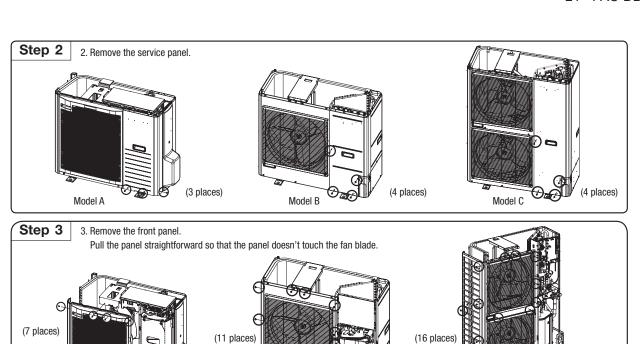


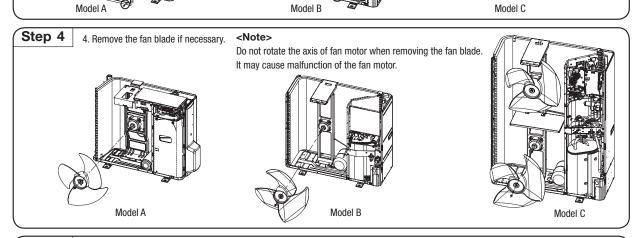
<Model C> Double fan model

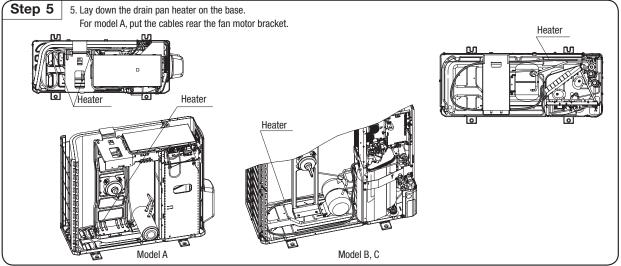
Model C

Installation procedure

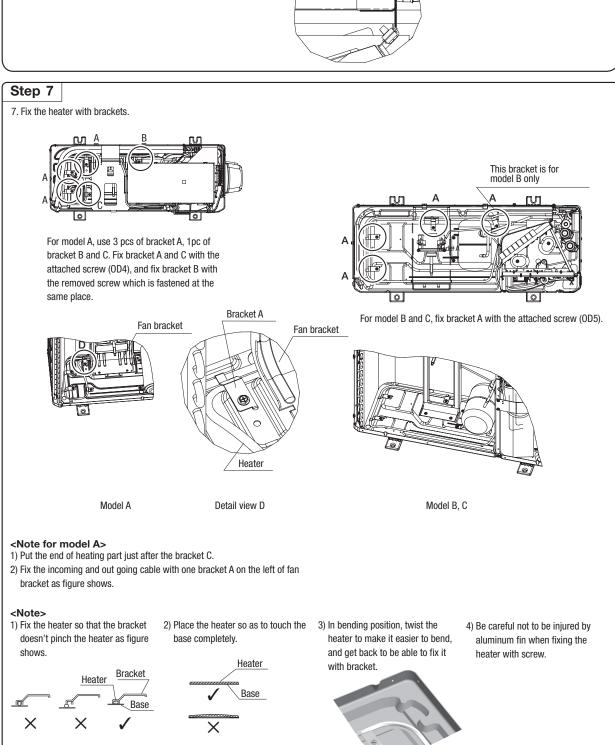
Step 1 (11 places) 1. Remove the top panel of the outdoor unit. (11 places) (6 places) Model C Model A Model B

