

PURY-P200YMF-B, PURY-P250YMF-B

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And Thermal Sensor	

1. Specifications

PURY-P

Model name		PURY-P200YMF-B	
		Cooling	Heating
Capacity	kcal/h	20,000	22,400
	kW	23.3	26.0
	BTU/h	79,400	88,900
Power source		3N ~ 380/400/415V 50Hz	
Power input	kW	9.43	8.57
Current	A	15.9/15.1/14.5	14.4/13.7/13.2
Fan	TypeX Quantity	Propeller fanX 1	
	Airflow rate	m ³ /min	185
	Motor output	kW	0.350
Compressor	Type	Hermetic	
	Motor output	kW	5.5
	Crankcase heater	kW	0.045
Refrigerant / Lubricant		R407C/Polyol ester oil (POE)	
External finish		Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
External dimension		mm 1715(H)X 990(W)X 840(L)	
Protection devices	High pressure protection		30kg/cm ² G(2.94MPa)
	Compressor / Fan		Over current protection / Thermal switch
	Inverter		DC bus current protection, thermal switch
Refrigerant piping diameter	High press. / Low press.	φ 19.05 flare / φ 25.4 Flange	
Indoor unit	Total capacity		50 ~ 150% of outdoor unit capacity
	Model / Quantity		Model 20~ 140 / 1~ 15
Noise level	dB<A>	57	
Net weight	kg	255	
Operating temperature range		Indoor:15°CWB ~ 24°CWB Outdoor:-5°CDB ~ 43°CDB	Indoor:15°CDB ~ 27°CDB Outdoor:-15°CWB ~ 15.5°CWB
		※-5°CDB/-6°CWB ~ 21°CDB/15.5°CWB with cooling/heating mixed operation.	

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27°CDB/19.5°CWB Outdoor : 35°CDB
Heating Indoor : 21°CDB Outdoor : 7°CDB/6°CWB
 Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

Model name		PURY-P250YMF-B	
		Cooling	Heating
Capacity	kcal/h	25,000	28,000
	kW	29.1	32.6
	BTU/h	99,300	111,200
Power source		3N ~ 380/400/415V 50Hz	
Power input	kW	11.8	10.9
Current	A	19.9/18.9/18.2	18.4/17.4/16.8
Fan	TypeX Quantity	Propeller fanX 1	
	Airflow rate	m ³ /min	185
	Motor output	kW	0.350
Compressor	Type	Hermetic	
	Motor output	kW	7.5
	Crankcase heater	kW	0.045
Refrigerant / Lubricant		R407C/Polyol ester oil (POE)	
External finish		Steel plate painting with polyester powder <MUNSELL 5Y8/1 or similar>	
External dimension	mm	1715(H)X 990(W)X 840(L)	
Protection devices	High pressure protection		30kg/cm ² G(2.94MPa)
	Compressor / Fan		Over current protection / Thermal switch
	Inverter		DC bus current protection, thermal switch
Refrigerant piping diameter	High press. / Low press.	φ 19.05 flare / φ 28.58 Flange	
Indoor unit	Total capacity		50 ~ 150% of outdoor unit capacity
	Model / Quantity		Model 20 ~ 140 / 1 ~ 16
Noise level	dB<A>	58	
Net weight	kg	270	
Operating temperature range		Indoor:15°CWB ~ 24°CWB Outdoor:-5°CDB ~ 43°CDB	Indoor:15°CDB ~ 27°CDB Outdoor:-15°CWB ~ 15.5°CWB
		* -5°CDB/-6°CWB ~ 21°CDB/15.5°CWB with cooling/heating mixed operation.	

Note: 1.Cooling/heating capacity indicates the maximum value at operation under the following condition.

Cooling Indoor : 27°CDB/19.5°CWB Outdoor : 35°CDB
Heating Indoor : 21°CDB Outdoor : 7°CDB/6°CWB
 Pipe length : 5m Height difference : 0m

2.Works not included : Installation/foundation work, electrical connection work, duct work, insulation work, power source switch and other items not specified in this specification.

2. Capacity table

2-1. Correction by temperature

Cooling

- Standard Specifications

		PURY-P200YMF-B	PURY-P250YMF-B
Capacity	kcal/h	20,000	25,000
	kW	23.3	29.1
	BTU/h	79,400	99,300
Input	kW	9.43	11.8
Source	V	380/400/415	
Current	A	15.9/15.1/14.5	19.9/18.9/18.2

