PURY-P200·250·300·350YGM-A (-BS)

CONTENTS

1. Specifications

Model name			PURY-P200YGM-A (-BS)	
			Cooling	Heating
Capacity	*1†	kW	22.4	25.0
	*1†	BTU/h	76,400	85,300
	*1††	kcal/h	20,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	6.14	5.98
Current		A	10.3 / 9.8 / 9.4	10.0 / 9.5 / 9.2
Fan	Type x Quantity		Propeller fan x 1	
	Airflow rate	m^3/min	200	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	4.7	
	Crankcase heater	kW	0.045 x 1	
Heat exchanger			Salt resistant fin	
Refrigerant / Lubricant			R410A / MEL56	
External finish			Pre-coated galvanized sheets (+ powder coating for –BS type) <MUNSEL 5Y 8/1 or similar>	
External dimension H x W x D		mm	1,840 x 990 x 840	
Protection devices	High pressure protection		4.15MPa	
	Compressor		Over current protection / Over heat protection	
	Fan		Thermal switch	
	Inverter		Over current protection / Thermal protection	
Refrigerant piping diameter	High press. pipe		ø15.88 Brazed	
	Low press. pipe		ø19.05 Brazed	
Indoor unit	Total capacity		50~150% of outdoor unit capacity	
	Model / Quantity		Model P20~P250 / 1~15	
Noise level	*2	dB<A>	56 / 56	
Net weight		kg	236	
Operating temperature range			Cooling	Heating
			Indoor : 15˚CWB ~ 24˚CWB Outdoor: -5˚CDB ~ 43˚CDB	Indoor : 15˚CDB ~ 27˚CDB Outdoor: -20˚CWB ~ 15.5˚CWB

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

† <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

†† <Cooling> Indoor : 27˚CDB / 19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

*2. It is measured in anechoic room.

** Installation/foundation work, electrical connection work, duct work, insulation work, power source switch, and other items shall be referred to the Installation Manual.

Ref.: M-WYNCO-6907&6917

R2-8~14(R410A)

Model name			PURY-P250YGM-A (-BS)	
			Cooling	Heating
Capacity	*1 †	kW	28.0	31.5
	*1 †	BTU/h	95,500	107,500
	*1 ††	kcal/h	25,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	7.72	7.62
Current		A	13.0 / 12.3 / 11.9	12.8 / 12.2 / 11.7
Fan	Type x Quantity		Propeller fan x 1	
	Airflow rate	m^3/min	200	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	6.7	
	Crankcase heater	kW	0.045 x 1	
Heat exchanger			Salt resistant fin	
Refrigerant / Lubricant			R410A / MEL32	
External finish			Pre-coated galvanized sheets (+ powder coating for –BS type) <MUNSEL 5Y 8/1 or similar>	
External dimension H x W x D		mm	1,840 x 990 x 840	
Protection devices	High pressure protection		4.15MPa	
	Compressor		Over current protection / Over heat protection	
	Fan		Thermal switch	
	Inverter		Over current protection / Thermal protection	
Refrigerant piping diameter	High press. pipe		ø19.05 Brazed	
	Low press. pipe		ø22.2 Brazed	
Indoor unit	Total capacity		50~150% of outdoor unit capacity	
	Model / Quantity		Model P20~P250 / 1~16	
Noise level	*2	dB<A>	57 / 57	
Net weight		kg	251	
Operating temperature range			Cooling Indoor : 15˚CWB ~ 24˚CWB Outdoor: -5˚CDB ~ 43˚CDB	Heating Indoor : 15˚CDB ~ 27˚CDB Outdoor: -20˚CWB ~ 15.5˚CWB

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

† <Cooling> Indoor : 27˚CDB / 19˚CWB Outdoor : 35˚CDB Pipe length : 7.5m Height difference : 0m
<Heating> Indoor : 20˚CDB Outdoor : 7˚CDB / 6˚CWB

†† <Cooling> Indoor : 27˚CDB / 19.5˚CWB Outdoor : 35˚CDB Pipe length : 5m Height difference : 0m

*2. It is measured in anechoic room.

** Installation/foundation work, electrical connection work, duct work, insulation work, power source switch, and other items shall be referred to the Installation Manual.

Ref.: M-WYNCO-6908&6918

R2-8~14(R410A)

Model name			PURY-P300YGM-A (-BS)	
			Cooling	Heating
Capacity	*1†	kW	33.5	37.5
	*1†	BTU/h	114,300	127,900
	*1††	kcal/h	30,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	9.57	9.10
Current		A	16.1 / 15.3 / 14.7	15.3 / 14.5 / 14.0
Fan	Type x Quantity		Propeller fan x 1	
	Airflow rate	m^3/min	200	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	8.0	
	Crankcase heater	kW	0.045 x 1	
Heat exchanger			Salt resistant fin	
Refrigerant / Lubricant			R410A / MEL32	
External finish			Pre-coated galvanized sheets (+ powder coating for –BS type) <MUNSEL 5Y 8/1 or similar>	
External dimension H x W x D		mm	1,840 x 990 x 840	
Protection devices	High pressure protection		4.15MPa	
	Compressor		Over current protection / Over heat protection	
	Fan		Thermal switch	
	Inverter		Over current protection / Thermal protection	
Refrigerant piping diameter	High press. pipe		ϕ19.05 Brazed	
	Low press. pipe		ϕ22.2 Brazed	
Indoor unit	Total capacity		50~150% of outdoor unit capacity	
	Model / Quantity		Model P20~P250 / 1~16	
Noise level	*2	dB<A>	59 / 59	
Net weight		kg	251	
Operating temperature range			Cooling Indoor : 15˚CWB ~ 24˚CWB Outdoor: -5˚CDB ~ 43˚CDB	Heating Indoor : 15˚CDB ~ 27˚CDB Outdoor: -20˚CWB ~ 15.5˚CWB

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

† <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

†† <Cooling> Indoor : 27˚CDB / 19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

*2. It is measured in anechoic room.

** Installation/foundation work, electrical connection work, duct work, insulation work, power source switch, and other items shall be referred to the Installation Manual.

Ref.: M-WYNCO-6909&6919

R2-8~14(R410A)

Model name			PURY-P350YGM-A (-BS)	
			Cooling	Heating
Capacity	*1 †	kW	40.0	45.0
	*1 †	BTU/h	136,500	153,500
	*1 ††	kcal/h	35,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	11.39	11.02
Current		A	19.2 / 18.2 / 17.6	18.6 / 17.6 / 17.0
Fan	Type x Quantity		Propeller fan x 1	
	Airflow rate	m^3/min	200	
	Motor output	kW	0.38	
Compressor	Type		Hermetic	
	Motor output	kW	9.6	
	Crankcase heater	kW	0.045 x 1	
Heat exchanger			Salt resistant fin	
Refrigerant / Lubricant			R410A / MEL32	
External finish			Pre-coated galvanized sheets (+ powder coating for –BS type) <MUNSEL 5Y 8/1 or similar>	
External dimension H x W x D		mm	1,840 x 990 x 840	
Protection devices	High pressure protection		4.15MPa	
	Compressor		Over current protection / Over heat protection	
	Fan		Thermal switch	
	Inverter		Over current protection / Thermal protection	
Refrigerant piping diameter	High press. pipe		ø19.05 Brazed	
	Low press. pipe		ø28.58 Brazed	
Indoor unit	Total capacity		50~150% of outdoor unit capacity	
	Model / Quantity		Model P20~P250 / 1~20	
Noise level *2		dB<A>	60 / 60	
Net weight		kg	251	
Operating temperature range			Cooling Indoor : 15˚CWB ~ 24˚CWB Outdoor: -5˚CDB ~ 43˚CDB	Heating Indoor : 15˚CDB ~ 27˚CDB Outdoor: -20˚CWB ~ 15.5˚CWB

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

† <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

†† <Cooling> Indoor : 27˚CDB / 19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

*2. It is measured in anechoic room.

** Installation/foundation work, electrical connection work, duct work, insulation work, power source switch, and other items shall be referred to the Installation Manual.

Ref.: M-WYNCO-6910&6920

R2-8~14(R410A)

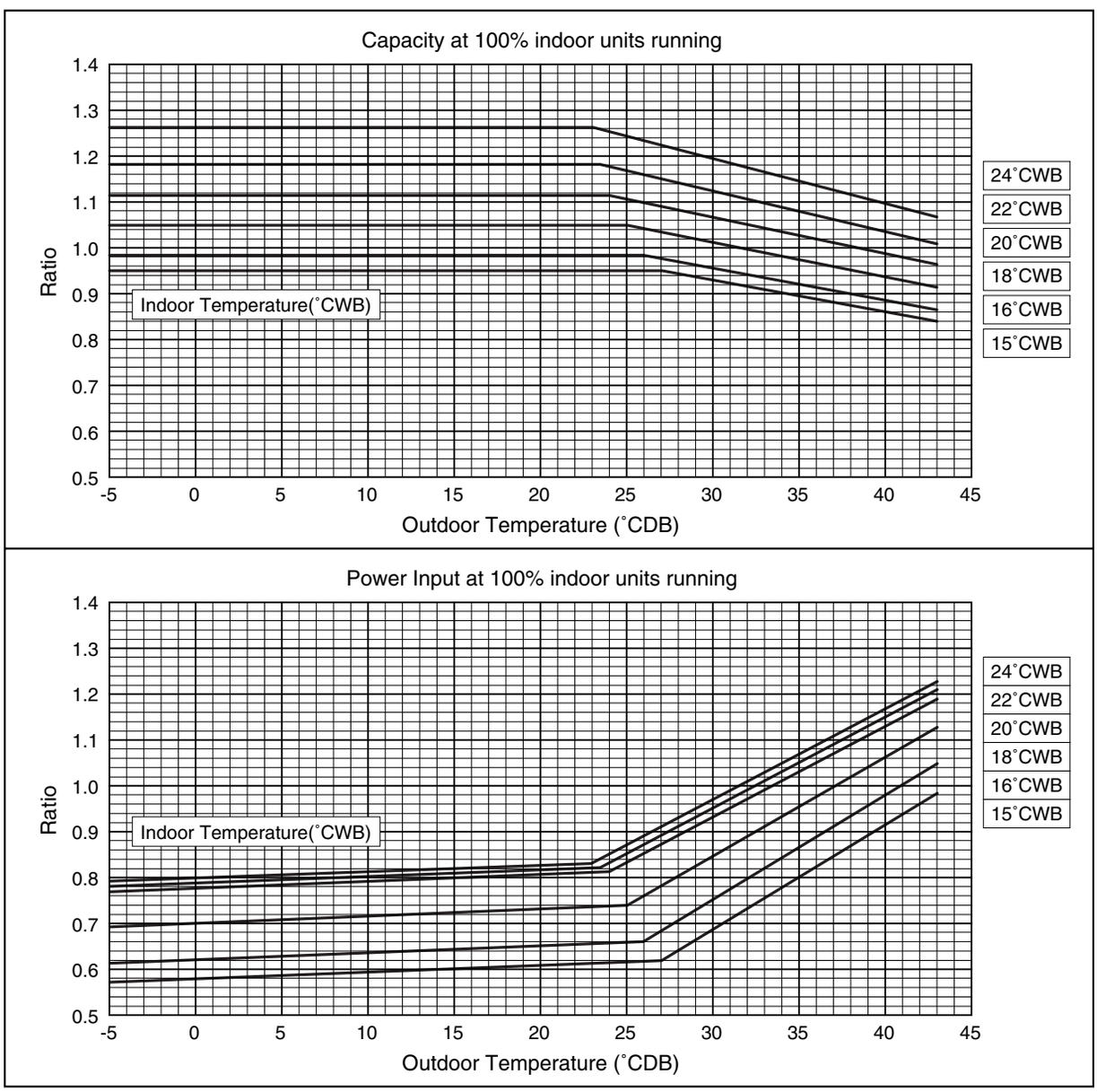
2. Capacity Table

2-1. Correction by temperature

Cooling

• Standard Specifications

		PURY-P200YGM	PURY-P250YGM
Capacity	kW	22.4	28.0
Input	kW	6.14	7.72



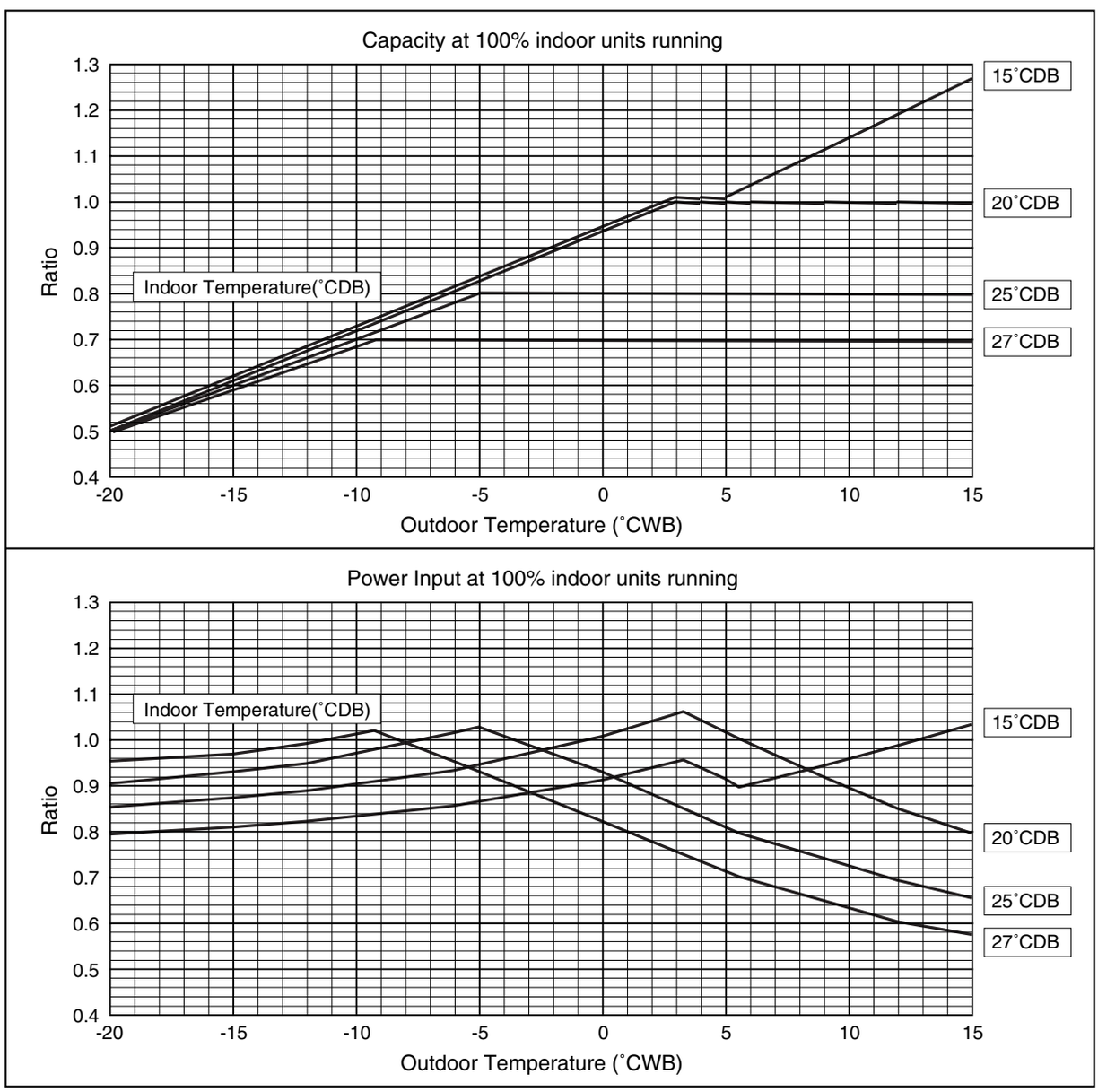
Ref: cap&inpc-p200-250

R2-8-14(R410A)

