

CONFIDENTIAL

e-solution version 3.9.0 outline



1. Addition of FDC335KXZME1A
2. Add new panels, motion sensor & wireless kit
3. Addition of HMU (HMU-KIT-1)
4. Add remote controller RC-EX3H
5. Print out
6. Fixing bugs & updates

1. Addition of FDC335KXZME1A

- Addition of FDC335KXZME1A outdoor units (2 pipe system)
- Remove FDC335KXZME1 from drop list.
- (for 50Hz & 60Hz version only)



HP	Outdoor Unit
8	FDC224KXZME1
10	FDC280KXZME
12	FDC335KXZME1
12	FDC335KXZME1A

(New)

Outdoor Unit

System Name: Default System 0

System Type: 2 pipe (KX series) 3 pipe (KXR series) (1)

Model Type: KXZ - Standard (2)

Model Name: FDC335KXZME1A (3)

Unit Information: FDC155KXZEN1, FDC155KXZES1, FDC224KXZME1, FDC280KXZE1, FDC280KXZME1, FDC335KXZE1, FDC335KXZME1A, FDC400KXZE1

Nominal Capacity: FDC280KXZME1

Corrected Capacity: FDC335KXZE1

Max I/U number: FDC335KXZME1A

Address Information: S / L number: 1, O / U address: 00

Buttons: View Technical Data, OK, Cancel

1. Addition of FDC335KXZME1A

Addition note to “Print out” for FDC335KXZME1A

(1) Show (*) Heating capacity is shown as maximum heating capacity

Resolution
 Project : New Project
 Project Ref :
 System : Default System 0
 Temperature Conditions (cooling)
 outdoor dry bulb 30.0°C indoor wet bulb 16.0°C
 Temperature Conditions (heating)
 outdoor wet bulb 6.0°C indoor dry bulb 20.0°C

Unit	Room	Model	Nominal Capacity (kW)			Actual Capacity (kW)			Indoor Unit Position (m)	Actual Length (m)	Piping Length (m)	Address			
			Total	Sensible	Heating	Total	Sensible	Heating				S/L	O/U	I/U	
		FDC335KXZME1A	33.50	-	37.50	33.91	-	37.59				1	00	-	
1		FDT112KXZE1	11.20	9.36	12.50	9.11	8.34	12.50	Below	0.0	0.0	0.0	1	00	00
2		FDT112KXZE1	11.20	9.36	12.50	9.11	8.34	12.50	Below	0.0	0.0	0.0	1	00	01
TOTAL			22.40	18.71	25.00	18.23	16.68	25.00							

(*) Heating capacity is shown as maximum heating capacity.

(1)

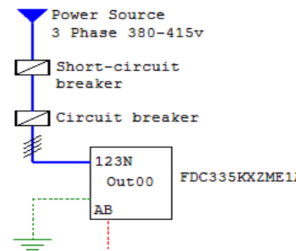
(2) Show (*) Running current, Power factor, Input for outdoor units are shown when nominal capacity is achieved.

Outdoor Unit	280v	415v
Running Current (A)	17.80/14.40	16.30/13.20
Power (k)	91/91	91/91
Inrush Current (A)	5.00	
Max Current (A)	23	
Input (kW)	10.68/8.44	

Indoor Units (Cool/Heat)	220v	240v
Total Input (kW)	0.28/0.28	0.28/0.28
Total Running Current (A)	2.24/2.24	2.04/2.04

Electrical schematic diagrams are for guidance only. Electrical installations must comply with statutory regulations. (*) Running current, Power factor, Input for outdoor units are shown when nominal capacity is achieved.

(2)



