

OUTDOOR UNITS

1. SPECIFICATIONS	2 - 206
2. EXTERNAL DIMENSIONS	2 - 209
3. CENTER OF GRAVITY	2 - 212
4. ELECTRICAL WIRING DIAGRAMS	2 - 213
5. SOUND LEVELS	2 - 214
6. CAPACITY TABLES	2 - 215
6-1. Correction by temperature	2 - 215
6-2. Correction by total indoor	2 - 216
6-3. Correction by refrigerant piping length	2 - 218
6-4. Correction at frost and defrost	2 - 219
6-5. Operation temperature range	2 - 219
7. OPTIONAL PARTS	2 - 220
7-1. JOINT	2 - 220
7-2. HEADER	2 - 221
7-3. OUTDOOR TWINNING KIT	2 - 222
7-4. RELAY BOX	2 - 223
7-5. BASE HEATER	2 - 224

1. SPECIFICATIONS

G10 2nd

HP

Model			PUHY-HP200YHM-A(-BS)		PUHY-HP250YHM-A(-BS)	
Power source			3-phase 4-wire 380-400-415V 50/60Hz		3-phase 4-wire 380-400-415V 50/60Hz	
Cooling capacity (Nominal)	*1	kW	22.4		28.0	
		kcal / h	19,300		24,100	
		BTU / h	76,400		95,500	
	Power input	kW	6.40		9.06	
	Current input	A	10.8-10.2-9.8		15.2-14.5-14.0	
	EER	kW / kW	3.50		3.09	
Temp. range of cooling	Indoor	W.B.	15 to 24degC(59 to 75degF)		15 to 24degC(59 to 75degF)	
	Outdoor	D.B.	-5 to 43degC(23 to 109degF)		-5 to 43degC(23 to 109degF)	
Heating capacity (Nominal)	*2	kW	25.0		31.5	
		kcal / h	21,500		27,100	
		BTU / h	85,300		107,500	
	Power input	kW	6.52		8.94	
	Current input	A	11.0-10.4-10.0		15.0-14.3-13.8	
	COP	kW / kW	3.83		3.52	
Temp. range of heating	Indoor	D.B.	15 to 27degC(59 to 81degF)		15 to 27degC(59 to 81degF)	
	Outdoor	W.B.	-25 to 15.5degC(-13 to 60degF)		-25 to 15.5degC(-13 to 60degF)	
Indoor unit connectable	Total capacity		50 to 130 % of outdoor unit capacity		50 to 130 % of outdoor unit capacity	
	Model / Quantity		P15 to P250 / 1 to 17		P15 to P250 / 1 to 21	
Sound pressure level (measured in anechoic room)		dB <A>	56		57	
Refrigerant piping diameter	Liquid pipe	mm(in.)	12.7(1/2) Brazed		12.7(1/2) Brazed	
	Gas pipe	mm(in.)	19.05(3/4) Brazed		22.2(7/8) Brazed	
FAN		Type x Quantity		Propeller fan x 1		
	Air flow rate	m ³ / min	225		225	
		L/s	3,750		3,750	
		cfm	7,945		7,945	
	Control, Driving mechanism		Inverter-control,Direct-driven by motor		Inverter-control,Direct-driven by motor	
	Motor output	kW	0.92 x 1		0.92 x 1	
	*3 External static press.		0 Pa (0 mmH ₂ O)		0 Pa (0 mmH ₂ O)	
	Compressor	Type x Quantity		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor
Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
Starting method		Inverter		Inverter		
Motor output		kW	5.3		6.7	
Case heater		kW	0.045		0.045	
Lubricant		MEL32		MEL32		
External finish			Pre-coated galvanized steel sheets <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,650 x 920 x 760		1,650 x 920 x 760	
		in.	65 x 36-1/4 x 29-15/16		65 x 36-1/4 x 29-15/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15MPa (601 psi)		High pressure sensor, High pressure switch at 4.15MPa (601 psi)	
	Inverter circuit (COMP. / FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
	Fan motor		Thermal switch		Thermal switch	
Refrigerant	Type x original charge		R410A x 9.0kg (20lbs)		R410A x 9.0kg (20lbs)	
	Control		LEV and HIC circuit		LEV and HIC circuit	
Net weight		kg(lbs)	220(486)		220(486)	
Heat exchanger			Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure	
Defrosting method			Auto-defrost mode (Reversed refrigerant circle)		Auto-defrost mode (Reversed refrigerant circle)	
Drawing	External		WKB94R110		WKB94R110	
	Wiring		WKE79B230		WKE79B230	
Standard attachment	Document		Installation Manual		Installation Manual	
	Accessory		Refrigerant conn. pipe		Refrigerant conn. pipe	
Optional parts			Joint: CMY-Y102SS-G2 Header: CMY-Y104/108/1010-G		Joint: CMY-Y102SS-G2 Header: CMY-Y104/108/1010-G	
Remark			* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specifications may be subject to change without notice.		* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specifications may be subject to change without notice.	

