PUHY-200·250·315TEM-A

CONTENTS

TEM-A

1. Specifications

Model name			PUHY-200TEM-A	
			Cooling	Heating
Capacity	✻1	kW	22.4	25.0
	✻2	kcal/h	20,000	–
Power source			3 ~ 208/220/230V 60Hz	
Power input		kW	6.19	6.66
Current		A	19.0/18.0/17.2	20.5/19.4/18.5
Fan	Type × Quantity		Propeller fan × 1	
	Airflow rate	m^3/min	200	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	5.3	
	Crankcase heater	kW	0.045(230V)	
Refrigerant / Lubricant			R22/MS32(N-1)	
External finish			Pre-coated galvanized sheets <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1755(H)×990(W)×840(L)	
Protection devices	High pressure protection		2.94MPa	
	Compressor / Fan		Over current protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter	Liquid / Gas		ø 12.7 (Flare) / ø 25.4 (Flange)	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 1 ~ 13	
Noise level ✻		dB<A>	56	
Net weight		kg	214	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB ~ 43˚CDB with outdoor unit at lower position)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB

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

✻1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB
Heating Indoor : 20˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 7.5m Height difference : 0m

✻2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

✻ It is measured in anechoic room.

TEM-A

Model name			PUHY-250TEM-A	
			Cooling	Heating
Capacity	✻1	kW	28.0	31.5
	✻2	kcal/h	25,000	–
Power source			3 ~ 208/220/230V 60Hz	
Power input		kW	8.37	8.77
Current		A	25.8/24.4/23.3	27.0/25.5/24.4
Fan	Type × Quantity		Propeller fan × 1	
	Airflow rate	m^3/min	200	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	6.8	
	Crankcase heater	kW	0.045(230V)	
Refrigerant / Lubricant			R22/MS32(N-1)	
External finish			Pre-coated galvanized sheets <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1755(H)×990(W)×840(L)	
Protection devices	High pressure protection		2.94MPa	
	Compressor / Fan		Over current protection / Thermal switch	
	Inverter		DC bus current protection, thermal switch	
Refrigerant piping diameter	Liquid / Gas		ø 12.7 (Flare) / ø 28.58 (Flange)	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 1 ~ 16	
Noise level	✻	dB<A>	57	
Net weight		kg	214	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (10˚CDB ~ 43˚CDB with outdoor unit at lower position)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB~15.5˚CWB

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

✻1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB Pipe length : 5m Height difference : 0m

Heating Indoor : 20˚CDB Outdoor : 7˚CDB/6˚CWB Pipe length : 7.5m Height difference : 0m

✻2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB Pipe length : 5m Height difference : 0m

✻ It is measured in anechoic room.

TEM-A

Model name			PUHY-315TEM-A	
			Cooling	Heating
Capacity	∗1	kW	35.5	39.1
	∗2	kcal/h	31,500	–
Power source			208/220/230V 60Hz	
Power input		kW	12.05	10.91
Current		A	36.3/34.3/32.8	33.2/31.4/30.0
Fan	Type× Quantity		Propeller fan ×1	
	Airflow rate	m^3/min	200	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	8.6	
	Crankcase heater	kW	0.045(230V)	
Refrigerant / Lubricant			R22/MS32(N-1)	
External finish			Pre-coated galvanized sheets <MUNSELL 5Y8/1 or similar>	
External dimension		mm	1755(H)× 990(W) × 840(L)	
Protection devices	High pressure protection		2.94MPa	
	Compressor / Fan		Overcurrent protection / Thermal switch	
	Inverter		AC bus current protection, thermal switch	
Refrigerant piping diameter	Liquid / Gas		ø 12.7 (Flare) / ø 31.75 (Flange)	
Indoor unit	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		Model 20 ~ 250 / 1 ~ 16	
Noise level ∗		dB<A>	60	
Net weight		kg	229	
Operating temperature range			Indoor:15˚CWB ~ 24˚CWB Outdoor:-5˚CDB ~ 43˚CDB (0˚CDB~43˚CDB with outdoor unit at lower position)	Indoor:15˚CDB ~ 27˚CDB Outdoor:-15˚CWB ~ 15.5˚CWB (-12˚C(-5˚C)WB~10˚CWB with indoor unit P25(P20)type only is working.)
Matters Deserving Special Mention			A pipe of ø34.93 can be used for the gas pipe	

TEM-A

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

∗1 **Cooling** Indoor : 27˚CDB/19˚CWB Outdoor : 35˚CDB
Heating Indoor : 20˚CDB Outdoor : 7˚CDB/6˚CWB
Pipe length : 7.5m Height difference : 0m

∗2 **Cooling** Indoor : 27˚CDB/19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

∗ It is measured in anechoic room.