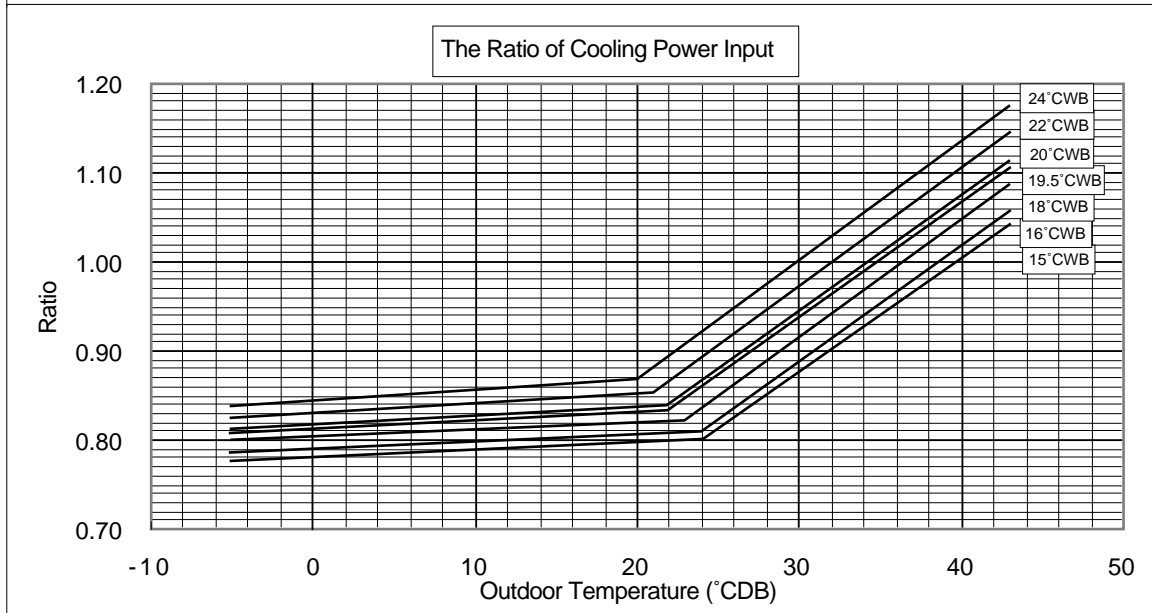
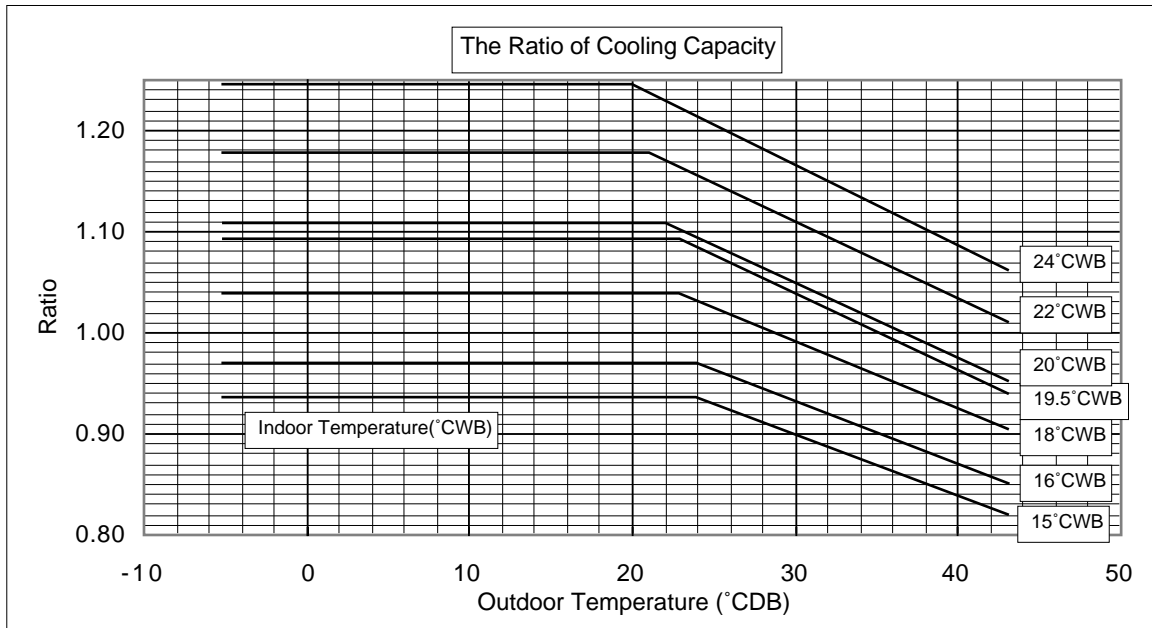
- Calculation

$$\text{Capacity}' = \text{Capacity} \times \text{Ratio}$$

$$\text{Input}' = \text{Input} \times \text{Ratio}$$

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.91}$$

※ Capacity'
Input'
Current' } After correction



PURY-P

Heating

• Standard Specifications

		PURY-P200YMF-B	PURY-P250YMF-B
Capacity	kcal/h	22,400	28,000
	kW	26.0	32.6
	BTU/h	88,900	111,200
Input	kW	8.57	10.9
Source	V	380/400/415	
Current	A	14.4/13.7/13.2	18.4/17.4/16.8

• Calculation

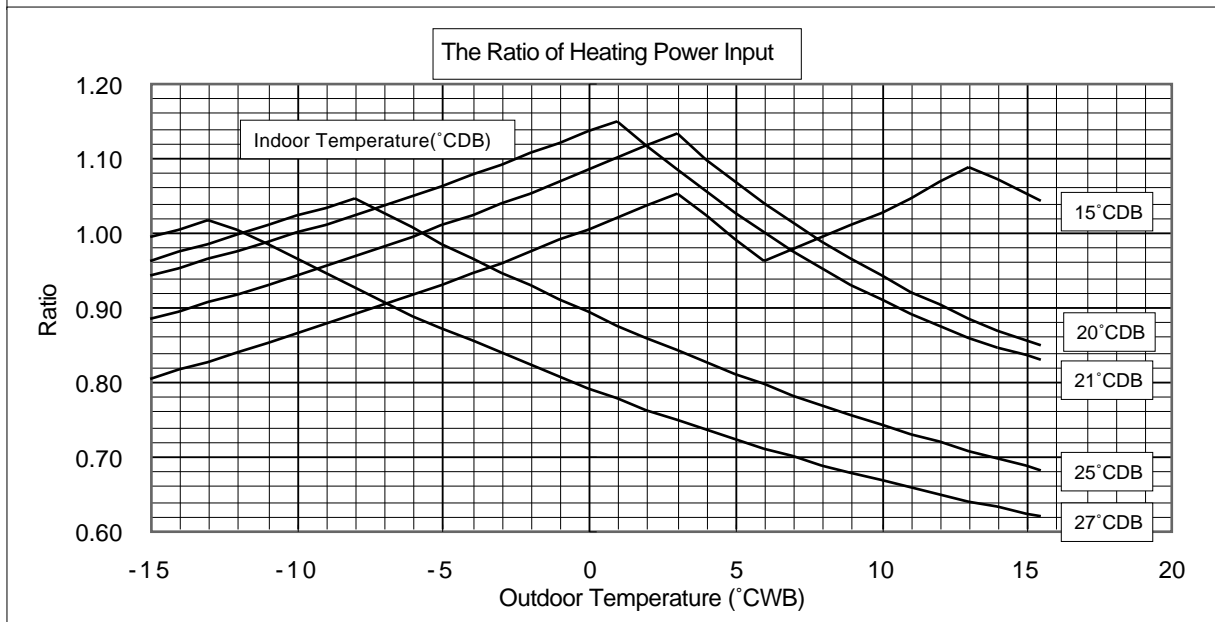
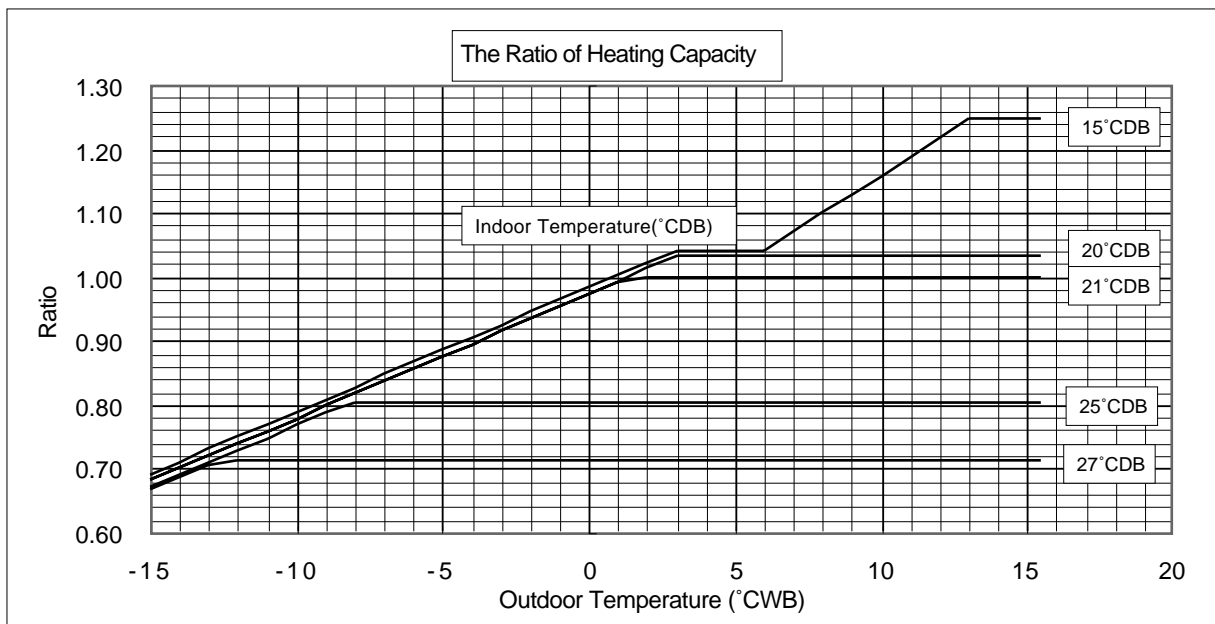
$$\text{Capacity}' = \text{Capacity} \times \text{Ratio}$$