Note:	*1 Nominal cooling conditions (subject to JIS B8615-2)	*2 Nominal heating conditions (subject to JIS B8615-2)	Unit converter
Indoor:	27degCDB/19degCWB (81degFDB/66degFWB)	20degCDB (68degFDB)	kcal/h =kW x 860
Outdoor:	35degCDB (95degFDB)	7degCDB/6degCWB (45degFDB/43degFWB)	BTU/h =kW x 3,412
Pipe length: 7.5m (24-9/16ft.)		7.5m (24-9/16ft.)	cfm =m ³ /min x 35.31
Level difference: 0m (0ft.)		0m (0ft.)	lbs =kg/0.4536
*3 External static pressure option is available (30Pa, 60Pa/3.1mmH ₂ O, 6.1mmH ₂ O).			*The specification data is subject to rounding variation.

1. SPECIFICATIONS

G10 2nd

Model			PUHY-HP400YSHM-A(-BS)
Power source			3-phase 4-wire 380-400-415V 50/60Hz
Cooling capacity (Nominal)	*1	kW	45.0
	*1	kcal / h	38,700
	*1	BTU / h	153,500
	Power input	kW	12.86
	Current input	A	21.7-20.6-19.8
	EER	kW / kW	3.49
Temp. range of cooling	Indoor	W.B.	15 to 24degC(59 to 75degF)
	Outdoor	D.B.	-5 to 43degC(23 to 109degF)
Heating capacity (Nominal)	*2	kW	50.0
	*2	kcal / h	43,000
	*2	BTU / h	170,600
	Power input	kW	13.35
	Current input	A	22.5-21.4-20.6
	COP	kW / kW	3.74
Temp. range of heating	Indoor	D.B.	15 to 27degC(59 to 81degF)
	Outdoor	W.B.	-25 to 15.5degC(-13 to 60degF)
Indoor unit connectable	Total capacity		50 to 130 % of outdoor unit capacity
	Model / Quantity		P15 to P250 / 1 to 34
Sound pressure level (measured in anechoic room)			59
Refrigerant piping diameter	Liquid pipe	mm(in.)	15.88(5/8) Brazed
	Gas pipe	mm(in.)	28.58(1-1/8) Brazed

Set Model

Model			PUHY-HP200YHM-A(-BS)	PUHY-HP200YHM-A(-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m ³ / min	225	225
		L/s	3,750	3,750
		cfm	7,945	7,945
	Control, Driving mechanism		Inverter-control,Direct-driven by motor	Inverter-control,Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
	*3 External static press.		0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)
Compressor	Type x Quantity		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	5.3	5.3
	Case heater	kW	0.045	0.045
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets <MUNSELL 5Y 8/1 or similar>
External dimension HxWxD		mm	1,650 x 920 x 760	1,650 x 920 x 760
		in.	65 x 36-1/4 x 29-15/16	65 x 36-1/4 x 29-15/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15MPa (601 psi)	High pressure sensor, High pressure switch at 4.15MPa (601 psi)
	Inverter circuit (COMP. / FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
	Fan motor		Thermal switch	Thermal switch
Refrigerant	Type x original charge		R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)
	Control		LEV and HIC circuit	
Net weight		kg(lbs)	220(486)	220(486)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm(in.)	9.52(3/8) Brazed	9.52(3/8) Brazed
	Gas pipe	mm(in.)	19.05(3/4) Brazed	19.05(3/4) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant circle)	
Drawing	External		WKB94R111	
	Wiring		WKE79B230	WKE79B230
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y100VBK2/3 Joint: CMY-Y102SS/LS-G2,CMY-Y202S-G2 Header: CMY-Y104/108/1010-G	
Remark			* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specifications may be subject to change without notice.	