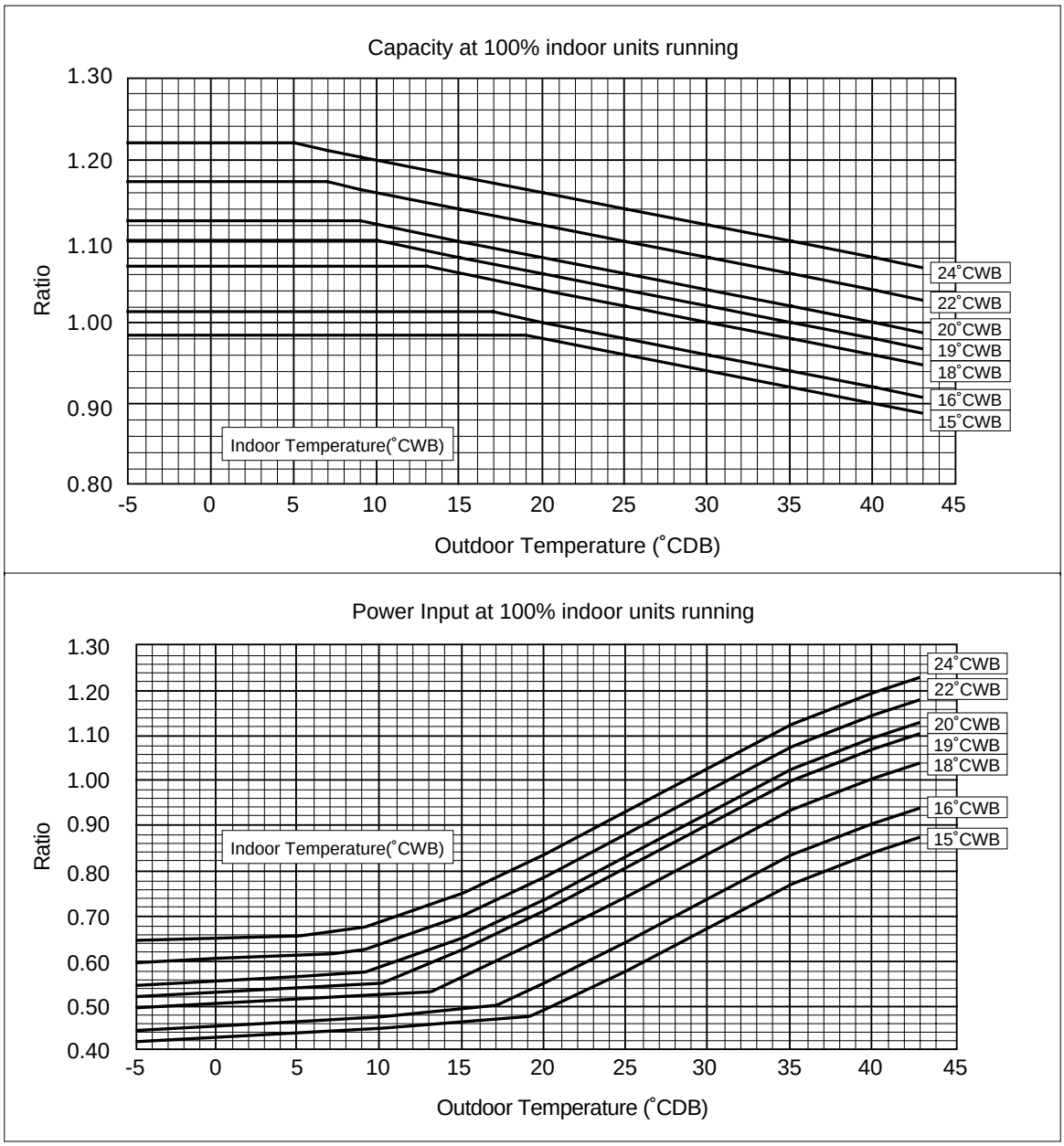
2. Capacity Table

2-1. Correction by temperature

Cooling

• Standard Specifications

		PUHY-200	PUHY-250	PUHY-315
Capacity	kW	22.4	28.0	35.5
Input	kW	6.19	8.37	12.05

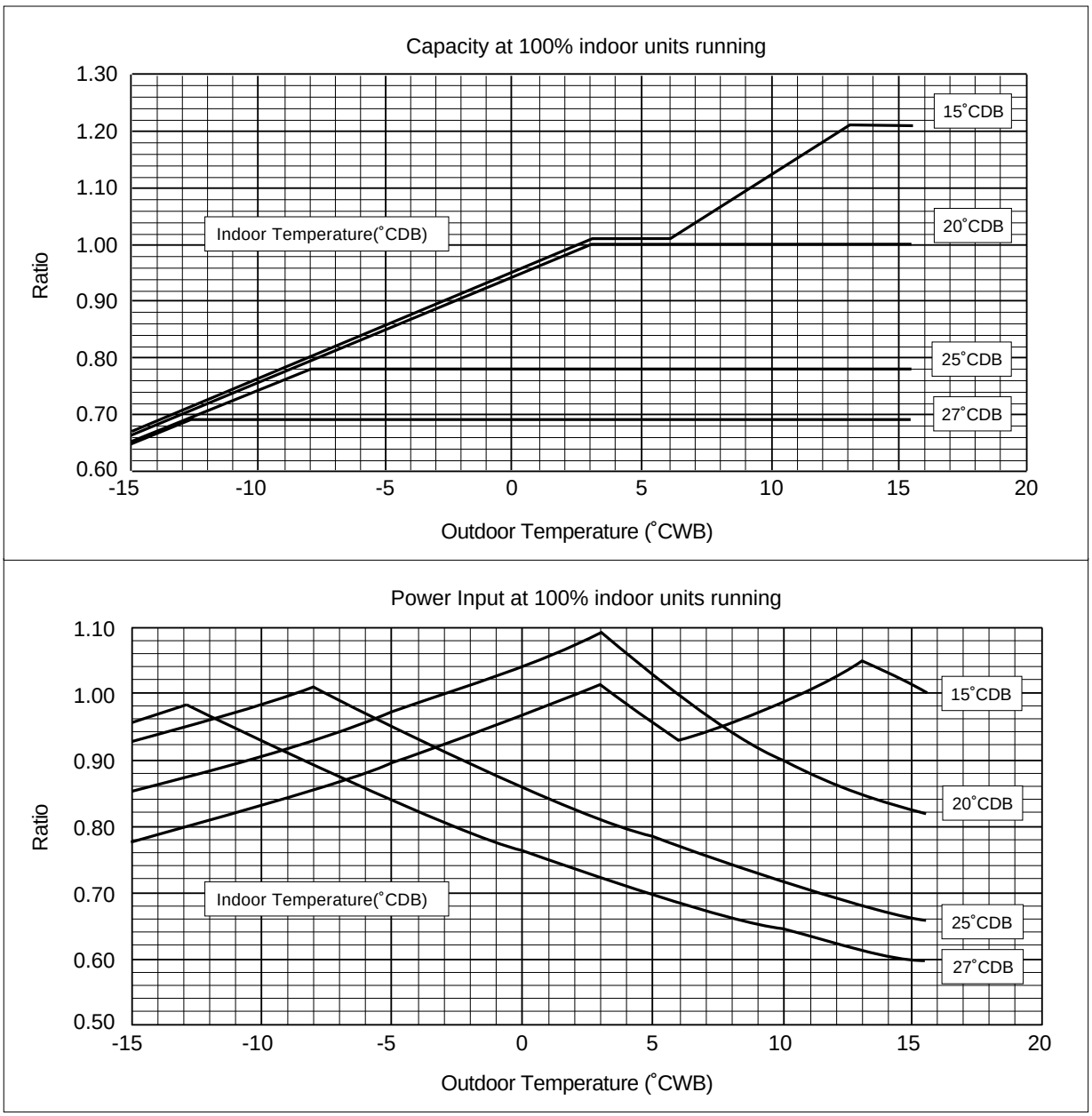


TEM-A

Heating

• Standard Specifications

		PUHY-200	PUHY-250	PUHY-315