2. Add new panels, motion sensor & wireless kit

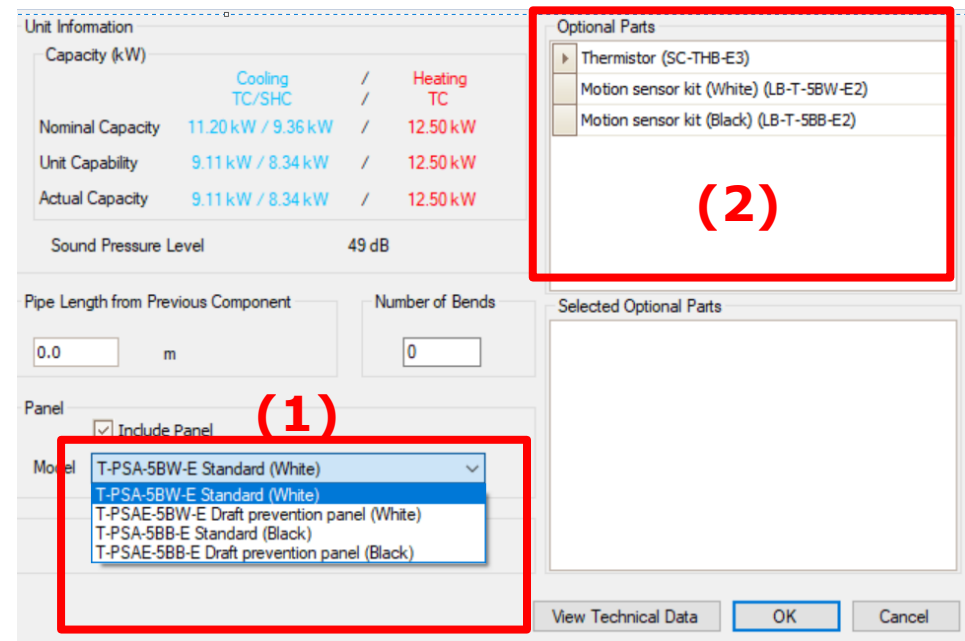
FDT-KXZE1

(1) ADD panels for all FDT-KXZE1 (for 50Hz & 60Hz version only)

FDT-KXZE1 only (all models)			
FDT-KXZE1	Current Panel	new panel	
Replace	T-PSA-5AW-E	T-PSA-5BW-E	Standard (white)
Replace	T-PSAE-5AW-E	T-PSAE-5BW-E	Draft prevention panel (white)
Add	-	T-PSA-5BB-E	Standard (Black)
Add	-	T-PSAE-5BB-E	Draft prevention panel (Black)

(2) ADD motion sensor (option) for all FDT-KXZE1 (for 50Hz & 60Hz version only)

	Current	New Motion sensor
Replace	LB-T-5AW-E2	LB-T-5BW-E2 (White)
Add	-	LB-T-5BB-E2 (Black)



2. Add new panels, motion sensor & wireless kit

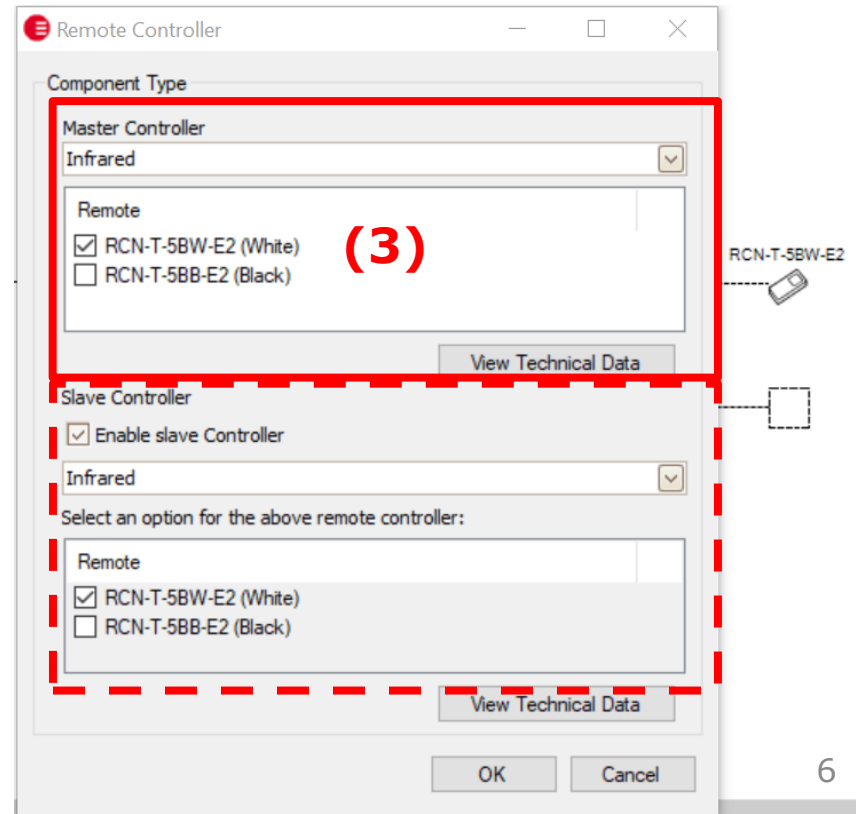
FDT-KXZE1

(3) ADD new wireless kit for all FDT-KXZE1 (for 50Hz & 60Hz version only)

Wireless kit		
FDT-KXZE1 only (all models)		
FDT	Wireless kit	new model
Replace	RCN-T-5AW-E2	RCN-T-5BW-E2(White)
Add	-	RCN-T-5BB-E2(Black)

Note:

-Please select correct colour for wireless kit to suit your pre selectin of panel. As selection will not be done automatically.
 -(for wireless) Slave wireless kit selection will copy selection of master controller.