Note:	*1 Nominal cooling conditions (subject to JIS B8615-2)	*2 Nominal heating conditions (subject to JIS B8615-2)	Unit converter
Indoor:	27degCDB/19degCWB (81degFDB/66degFWB)	20degCDB (68degFDB)	kcal/h =kW x 860
			BTU/h =kW x 3,412
Outdoor:	35degCDB (95degFDB)	7degCDB/6degCWB (45degFDB/43degFWB)	cfm =m³/min x 35.31
			lbs =kg/0.4536
Pipe length:	7.5m (24-9/16ft.)	7.5m (24-9/16ft.)	
Level difference:	0m (0ft.)	0m (0ft.)	
*3 External static pressure option is available (30Pa, 60Pa/3.1mmH ₂ O, 6.1mmH ₂ O).			*The specification data is subject to rounding variation.

1. SPECIFICATIONS

G10 2nd

HP

Model			PUHY-HP500YSHM-A(-BS)
Power source			3-phase 4-wire 380-400-415V 50/60Hz
Cooling capacity (Nominal)	*1	kW	56.0
	*1	kcal / h	48,200
	*1	BTU / h	191,100
	Power input	kW	18.16
	Current input	A	30.6-29.1-28.0
EER			3.08
Temp. range of cooling	Indoor	W.B.	15 to 24degC(59 to 75degF)
	Outdoor	D.B.	-5 to 43degC(23 to 109degF)
Heating capacity (Nominal)	*2	kW	63.0
	*2	kcal / h	54,200
	*2	BTU / h	215,000
	Power input	kW	18.04
	Current input	A	30.4-28.9-27.8
COP			3.49
Temp. range of heating	Indoor	D.B.	15 to 27degC(59 to 81degF)
	Outdoor	W.B.	-25 to 15.5degC(-13 to 60degF)
Indoor unit connectable	Total capacity		50 to 130 % of outdoor unit capacity
	Model / Quantity		P15 to P250 / 1 to 43
Sound pressure level (measured in anechoic room)			dB <A> 60
Refrigerant piping diameter	Liquid pipe	mm(in.)	15.88(5/8) Brazed
	Gas pipe	mm(in.)	28.58(1-1/8) Brazed

Set Model

Model			PUHY-HP250YHM-A(-BS)		PUHY-HP250YHM-A(-BS)	
FAN	Type x Quantity		Propeller fan x 1		Propeller fan x 1	
	Air flow rate	m ³ / min	225		225	
		L/s	3,750		3,750	
		cfm	7,945		7,945	
	Control, Driving mechanism		Inverter-control,Direct-driven by motor		Inverter-control,Direct-driven by motor	
	Motor output	kW	0.92 x 1		0.92 x 1	
*3	External static press.		0 Pa (0 mmH ₂ O)		0 Pa (0 mmH ₂ O)	
Compressor	Type x Quantity		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	6.7		6.7	
	Case heater	kW	0.045		0.045	
	Lubricant		MEL32		MEL32	
External finish			Pre-coated galvanized steel sheets <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,650 x 920 x 760		1,650 x 920 x 760	
		in.	65 x 36-1/4 x 29-15/16		65 x 36-1/4 x 29-15/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15MPa (601 psi)		High pressure sensor, High pressure switch at 4.15MPa (601 psi)	
	Inverter circuit (COMP. / FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
	Fan motor		Thermal switch		Thermal switch	
Refrigerant	Type x original charge		R410A x 9.0kg (20lbs)		R410A x 9.0kg (20lbs)	
	Control		LEV and HIC circuit			
Net weight		kg(lbs)	220(486)		220(486)	
Heat exchanger			Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure	
Pipe between unit and distributor	Liquid pipe	mm(in.)	9.52(3/8) Brazed		9.52(3/8) Brazed	
	Gas pipe	mm(in.)	22.2(7/8) Brazed		22.2(7/8) Brazed	
Defrosting method			Auto-defrost mode (Reversed refrigerant circle)			
Drawing	External		WKB94R111			
	Wiring		WKE79B230		WKE79B230	
Standard attachment	Document		Installation Manual			
	Accessory		Refrigerant conn. pipe			
Optional parts			Outdoor Twinning kit: CMY-Y100VBK2/3 Joint: CMY-Y102SS/LS-G2,CMY-Y202S-G2 Header: CMY-Y104/108/1010-G			
Remark			* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specifications may be subject to change without notice.			