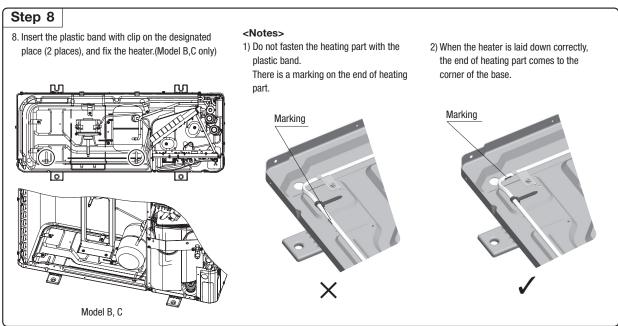


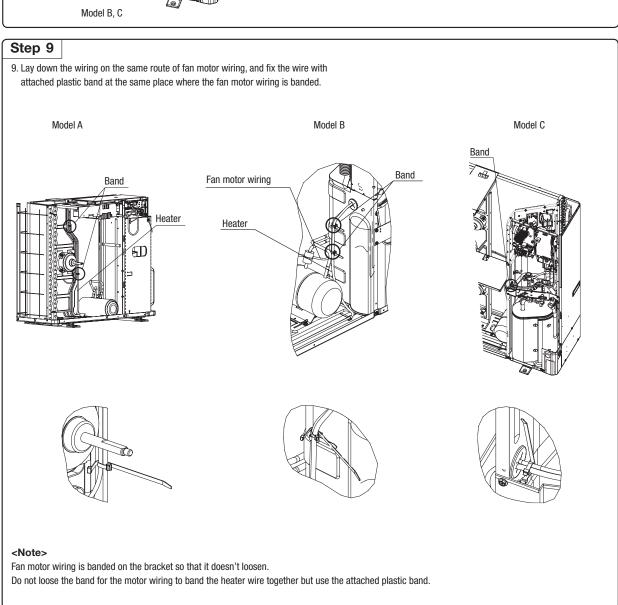


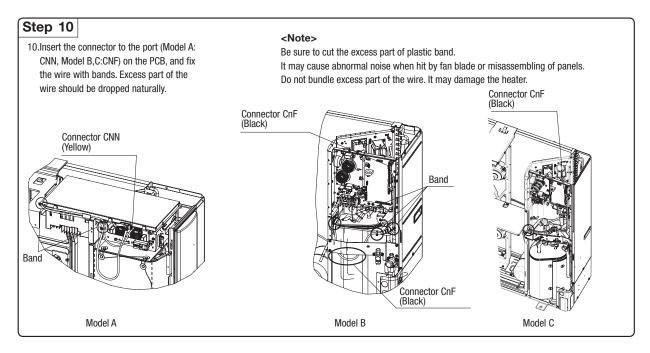


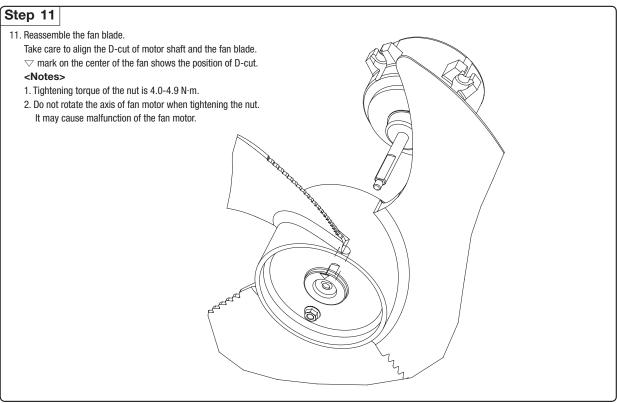
Step 6 6. Put the heater underneath the heat exchanger and align the end of heater with the end plate of heat exchanger. End of heater End plate of heat exchanger