Heating

• Standard Specifications

		PURY-P200YGM	PURY-P250YGM
Capacity	kW	25.0	31.5
Input	kW	5.98	7.62

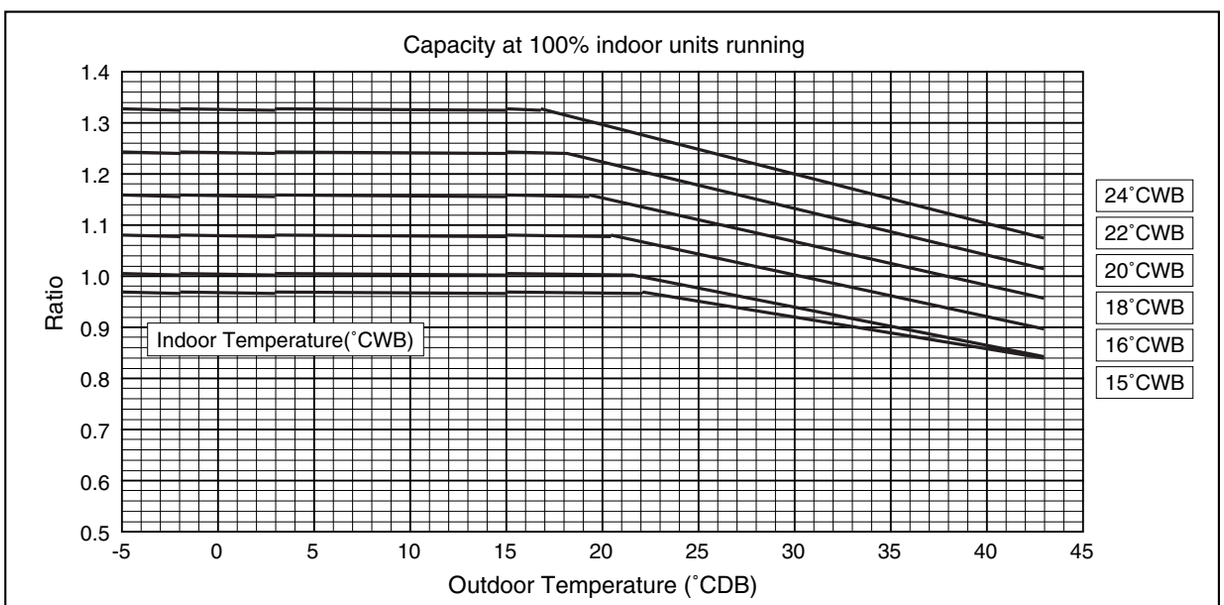


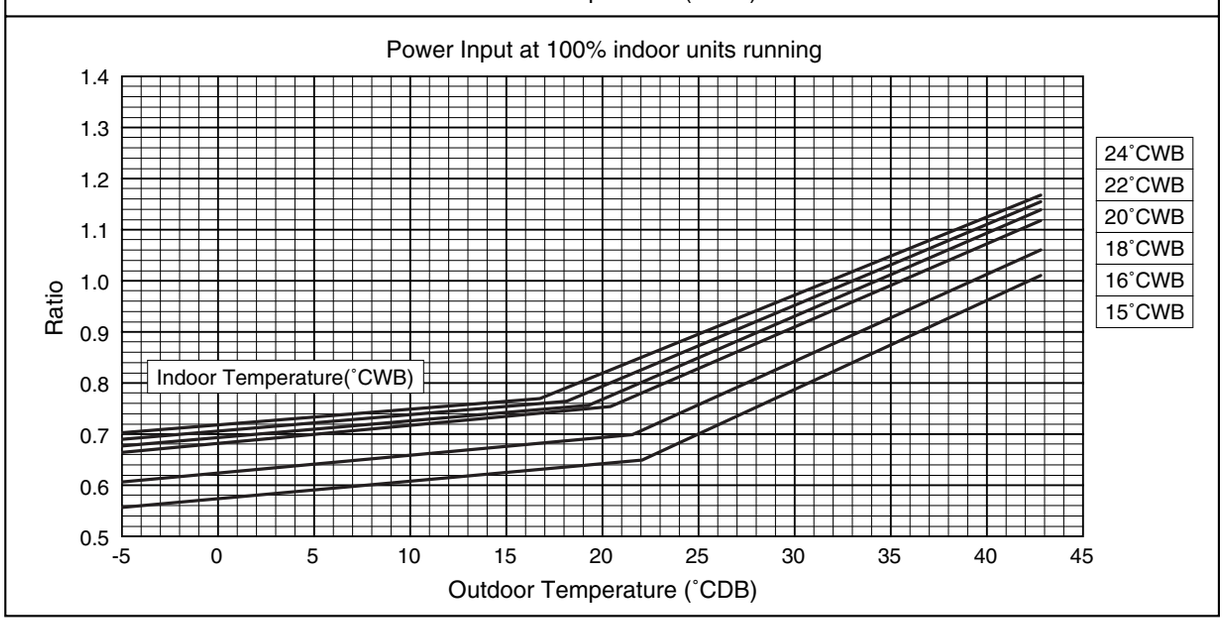
Ref: cap&inph-p200-250

Cooling

• Standard Specifications

		PURY-P300YGM	PURY-P350YGM
Capacity	kW	33.5	40.0
Input	kW	9.57	11.39



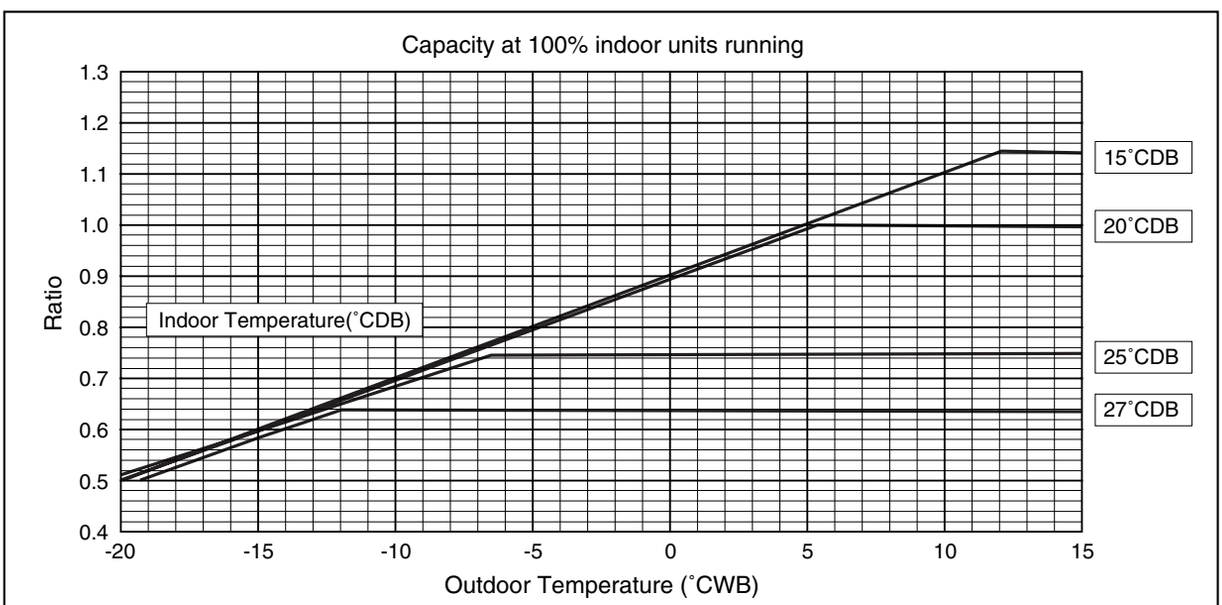


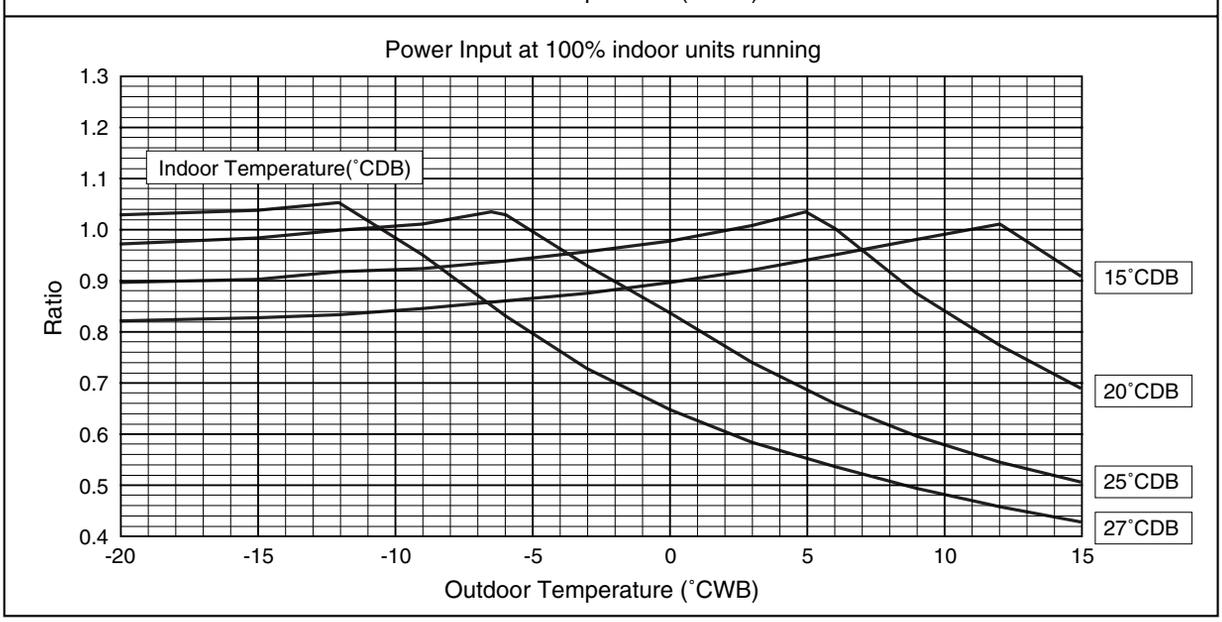
Ref: cap&inpc-p300-400

Heating

• Standard Specifications

		PURY-P300YGM	PURY-P350YGM
Capacity	kW	37.5	45.0
Input	kW	9.10	11.02



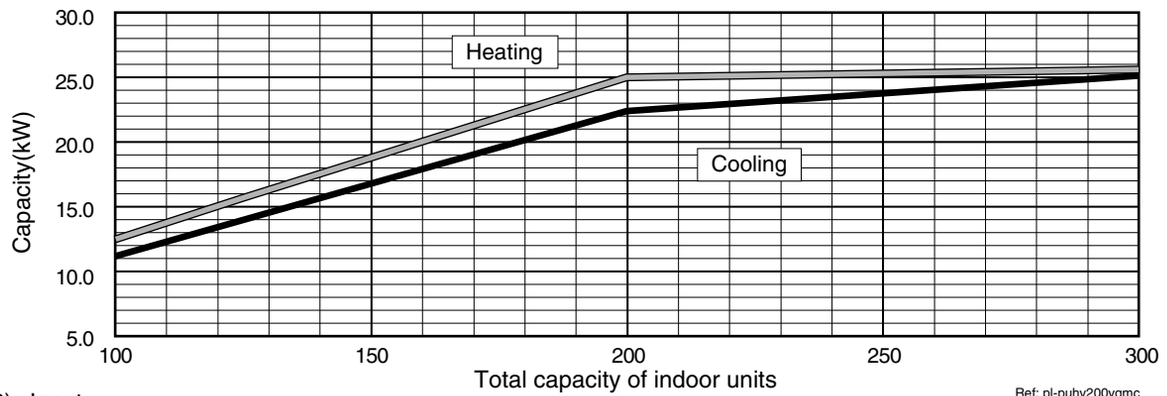


Ref: cap&inph-p300-400

2-2. Correction by total indoor

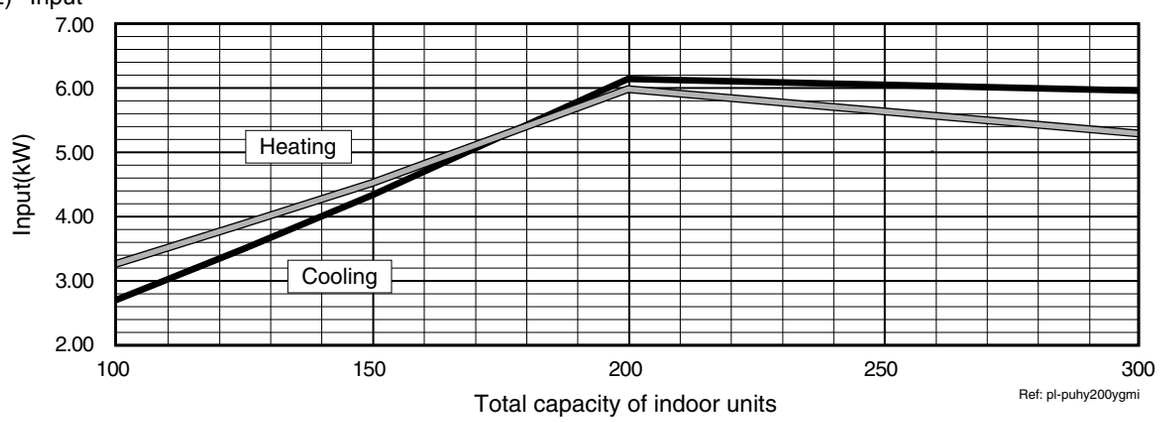
PURY-P200YGM

1) Capacity



Ref: pl-puhy200ygmc

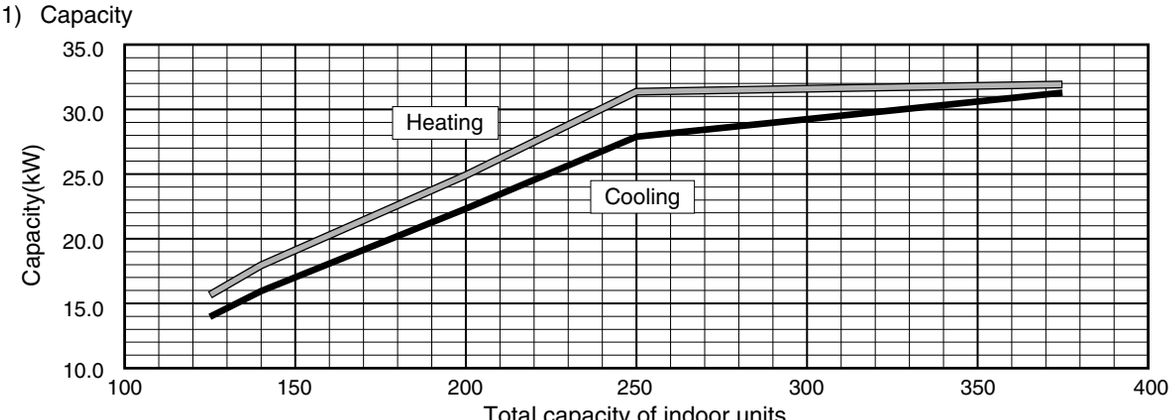
2) Input



Ref: pl-puhy200ygmi

PURY-P250YGM

1) Capacity



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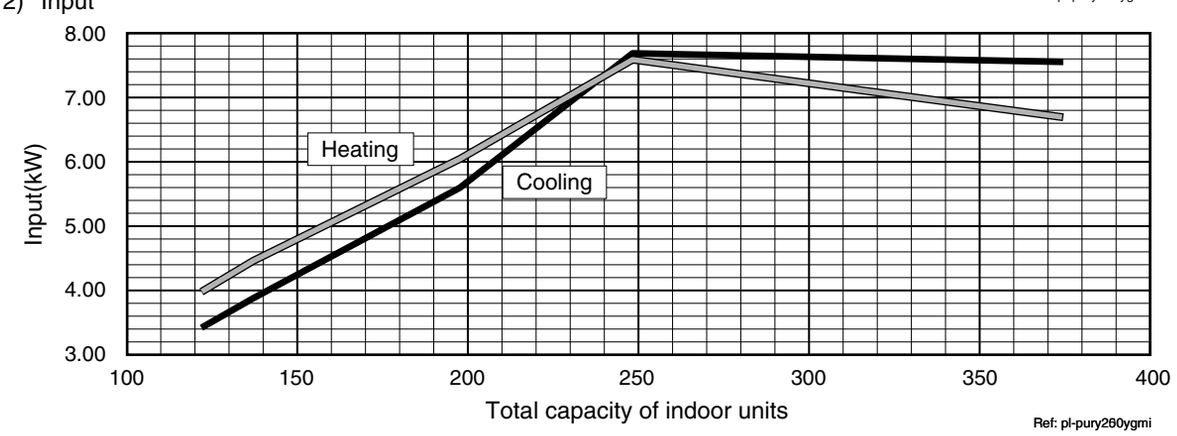
2) Input

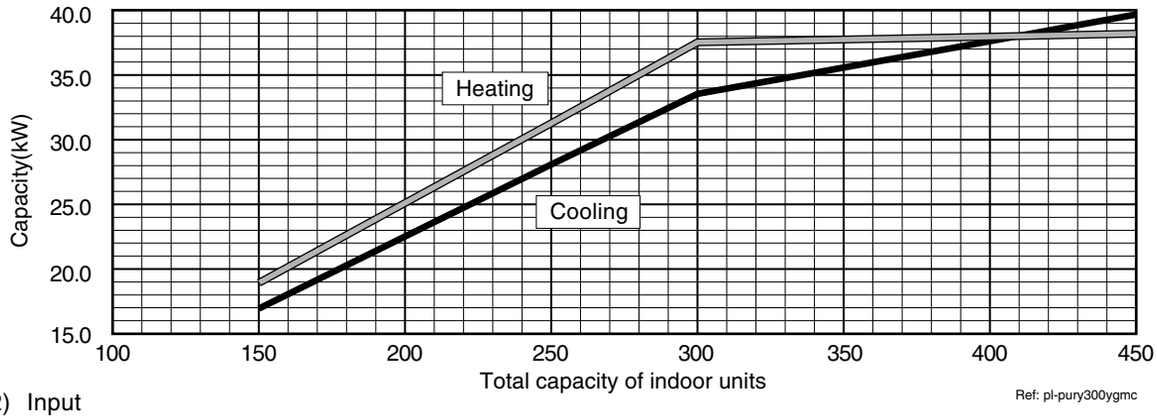


Ref: pl-pury260ygmi

R2-8-14(R410A)

PURY-P300YGM

1) Capacity



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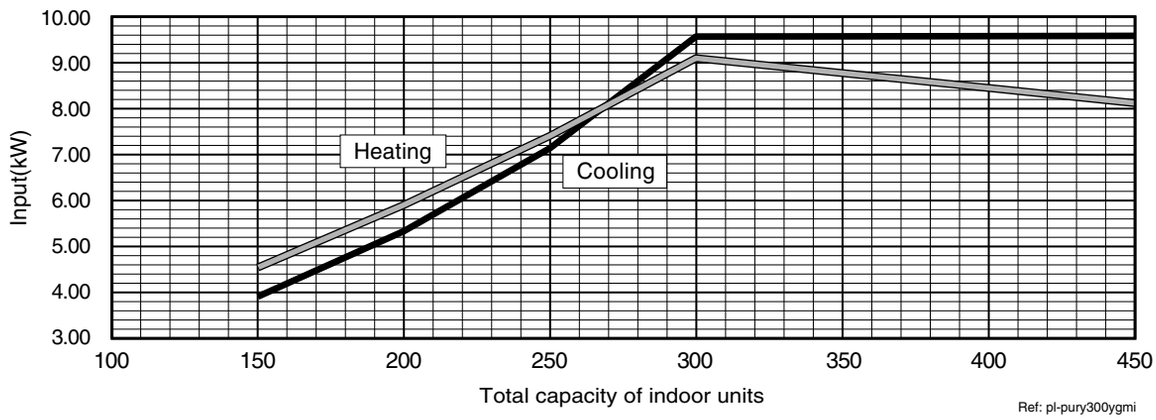
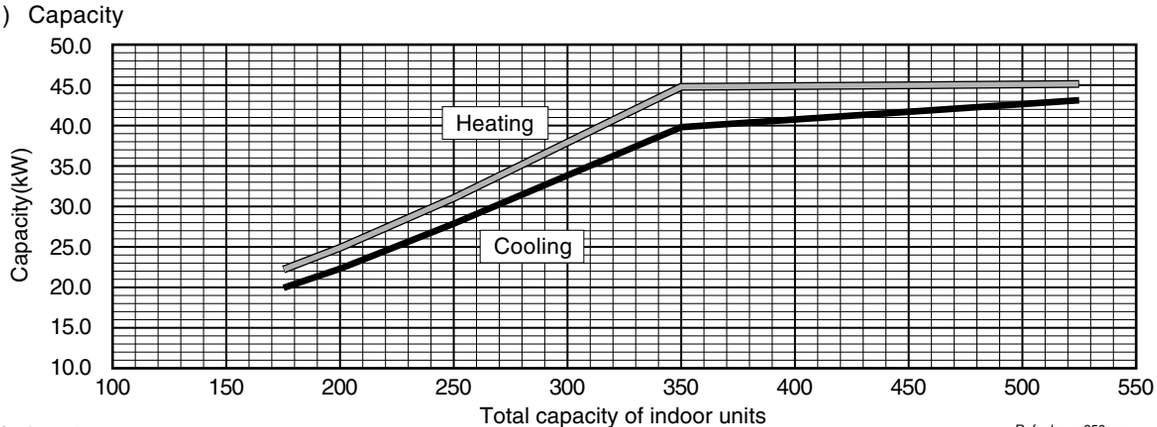


Ref: pl-pury300ygmi

PURY-P350YGM

1) Capacity



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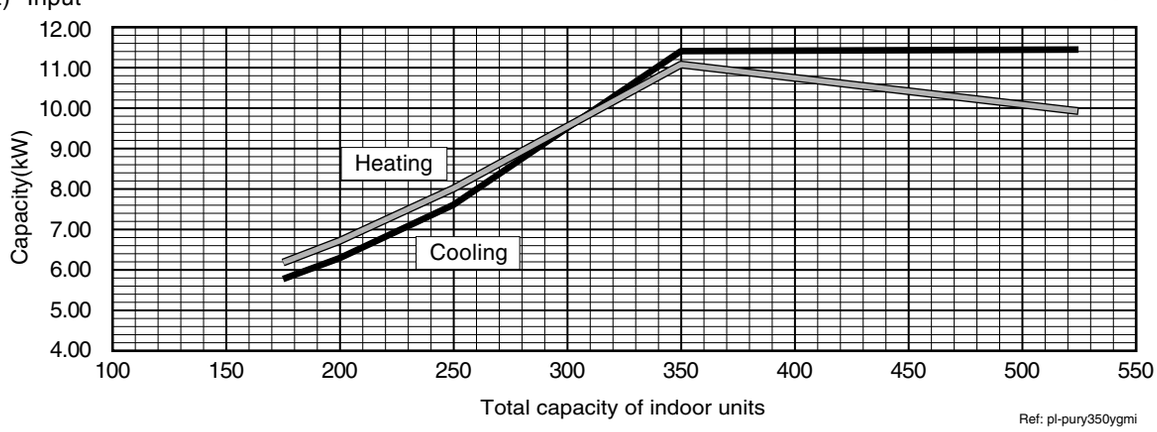
2) Input



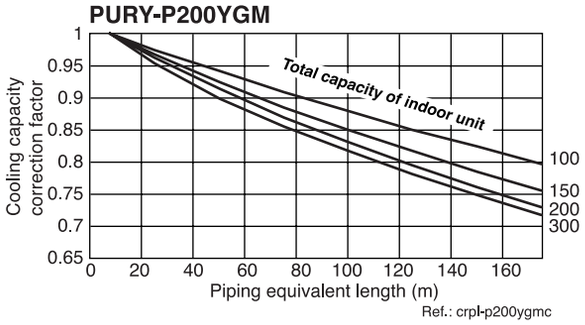
Ref: pl-pury350ygmi

2-3. Correction by refrigerant piping length

Due to the extension of refrigerant piping, a decrease of cooling/heating capacity happens. The actual capacity is considered by multiplying the correction factor according to the equivalent length of the refrigerant piping shown at the table below.