$$\text{Input}' = \text{Input} \times \text{Ratio}$$

$$\text{Current}' = \frac{\text{Input}' \times 1000}{\sqrt{3} \times \text{Source} \times 0.91}$$

*Capacity'
 Input'
 Current'

} After correction

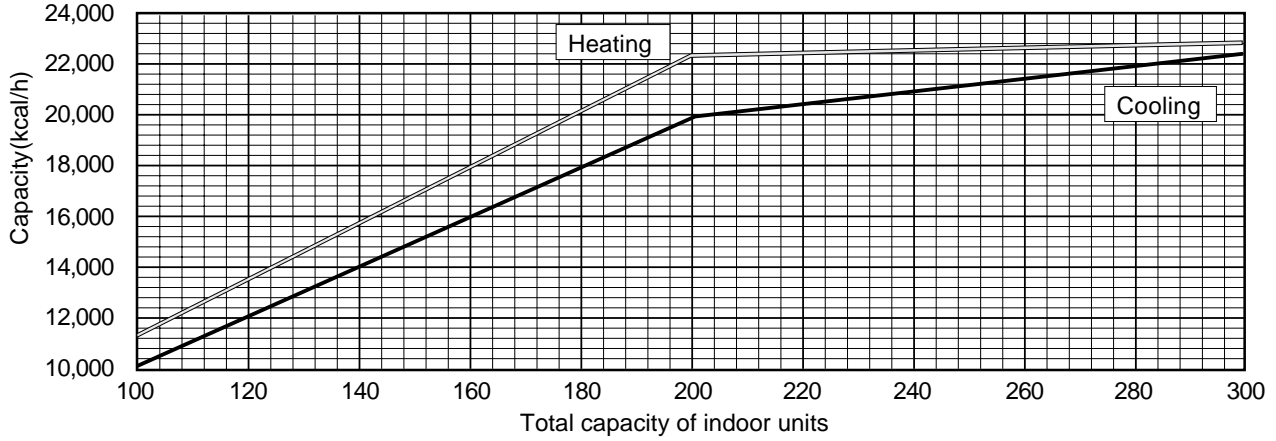


PURY-P

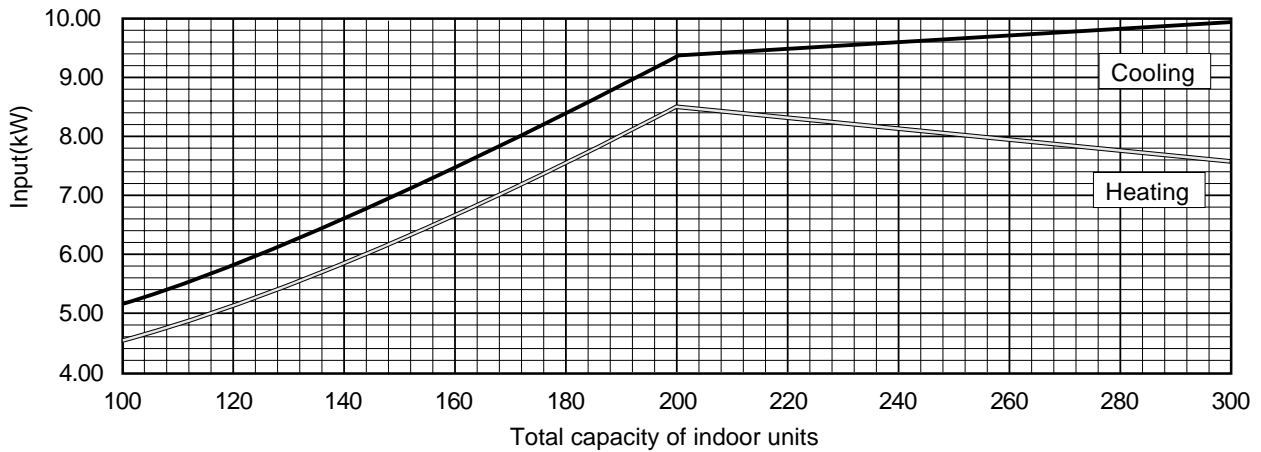
2-2. Correction by total indoor

PURY-P200YMF-B

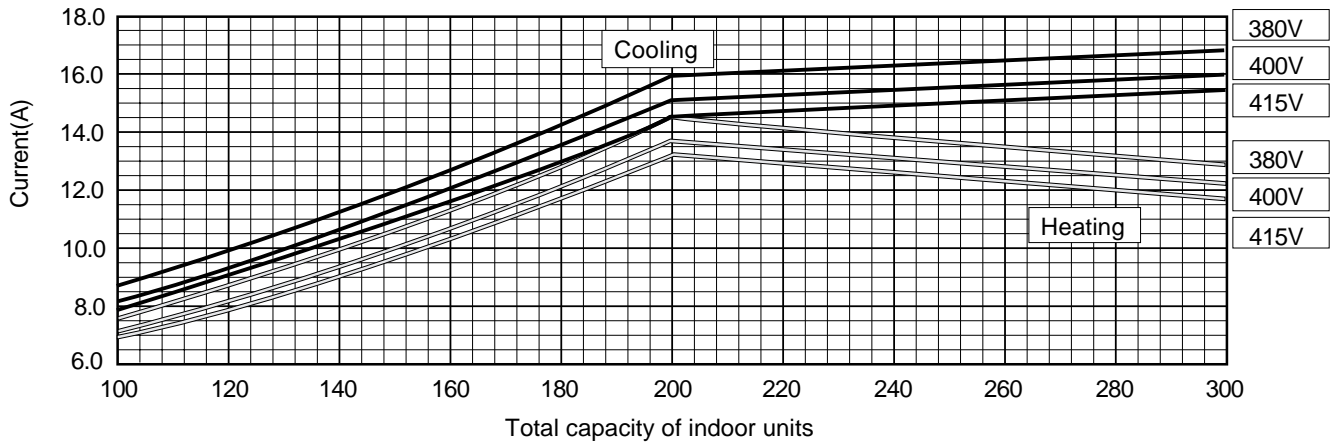
1) Capacity



2) Input

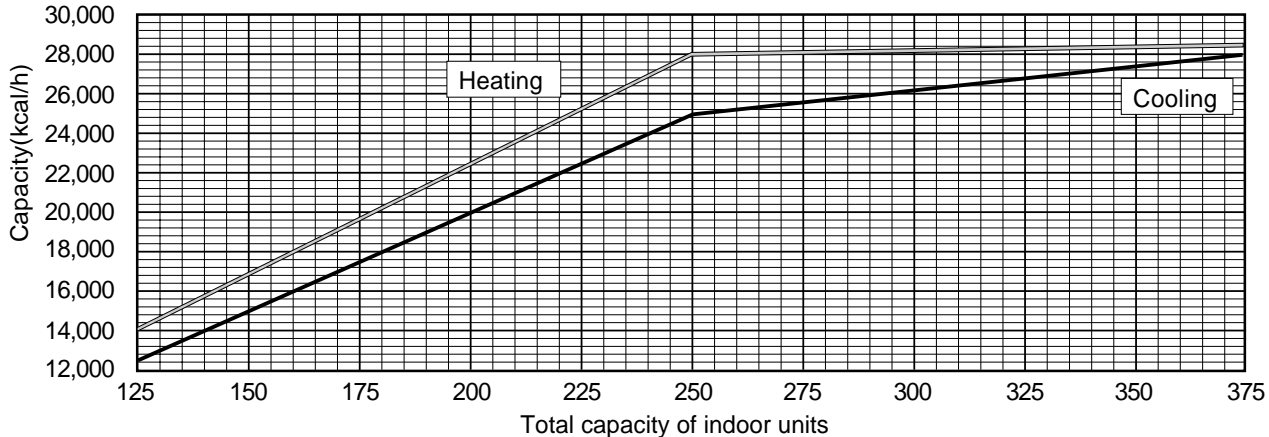


3) Current

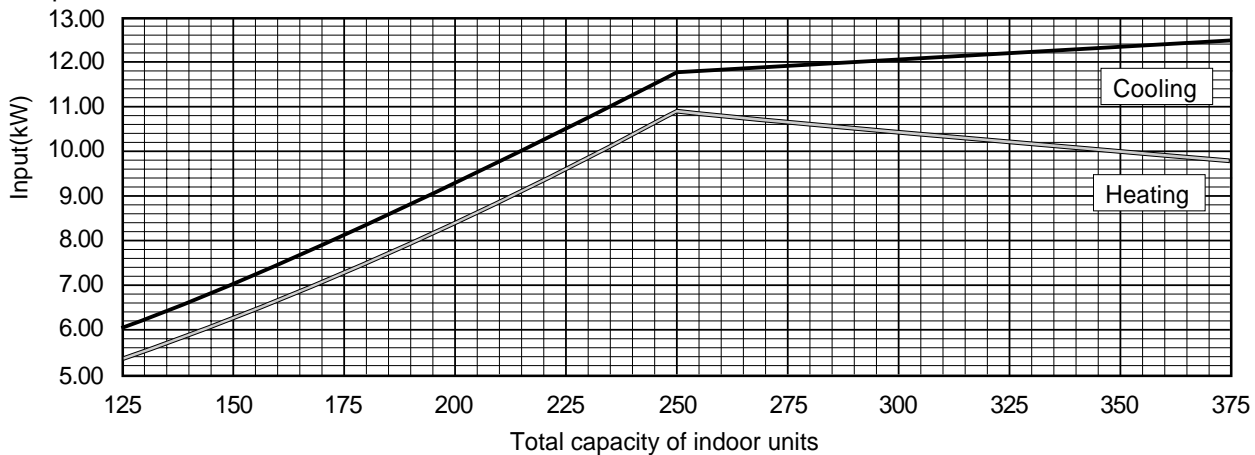


PURY-P250YMF-B

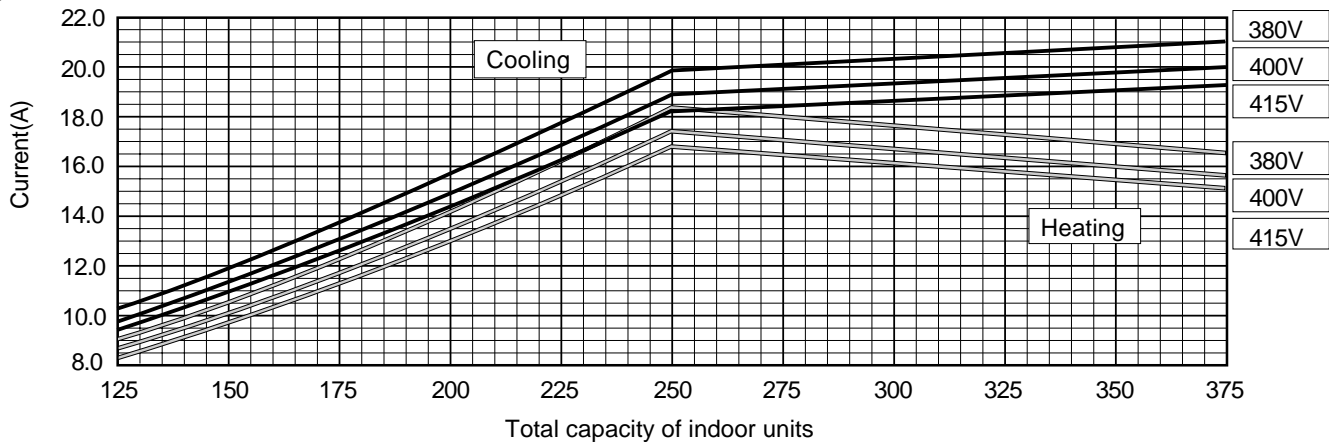
1) Capacity



2) Input



3) Current

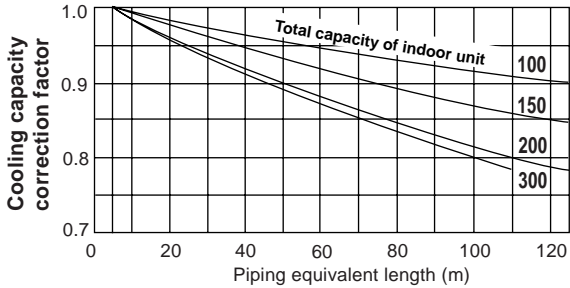


2-3 Correction by refrigerant piping length