2. Add new panels, motion sensor & wireless kit

FDTC-KXZE1

(1) ADD new panels (with Grid) for all FDTC-KXZE1 in addition to current (for 50Hz & 60Hz version only)

FDTC-KXZE1 only (all models)			
FDTC-KXZE1		New panel	
Add		TC-PSAG-5AW-E	Standard (Grid Panel)
Add		TC-PSAGE-5AW-E	Draft prevention panel (Grid Panel)

Sound Pressure Level 35 dB

Model Type Ceiling Cassette -4way Compact-

Model Name FDTC22KXZE1

Fan Speed Ultra High

Indoor Unit Position
 Above O/U Below O/U 0.0 m

Address Information
 S / L number: 1 O / U address: 0

Pipe Length from Previous Component 0.0 m

Number of Bends 0

Panel
 Include Panel

Model
 TC-PSA-5AW-E Standard
 TC-PSAE-5AW-E Draft prevention panel
 TC-PSAG-5AW-E Standard (Grid Panel)
TC-PSAGE-5AW-E Draft prevention panel (Grid Panel)

(1)

2. Add new panels, motion sensor & wireless kit

FDTC-KXZE1

(2) ADD new wireless kit for all FDTC-KXZE1
(for 50Hz & 60Hz version only)

Wireless kit		
FDTC-KXZE1	Wireless kit	new model
Replace	RCN-TC-5AW-E2	RCN-TC-5AW-E3



2. Add new panels, motion sensor & wireless kit

- Addition of Motion sensor to Indoor units details/optional parts
- Addition of Motion sensor to Indoor units to models below

Options	Motion sensor kit
FDUT15KXE6F-E	-
FDUT22KXE6F-E	-
FDUT28KXE6F-E	-
FDUT36KXE6F-E	-
FDUT45KXE6F-E	-
FDUT56KXE6F-E	-
FDUT71KXE6F-E	LB-KIT2
FDUM22KXE6F	LB-KIT2
FDUM28KXE6F	LB-KIT2
FDUM36KXE6F	LB-KIT2
FDUM45KXE6F	LB-KIT2
FDUM56KXE6F	LB-KIT2
FDUM71KXE6F	LB-KIT2
FDUM90KXE6F	LB-KIT2
FDUM112KXE6F	LB-KIT2
FDUM140KXE6F	LB-KIT2
FDUM160KXE6F	LB-KIT2

FDU45KXE6F	LB-KIT2
FDU56KXE6F	LB-KIT2
FDU71KXE6F	LB-KIT2
FDU90KXE6F	LB-KIT2
FDU112KXE6F	LB-KIT2
FDU140KXE6F	LB-KIT2
FDU160KXE6F	LB-KIT2
FDU224KXZE1	LB-KIT2
FDU280KXZE1	LB-KIT2
FDK15KXZE1	LB-KIT2
FDK22KXZE1	LB-KIT2
FDK28KXZE1	LB-KIT2
FDK36KXZE1	LB-KIT2
FDK45KXZE1	LB-KIT2
FDK56KXZE1	LB-KIT2
FDK71KXZE1	LB-KIT2

2. Add new panels, motion sensor & wireless kit

Options	Motion sensor kit
FDT28KXZE1	(White) LB-T-5BW-E2 (Black) LB-T-5BB-E2
FDT36KXZE1	(White) LB-T-5BW-E2 (Black) LB-T-5BB-E2
FDT45KXZE1	(White) LB-T-5BW-E2 (Black) LB-T-5BB-E2
FDT56KXZE1	(White) LB-T-5BW-E2 (Black) LB-T-5BB-E2
FDT71KXZE1	(White) LB-T-5BW-E2 (Black) LB-T-5BB-E2
FDT90KXZE1	(White) LB-T-5BW-E2 (Black) LB-T-5BB-E2
FDT112KXZE1	(White) LB-T-5BW-E2 (Black) LB-T-5BB-E2
FDT140KXZE1	(White) LB-T-5BW-E2 (Black) LB-T-5BB-E2
FDT160KXZE1	(White) LB-T-5BW-E2 (Black) LB-T-5BB-E2

3. Addition of HMU (HMU-KIT-1)

Note:

If HMU operation is not selected, HMU will be hidden and can not be selected from Indoor unit list or schematic.