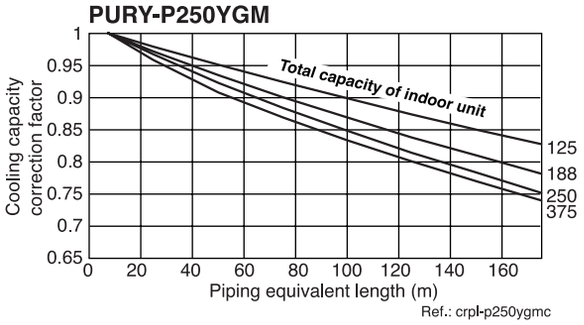
• Cooling capacity correction

PURY-P200YGM



Ref.: crpl-p200ygmc

PURY-P250YGM



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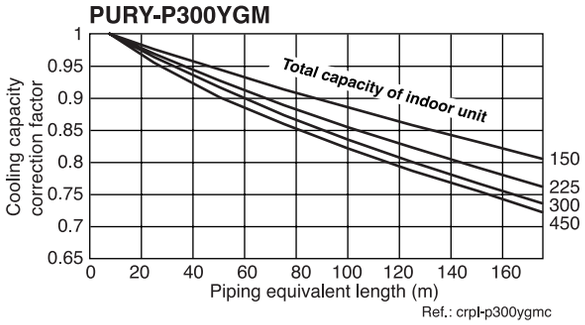
PURY-P300YGM



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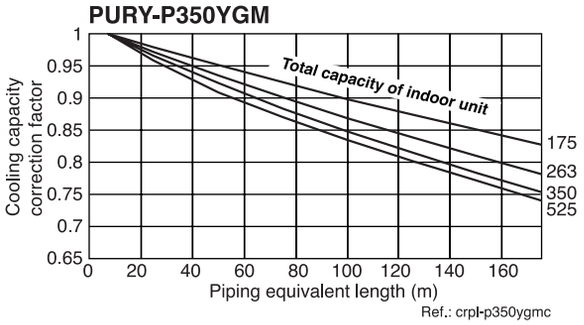
PURY-P350YGM



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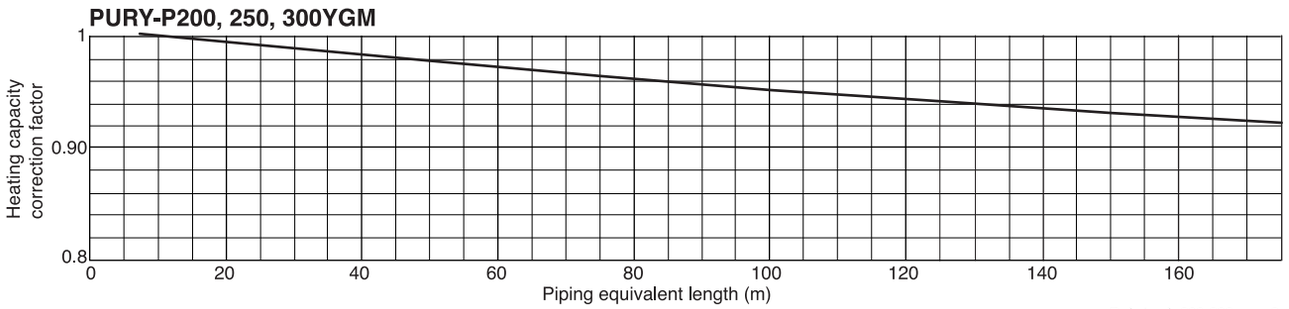
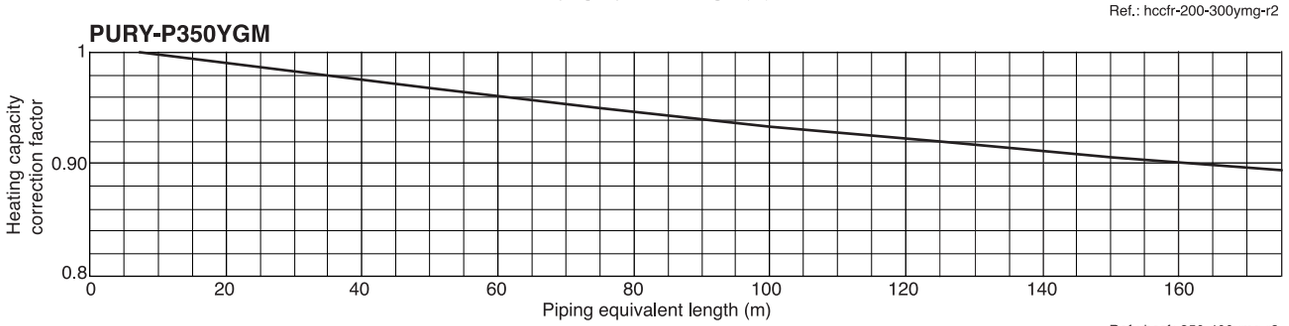
• Heating capacity correction

PURY-P200, 250, 300YGM



Ref.: hccfr-200-300ymg-r2

PURY-P350YGM



Ref.: hccfr-350-400ymg-r2

• How to obtain piping equivalent length

1 PUHY, PURY-P200YGM
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.35 x number of bent on the piping) m

2 PU(H)Y, PURY-P250,300YGM
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 x number of bent on the piping) m

3 PU(H)Y, PURY-P350YGM
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 x number of bent on the piping) m

4 PUHY, PURY-P400,500,650YGM
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 x number of bent on the piping) m

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2-4. Correction at frosting and defrosting

Due to frosting at the outdoor heat exchanger and the automatical defrosting operation, the heating capacity of the outdoor unit should be considered by multiplying the correction factor which shown in the table below.

Table of correction factor

PURY-P200, 250YGM

Outdoor inlet air temp (˚CWB)	6	4	2	1	0	-2	-4	-6	-8	-10	-20
Correction factor	1.0	0.95	0.84	0.83	0.83	0.87	0.90	0.95	0.95	0.95	0.95

PURY-P300YGM

Ref.: def-ygmp200-250

Outdoor inlet air temp (˚CWB)	6	4	2	1	0	-2	-4	-6	-8	-10	-20
Correction factor	1.0	0.93	0.82	0.80	0.82	0.86	0.90	0.90	0.95	0.95	0.95

PURY-P350YGM

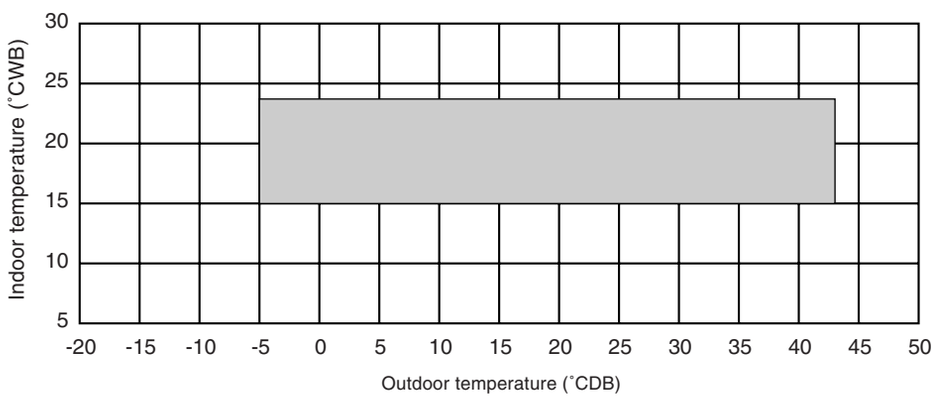
Ref.: def-ygmp300

Outdoor inlet air temp (˚CWB)	6	4	2	1	0	-2	-4	-6	-8	-10	-20
Correction factor	1.0	0.93	0.85	0.83	0.84	0.86	0.90	0.90	0.95	0.95	0.95

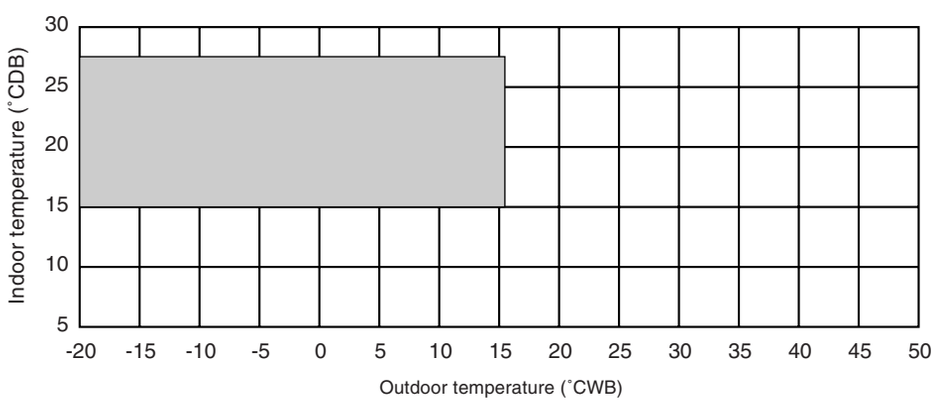
Ref.: def-ygmp350

2-5. Operation limit

• Cooling



• Heating



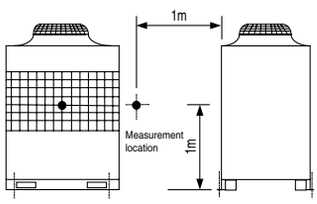
Ref.: ol-ygmr2

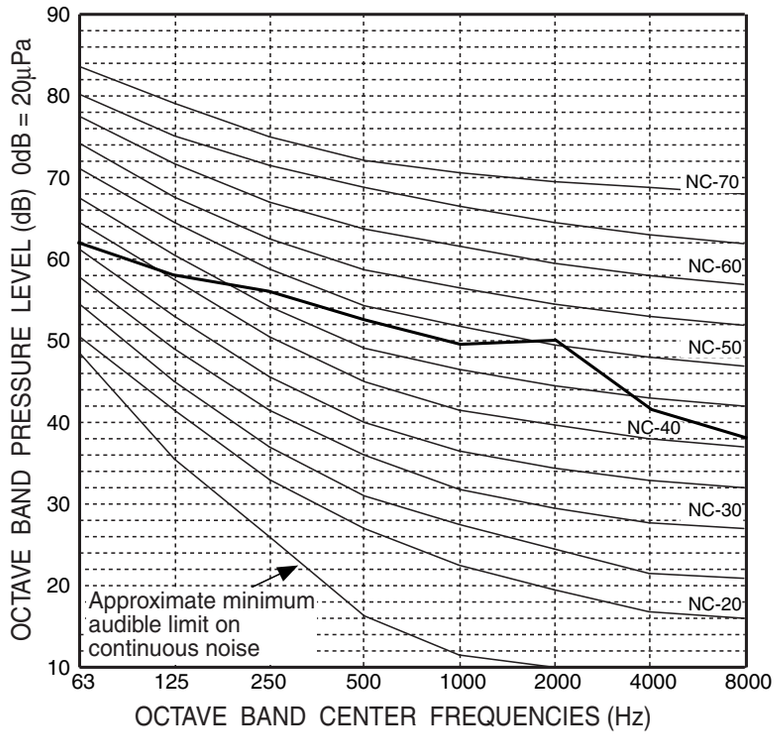
3. Sound Levels

PURY-P200YGM

63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)
62	58	56	52.5	49.5	50	41.5	38	56

Measurement condition



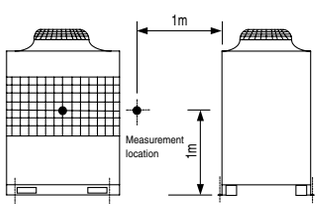


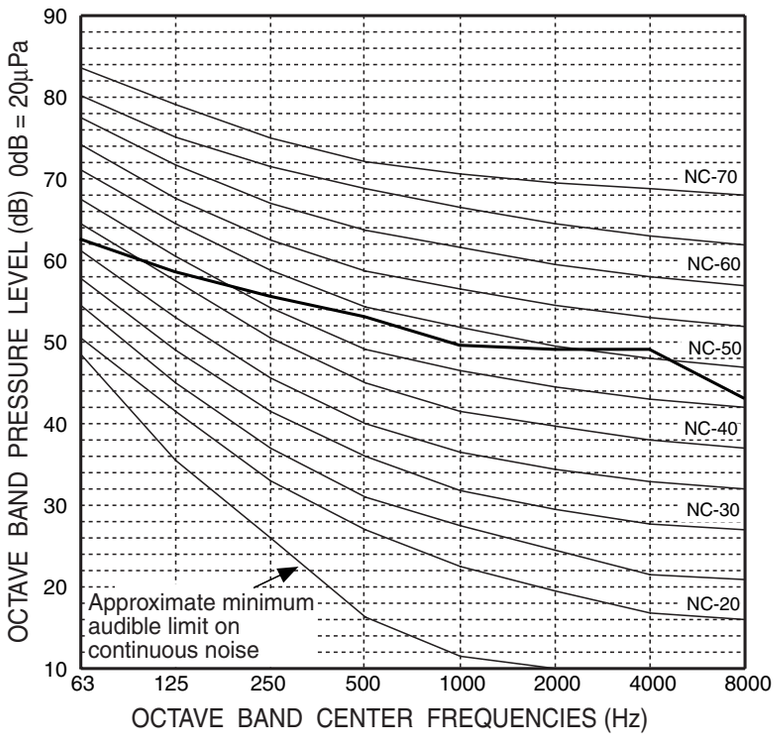
Ref.: r200ygm-WYNB0-3585

PURY-P250YGM

63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)
62.5	58.5	55.5	53	49.5	49	49	43	57

Measurement condition





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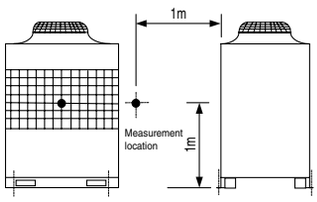
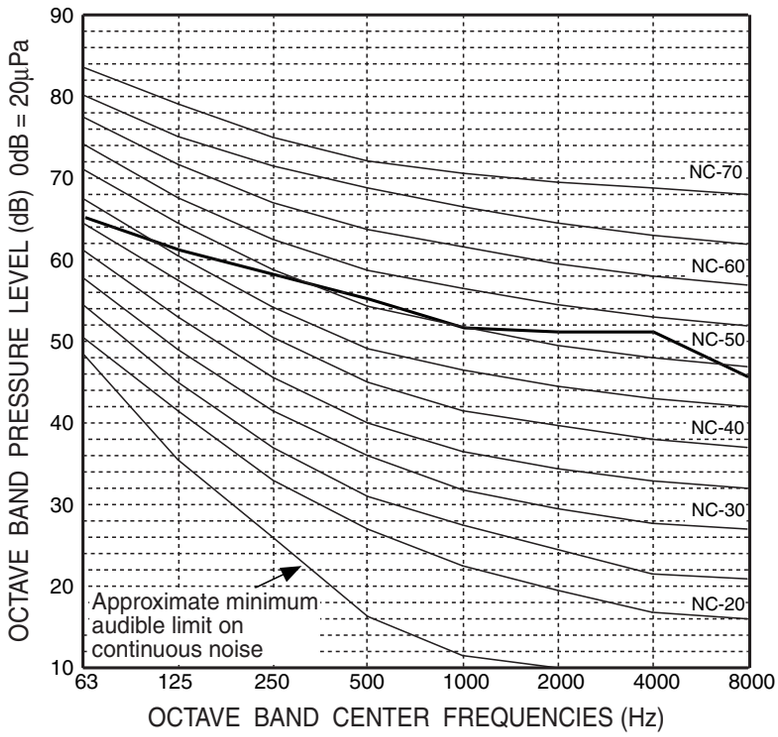
R2-8-14(R410A)

PURY-P300YGM

63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)
65	61	58	55	51.5	51	51	45.5	59

Measurement condition



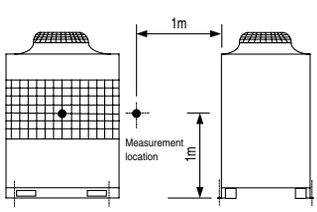


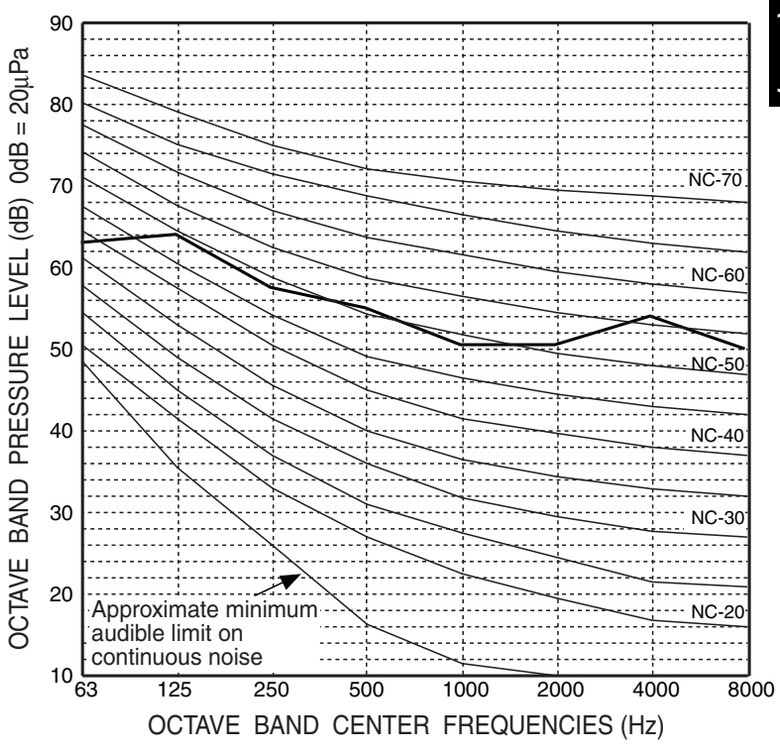
Ref.: r300ygm-WYNB0-3587

PURY-P350YGM

63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)
63	64	57.5	55	50.5	50.5	54	50	60

Measurement condition



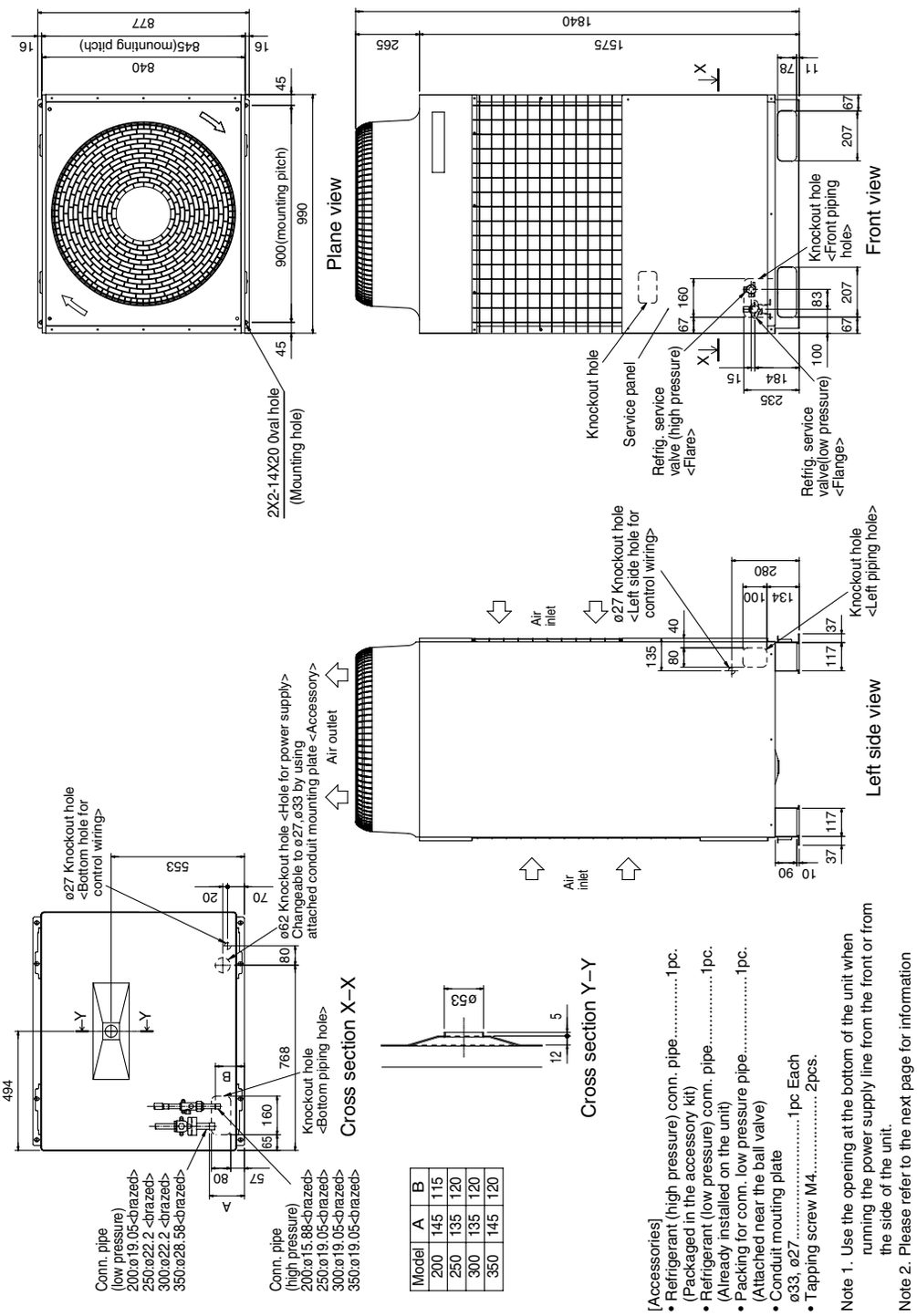


Ref.: r350ygm-WYNB0-3588

4. External Dimensions

PURY-P200,250,300,350YGM-A(-BS)

Unit : mm



Model	A	B
200	145	115
250	135	120
300	135	120
350	145	120

[Accessories]
- Refrigerant (high pressure) conn. pipe.....1pc. (Packaged in the accessory kit)
- Refrigerant (low pressure) conn. pipe.....1pc. (Already installed on the unit)
- Packing for conn. low pressure pipe.....1pc. (Attached near the ball valve)
- Conduit mouting plate
- ø33, ø27.....1pc Each
- Tapping screw M4.....2pcs.

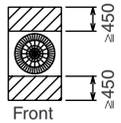
Note 1. Use the opening at the bottom of the unit when running the power supply line from the front or from the side of the unit.
Note 2. Please refer to the next page for information regarding necessary spacing around the unit and foundation work.

Ref: ygm-W656809 1/2

1.Space required around unit

✻ In case of single installation [Basic rules for spacing the unit]

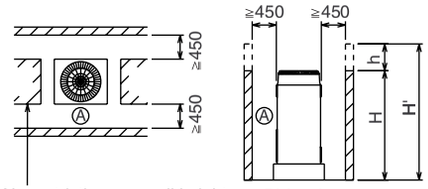
①Since the service from the back of unit is required, provide the back space 450 mm or above as the front.