Capacity	kW	25.0	31.5	39.1
Input	kW	6.66	8.77	10.91

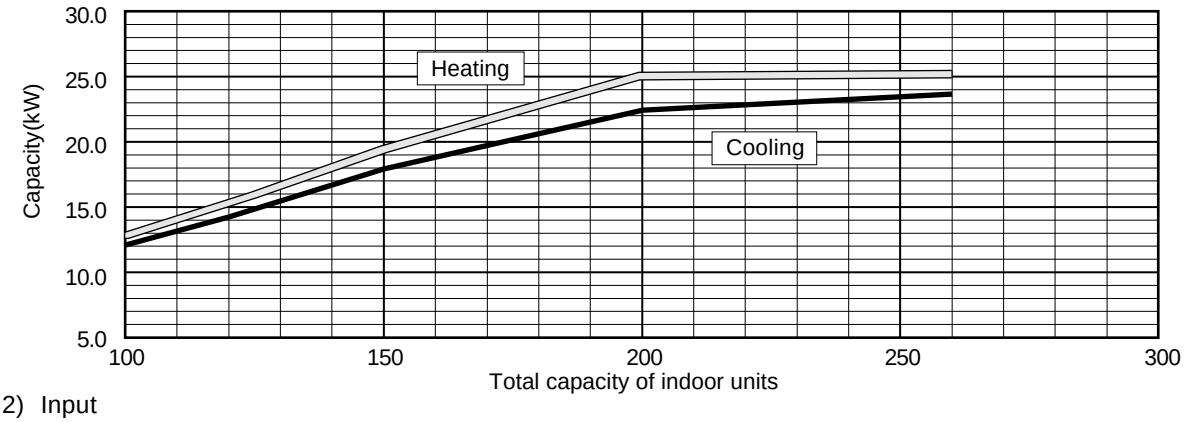


TEM-A

2-2. Correction by total indoor

PUHY-200

1) Capacity



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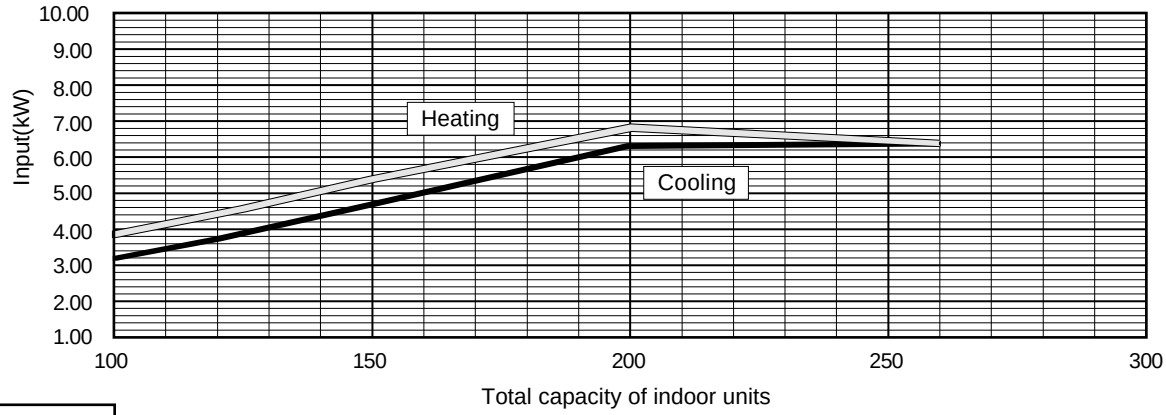
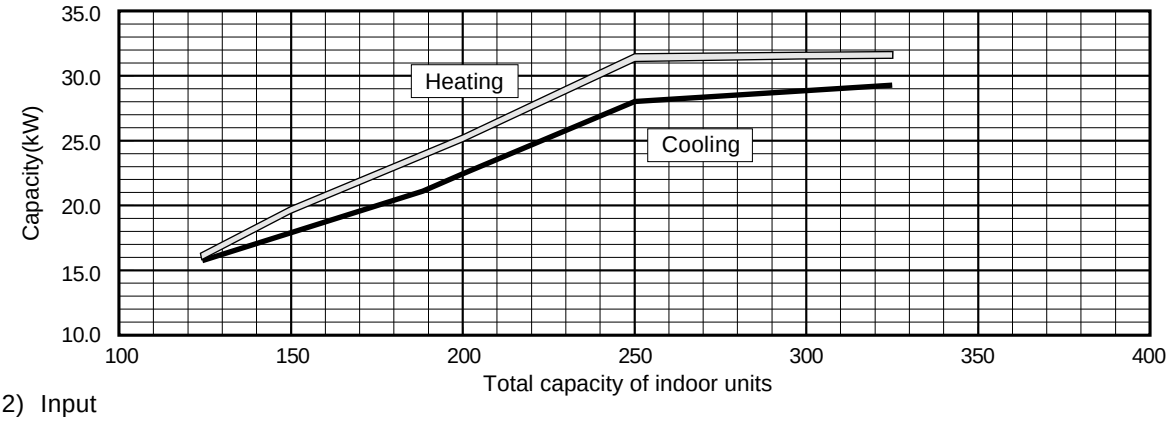