Design Conditions

From Memory

Cooling

Indoor

DB 23.0 °C

WB 16.0 °C

RH 48 %

Outdoor

DB 30.0 °C

(for OA processing units)

WB °C

RH %

Heating

Indoor

DB 20.0 °C

(for HRV units)

WB 15.0 °C

RH 59 %

Outdoor

DB 7.0 °C

WB 6.0 °C

RH 87 %

HMU Operation: Off

Cooling

For HMU-KIT-1 only

Inlet water temperature 10.0 °C

Target outlet water temperature 5.0 °C

Diversity

Diversity Factor 0 %

Heating

For HMU-KIT-1 only

Inlet water temperature 20.0 °C

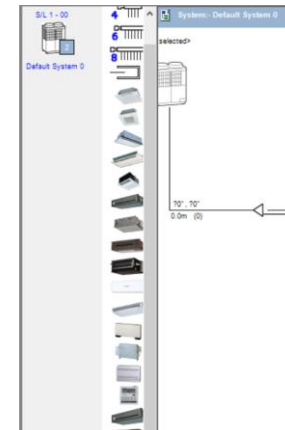
Target outlet water temperature 21.0 °C

OK Cancel

HMU hidden from IU list as HMU operation is not selected (design condition window)

		Heating		
SHC	TC	Type	Fan Speed	Model
1.72	2.50	Ceiling Cassette -4w...	Ultra High	FDTC220XE1
8.34	12.50	Wall Mounted		T1120XE1
		Ceiling suspended		
		Floor Standing(with casing)		
		Floor Standing(without casing)		
		Floor standing -2 way-		
		Duct connected - Outdoor Air Processing unit-		
		Fresh Air DX Assembly		

HMU hidden from Schematic as HMU operation is not selected (design condition window)



3. Addition of HMU (HMU-KIT-1)

- Addition of HMU (HMU-KIT-1) to the list of indoor Unit
- (for 50Hz & 60Hz version only)

(HMU-KIT-1)	
Control box	HMU-KIT
Expansion valve set (14.0 kW)	EEV6-160-E/A
Expansion valve set (28.0 kW)	EEV6-280-E/A



3. Addition of HMU (HMU-KIT-1)

(1) Select HMU operation mode from design condition window:

Reversible

Cooling only

Heating only

(2) For mixed system A2A & HMU indoor in the system:
You can select A2A indoor unit operation.

Example:

Mix HMU & A2A system, end user required HMU Heating only in the winter & A2A indoor units only in the summer.

HMU operation: Heating operation

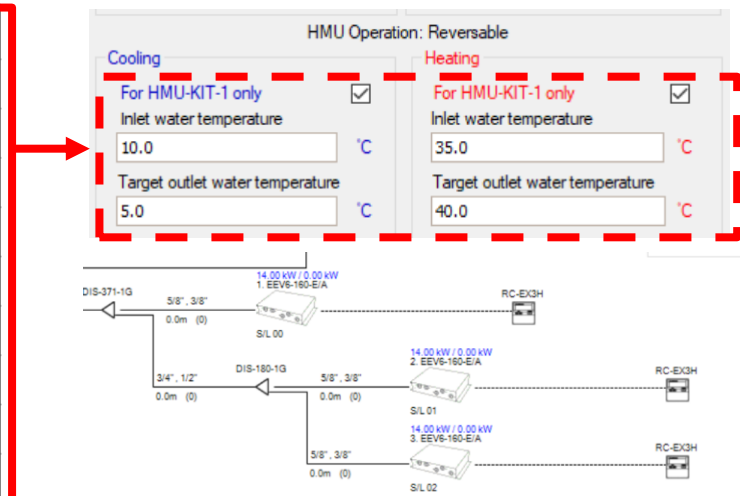
A2A indoor unit operation: Cooling only operation

3. Addition of HMU (HMU-KIT-1)

Design condition window:

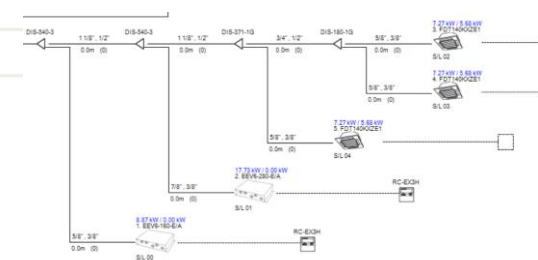
The limitation for inlet water temp. & Target water temp. in design condition is for System with HMU only for cooling and heating.

		Mix		HMU only operation	
	Unit	Min	max	Min	max
Cooling : (REC_H)					
Inlet water	°C	19	24	10	30
Target out	°C	14	19	5	25
		Mix		HMU only operation	
	Unit	Min	max	Min	max
Heating : (REC_H)					
Inlet water	°C	20	35	20	50
Target out	°C	21	40	21	55



If Mixed system (MHU & Air to air IU) been selected cautions will be shown to alert user to update the design condition window. It need to be **Re-done manually** if it is not with limitation.