<Top view>

[When inlet air enters from right and left sides of unit]

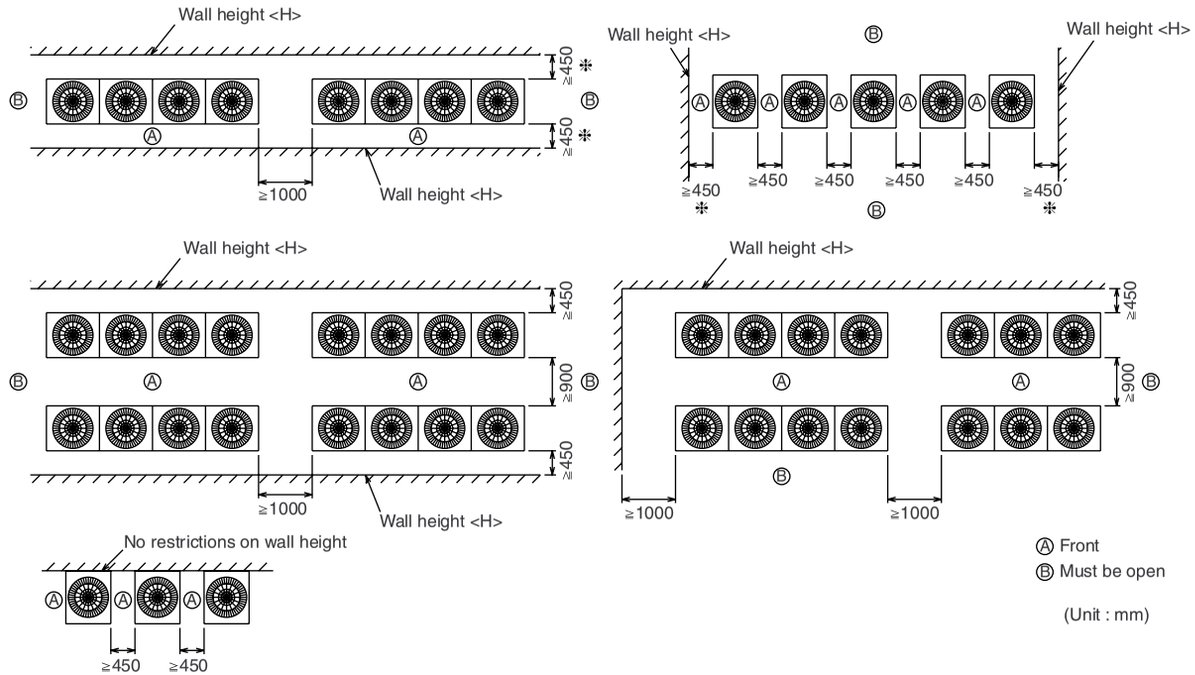
①Wall heights <H> of the front and the back sides shall be within total height of unit.
②When wall height <H> exceeds total height of unit, add <h> dimension to 450 of the following figure.
h=wall height <H'> -total height of unit.



<Side view>

✻ In case of collective installation and continuous installation

①Space required for collective installation and continuous installation:
When installing several units, provide the space between each block considering passage for air and people.
②Open in two directions.
③In case of wall height <H> exceeds total height of unit, add <h> dimension (h=wall height <H> -total height of unit) to ✻ marked dimension.
④If there is a wall at both the front and the rear of the unit, install up to four units consecutively in the side direction and provide a space of 1000 mm or more as inlet space/passage space for each four units.

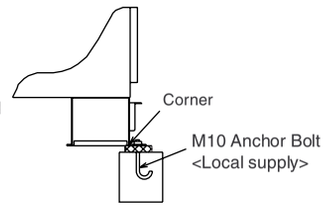


Ⓐ Front
Ⓑ Must be open

(Unit : mm)

2.Foundation work

①When building the foundation, give full attention to the floor strength, drain water disposal <drain water flows out of the unit, during operation>, piping and wiring routes.
②Be sure that the corners are firmly seated. If the corners are not firmly seated, the installation feet may be bent.
③When down piping and down wiring are performed, be sure that foundation and base work does not block the base through holes.



Ref: ygm-W656809 2/2

5. Electrical Wiring Diagram

PURY-P200, 250, 300, 350YGM-A(-BS)

R2-8-14(R410A)

< Symbol explanation >

Symbol	Name
ACCT1	AC Current Sensor
DCCT1 ※3	DC Current Sensor
DCL1	DC reactor (Power factor improvement)
52C1	Magnetic contactor (Inverter main circuit)
MF1	Fan motor (Radiator panel)
CH11	Crank case heater (Compressor)
21S4a	4-way valve
SV1, 2	Solenoid valve (Discharge-suction bypass)
SV4a–d	Solenoid valve (Heat exchanger capacity control)
TH11	Discharge pipe temp. detect
TH5	Pipe temp.detect (Hex outlet)
TH6	OA temp.detect
TH7	liquid outlet temp.detect at Sub-cool coil
THHS1	Radiator panel temp. detect
63H1	High pressure switch
63HS	High pressure sensor
63LS	Low pressure sensor
L1, L2	Choke coil (Transmission)
Z20	Function device
⏚	Earth terminal

< Defference of appliance >

Model name	Appliance
PURY-P200YGM-A	" ※3 " do not exist
PURY-P250, 300, 350, 400YGM-A	All exists

※1: Function according to switch operation.
(SW4-7, CN3D 1-2P, and CN3D 1-3P)

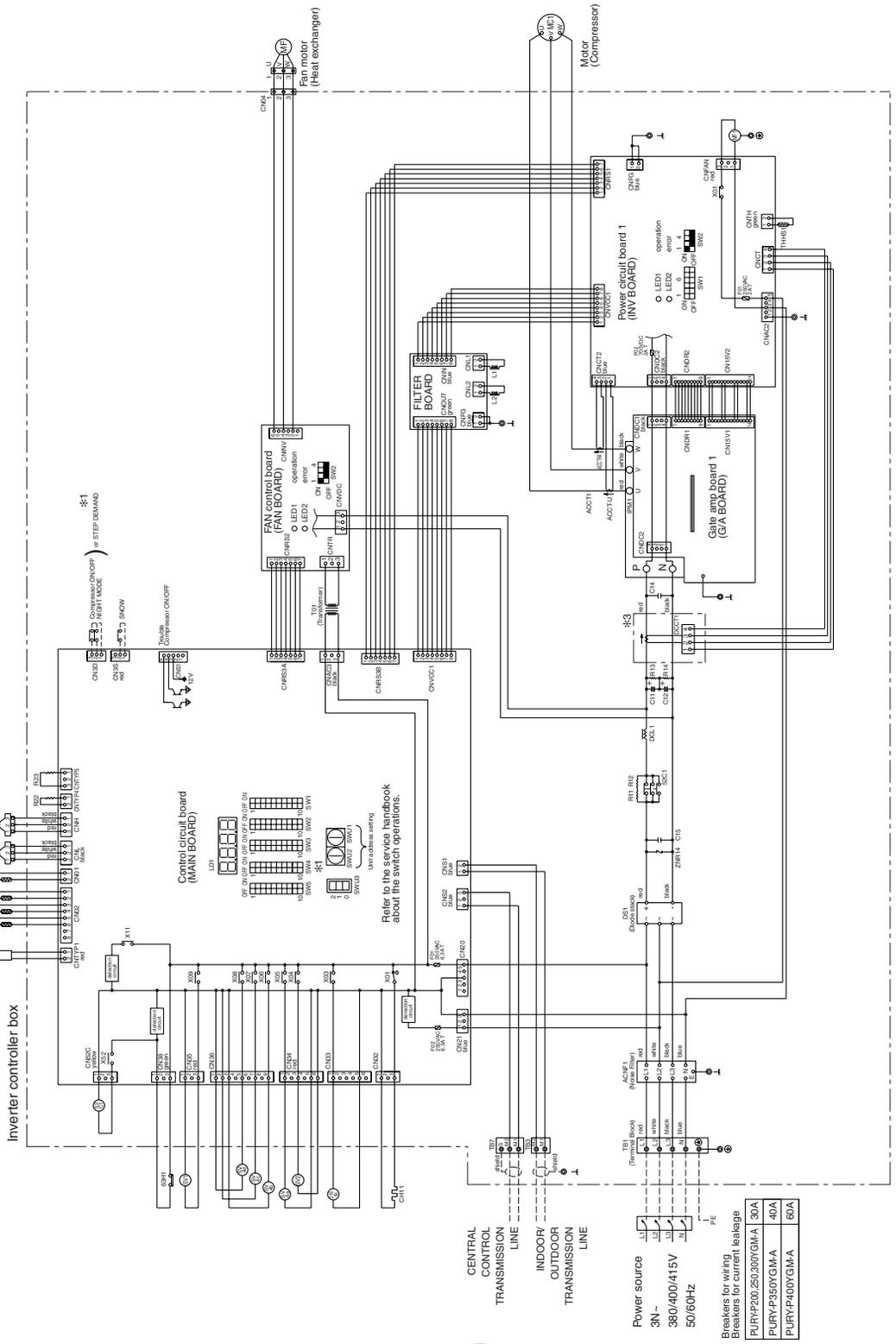
SW4-7:OFF (Compressor ON/OFF and NIGHT MODE)

CN3D 1-3P	Compressor ON/OFF	CN3D 1-2P	NIGHT MODE
OPEN	ON	OPEN	OFF
SHORT	OFF	SHORT	ON

SW4-7:ON (STEP DEMAND)

CN3D 1-2P / CN3D 1-3P	OPEN	SHORT
OPEN	100%	75%
SHORT	0%	50%

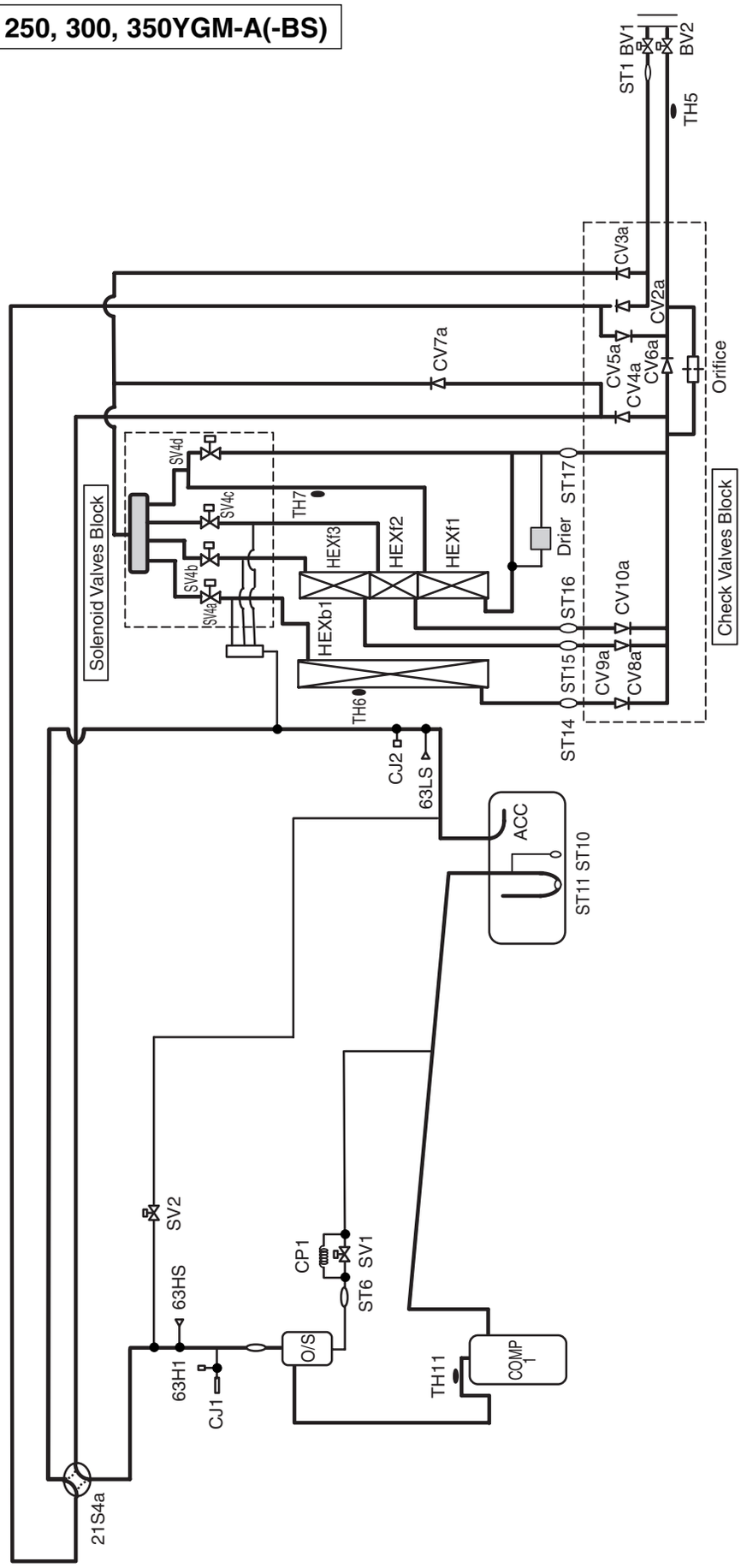
NOTE:The broken lines indicate field wiring.



Ref: R2-p200~400ygm-W274614

6. Refrigerant Circuit Diagram And Thermal Sensor

PURY-P200, 250, 300, 350YGM-A(-BS)



R2-8,14(P10A)

Ref: rcd-200~400ygmr2

PURY-P400YGM-A (-BS)

CONTENTS

R2-16(R410A)

1. Specifications

Model name			PURY-P400YGM-A (-BS)	
			Cooling	Heating
Capacity	*1†	kW	45.0	50.0
	*1†	BTU/h	153,500	170,600
	*1††	kcal/h	40,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	13.42	12.43
Current		A	22.6 / 21.5 / 20.7	20.9 / 19.9 / 19.2
Fan	Type x Quantity		Propeller fan x 1	
	Airflow rate	m^3/min	240	
	Motor output	kW	0.64	
Compressor	Type		Hermetic	
	Motor output	kW	9.7	
	Crankcase heater	kW	0.045 x 1	
Heat exchanger			Salt resistant fin	
Refrigerant / Lubricant			R410A / MEL32	
External finish			Pre-coated galvanized sheets (+ powder coating for –BS type) <MUNSEL 5Y 8/1 or similar>	
External dimension H x W x D		mm	1,840 x 1,290 x 840	
Protection devices	High pressure protection		4.15MPa	
	Compressor		Over current protection / Over heat protection	
	Fan		Thermal switch	
	Inverter		Over current protection / Thermal protection	
Refrigerant piping diameter	High press. pipe		ϕ22.2 Brazed	
	Low press. pipe		ϕ28.58 Brazed	
Indoor unit	Total capacity		50~150% of outdoor unit capacity	
	Model / Quantity		Model P20~P250 / 1~24	
Noise level	*2	dB<A>	61 / 61	
Net weight		kg	291	
Operating temperature range			Cooling	Heating
			Indoor : 15˚CWB ~ 24˚CWB Outdoor: -5˚CDB ~ 43˚CDB	Indoor : 15˚CDB ~ 27˚CDB Outdoor: -20˚CWB ~ 15.5˚CWB

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

† <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

†† <Cooling> Indoor : 27˚CDB / 19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

*2. It is measured in anechoic room.

** Installation/foundation work, electrical connection work, duct work, insulation work, power source switch, and other items shall be referred to the Installation Manual.

Ref.: M-WYNCO-6911&6921

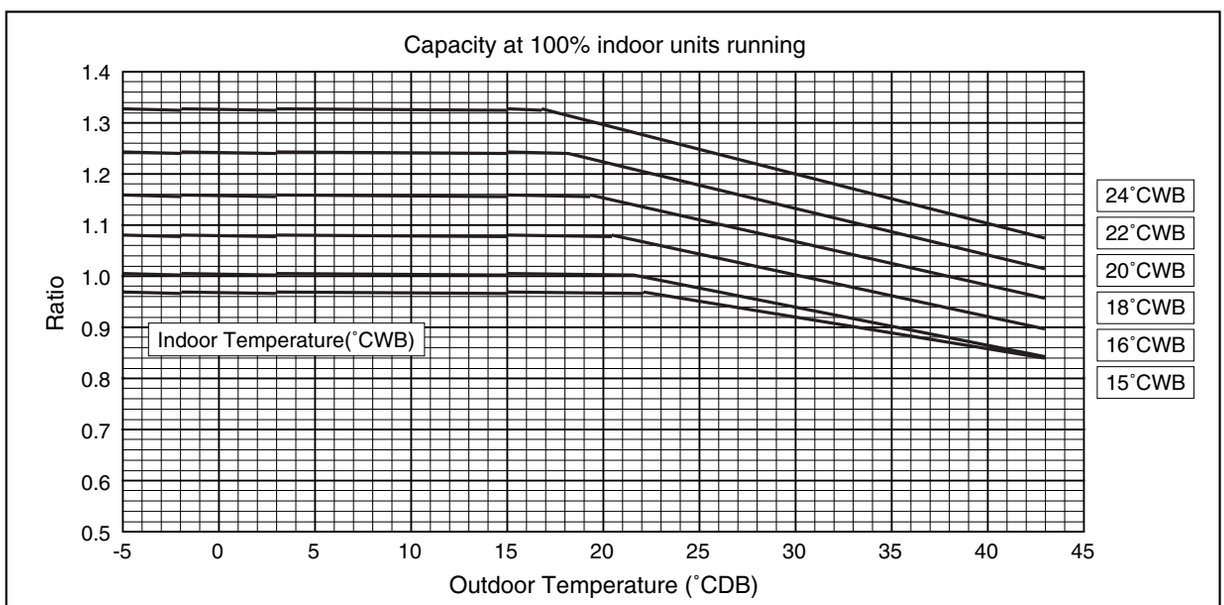
R2-16(R410A)