PUHY-250

1) Capacity



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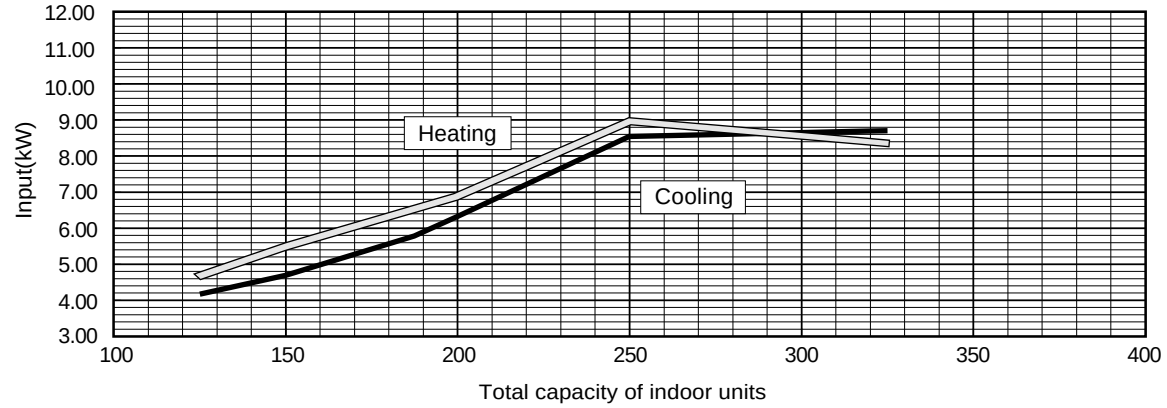
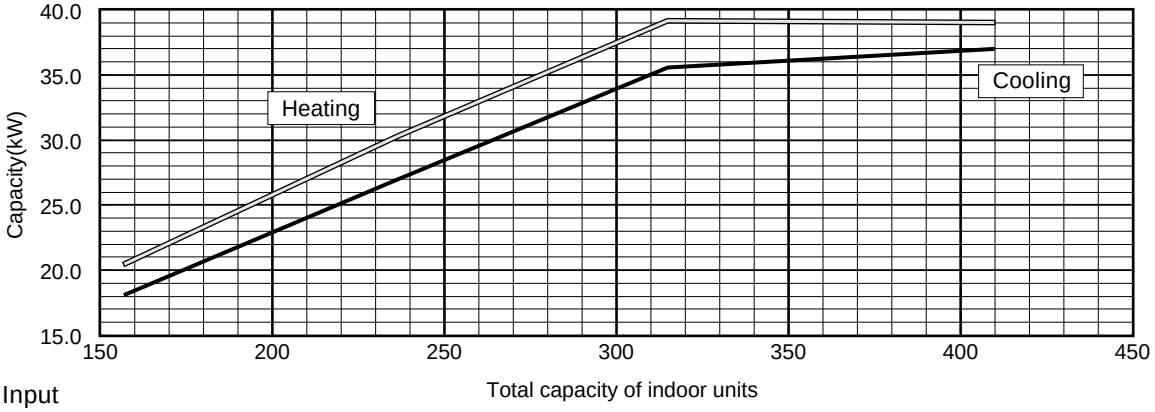


TEM-A

2-2. Correction by total indoor

PUHY-315

1) Capacity



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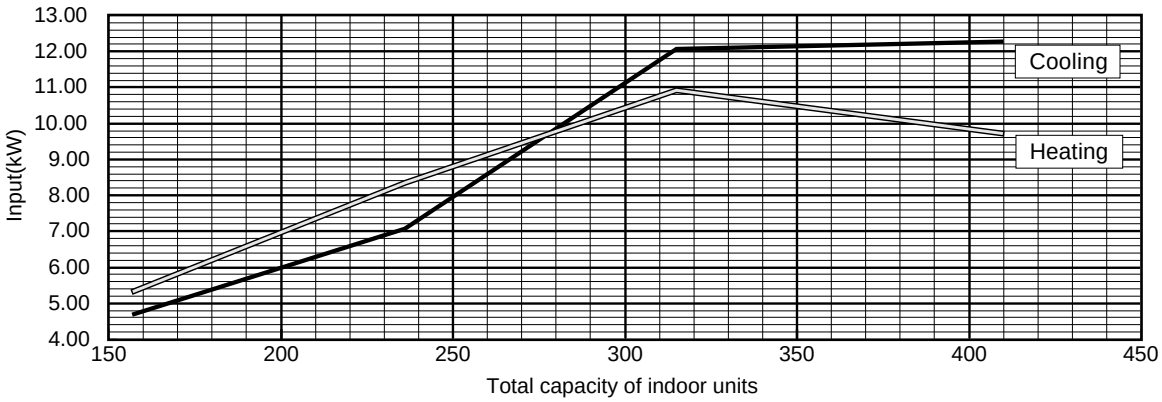


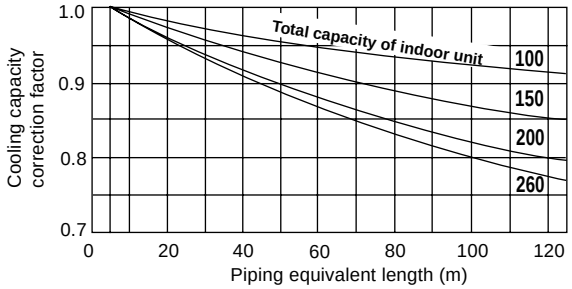
TEM-A

2-3. Correction by refrigerant piping length

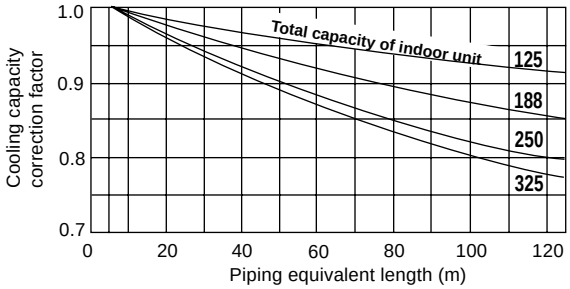
To obtain a decrease in cooling/heating capacity due to refrigerant piping extension, multiply by the capacity correction factor based on the refrigerant piping equivalent length in the table below.