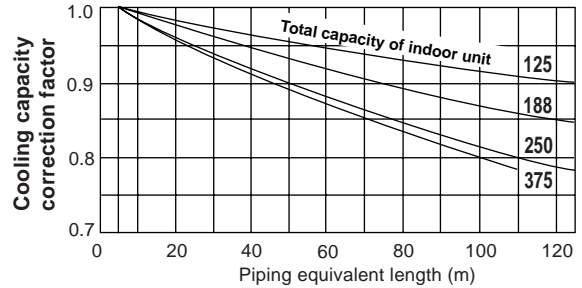
To obtain a decrease in cooling/heating capacity due to refrigerant piping extension, multiply by the capacity correction factor based on the refrigerant piping equivalent length in the table below.

• Cooling capacity correction

PURY-P200YMF-B

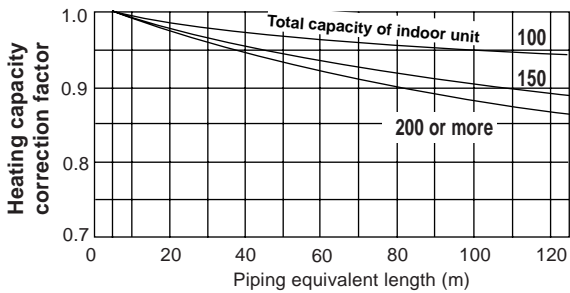


PURY-P250YMF-B

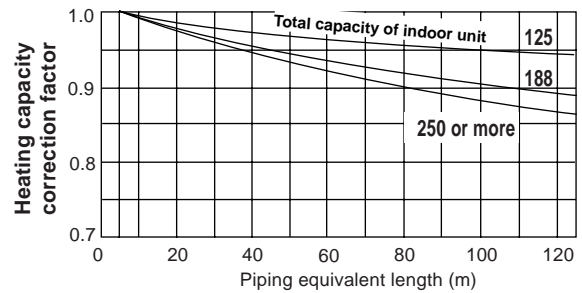


• Heating capacity correction

PURY-P200YMF-B



PURY-P250YMF-B



• How to obtain piping equivalent length

① PURY-P200YMF-B

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 × number of bent on the piping)m

② PURY-P250YMF-B