Note:	*1 Nominal cooling conditions (subject to JIS B8615-2)	*2 Nominal heating conditions (subject to JIS B8615-2)	Unit converter
Indoor:	27degCDB/19degCWB (81degFDB/66degFWB)	20degCDB (68degFDB)	kcal/h =kW x 860
			BTU/h =kW x 3,412
Outdoor:	35degCDB (95degFDB)	7degCDB/6degCWB (45degFDB/43degFWB)	cfm =m ³ /min x 35.31
			lbs =kg/0.4536
Pipe length:	7.5m (24-9/16ft.)	7.5m (24-9/16ft.)	
Level difference:	0m (0ft.)	0m (0ft.)	
*3 External static pressure option is available (30Pa, 60Pa/3.1mmH ₂ O, 6.1mmH ₂ O).			*The specification data is subject to rounding variation.

G10 2nd

Unit : mm



PUHY-HP200, 250YHM-A(-BS)

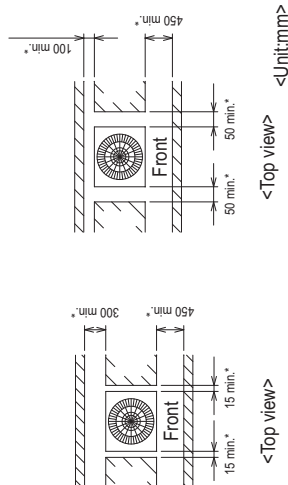
Unit : mm

HP

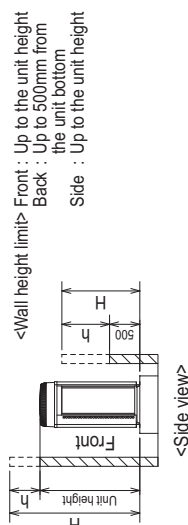
1.Required space around the unit

● In case of single installation

- Secure enough space around the unit as shown in the figure below.
 - With a space of at least 300mm to the wall on the back of the unit



- When the height of the walls on the front, back or on the sides <H> exceeds the wall height limit as defined below add the height that exceeds the height limit <h> to the figures that are marked with an asterisk.



2.Foundation work

- Take into consideration the surface strength, water drainage route, piping route and wiring route when preparing the installation site.
 - Note that the drain water comes out of the unit during operation. >
- Build the foundation in such way that the corner of the installation leg is securely supported as shown in the right figure. (Fig.A,B)
 - When using a rubber isolating cushion, please ensure it is large enough to cover the entire width of each of the unit's legs.
- The protrusion length of the anchor bolt must not exceed 30mm. (Fig.A,B)
- Use four fixing plates as shown in the right figure <field supply required> when using post-installed anchor bolts. (Fig.C,D)
- To prevent small animals and water from entering the unit and damaging its parts, close the gap around the edges of through holes for pipes and wires with filler plates <field supply required>.
- When the pipes or cables are routed at the bottom of the unit, make sure that the through hole at the base of the unit does not get blocked with the installation base.
- Refer to the Installation Manual when installing units on an installation base.