• Cooling capacity correction

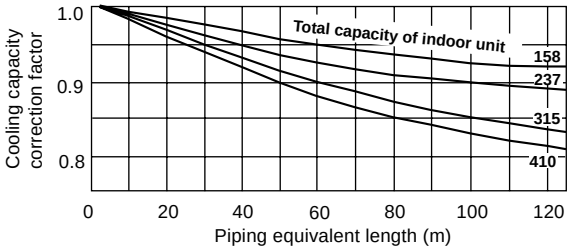
PUHY-200



PUHY-250

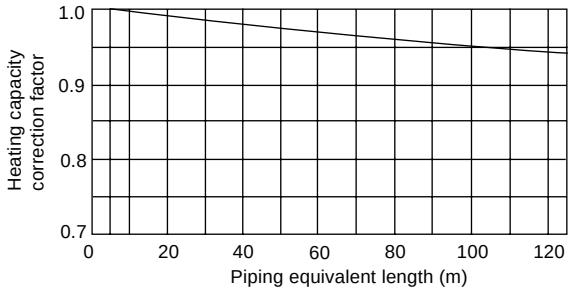


PUHY-315

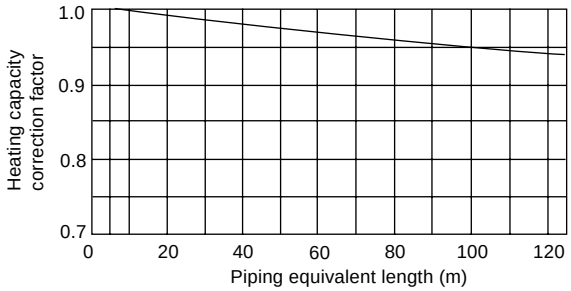


• Heating capacity correction

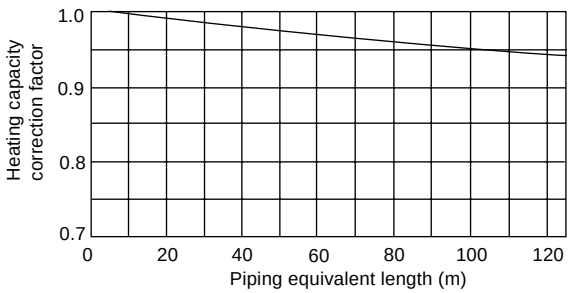
PUHY-200



PUHY-250



PUHY-315



• How to obtain piping equivalent length

① **PUHY-200**

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

② **PUHY-250**

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

③ **PUHY-315**

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.70 × number of bent on the piping)m

TEM-A

2-4. Correction at frosting and defrosting

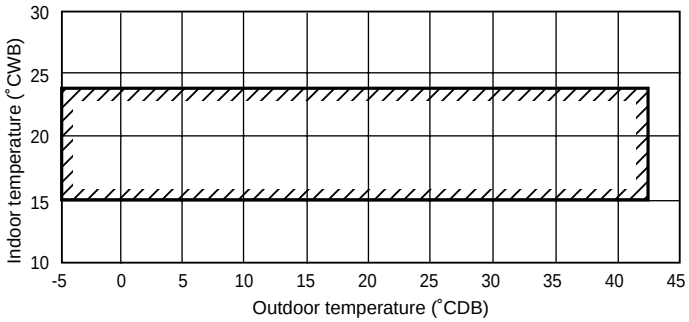
When a decrease in heating capacity due to frosted and defrosting operations is considered, the value multiplied by the correction factor in the table below represents the heating capacity.

Correction factor table

Outdoor inlet air temp (˚CWB)		6	4	2	0	-2	-4	-6	-8	-10
Correction factor	PUHY-200·250	1.0	0.95	0.84	0.83	0.87	0.9	0.95	0.95	0.95
	PUHY-315	1.0	0.93	0.82	0.82	0.86	0.90	0.90	0.95	0.95

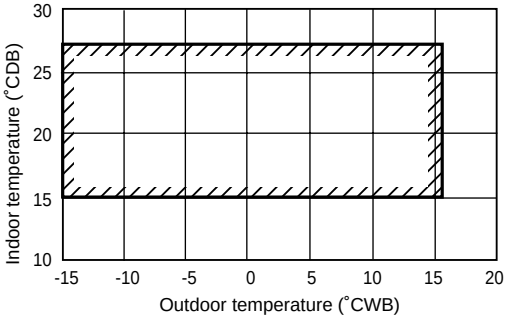
2-5. Operation limit

• Cooling



(Outdoor temperature :10˚CDB ~ 43˚CDB with outdoor unit at lower position in cooling mode.)

• Heating



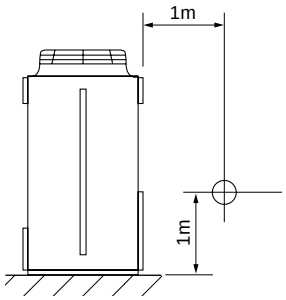
When the indoor P25(P20)type only is working, the outdoor unit [PUHY-315] inlet air temperature becomes –12˚C(–5˚C)WB~ 10˚CWB.

TEM-A

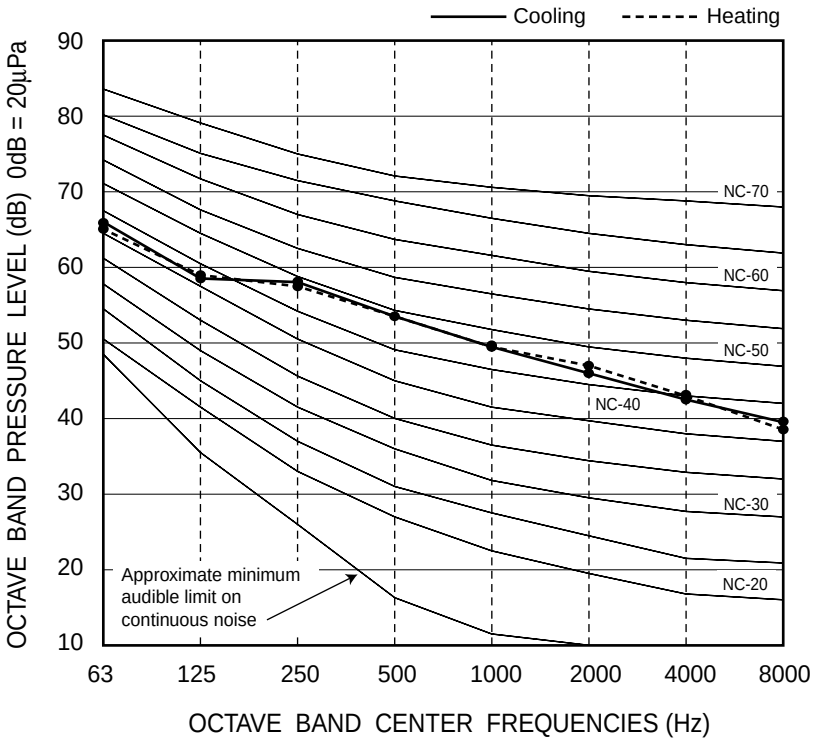
3. Sound Levels

PUHY-200

Measurement condition

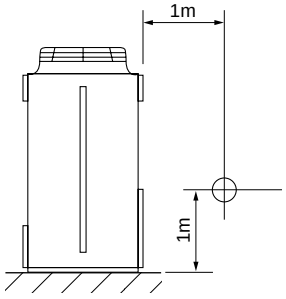


Sound pressure level in anechoic room
56 dB (A)