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 × number of bent on the piping)m

2-4 Correction at frosting and defrosting

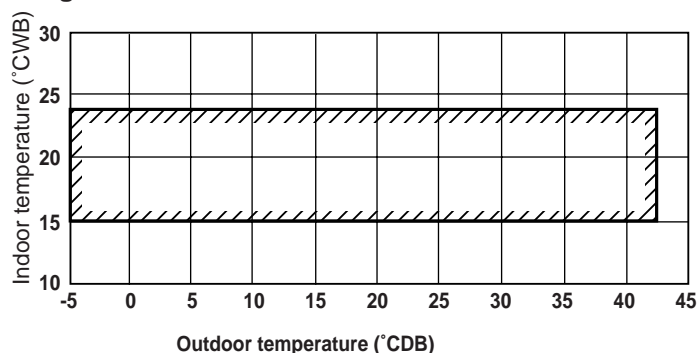
When a decrease in heating capacity due to frosted and defrosting operations is considered, the value multiplied by the correction factor in the table below represents the heating capacity.

Correction factor table

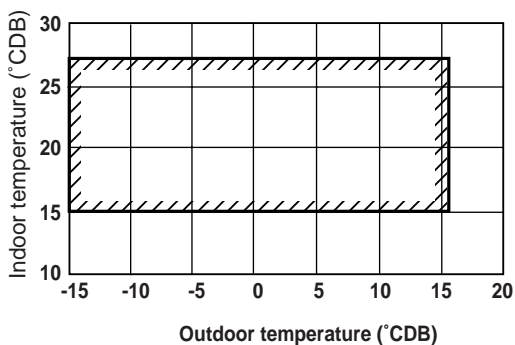
Outdoor inlet air temp (°CWB)	6	4	2	0	-2	-4	-6	-8	-10
Correction factor	1.0	0.95	0.84	0.83	0.87	0.9	0.95	0.95	0.95

2-5 Operation limit

• Cooling



• Heating

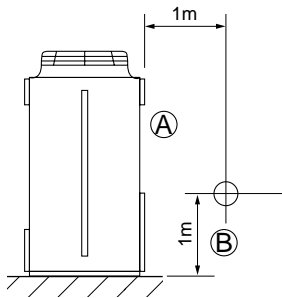


* Outdoor temperature : -5°CDB/-6°CWB ~ 21°CDB/15.5°CWB in cooling/heating mixed mode.