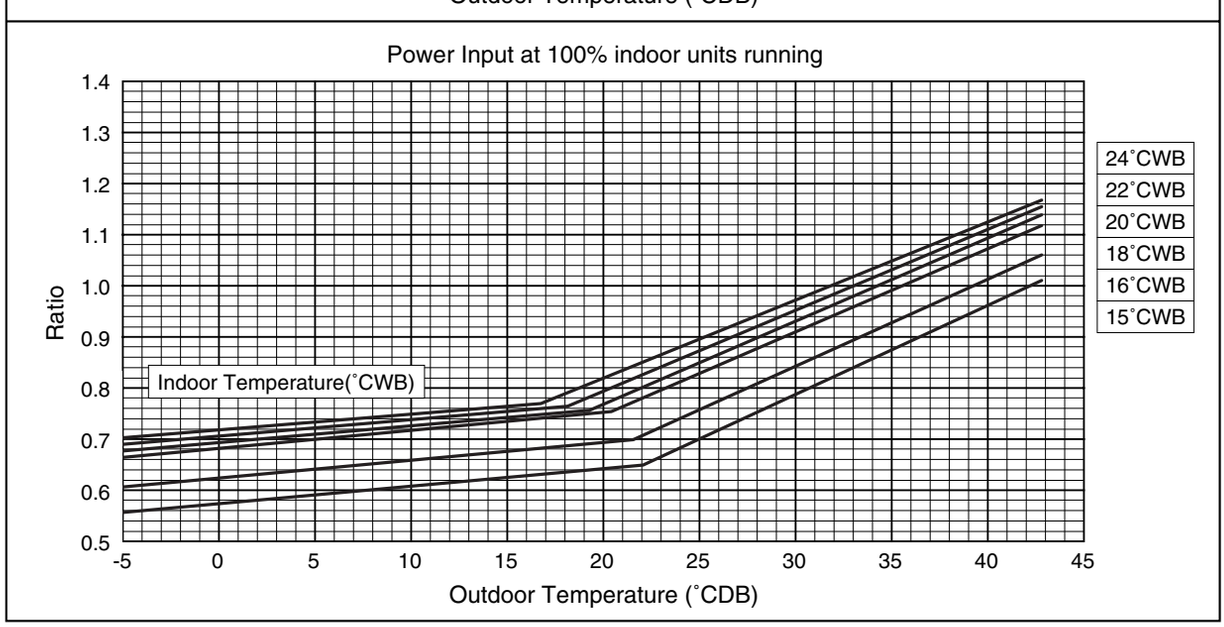
2. Capacity Table

Cooling

• Standard Specifications

		PURY-P400YGM
Capacity	kW	45.0
Input	kW	13.42





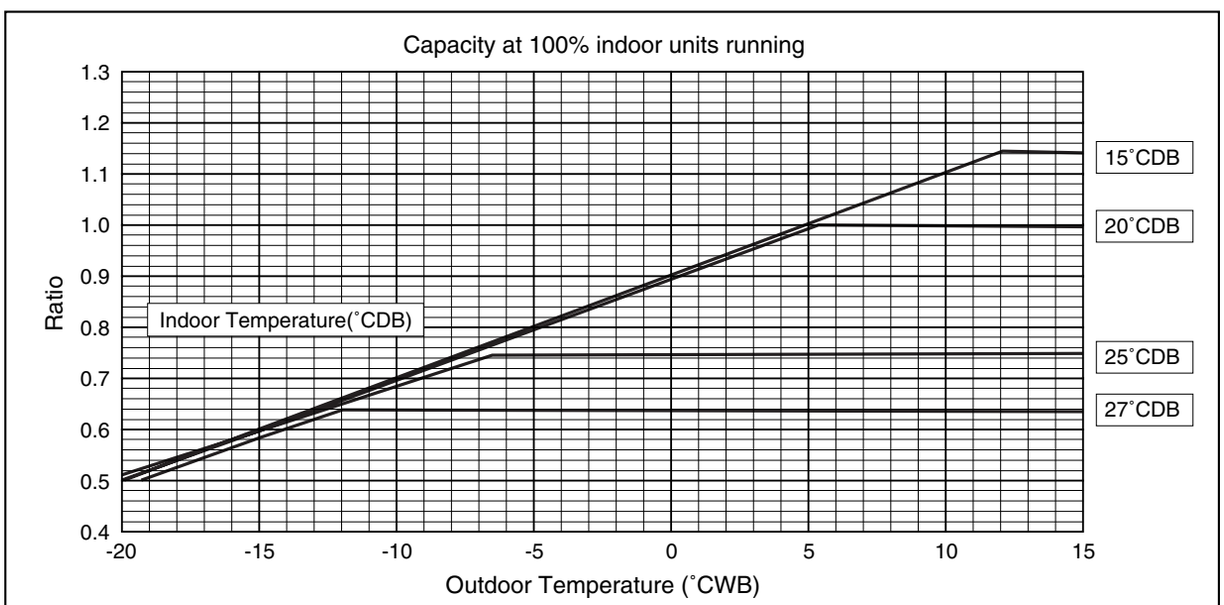
Ref: cap&inpc-p300-400

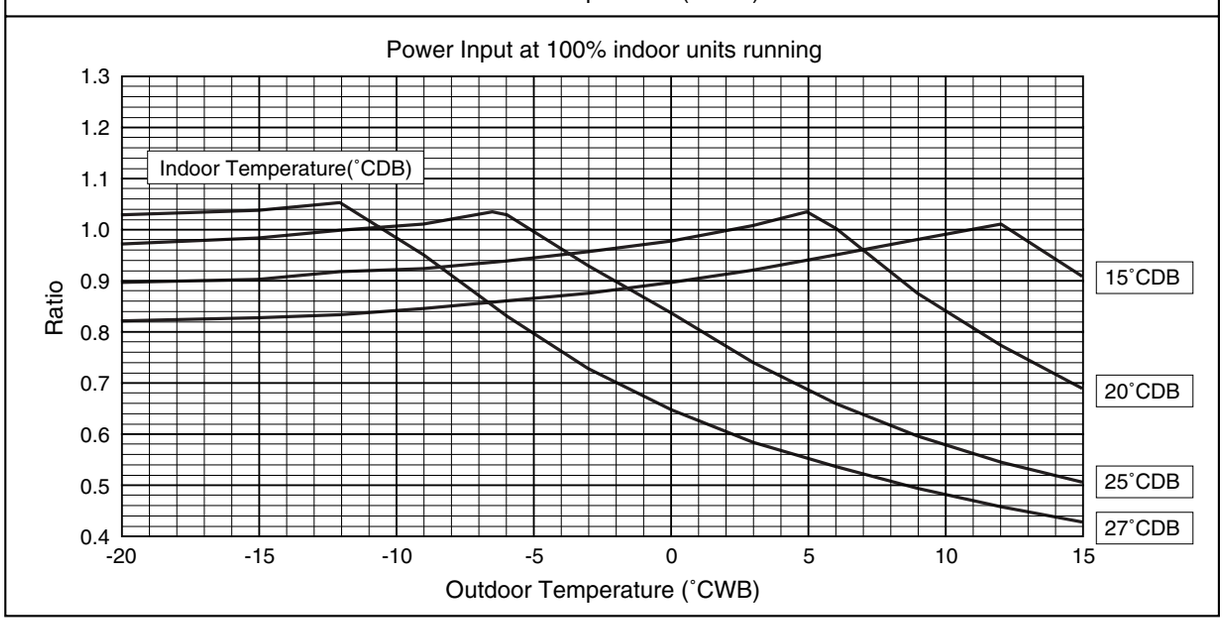
R2-16(R410A)

Heating

• Standard Specifications

		PURY-P400YGM
Capacity	kW	50.0
Input	kW	12.43





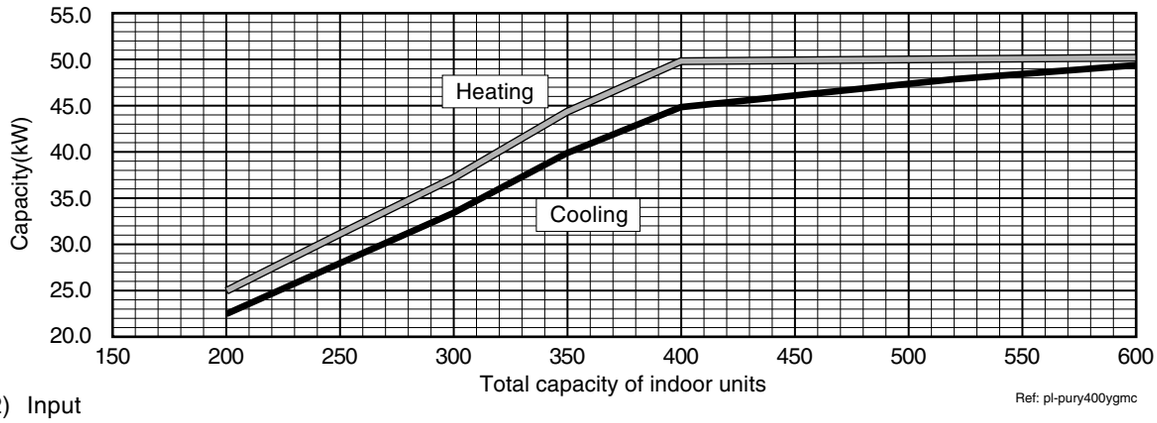
Ref: cap&inph-p300-400

R2-16(R410A)

2-2. Correction by total indoor

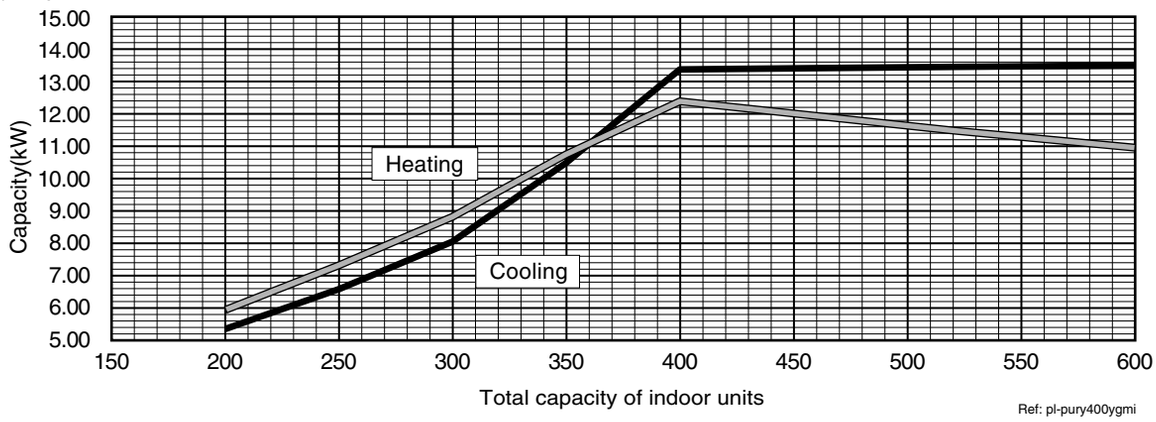
PURY-P400YGM

1) Capacity



Ref: pl-pury400ygmc

2) Input



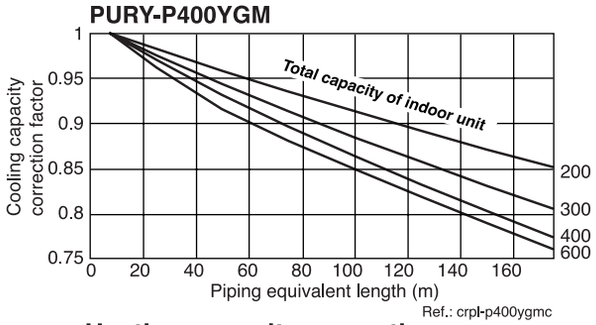
Ref: pl-pury400ygmi

2-3. Correction by refrigerant piping length

Due to the extension of refrigerant piping, a decrease of cooling/heating capacity happens. The actual capacity is considered by multiplying the correction factor according to the equivalent length of the refrigerant piping shown at the table below.

· Cooling capacity correction

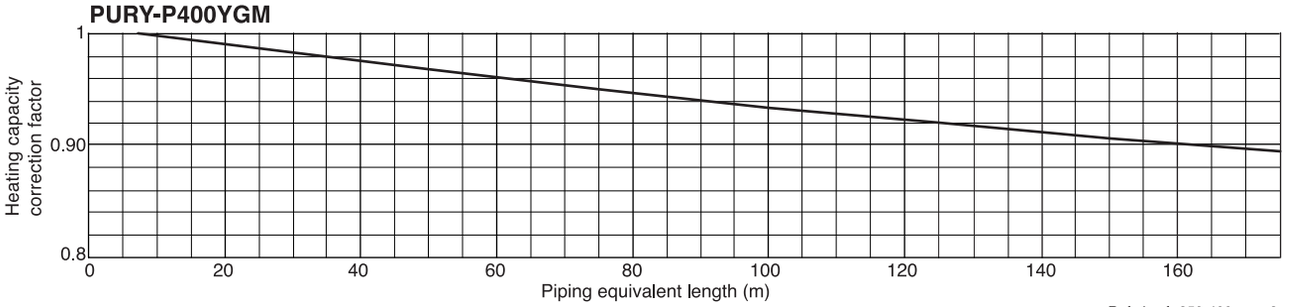
PURY-P400YGM



Ref.: crpl-p400ygmc

· Heating capacity correction

PURY-P400YGM



Ref.: hccfr-350-400ymg-r2

· How to obtain piping equivalent length

1 PUHY, PURY-P200YGM
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.35 x number of bent on the piping) m

2 PU(H)Y, PURY-P250,300YGM
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 x number of bent on the piping) m

3 PU(H)Y, PURY-P350YGM
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 x number of bent on the piping) m

4 PUHY, PURY-P400,500,650YGM
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 x number of bent on the piping) m

2-4. Correction at frosting and defrosting

Due to frosting at the outdoor heat exchanger and the automatical defrosting operation, the heating capacity of the outdoor unit should be considered by multiplying the correction factor which shown in the table below.

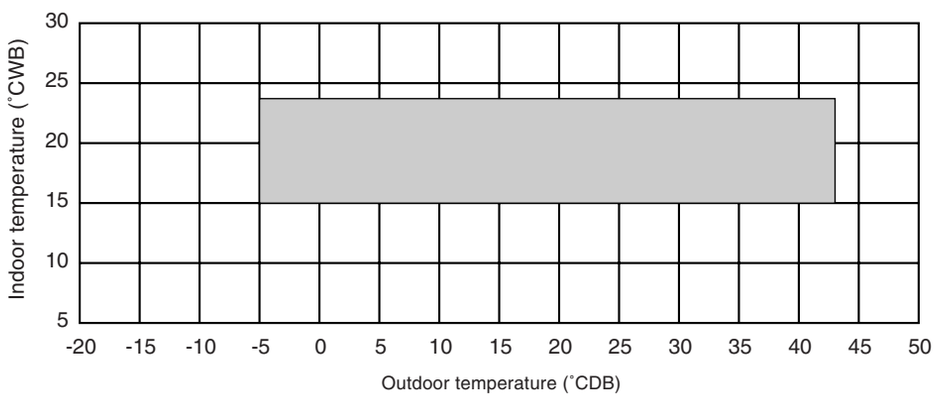
Table of correction factor

Outdoor inlet air temp (˚CWB)	6	4	2	1	0	-2	-4	-6	-8	-10	-20
Correction factor	1.0	0.95	0.90	0.87	0.88	0.89	0.90	0.95	0.95	0.95	0.95

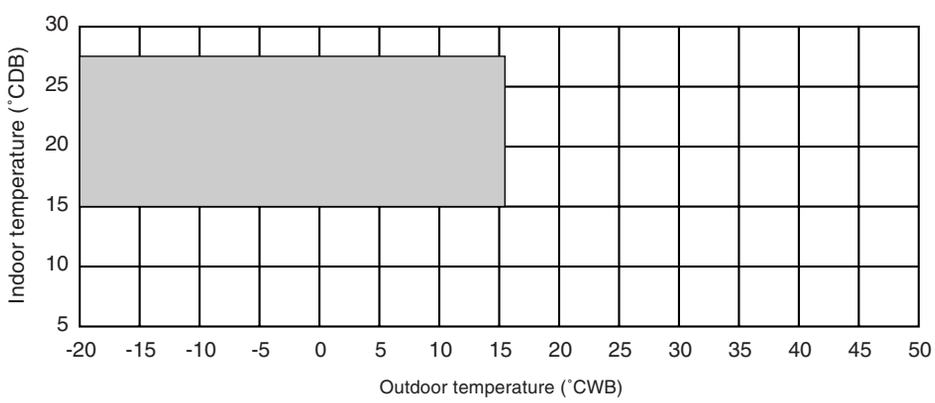
Ref.: def-ygmp400

2-5. Operation limit

• Cooling



• Heating



Ref.: ol-ygmr2

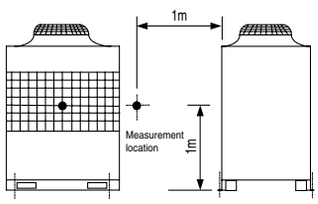
R2-16(R410A)

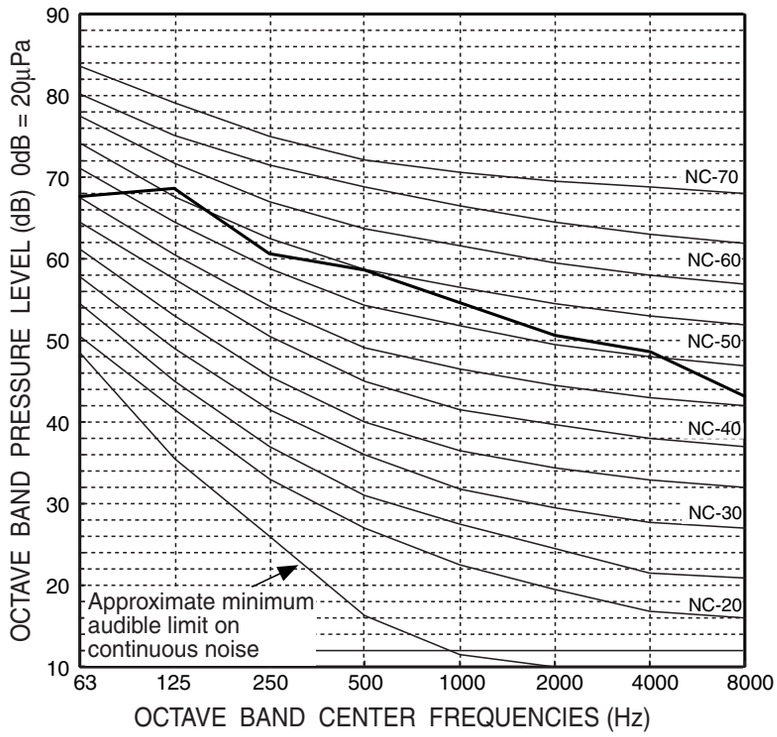
3. Sound Levels

PURY-P400YGM

63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)
67.5	68.5	60.05	58.5	54.5	50.5	48.5	43	61

Measurement condition





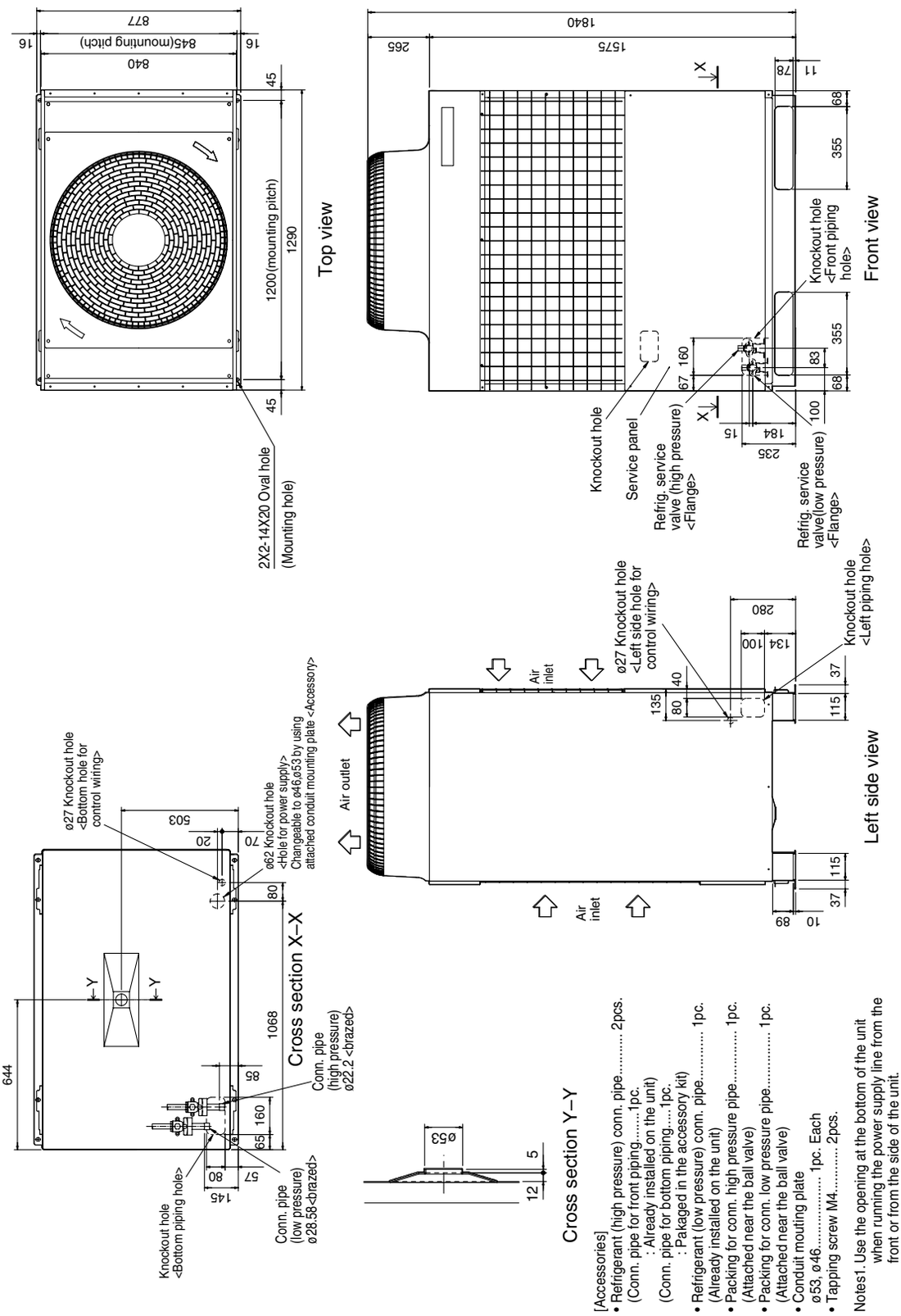
Ref.: r400ygm-WYNB0-3589

R2-16(R410A)

4. External Dimensions

PURY-P400YGM-A(-BS)

Unit : mm



[Accessories]

- Refrigerant (high pressure) conn. pipe..... 2pcs.
  (Conn. pipe for front piping.....1pc.
  : Already installed on the unit)
  (Conn. pipe for bottom piping....1pc.
  : Pakaged in the accessory kit)
- Refrigerant (low pressure) conn. pipe..... 1pc.
  (Already installed on the unit)
- Packing for conn. high pressure pipe..... 1pc.
  (Attached near the ball valve)
- Packing for conn. low pressure pipe..... 1pc.
  (Attached near the ball valve)
- Conduit mouting plate
  ø53, ø46..... 1pc. Each
- Tapping screw M4..... 2pcs.

Notes1. Use the opening at the bottom of the unit when running the power supply line from the front or from the side of the unit.

Notes2. Please refer to the next page for information regarding necessary spacing around the unit and foundation work.

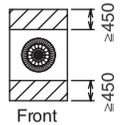
Ref: ygm-W656810 1/2

R2-16(R410A)

1.Space required around unit

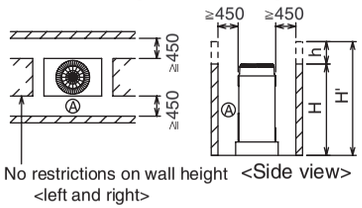
✻ In case of single installation [Basic rules for spacing the unit]

①Since the service from the back of unit is required, provide the back space 450 mm or above as the front.