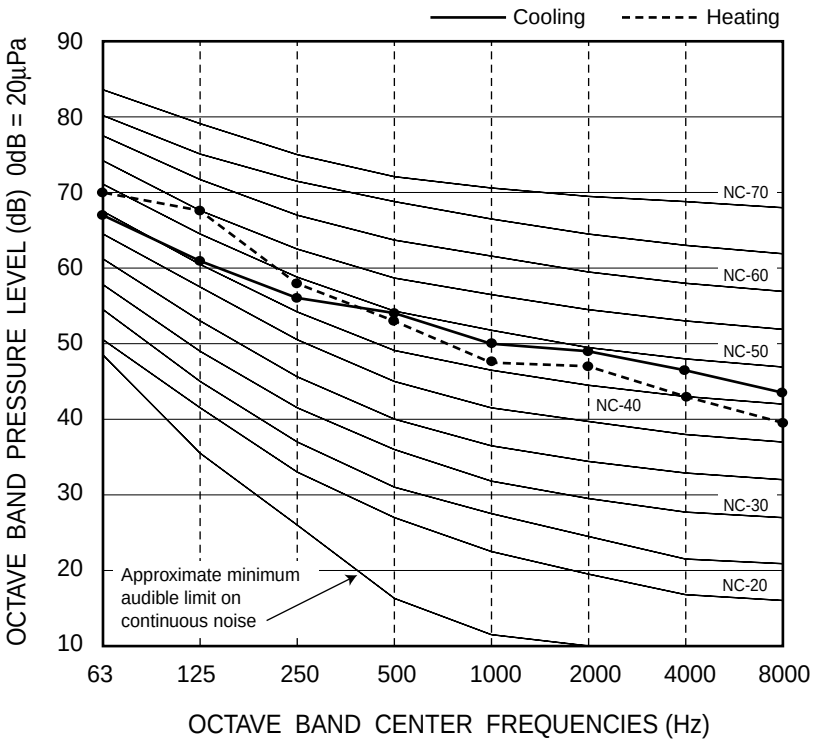


PUHY-250

Measurement condition



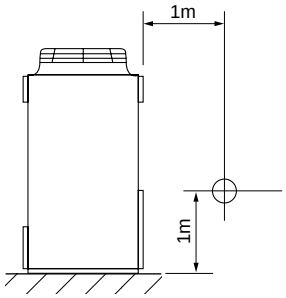
Sound pressure level in anechoic room
57 dB (A)



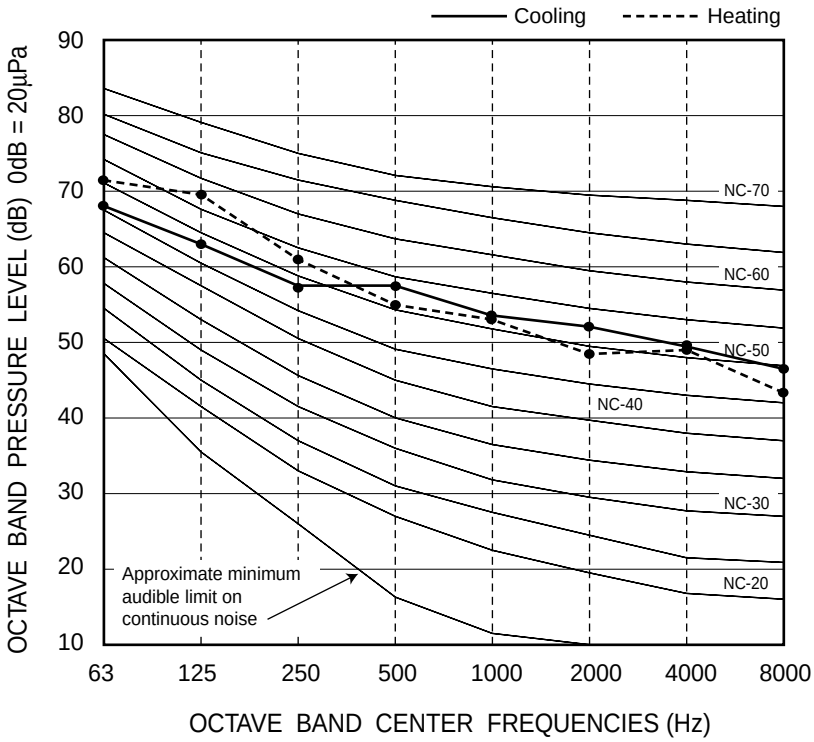
TEM-A

PUHY-315

Measurement condition



Sound pressure level in anechoic room
60 dB (A)