3. Sound levels

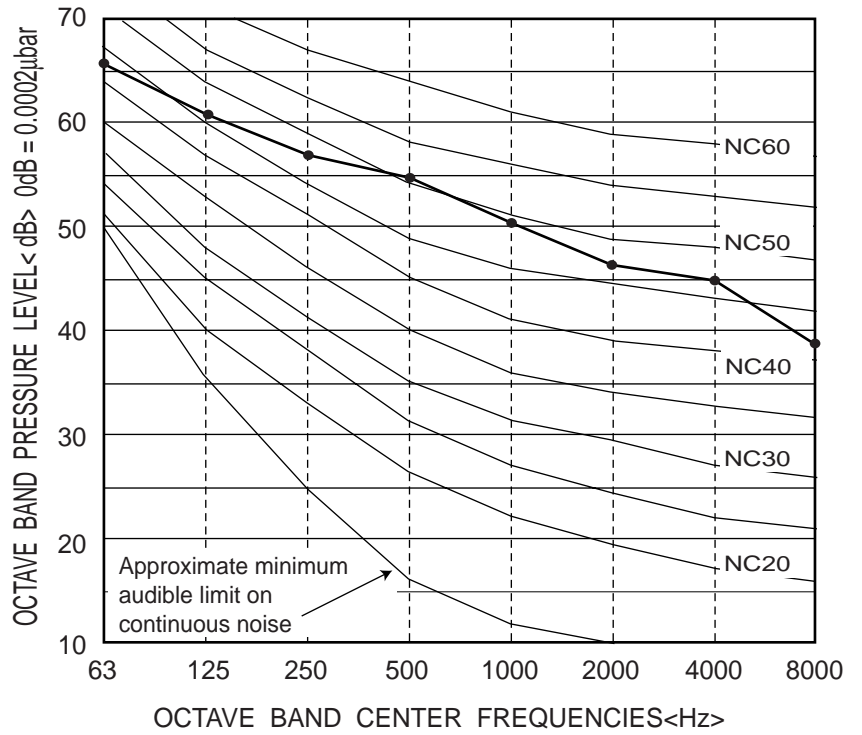
PURY-P200YMF-B

Measurement condition



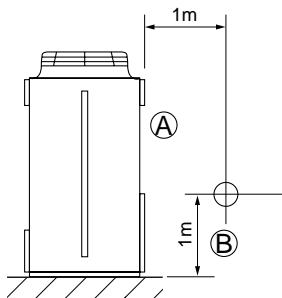
Sound pressure level in anechoic room

57 dB (A)



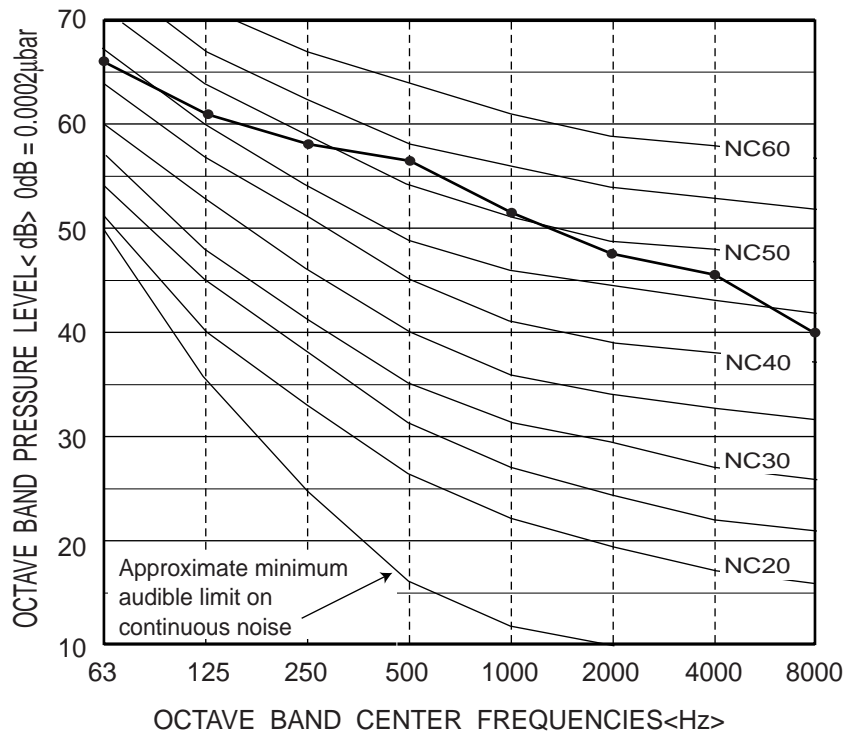
PURY-P250YMF-B

Measurement condition



Sound pressure level in anechoic room

58 dB (A)