- ⚠ Mixed connection of HMU and air to air conditioner, Inlet water temp. (Cooling) Min-Max 19°C - 24°C. (Heating) Min-Max 20-35°C
- ⚠ Mixed connection of HMU and air to air conditioner, Target Outlet water temp. (Cooling) Min-Max 14°C - 19°C. (Heating) Min-Max 21-40°C

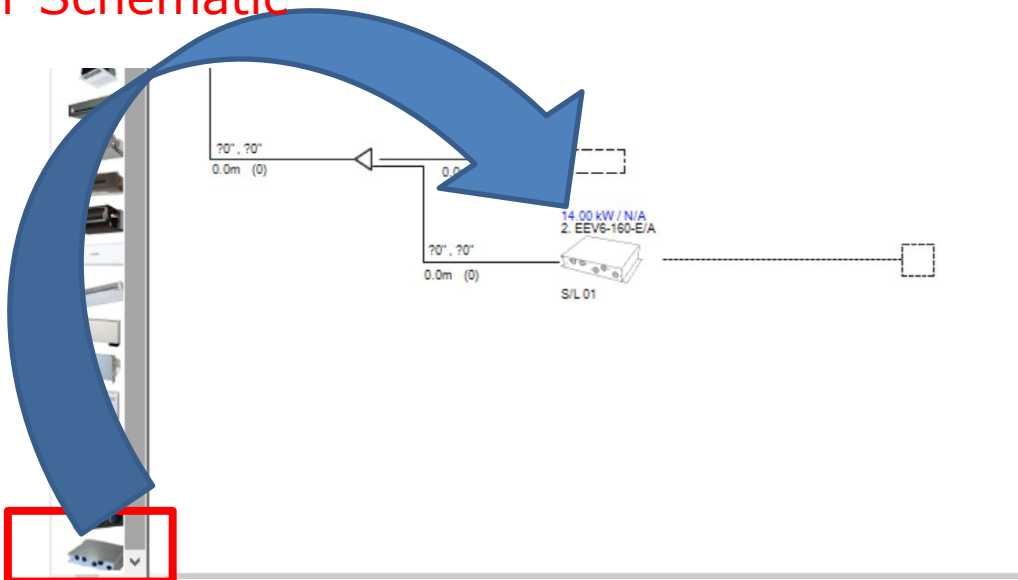


3. Addition of HMU (HMU-KIT-1)

(1) Possible to Select HMU from indoor unit list:

Capability (kW)				Type	Fan Speed	Model
Heating	Cooling		Heating			
TC	TC	SHC	TC			
	1.79	1.72	2.50	Ceiling Cassette -4w...	Ultra High	FDTC22KXZE1
	14.00	N/A	14.00	Ceiling suspended		EEV6-160-E/A
				Floor Standing (with casing)		
				Floor Standing (without casing)		
				Floor standing - 3-way		
				HMU-KIT-1		
				Duct connected - Outdoor Air Processing unit-		
				Fresh Air DX Assembly		

Or Schematic



3. Addition of HMU (HMU-KIT-1)

(2) Selection of HMU (HMU-KIT-1) from IU window :

(1)

Model type: **HMU-Kit-1**

(2)

Model Name: **EEV6-160-E/A**
EEV6-280-E/A

(3)

Water Flow - input by user

Note:
This value have no impact on Calculation in e-solution.
Water circuit design is installers responsibility.

Indoor Unit Details

I/U Number: 2

Room Name:

Cooling
Inlet water temperature: C°

Heating
Inlet water temperature: C°

13.95349 -13.95349

Unit Information

Capacity (kW)	Cooling TC/SHC	Heating TC
Nominal Capacity	14.00 kW / -	14.00 kW
Unit Capacity	14.00 kW / -	14.00 kW
Actual Capacity	14.00 kW / -	14.00 kW

Sound Pressure Level: 0 dB

(1) Model Type:

(2) Model Name:

Control box:

(3) Water Flow Rate: L/m

Indoor Unit Position: Above O/U Below O/U m

Address Information: S / L number: 1 O / U address: 0 I/U address:

Optional Parts

Selected Optional Parts

View Technical Data **OK** Cancel

3. Addition of HMU (HMU-KIT-1)

Note 1:

In this software e-solution V3.9.0 HMU heating capacity is treated as nominal capacity regardless of water flow rate & target outlet water temperature.