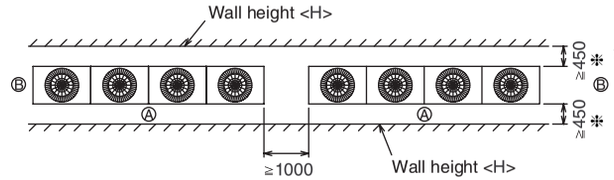
[When inlet air enters from right and left sides of unit]

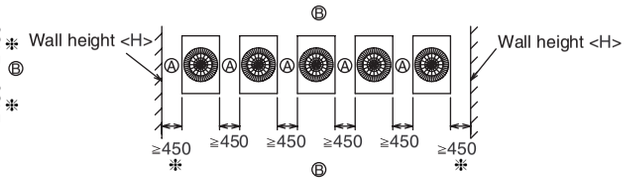
①Wall heights <H> of the front and the back sides shall be within total height of unit.
②When wall height <H> exceeds total height of unit, add <h> dimension to 450 of the following figure.
h=wall height <H'> -total height of unit.

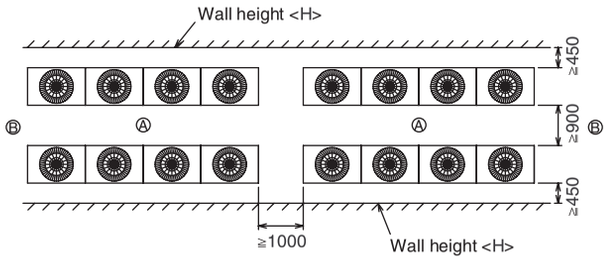


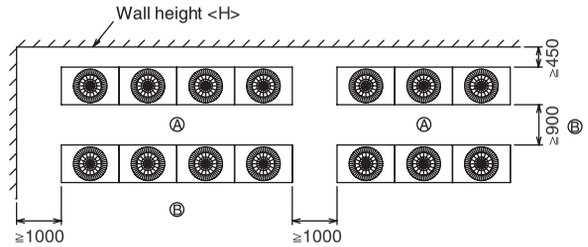
✻ In case of collective installation and continuous installation

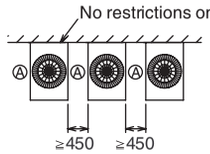
①Space required for collective installation and continuous installation:
When installing several units, provide the space between each block considering passage for air and people.
②Open in two directions.
③In case of wall height <H> exceeds total height of unit, add <h> dimension (h=wall height <H> -total height of unit) to ✻ marked dimension.
④If there is a wall at both the front and the rear of the unit, install up to four units consecutively in the side direction and provide a space of 1000 mm or more as inlet space/passage space for each four units.









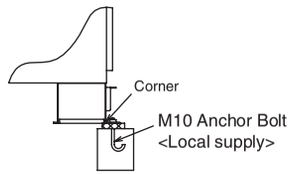


Ⓐ Front
Ⓑ Must be open

(Unit : mm)

2.Foundation work

①When building the foundation, give full attention to the floor strength, drain water disposal <drain water flows out of the unit, during operation>, piping and wiring routes.
②Be sure that the corners are firmly seated.If the corners are not firmly seated, the installation feet may be bent.
③When down piping and down wiring are performed, be sure that foundation and base work does not block the base through holes.



Ref: ygm-W656810 2/2

5. Electrical Wiring Diagram

PURY-P400YGM-A(-BS)

< Symbol explanation >

Symbol	Name
ACCT1	AC Current Sensor
DCCT1 ※3	DC Current Sensor
DCL1	DC reactor (Power factor improvement)
52C1	Magnetic contactor (Inverter main circuit)
MF1	Fan motor (Radiator panel)
CH11	Crank case heater (Compressor)
21S4a	4-way valve
SV1, 2	Solenoid valve (Discharge-suction bypass)
SV4a-d	Solenoid valve (Heat exchanger capacity control)
TH11	Thermistor: Discharge pipe temp. detect
TH5	Thermistor: Pipe temp.detect (Hex outlet)
TH6	Thermistor: OA temp.detect
TH7	Thermistor: liquid outlet temp.detect at Sub-cool coil
THHS1	Radiator panel temp. detect
63H1	High pressure switch
63HS	High pressure sensor
63LS	Low pressure sensor
L1, L2	Choke coil (Transmission)
Z20	Function device
⏚	Earth terminal

< Defference of appliance >

Model name	Appliance
PURY-P200YGM-A	" ※3 " do not exist
PURY-P250, 300, 350, 400YGM-A	All exists

※1: Function according to switch operation.
(SW4-7, CN3D 1-2P, and CN3D 1-3P)

SW4-7: OFF (Compressor ON/OFF and NIGHT MODE)

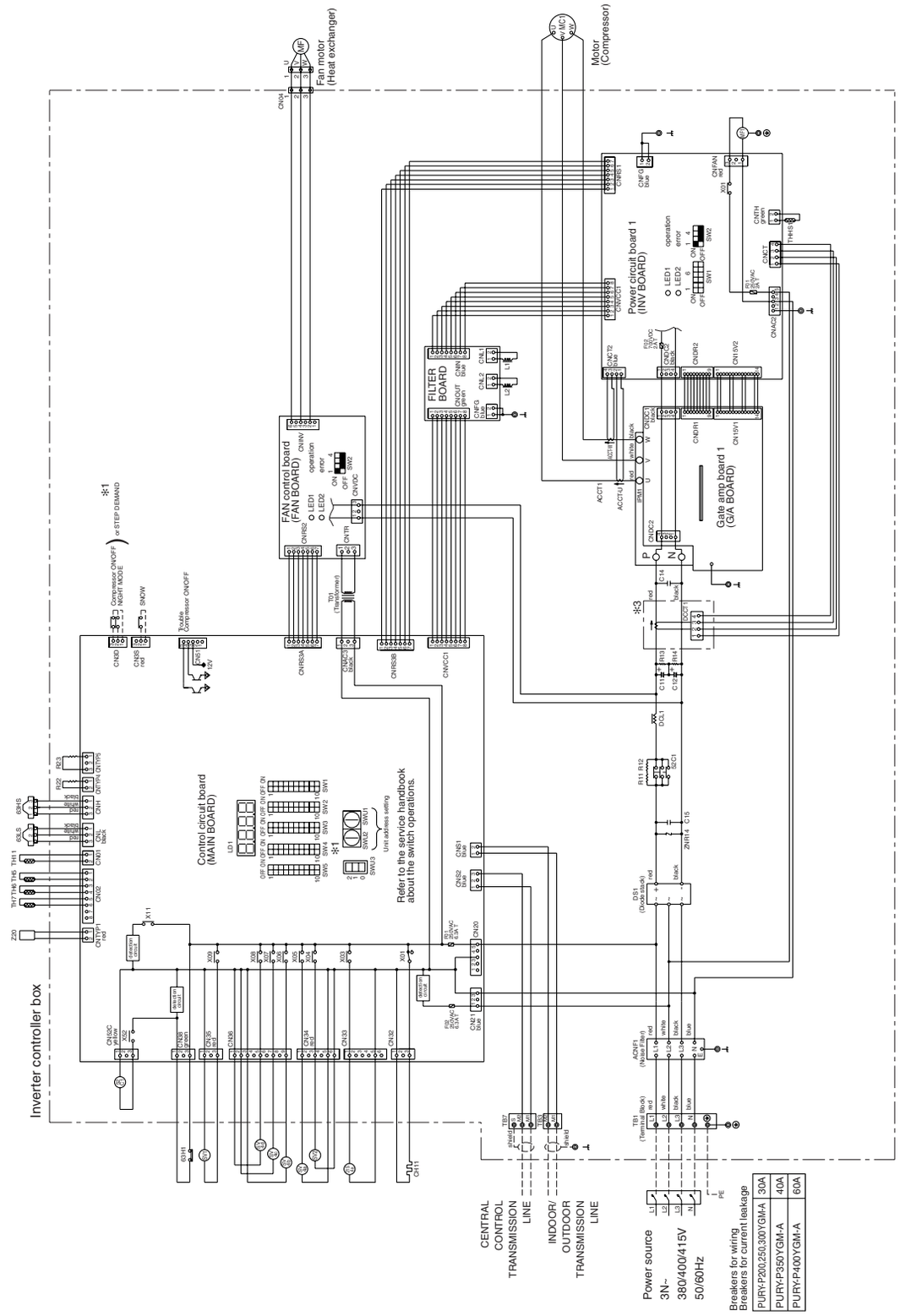
CN3D 1-3P	Compressor ON/OFF
OPEN	ON
SHORT	OFF

CN3D 1-2P	NIGHT MODE
OPEN	OFF
SHORT	ON

SW4-7: ON (STEP DEMAND)

CN3D 1-3P \ CN3D 1-2P	OPEN	SHORT
OPEN	100%	75%
SHORT	0%	50%

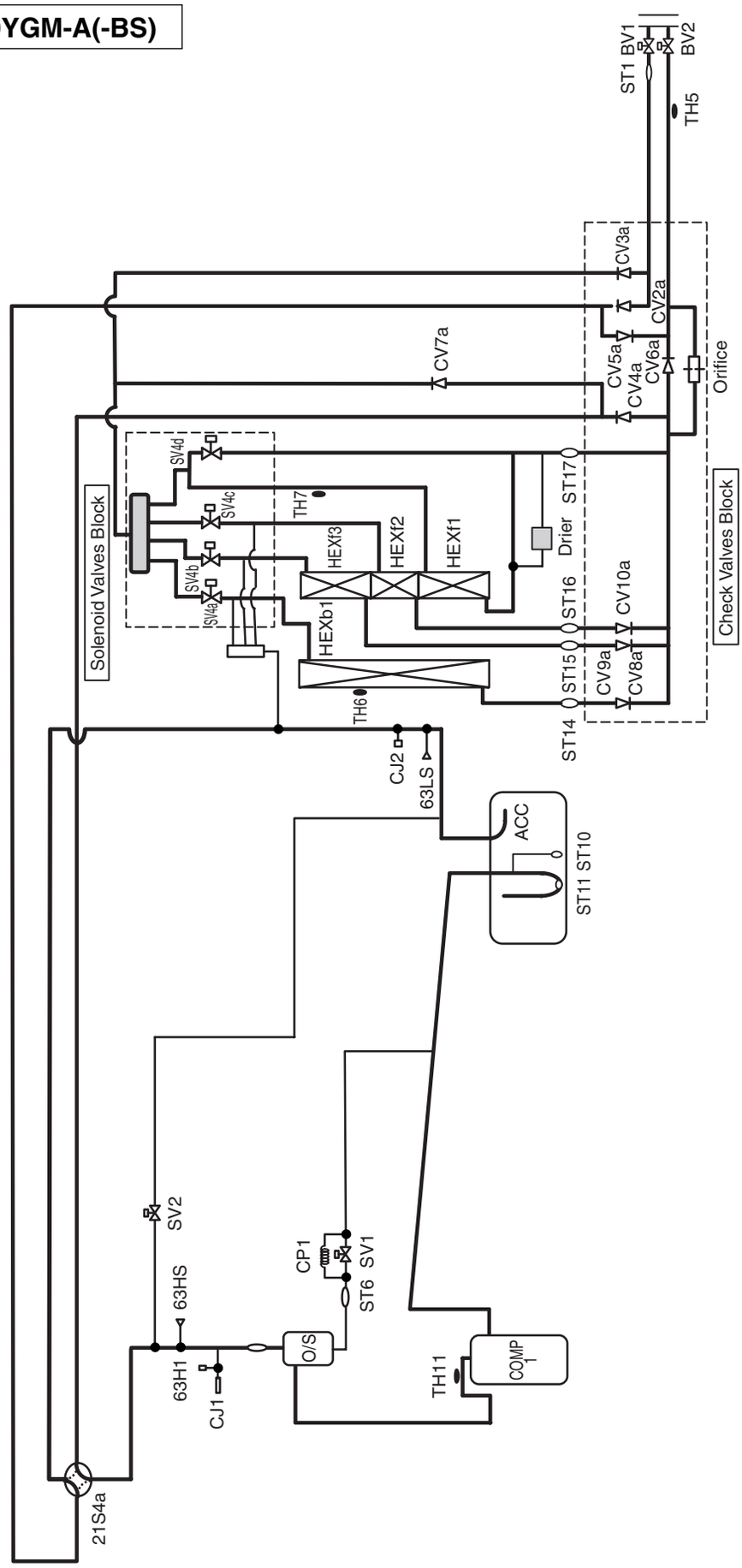
NOTE: The broken lines indicate field wiring.



Ref: R2-p200~400ygm-W274614

6. Refrigerant Circuit Diagram And Thermal Sensor

PURY-P400YGM-A(-BS)



R2-16(R410A)

PURY-P500·650YGM-A (-BS)

CONTENTS

R2-20~26(R410A)

1. Specifications

Model name			PURY-P500YGM-A (-BS)	
			Cooling	Heating
Capacity	*1†	kW	56.0	63.0
	*1†	BTU/h	191,100	215,000
	*1††	kcal/h	50,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	15.59	15.89
Current		A	26.3 / 25.0 / 24.0	26.8 / 25.4 / 24.5
Fan	Type x Quantity		Propeller fan x 2	
	Airflow rate	m^3/min	400	
	Motor output	kW	0.38 x 2	
Compressor	Type		Hermetic	
	Motor output	kW	8.2 + 5.3	
	Crankcase heater	kW	0.045 x 2	
Heat exchanger			Salt resistant fin	
Refrigerant / Lubricant			R410A / MEL32	
External finish			Pre-coated galvanized sheets (+ powder coating for –BS type) <MUNSEL 5Y 8/1 or similar>	
External dimension H x W x D		mm	1,840 x 1,990 x 840	
Protection devices	High pressure protection		4.15MPa	
	Compressor		Over current protection / Over heat protection	
	Fan		Thermal switch	
	Inverter		Over current protection / Thermal protection	
Refrigerant piping diameter	High press. pipe		ϕ22.2 Brazed	
	Low press. pipe		ϕ28.58 Brazed	
Indoor unit	Total capacity		50~150% of outdoor unit capacity	
	Model / Quantity		Model P20~P250 / 1~24	
Noise level	*2	dB<A>	60 / 61	
Net weight		kg	481	
Operating temperature range			Cooling	Heating
			Indoor : 15˚CWB ~ 24˚CWB Outdoor: -5˚CDB ~ 43˚CDB	Indoor : 15˚CDB ~ 27˚CDB Outdoor: -20˚CWB ~ 15.5˚CWB

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

† <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

†† <Cooling> Indoor : 27˚CDB / 19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

*2. It is measured in anechoic room.

** Installation/foundation work, electrical connection work, duct work, insulation work, power source switch, and other items shall be referred to the Installation Manual.

Ref.: M-WYNCO-6913&6923

R2-20~26(R410A)

Model name			PURY-P650YGM-A (-BS)	
			Cooling	Heating
Capacity	*1†	kW	73.0	81.5
	*1†	BTU/h	249,000	278,000
	*1††	kcal/h	65,000	-
Power source			3N ~ 380/400/415V 50/60Hz	
Power input		kW	19.65	19.82
Current		A	33.1 / 31.5 / 30.3	33.4 / 31.7 / 30.6
Fan	Type x Quantity		Propeller fan x 2	
	Airflow rate	m^3/min	400	
	Motor output	kW	0.38 x 2	
Compressor	Type		Hermetic	
	Motor output	kW	10.9 + 5.3	
	Crankcase heater	kW	0.045 x 2	
Heat exchanger			Salt resistant fin	
Refrigerant / Lubricant			R410A / MEL32	
External finish			Pre-coated galvanized sheets (+ powder coating for –BS type) <MUNSEL 5Y 8/1 or similar>	
External dimension H x W x D		mm	1,840 x 1,990 x 840	
Protection devices	High pressure protection		4.15MPa	
	Compressor		Over current protection / Over heat protection	
	Fan		Thermal switch	
	Inverter		Over current protection / Thermal protection	
Refrigerant piping diameter	High press. pipe		ø28.58 Brazed	
	Low press. pipe		ø28.58 Brazed	
Indoor unit	Total capacity		50~150% of outdoor unit capacity	
	Model / Quantity		Model P20~P250 / 1~32	
Noise level *2		dB<A>	62 / 62.5	
Net weight		kg	481	
			Cooling	Heating
Operating temperature range			Indoor : 15˚CWB ~ 24˚CWB Outdoor: -5˚CDB ~ 43˚CDB	Indoor : 15˚CDB ~ 27˚CDB Outdoor: -20˚CWB ~ 15.5˚CWB

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

† <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

†† <Cooling> Indoor : 27˚CDB / 19.5˚CWB Outdoor : 35˚CDB
Pipe length : 5m Height difference : 0m

*2. It is measured in anechoic room.

** Installation/foundation work, electrical connection work, duct work, insulation work, power source switch, and other items shall be referred to the Installation Manual.

Ref.: M-WYNCO-6916&6926

R2-20-26(R410A)