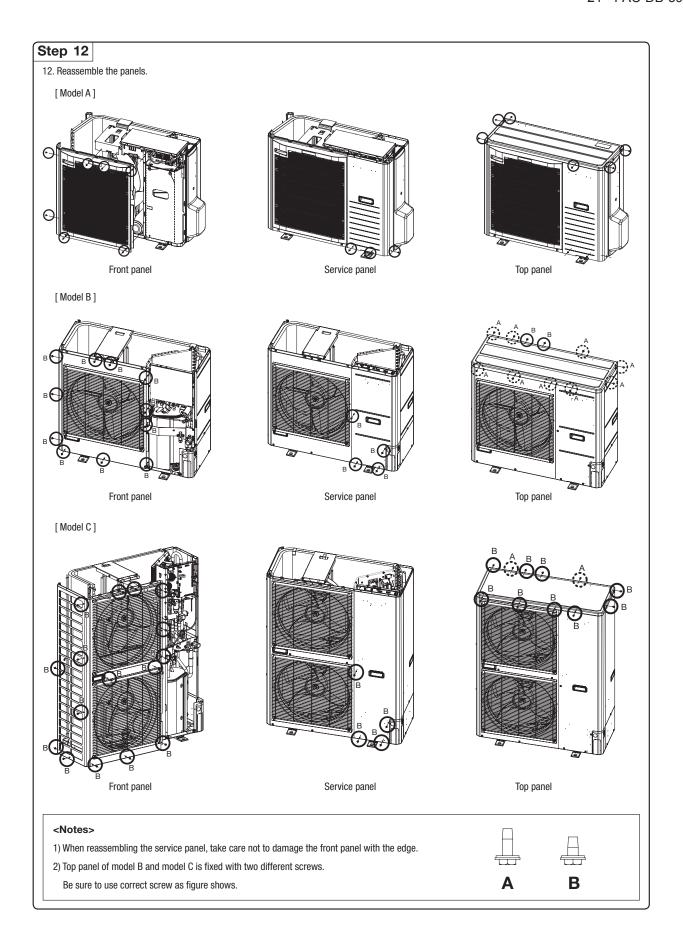






<Notes>

- 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.



3.8 INTERFACE KIT (SC-BIKN2-E)

When RC-EX3A 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)	2
3	Tapping screws (for the cable clump and the interface mounting bracket)	3
4	Interface mounting bracket	1
⑤	Cable clamp (for the indoor unit's connection cable)	1
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.

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.

Æ

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.

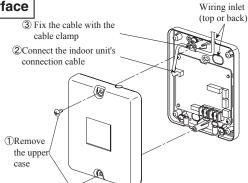
Incomplete connection may cause malfunction, and lead to heat generation and fire.

●Use the original accessories and specified components for installation.

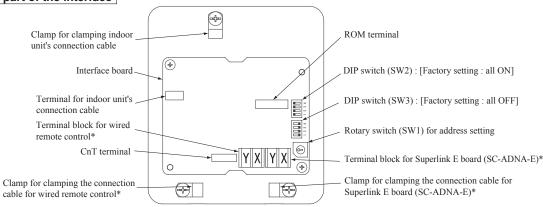
If the parts other than those prescribed by us are used, it may cause an electric shock, fire and sersonal injury.

Connecting the indoor unit's connection cable to the interface

- (1) Remove 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.
- (3) Fix 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



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)
3 W 2-1	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***
3 W 2-2	OFF	Wired remote control : Disable	5 W Z-4	OFF	Annual cooling : Disable***

^{**} Factory setting

*** Indoor fan control at low outdoor air temperature in cooling

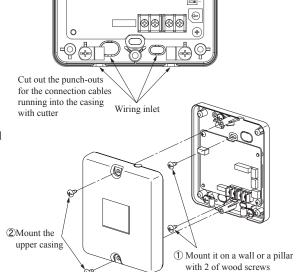
Wiring inlet

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

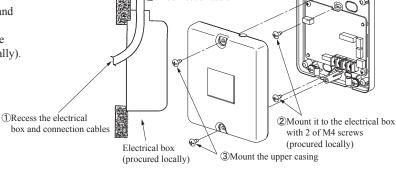
Mounting the interface directly on a wall

- 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

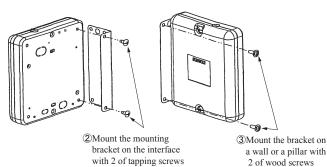
- ①Recess the electrical box (procured locally) and connection cables in the wall.
- ②Mount the lower casing of the interface to the electrical box with M4 screws (procured locally).
- 3 Mount the upper casing.