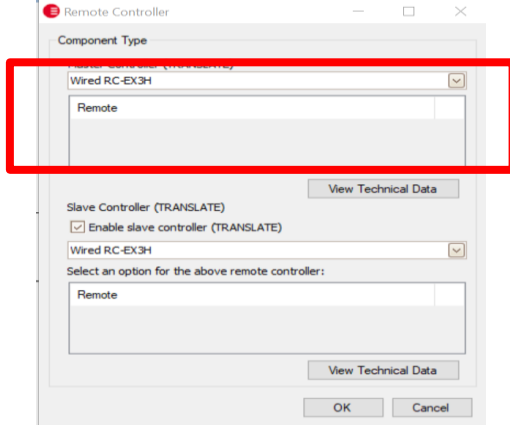
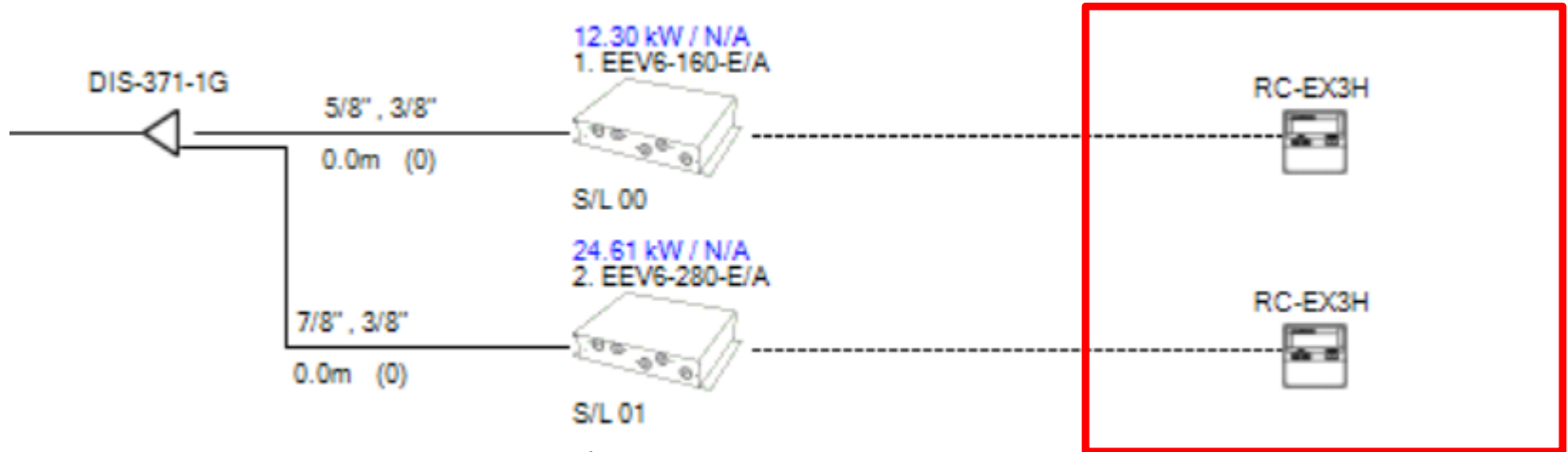
Note 2:

Please enter HMU required capacity to Indoor unit list
So cation will be shown in case total actual indoor door unit capacity cooling/heating is bigger than actual outdoor unit capacity so bigger size outdoor units to be re-selected to cover the required capacity.

Unit #	Room	Required Capacity (kW)				Capability (kW)				Type	Fan Speed	Model	Qty	S/L No	S / L Address	
		Cooling		Heating		Cooling		Heating							O/U	I
		TC	SHC	TC	SHC	TC	SHC	TC	SHC							
1		14.00		14		14.00	0.00	14.00			EEV6-160-E/A	1		1	00	
2		28		28		28.00	0.00	28.00			EEV6-280-E/A	1		1	00	

4. Add remote controller RC-EX3H

- Addition of Wired controller **RC-EX3H**
- (Connected to HMU only)

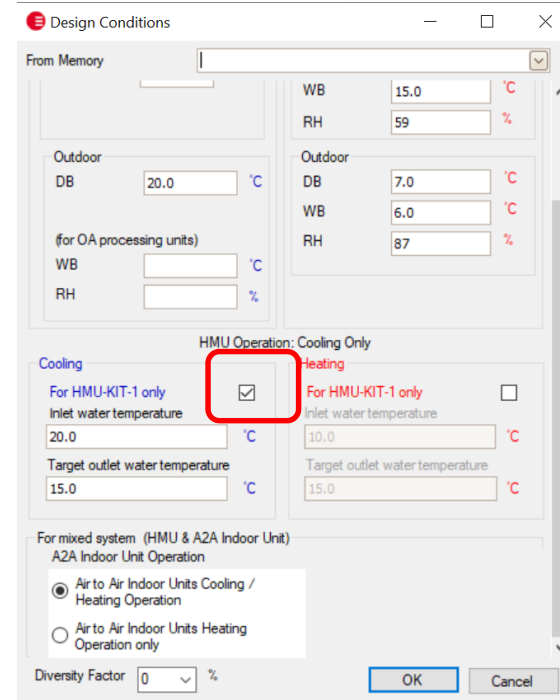


5. Print out:

A. HMU operation & A2A indoor unit operation selected in design condition view in print out

Example 1:

Both will be shown in print out depend on Selection.