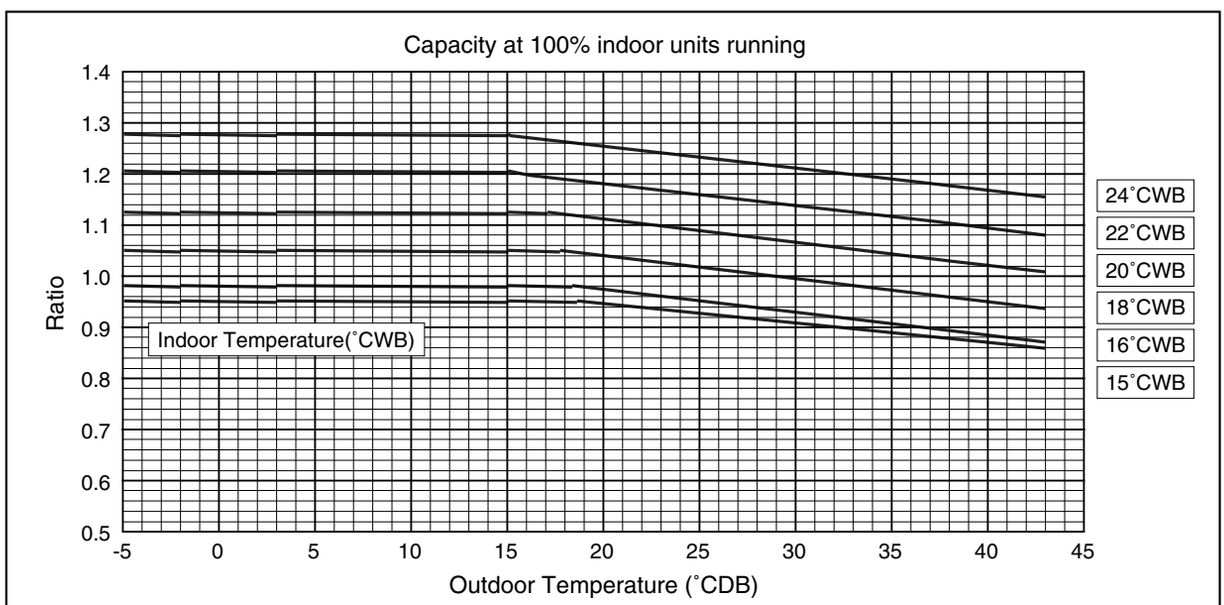
2. Capacity Table

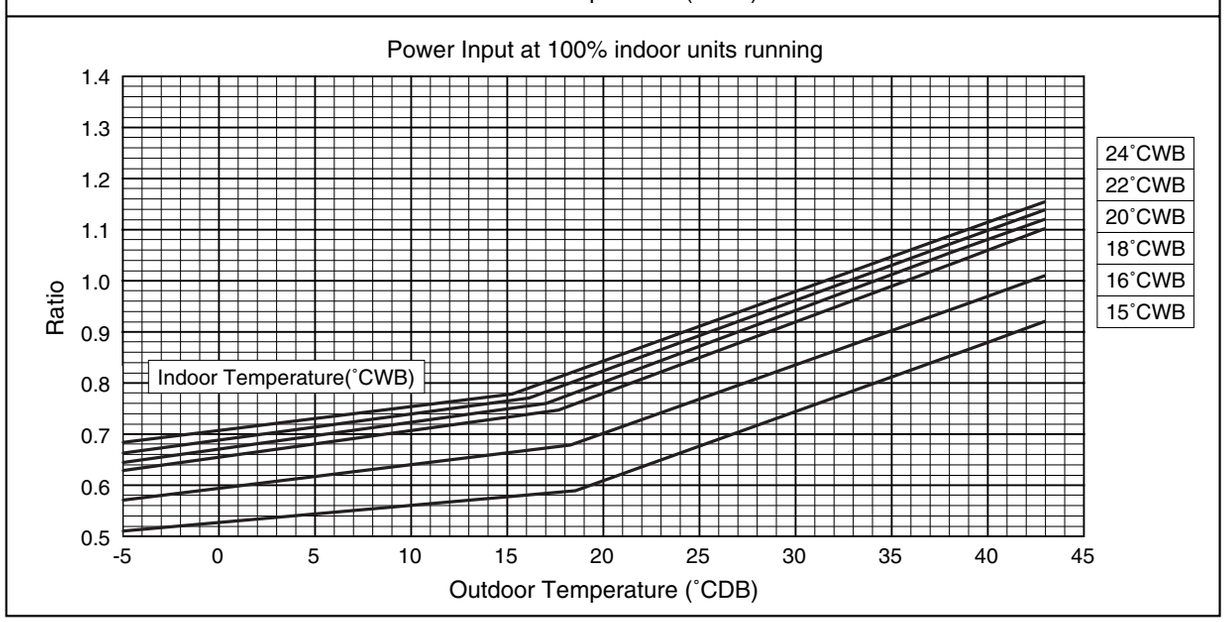
2-1. Correction by temperature

Cooling

• Standard Specifications

		PURY-P500YGM	PURY-P650YGM
Capacity	kW	56.0	73.0
Input	kW	15.59	19.65



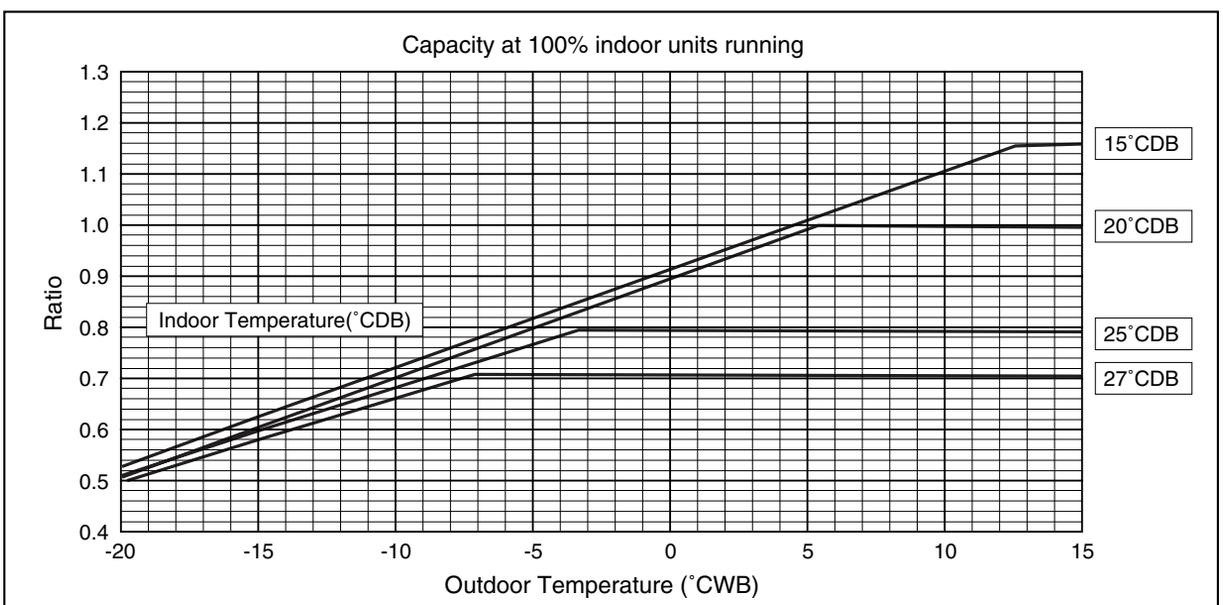


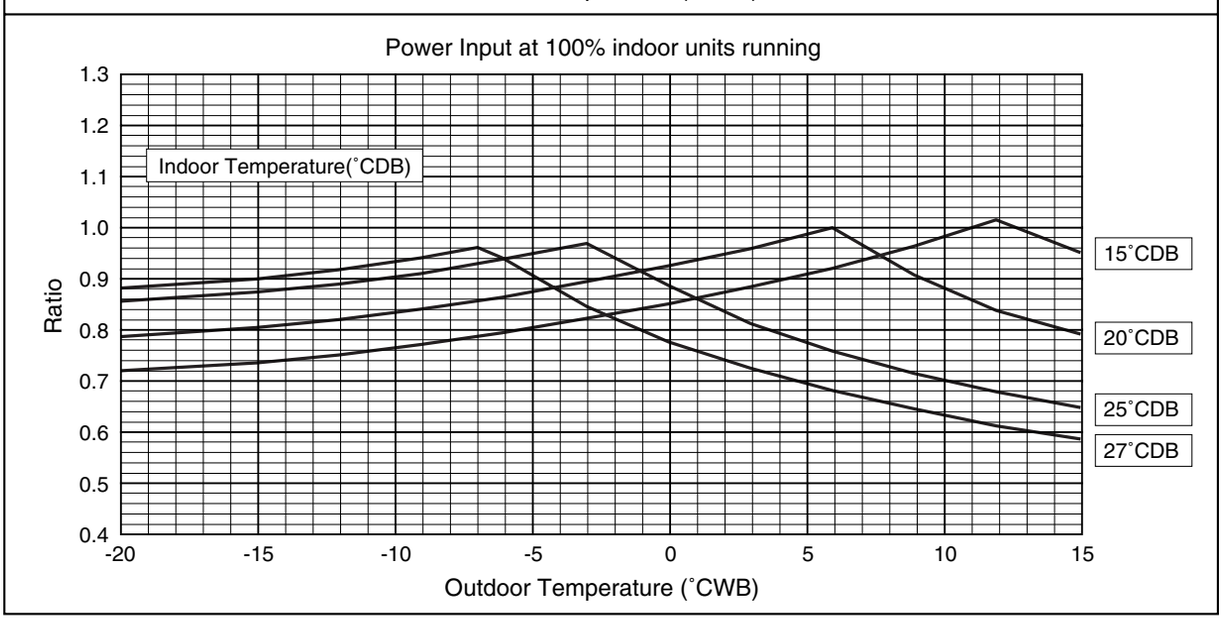
Ref: cap&inpc-p450-650

Heating

• Standard Specifications

		PURY-P500YGM	PURY-P650YGM
Capacity	kW	63.0	81.5
Input	kW	15.89	19.82



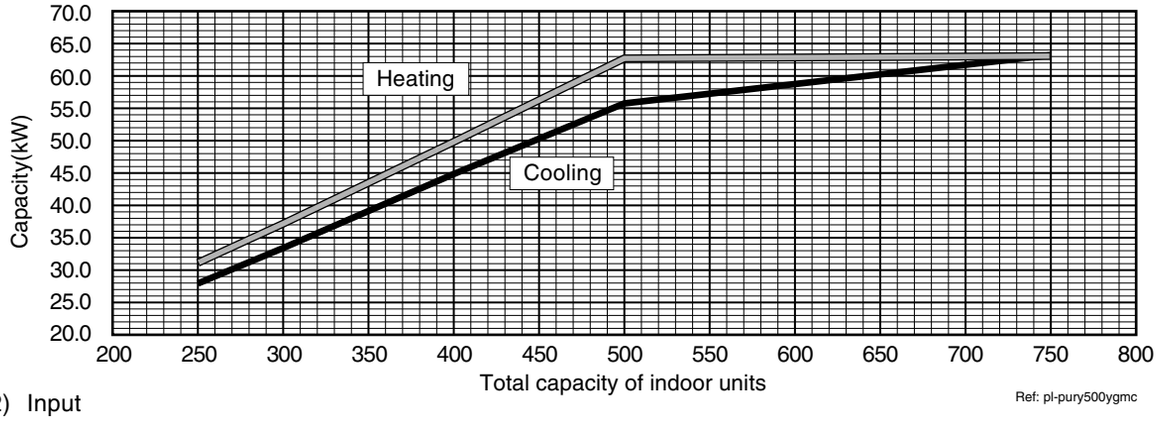


Ref: cap&inph-p450-650

2-2. Correction by total indoor

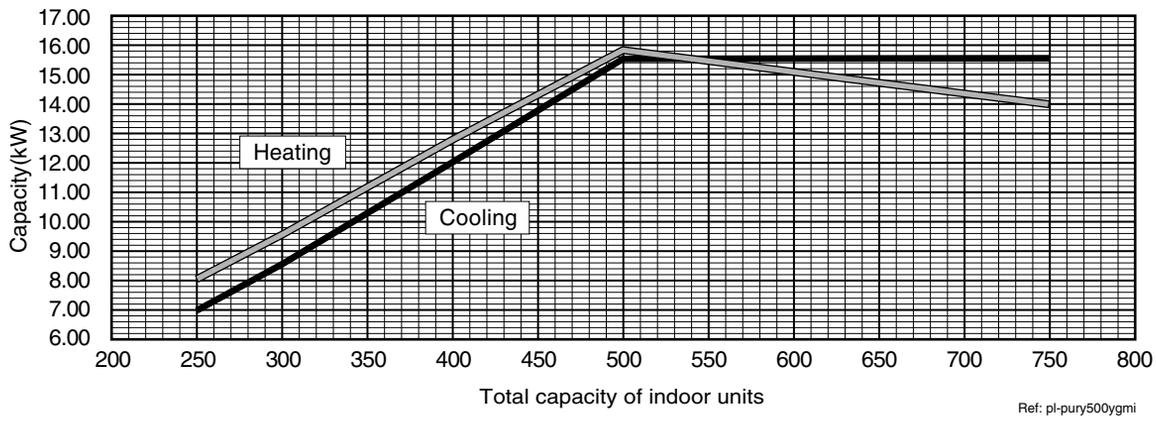
PURY-P500YGM

1) Capacity



Ref: pl-pury500ygmc

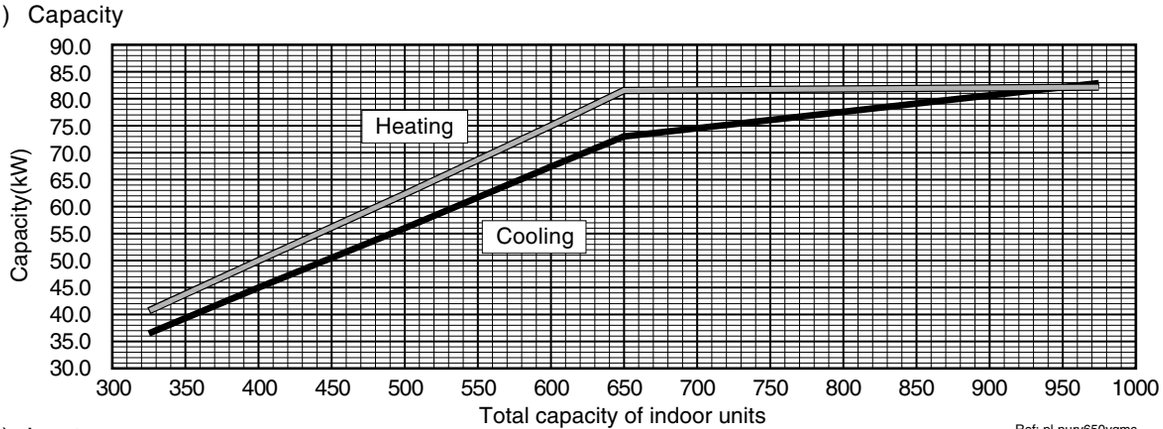
2) Input



Ref: pl-pury500ygmi

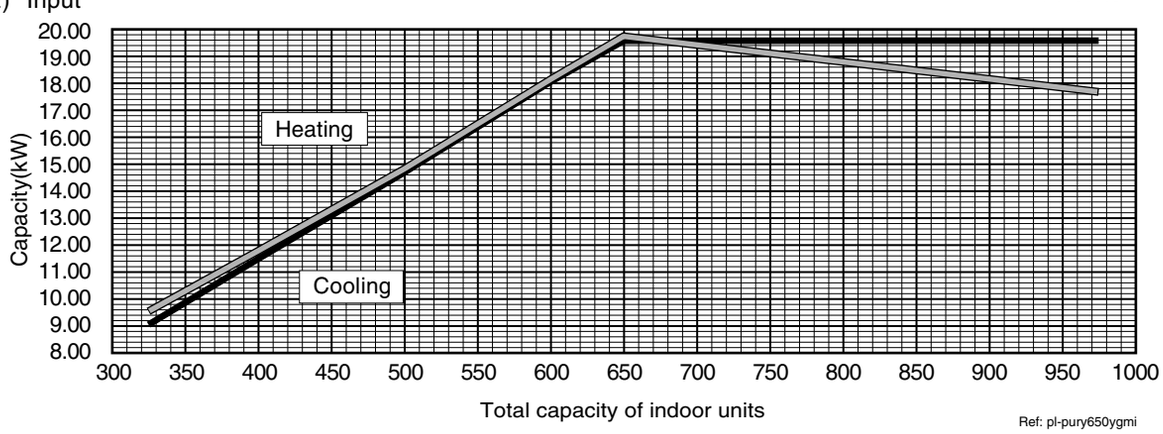
PURY-P650YGM

1) Capacity



Ref: pl-pury650ygmc

2) Input

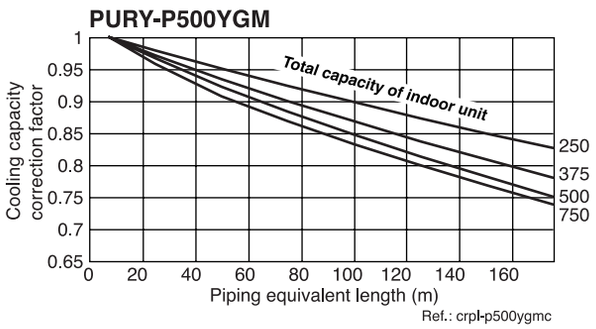


Ref: pl-pury650ygmi

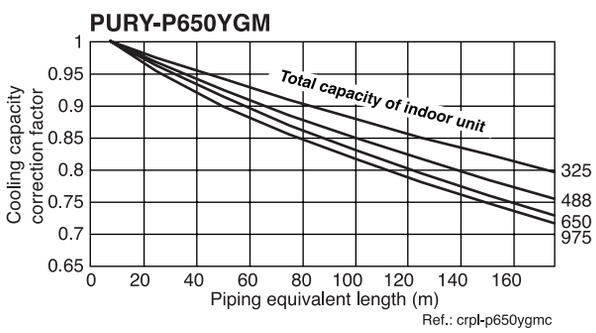
2-3. Correction by refrigerant piping length

Due to the extension of refrigerant piping, a decrease of cooling/heating capacity happens. The actual capacity is considered by multiplying the correction factor according to the equivalent length of the refrigerant piping shown at the table below.

· Cooling capacity correction

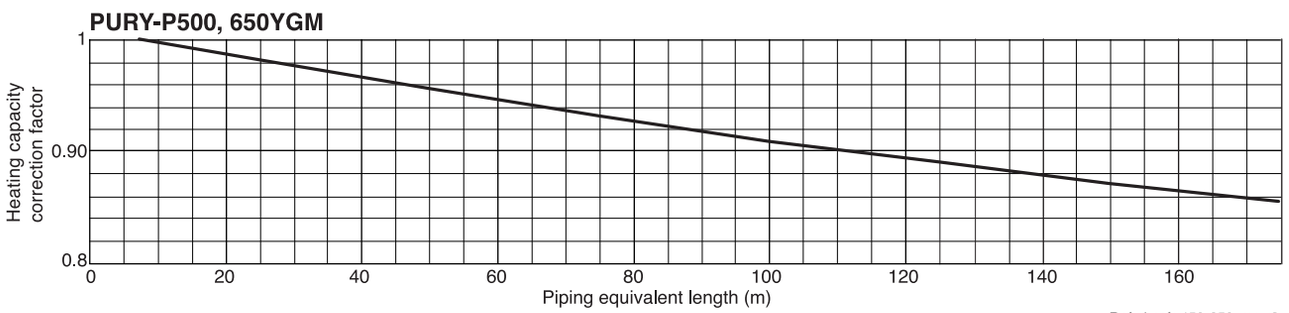


Ref.: crpl-p500ygmc



Ref.: crpl-p650ygmc

· Heating capacity correction



Ref.: hccfr-450-650ymg-r2

· How to obtain piping equivalent length

1 PUHY, PURY-P200YGM
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.35 x number of bent on the piping) m

2 PU(H)Y, PURY-P250,300YGM
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 x number of bent on the piping) m

3 PU(H)Y, PURY-P350YGM
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 x number of bent on the piping) m

4 PUHY, PURY-P400,500,650YGM
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 x number of bent on the piping) m

R2-20-26(R410A)

2-4. Correction at frosting and defrosting

Due to frosting at the outdoor heat exchanger and the automatical defrosting operation, the heating capacity of the outdoor unit should be considered by multiplying the correction factor which shown in the table below.

Table of correction factor

PURY-P500YGM

Outdoor inlet air temp (ßCWB)	6	4	2	1	0	-2	-4	-6	-8	-10	-20
Correction factor	1.0	0.98	0.89	0.86	0.89	0.90	0.92	0.95	0.95	0.95	0.95

Ref.: def-ygmp450-500

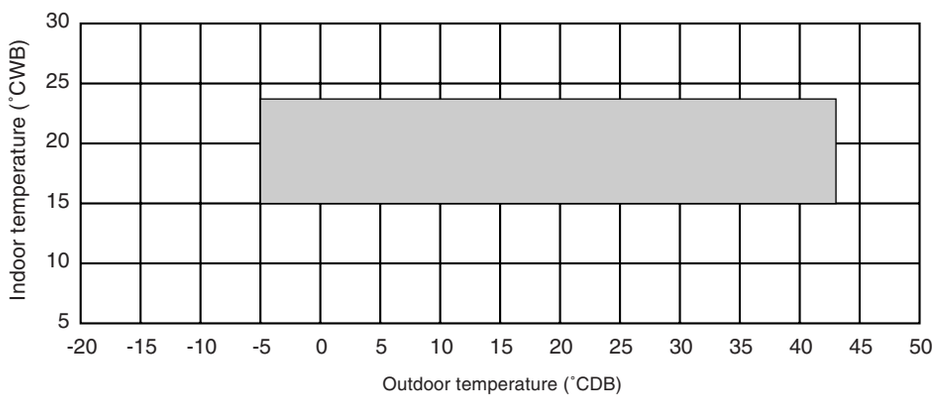
PURY-P650YGM

Outdoor inlet air temp (ßCWB)	6	4	2	1	0	-2	-4	-6	-8	-10	-20
Correction factor	1.0	0.94	0.87	0.86	0.87	0.88	0.90	0.90	0.93	0.93	0.93

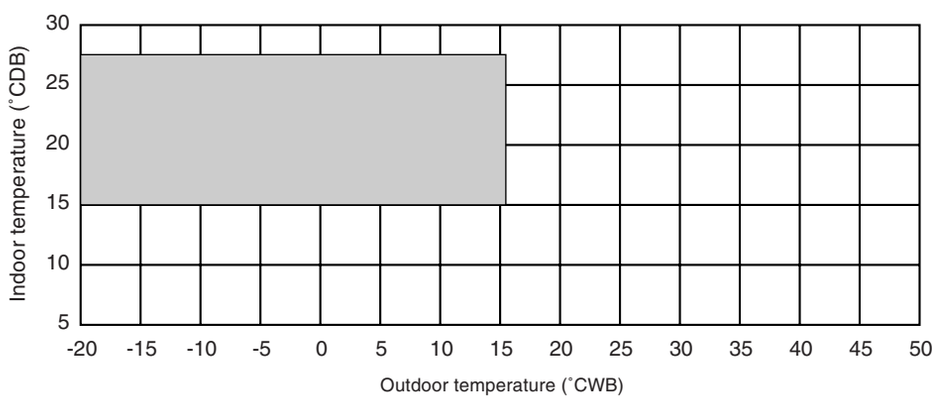
Ref.: def-ygmp550-650

2-5. Operation limit

• Cooling



• Heating

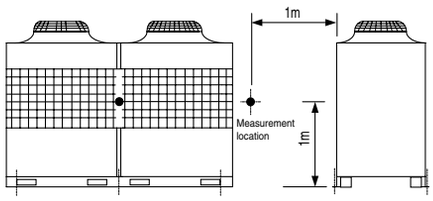


Ref.: ol-ygmr2

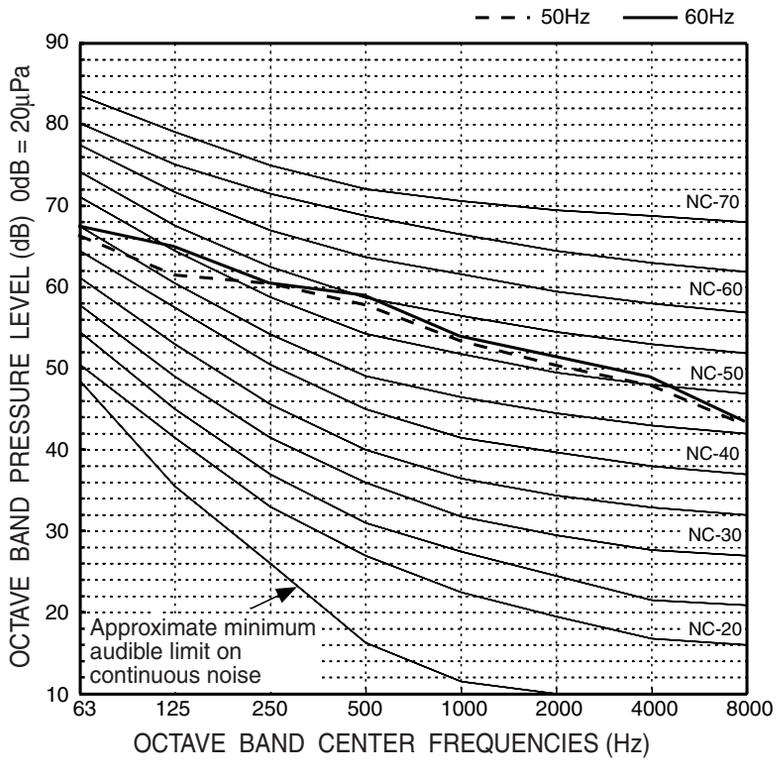
3. Sound Levels

PURY-P500YGM

Measurement condition



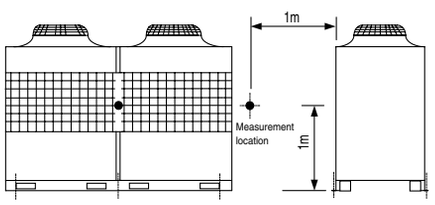
	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)
50Hz	67	61.5	60.5	58	53.5	50.5	48	43	60
60Hz	68	65	60.5	59	54	51.5	49	43.5	61