Connection cable

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.



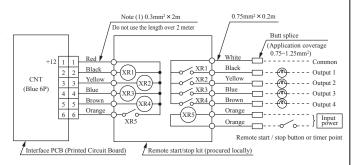
Installation check items

- ☐ 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.
- When setting operation permission/prohibition mode, switch OFF the DIP switch SW2-3 on the interface PCB.

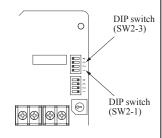


Input/	F	Output signal		Gtt	
Output Function		Relay	ON/OFF	Content	
Output 1	Operation output	XR1	ON	During air-conditioner operation	
Output 2	Heating output	XR2	ON	During heating operation	
Output 3	Compressor operation output	XR3	ON	During compressor running	
Output 4	Malfunction output	XR4	ON	During anomalous stop	

- ■XR₁₋₄ are for the DC 12V relay
- XR5 is a DC 12/24V or AC 220-240V relav
- ●CnT connector (local) maker, model

Connector	Molex	5264-06
Terminals	Molex	5263T

Input/			SW2-1		SW2-3				Operation by				
Input/ Output	Function	Setting		Setting	Input signal		Content	Air- conditioner	remote control				
			_		Level/Pulse	XR5							
			ON			OFF→ON	External input	ON					
		ON*	N* Level input	ON*	l Level l	ON→OFF	External input	OFF	Allowed				
		ON		OFF		OFF→ON	Operation permission	OFF					
Input	External control			OFF		ON→OFF	Operation prohibition	OFF	Not allowed				
	input			03.14		OFF→ON E	External input	OFF→ON					
		OFF	Dulas innut	Dulco input	E Dulca input	Pulse input	-	ON*	Pulse	OFF-ON	OFF—ON External input	ON→OFF	Allowed
		Orr	i uise input	OFF	OFF Level	OFF→ON	Operation permission	ON					
				Orr		ON→OFF	Operation prohibition	OFF	Not allowed				



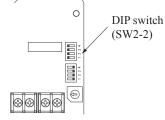
In case of the remote control (RC-EX3 or later model), the external outputs (1-4) and the external input can be changed using the function setting of remote control. For the setting method, refer to the installation manual. Also refer to the technical manual to know how it is adapted to the function setting for the external outputs and input, at the indoor unit side.

Connection of Superlink E board

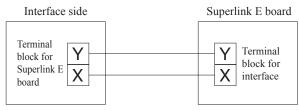
Regarding the connection of Superlink E board, refer to the installation manual of Superlink E board. For electrical work, power source for all of units in the Superlink system must be turned OFF.

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.



②Wiring connection between the interface and the Superlink E board.



3Clamp the connection cables with cable clamps.

No.	Names of recommended signal wires
1	Shielded wire
2	Vinyl cabtyre round cord
3	Vinyl cabtyre round cable
4	Vinyl insulated wire vinyl sheathed cable for control

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 $2.0 \text{ mm}^2 \times 2 \text{ cores}$

^{*} Factory setting

DIP switch

(SW2-2)

0

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.
- [®] 0.3mm² x 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: $0.5\text{mm}^2 \times 2$ cores, 300m or less: $0.75\text{mm}^2 \times 2$ cores, 400m or less: $1.25\text{mm}^2 \times 2$ cores, 600m or less: $2.0\text{mm}^2 \times 2$ cores

However, cable size connecting to the terminal of wired remote control should not exceed 0.5mm². Accordingly if the size of connection cable exceeds 0.5mm², be sure to downsize it to 0.5mm² 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.
- ③After 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