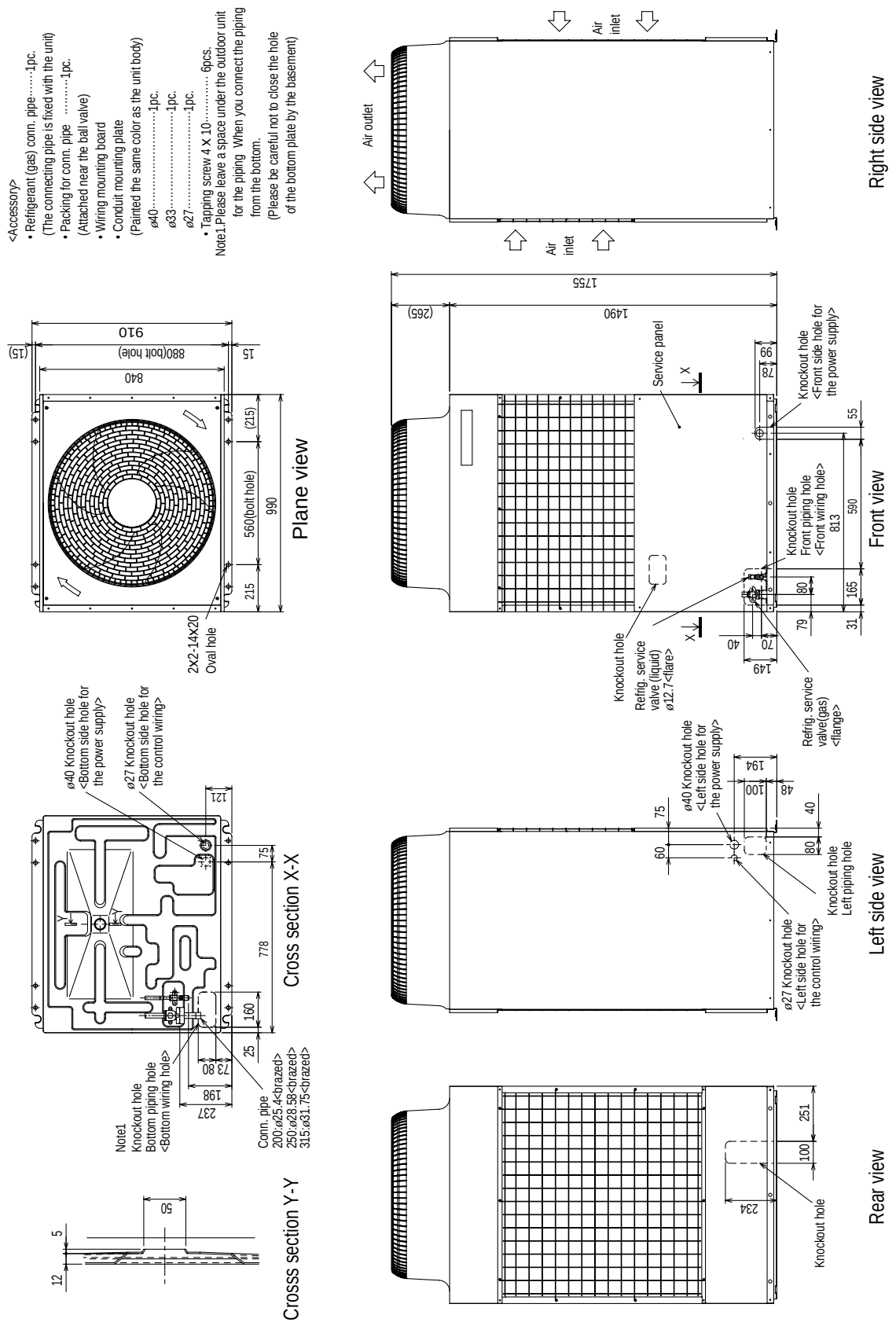


TEM-A

4. External Dimensions

PUHY-200,250,315TEM-A(-BF)

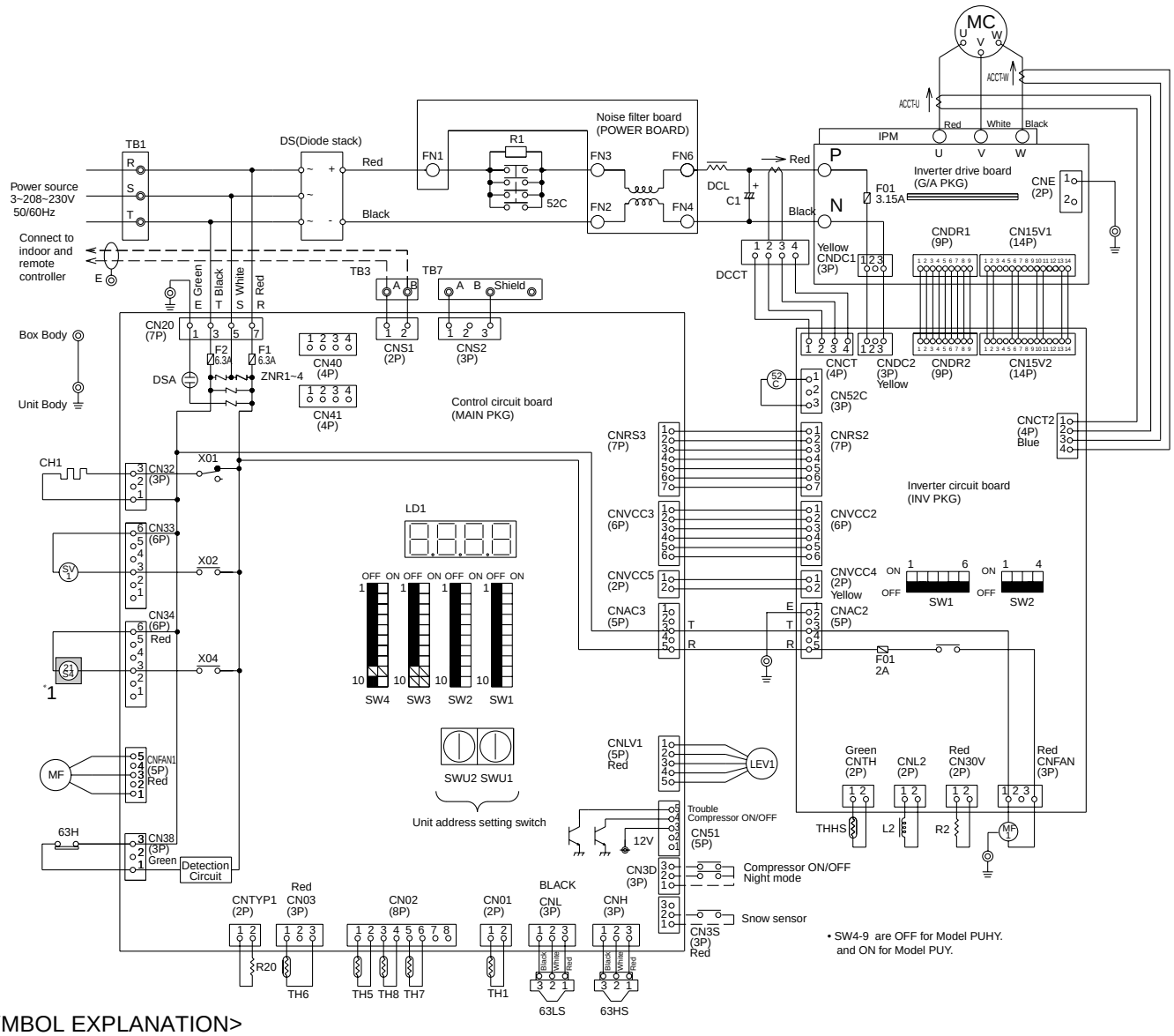
Unit : mm



TEM-A

5. Electrical Wiring Diagram

PUHY-200, 250, 315TEM-A(-BF)