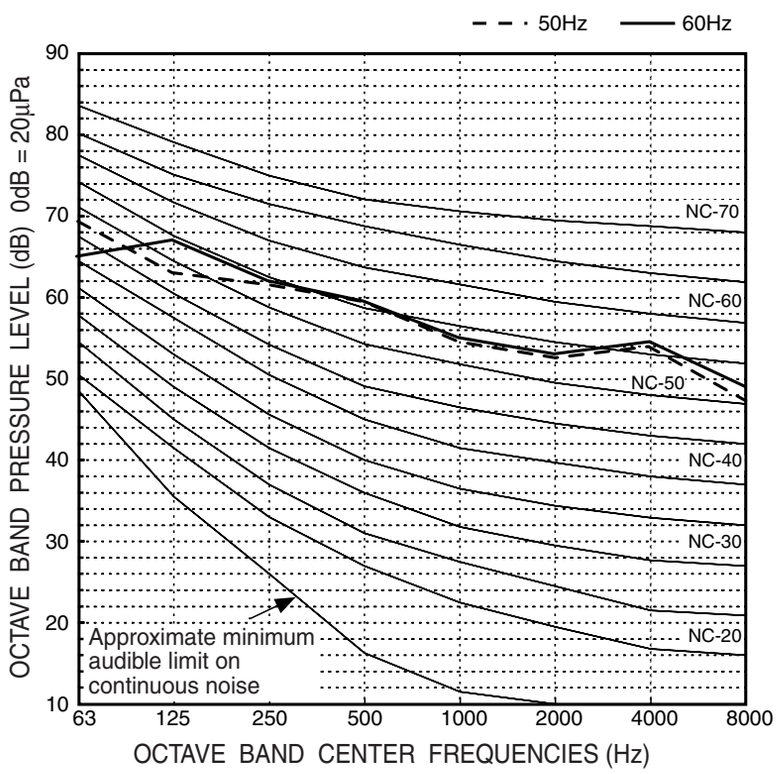
Ref.: r500ygm-WYNB0-3591

PURY-P650YGM

Measurement condition



	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)
50Hz	69.5	63	61.5	59.5	54.5	52.5	54	47	62
60Hz	65	67	62	59.5	55	53	54.5	49	62.5



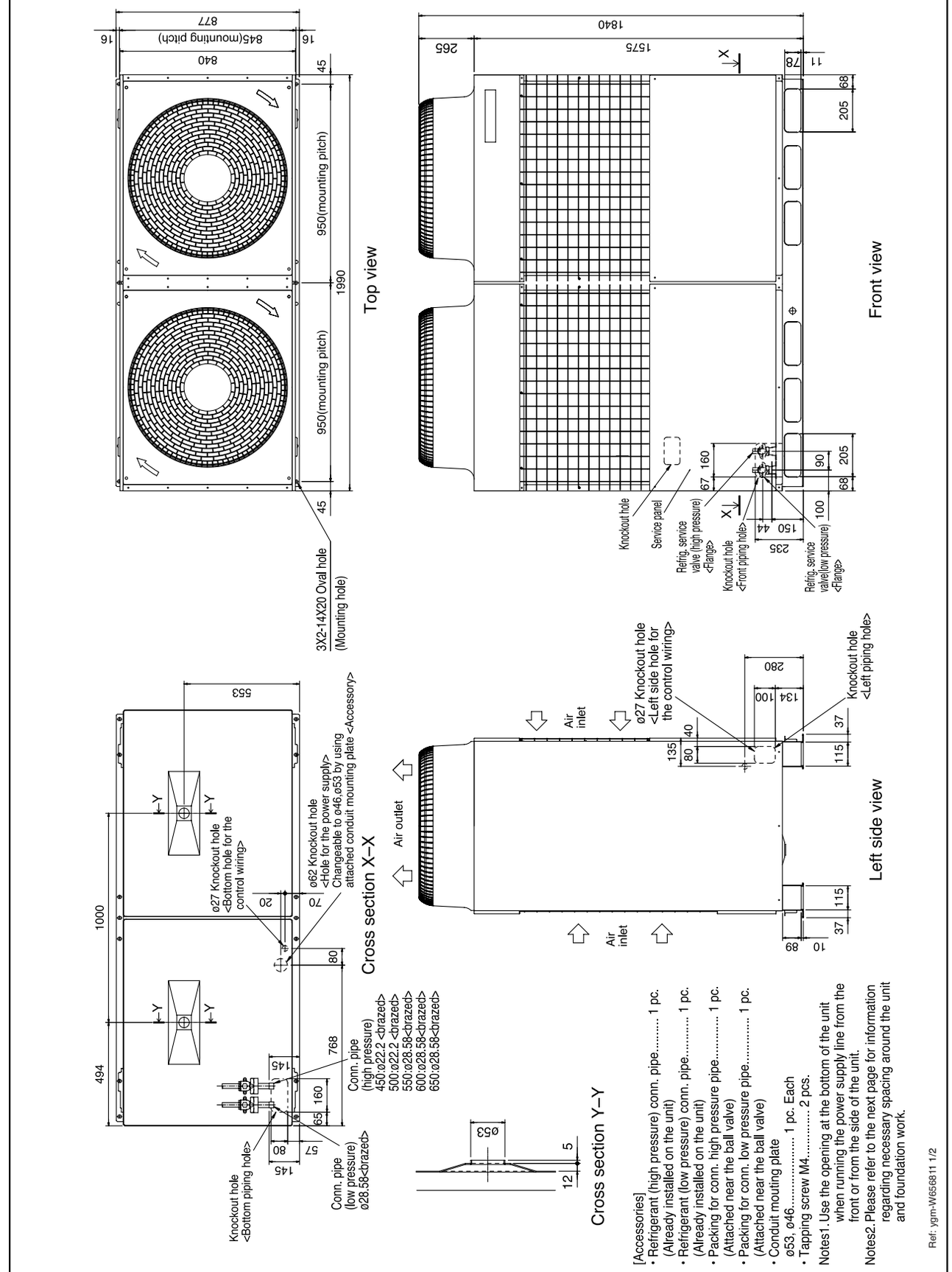
Ref.: r650ygm-WYNB0-3594

R2-20-26(R410A)

4. External Dimensions

PURY-P500,650YGM-A(-BS)

Unit : mm



[Accessories]
- Refrigerant (high pressure) conn. pipe..... 1 pc. (Already installed on the unit)
- Refrigerant (low pressure) conn. pipe..... 1 pc. (Already installed on the unit)
- Packing for conn. high pressure pipe..... 1 pc. (Attached near the ball valve)
- Packing for conn. low pressure pipe..... 1 pc. (Attached near the ball valve)
- Conduit mouting plate ø53, ø46..... 1 pc. Each
- Tapping screw M4..... 2 pcs.

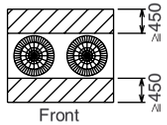
Notes1. Use the opening at the bottom of the unit when running the power supply line from the front or from the side of the unit.
Notes2. Please refer to the next page for information regarding necessary spacing around the unit and foundation work.

Ref: ygm-W656811 1/2

1.Space required around unit

✻ In case of single installation [Basic rules for spacing the unit]

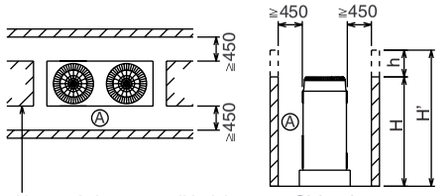
1 Since the service from the back of unit is required, provide the back space 450 mm or above as the front.



<Top view>

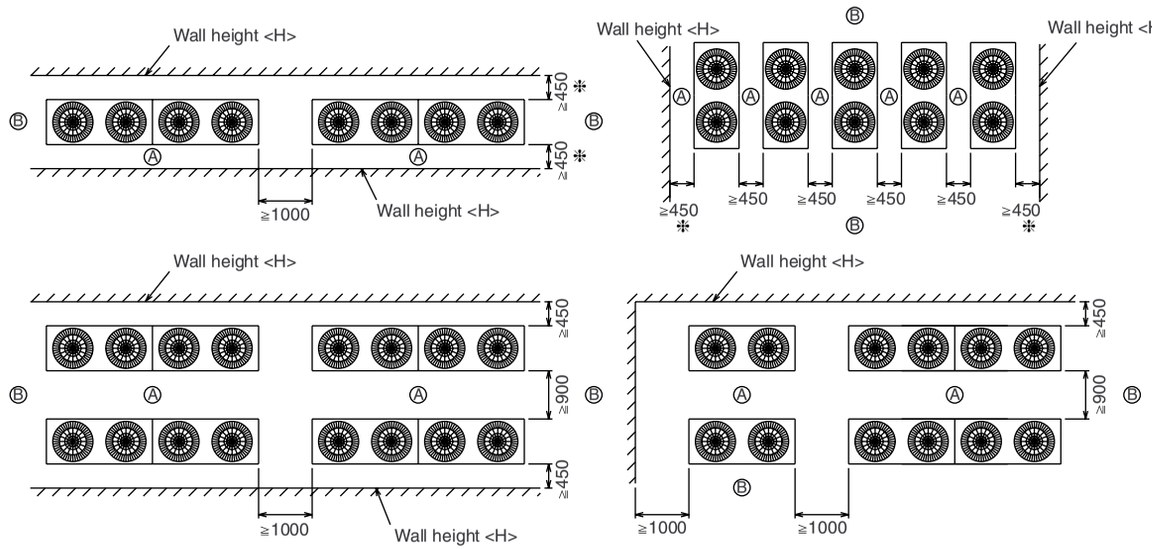
[When inlet air enters from right and left sides of unit]

1 Wall heights <H> of the front and the back sides shall be within total height of unit.
2 When wall height <H> exceeds total height of unit, add <h> dimension to 450 of the following figure.
h=wall height <H'> -total height of unit.



✻ In case of collective installation and continuous installation

1 Space required for collective installation and continuous installation:
When installing several units, provide the space between each block considering passage for air and people.
2 Open in two directions.
3 In case of wall height <H> exceeds total height of unit, add <h> dimension (h=wall height <H> -total height of unit) to ✻ marked dimension.
4 If there is a wall at both the front and the rear of the unit, install up to three units consecutively in the side direction and provide a space of 1000 mm or more as inlet space/passage space for each three units.

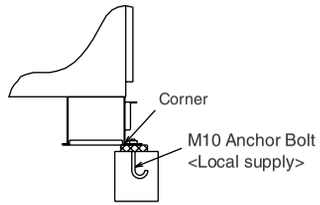


Ⓐ Front
Ⓑ Must be open

(Unit : mm)

2.Foundation work

1 When building the foundation, give full attention to the floor strength, drain water disposal <drain water flows out of the unit, during operation>, piping and wiring routes.
2 Be sure that the corners are firmly seated. If the corners are not firmly seated, the installation feet may be bent.
3 When down piping and down wiring are performed, be sure that foundation and base work does not block the base through holes.



Ref: ygm-W656811 2/2

5. Electrical Wiring Diagram

PURY-P500, 650YGM-A(-BS)

< Symbol explanation >

Symbol	Name
ACCT1	AC Current Sensor
DCCT1	DC Current Sensor
DCL1	DC reactor (Power factor improvement)
52C1	Magnetic contactor (Inverter main circuit)
52C2	Magnetic contactor (No.2 Compressor)
51C2	Overload relay (No.2 Compressor)
52F	Magnetic contactor (Fan motor)
MF3	Fan motor (Radiator panel)
CH11,12	Crank case heater (Compressor)
21S4a, b	4-way valve
SV1, 2, 3	Solenoid valve (Discharge-suction bypass)
SV4a–d	Solenoid valve (Heat exchanger capacity control)
SV5a, b	Solenoid valve (Hot gas bypass)
TH11,12	Thermistor: Discharge pipe temp. detect
TH5	Thermistor: Pipe temp.detect (Hex outlet)
TH6	Thermistor: OA temp.detect
TH7	Thermistor: liquid outlet temp.detect at Sub-cool coil
THHS1	Thermistor: Radiator panel temp. detect
63H1, 2	High pressure switch
63HS	High pressure sensor
63LS	Low pressure sensor
L1, L2	Choke coil (Transmission)
Z20	Function device
⏚	Earth terminal

※1: Function according to switch operation.
(SW4-7,CN3D 1-2P, and CN3D 1-3P)

SW4-7:OFF (Compressor ON/OFF and NIGHT MODE)

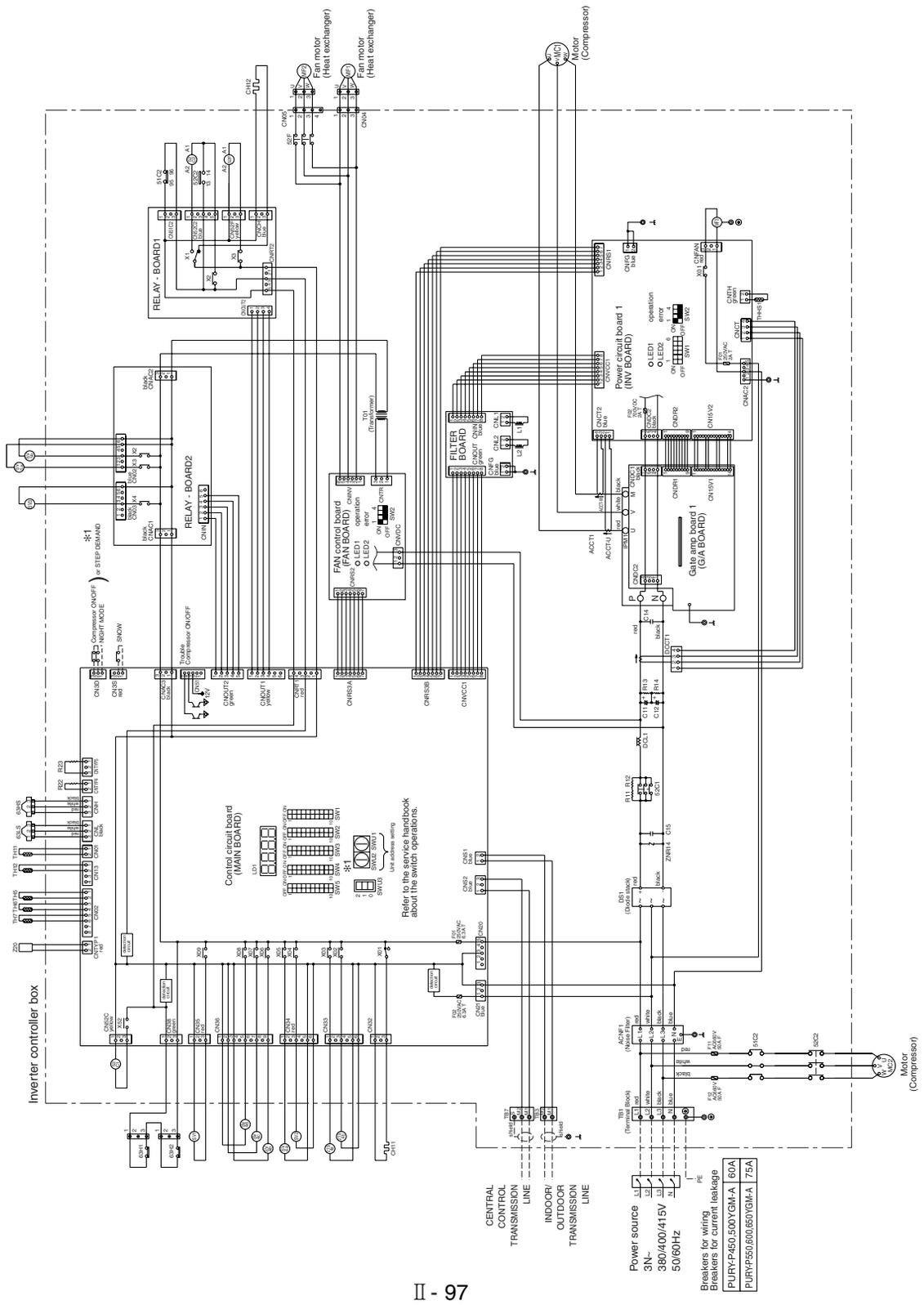
CN3D 1-3P	Compressor ON/OFF
OPEN	ON
SHORT	OFF

CN3D 1-2P	NIGHT MODE
OPEN	OFF
SHORT	ON

SW4-7:ON (STEP DEMAND)

CN3D 1-3P \ CN3D 1-2P	OPEN	SHORT
OPEN	100%	75%
SHORT	0%	50%

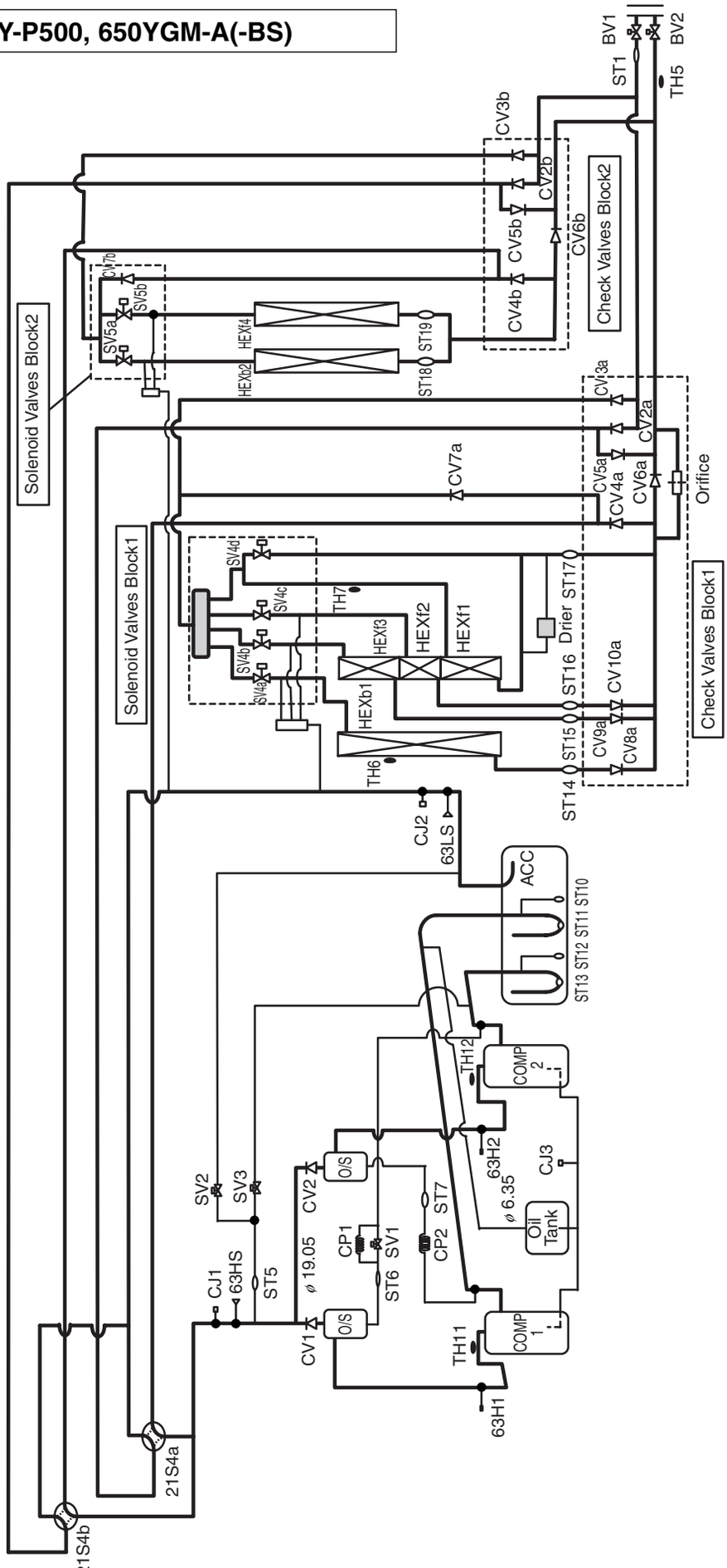
NOTE:The broken lines indicate field wiring.



Ref: R2-p450~650ygm-W274616

6. Refrigerant Circuit Diagram And Thermal Sensor

PURY-P500, 650YGM-A(-BS)



Ref: rcd-450--650ygmr2

R2-20~26(R410A)