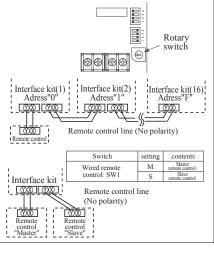
- 1. Stop the air-conditioner, and press (SET) and (MODE) button at the same time for 3 seconds or more.
 - The indication changes to "FUNCTION SET▼"
- 2. Press ▼button once, and change to the "TEMP RANGE ▲" indication.
- 3. Press \bigcirc (SET) button, and enter the temperature range setting mode.
- 4. Confirm that the "Upper limit ▼" is shown on the display.
- 5. Press (SET) button to fix.
- ⑤ Indication: "⑥∨ ∧ 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 ▼".
- - ②Select the lower limit value 18℃ with temperature setting button ☑."LOWER18℃∧" (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

F 8 - 8 -	
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.

Previous button

ШШ

• During setting, if pressing (RESET) button, it returns to the previous screen.

TEMP RANG



3.9 SUPERLINK E BOARD (SC-ADNA-E)



- 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 🕰 " and "Caution 🖈". The "Warning 🛧 " group includes items that may lead to serious injury or death if not observed. The items included
- in the "Caution A" 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

Accessories

SL E board	Metal box	Metal cover	Screw for ground
			M4×8 2 pieces
Pan head screws	Locking supports	Binding band	Grommet
M4×8 2 pieces	To secure the print board and the metal box Made of nylon 4 pieces		

3 Function

Allowing the central control SL1N-E, SL2NA-E, and SL4-AE/BE to control and monitor the commercial air-conditioner unit.

Control switching

Settings can be changed by the DIP switch SW3 on the SL E board as in the

Switch	Symbol	Switch	Remarks
	,	ON	Master
	ļ	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

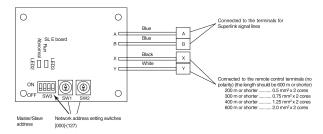
- Provide ground connection.
- The ground line should never be connected to the gas supply piping, the water supply piping, the lightning conductor rod, nor the telephone ground. If the grounding is improper, it may result in electric shock.
- Do not install the device in the following locations.
 - 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)



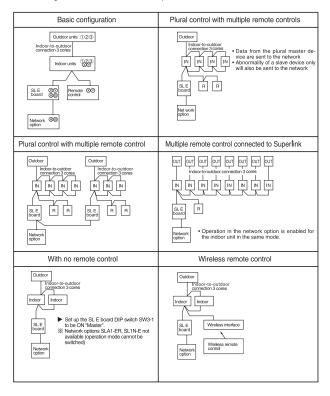
(*1) Whether the actual link is either the new Superlink or the previous Superlink depends on the models of the connected outdoor and indoor units. Consult the agent or the dealer.

Signal line specification

Communication method	Previous Superlink	New Superlink
Line type	MVVS	MVVS
Line diameter	0.75 - 1.25mm ²	0.75/1.25mm ²
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 mm^2 , and up to 1000 m for 1.25 mm^2 . Do not use 2.0 mm². 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".

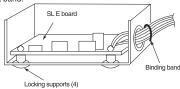
- Set the Superlink network address with SW1 (tens place), SW2 (ones place), and SW3 (hundreds place).
- (2) Set the SL E board SW3-1 to be ON (Master) when using this without any remote control (no wired remote controller nor wireless remote control).
- (3) Set up the plural master/slave device using 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.

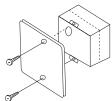
Secure the grommet after inserting the grommet into the Metal box as shown in below figure, then tie the wiring at the outlet of the unit using a binding band.



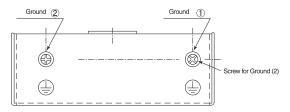
▲ When installed outside the indoor unit, put the metal cover on.



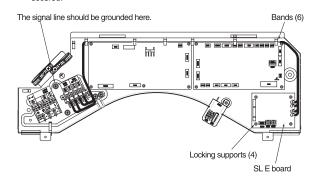
▲ When installed on the back of the remote control, mount it directly on the remote control bottom case.



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 screwdriver.

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 board 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

MICRO INVERTER PACKAGED AIR-CONDITIONERS



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