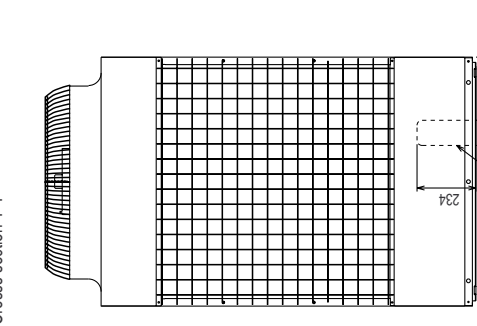
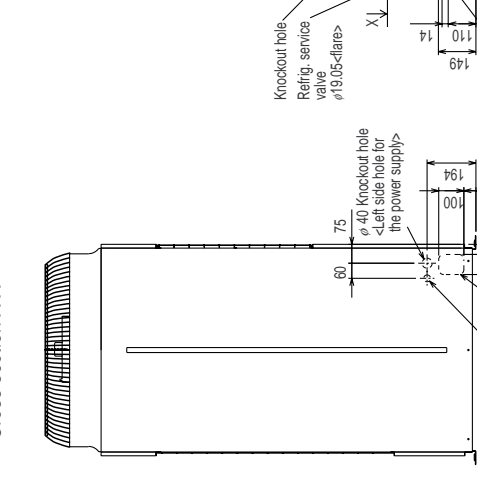
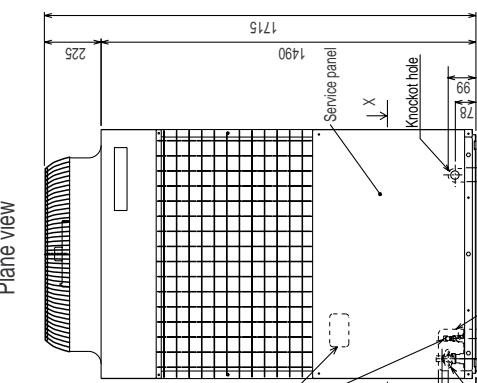
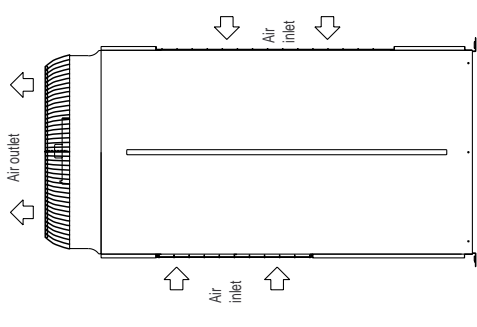
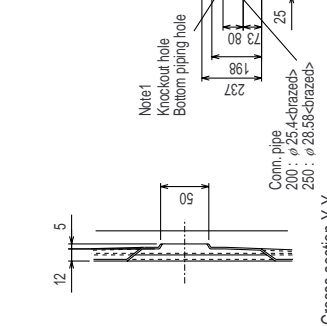
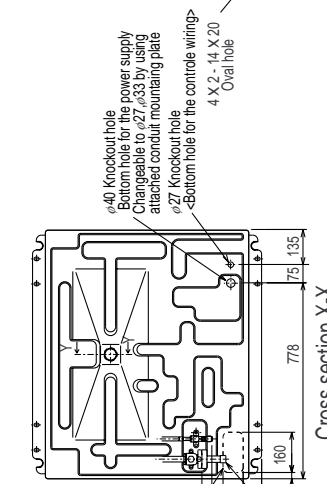
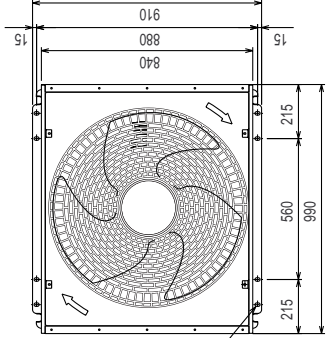


4. External dimensions

PURY-P200,250YMF-B

Unit : mm

- < Accessory >
- Refrigerant Gas(Low press.) conn. pipe 1 pc.
(The connecting pipe is fixed with the unit)
 - Packing for conn. pipe 1 pc.
(Attached near the ball valve)
 - Conduit mounting plate
(Painted the same color as the unit body)
φ40,φ33,φ27 each 1 pc.
 - Tapping screw 4 X 10 2 pcs.
 - The wire mounting plate 1 pc.
Please leave a space under the outdoor unit
for the piping. When you connect the piping
from the bottom.
(Please be careful not to close the hole
of the bottom plate by the basement)