<SYMBOL EXPLANATION>

Symbol	Name	Symbol	Name	Symbol	Name		Symbol	Name
TB1	Terminal block power source	52C	Magnetic contactor (Inverter main circuit)	TH1	Thermistor	discharge pipe temp.detect	63HS	High pressure sensor
TB3	Terminal block transmisson			TH5		pipe temp.detect	LEV1	Electric expansion valve (Sub-cool coil bypass)
TB7	Terminal block transmisson centralized control	MC	Motor Compressor	TH6		OA temp.detect		
		MF	Motor Fan Heat exchanger	TH7		liquid outlet temp. detect at Sub-cool coil	L2	Choke coil(Transmission)
E	Earth terminal	MF1	Motor Fan Radiator panel				IPM	Itelligent power module
ACCT-U,W	Current Sensor	CH1	Crankcase heater (Compressor)	TH8		bypass outlet temp. detect at Sub-cool coil	X01~04	Axu. Relay
DCCT	Current Sensor	21S4 *1	4-way valve				DCL	DC reactor (Power factor improvement)
R1	Resistor rush current protect	SV1	Solenoid valve (Discharge-suction bypass)	THHS		Rediator panel temp.detect		
R2	Resistor power regulation						63LS	Low pressure sensor
R20	Resistor	63H	High pressure switch				DSA	Surge suppressor
C1	Capacitor Smoothing	ZNR1~ZNR4	Varistor				F1,F2,F01	Fuse
							LD1	LED display

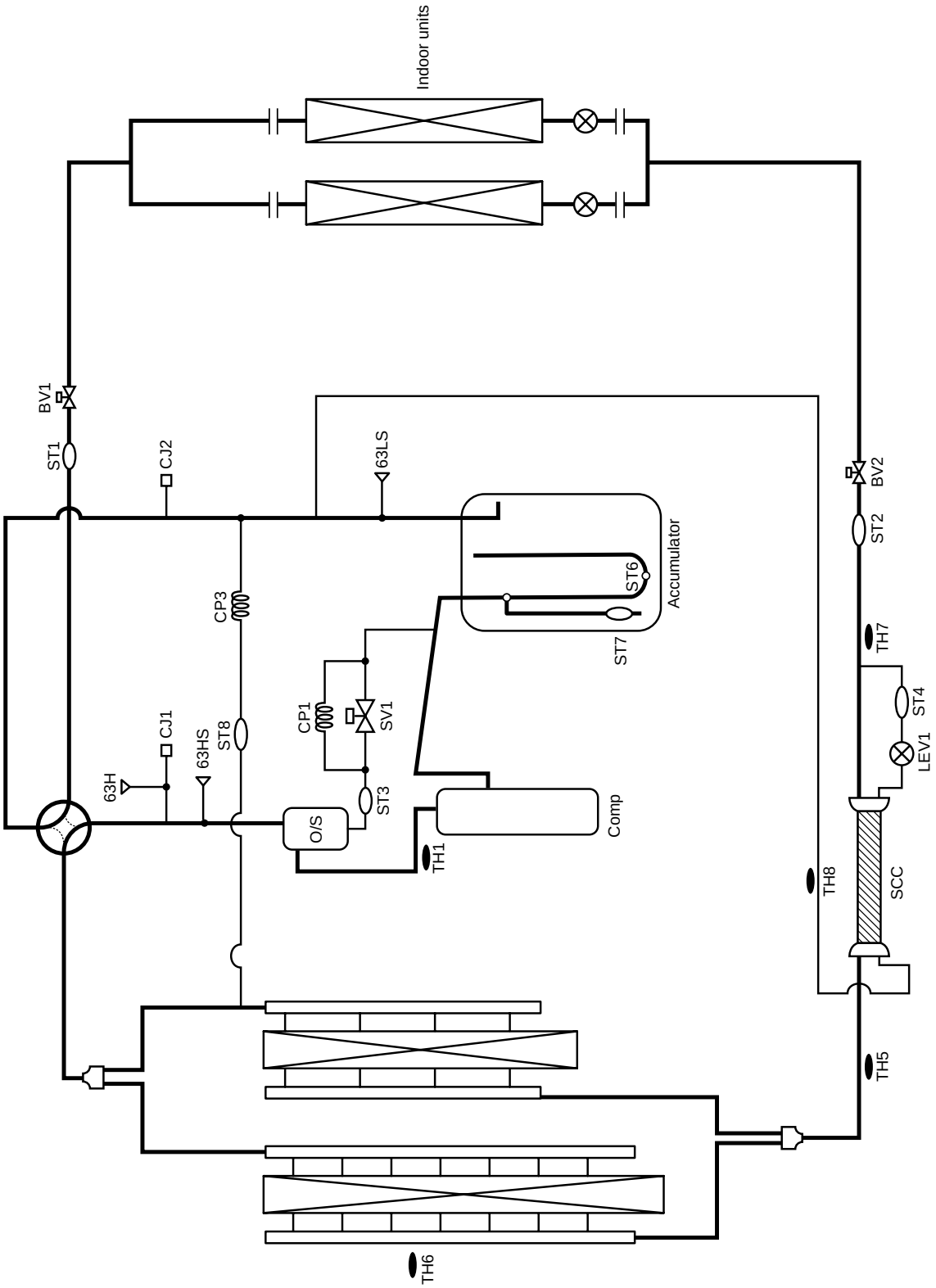
<Difference of appliance>

Appliance	Difference (not existed)
PUHY-200, 250, 315TEM-A	
PUY-200, 250, 315TEM-A	*1

TEM-A

6. Refrigerant Circuit Diagram And Thermal Sensor

PUHY-200, 250, 315



TEM-A