MITSUBISHI evolution Project : New Project Project Ref :

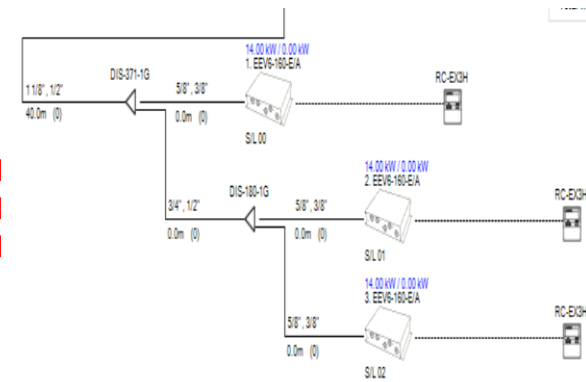
System : Default System 0
 Temperature Conditions (cooling)
 outdoor dry bulb 20.0°C indoor wet bulb 20.0°C
 Temperature Conditions (heating)
 outdoor wet bulb 6.0°C indoor dry bulb 20.0°C

HMU Operation:
 For mixed system (HMU && A2A Indoor Unit) **Cooling Only**

HMU temperature conditions

		Cooling			Heating		
Inlet water temperature		20.0			-		
Target outlet water temperature		15.0			-		

Unit	Room	Model	Nominal Capacity (kW)			Actual Capacity (kW)			Indoor Unit Position (m)	Actual Length (m)	Piping Length (m)	Address		
			Total	Sensible	Heating	Total	Sensible	Heating				S/L	O/U	I/U
		FDC500KXZE1	50.00	-	56.00	43.62	-	55.36				1	00	-
1		EEV6-160-E/A	14.00	0.00	0.00	14.00	0.00	0.00	Above	30.0	40.0	1	00	00
2		EEV6-160-E/A	14.00	0.00	0.00	14.00	0.00	0.00	Above	30.0	40.0	1	00	01
3		EEV6-160-E/A	14.00	0.00	0.00	14.00	0.00	0.00	Above	30.0	40.0	1	00	02
TOTAL			42.00	0.00	0.00	42.00	0.00	0.00						



5. Print out:

B. HMU operation & A2A indoor unit operation selected in design condition view in print out

Example 2:

Both will be shown in print out depend on Selection.

MITSUBISHI
 evolution
 Project : New Project
 Project Ref :
 System : Default System 0
 Temperature Conditions (cooling)
 outdoor dry bulb 34.0°C indoor wet bulb 24.0°C
 Temperature Conditions (heating)
 outdoor wet bulb 5.0°C indoor dry bulb 19.0°C
 HMU Operation:
 For mixed system (HMU & A2A Indoor Unit)
 Reversible
 Air to Air Indoor Units Cooling Operation only
 HMU temperature conditions

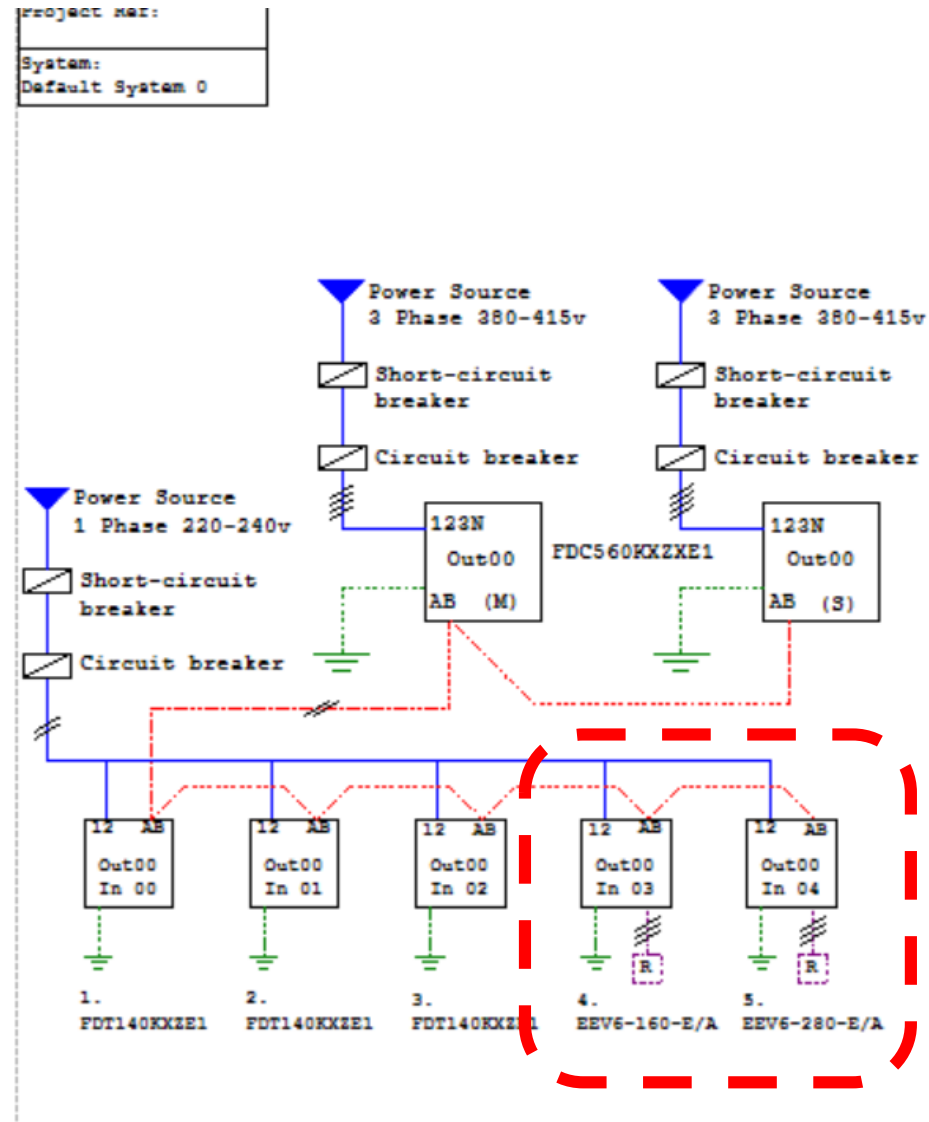
	Cooling	Heating
Inlet water temperature	10.0	35.0
Target outlet water temperature	5.0	40.0