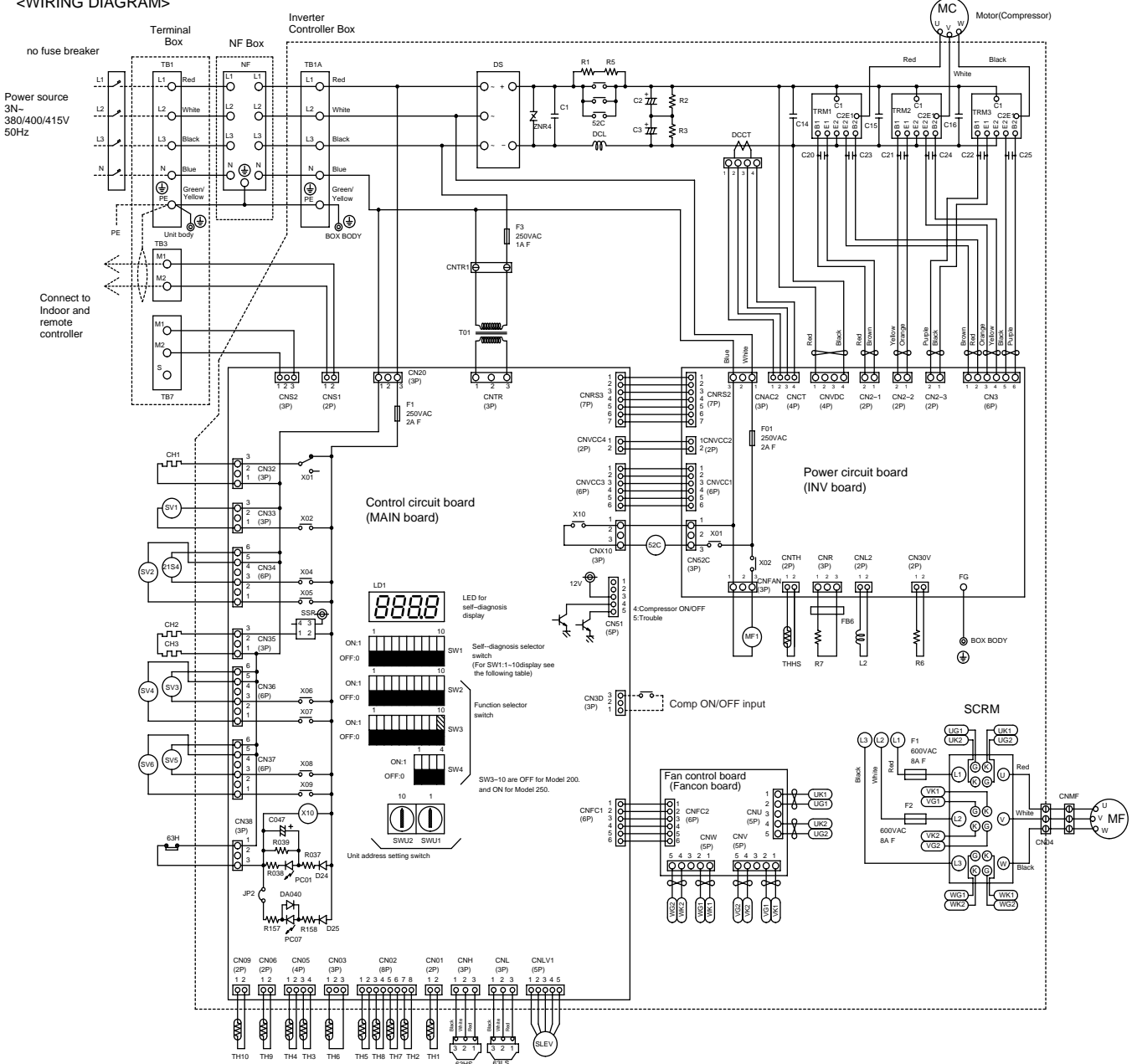


PURY-P

5. Electrical Wiring Diagram

PURY-P200, 250YMF-B

<WIRING DIAGRAM>



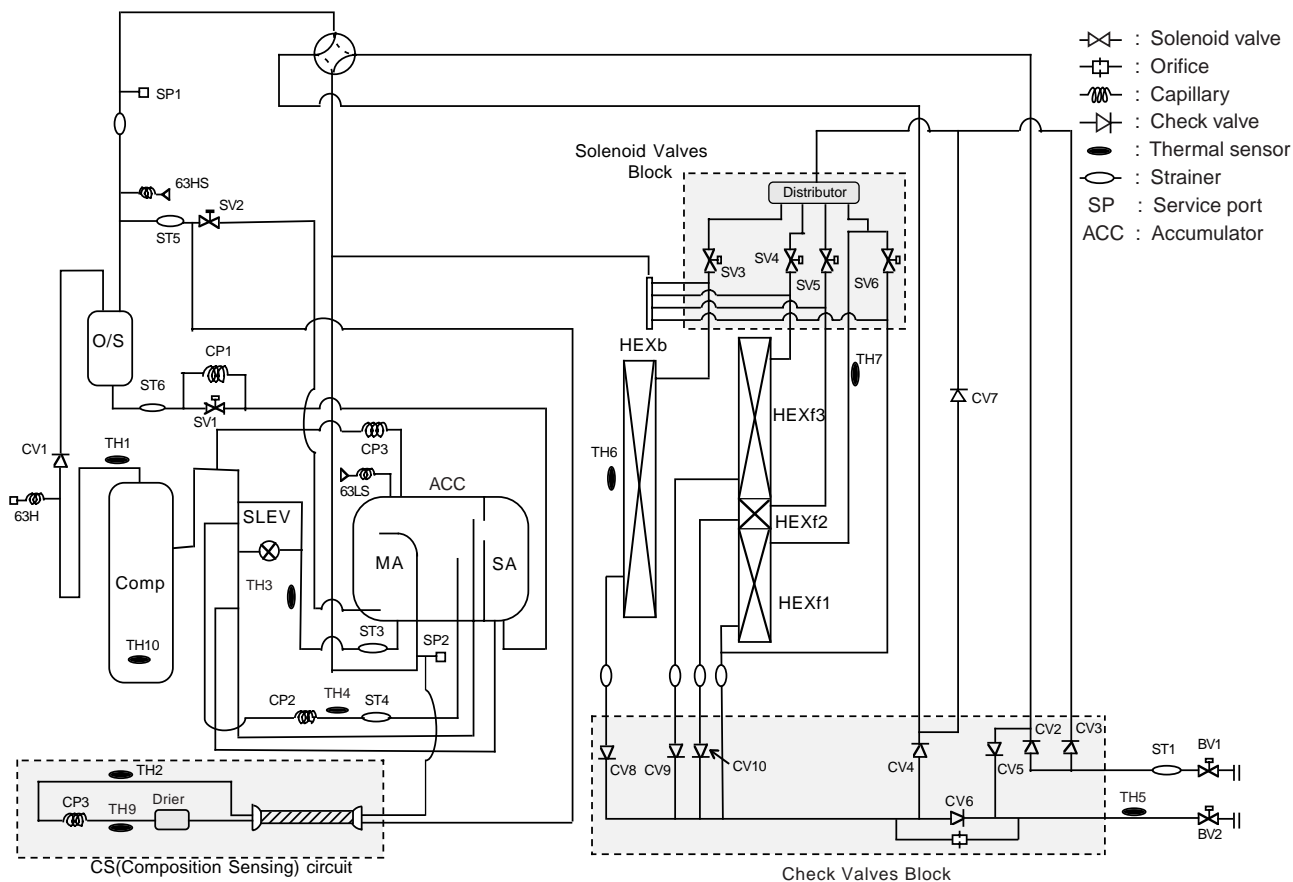
PURY-P

<SYMBOL EXPLANATION>

Symbol	N a m e	Symbol	N a m e	Symbol	N a m e	Symbol	N a m e
DCL	DC reactor (Power factor improvement)	SSR	Solid state relay	63H	High pressure switch	FB6	Ferrite core
DCCT	Current Sensor	T1	Transformer (Control circuit power source)	TH1	Discharge pipe temp. detect	F1-3	Fuse
R1,R5	Resistor	CH1	Crankcase heater(Compressor)	TH2	Saturation evapo. temp. detect	SW1	Switch
R2,R3	Discharge	CH2,CH3	Cord heater (Accumulator liquid level detect)	TH3	Accumulator liquid temp. detect	SW2,3,4	Function selection
R6	Power regulation	21S4	4-way valve	TH4	temp. detect	SWU1-2	Unit address set
R7	Rush current protect	SV1,SV2	Solenoid valve (Discharge-suction bypass)	TH5	Pipe temp. detect	TB1(A)	Terminal block
ZNR4	Varistor	SV3-SV6	Solenoid valve (Heat exchanger capacity control)	TH6	OA temp. detect	TB3	Power source
C1,14,15,16	Capacitor	SLEV	Electronic expansion valve(Oil return)	TH7	liquid outlet temp. detect at Sub-cool coil	TB7	Transmission(Centralized control)
C2,C3	Smoothing	63HS	High pressure sensor	TH8	bypass outlet temp. detect at Sub-cool coil	CNCT	Connector
R1,R5	Magnetic contactor (Inverter main circuit)	63LS	Low pressure sensor	TH9	High pressure liquid temp.	CNRS2,3,4	Main-Inv Transmission
MC	Motor Compressor	63LS	Low pressure sensor	TH10	Compressor shell temp.	CNVCC2,4	Voltage
MF1	Fan Radiator panel (voltage 240V current 0.11A)	L2	Choke coil(Transmission)	THHS	Radiator panel temp. detect	CNVCC1,3	Voltage
MF	Heat exchanger (with inner thermostat)	DS	Diode stack	X1,2,4,5,10	Aux. relay	CNFC1,2	Phase control signal
		TRM1-3	Power transistor module	LD1	Luminous diode		Earth terminal
		NF	Noise Filter	C20-25	Surge killer		Relay connector

6. Refrigerant circuit diagram and Thermal sensor

PURY-P200, 250YMF-B



PURY-P