Unit	Room	Model	Nominal Capacity (kW)			Actual Capacity (kW)			Indoor Unit Position (m)	Actual Length (m)	Piping Length (m)	Address			
			Total	Sensible	Heating	Total	Sensible	Heating				S/L	O/U	I/U	
		FDK500KXZE1	50.00	-	56.00	47.40	-	39.03				1	00	-	
1		FDK36KXZE1	3.60	2.74	4.00	4.14	1.23	3.42	Below	30.0	60.0	60.0	1	00	00
2		FDK36KXZE1	3.60	2.74	4.00	4.14	1.23	3.42	Below	30.0	60.0	60.0	1	00	01
3		FDK36KXZE1	3.60	2.74	4.00	4.14	1.23	3.42	Below	30.0	60.0	60.0	1	00	02
4		FDK36KXZE1	3.60	2.74	4.00	4.14	1.23	3.42	Below	30.0	60.0	60.0	1	00	03
5		FDK36KXZE1	3.60	2.74	4.00	4.14	1.23	3.42	Below	30.0	60.0	60.0	1	00	04
6		FDK36KXZE1	3.60	2.74	4.00	4.14	1.23	3.42	Below	30.0	60.0	60.0	1	00	05
7		FDK36KXZE1	3.60	2.74	4.00	4.14	1.23	3.42	Below	0.0	60.0	60.0	1	00	06
8		FDK36KXZE1	3.60	2.74	4.00	4.14	1.23	3.42	Below	30.0	60.0	60.0	1	00	07
9		EEV6-160-E/A	14.00	0.00	14.00	14.00	0.00	14.00	Below	30.0	60.0	60.0	1	00	08
TOTAL			42.80	21.90	46.00	47.11	9.83	41.37							

HMU Operation: Reversible
 Cooling For HMU-KIT-1 only
 Inlet water temperature 10.0 °C
 Target outlet water temperature 5.0 °C
 Heating For HMU-KIT-1 only
 Inlet water temperature 35.0 °C
 Target outlet water temperature 40.0 °C
 For mixed system (HMU & A2A Indoor Unit)
 A2A Indoor Unit Operation
 Air to Air Indoor Units Cooling / Heating Operation
 Air to Air Indoor Units Cooling Operation only
 Air to Air Indoor Units Heating Operation only
 Diversity Factor 0 %
 OK Cancel

5. Print out:

C. Add HMU to wiring



6. Fixing bugs & update:

- Fixing bug existed V3.8.1

Recently we experienced an error that Automatic update is not possible as was unable to contact the update server after V3.8.1 release.

This was due to reasons below:

The software used to develop E-solution contains expired server security update code in the latest update version release V3.8.1. (Automatic update is not possible)

- Release manual update V3.8.1 to V3.9.0 (Refer to file [Guidance] e-solution manual update from V3.8.1 to V3.9.0-R1 Error (Automatic update is not possible) will be fixed.
- Release full installers V3.9.0 version.(Refer to file [Guidance] MHIAE website] e-solution full installer ver3.9.0) Error (Automatic update is not possible) will be fixed.

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Thank you

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