● In case of collective installation

- When multiple units are installed adjacent to each other, secure enough space to allow for air circulation and walkway between groups of units as shown in the figures below.
 - At least two sides must be left open.
 - As with the single installation, add the height that exceeds the height limit <h> to the figures that are marked with an asterisk.

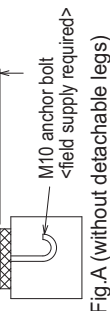
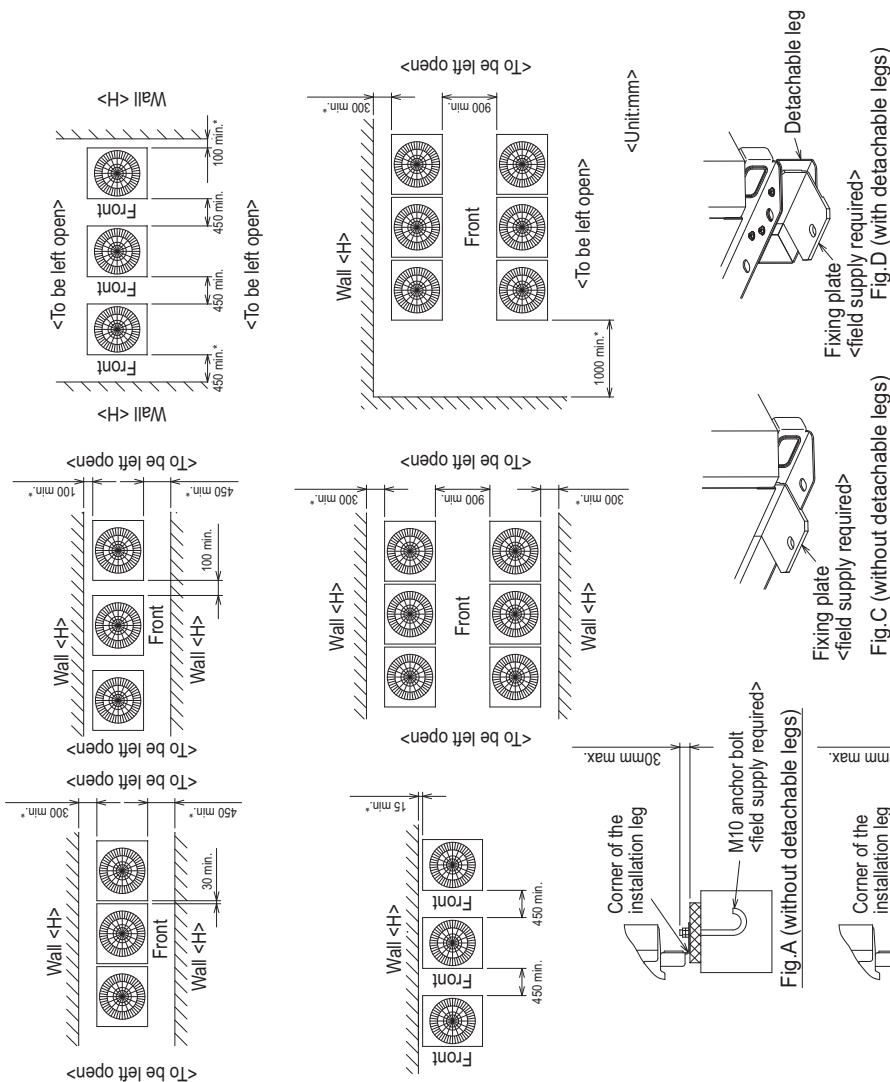


Fig.A (without detachable legs)

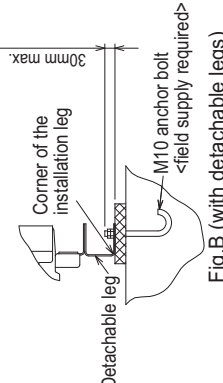


Fig.B (with detachable legs)

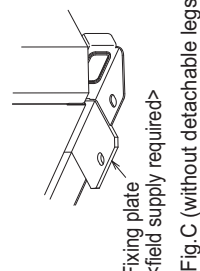


Fig.C (without detachable legs)

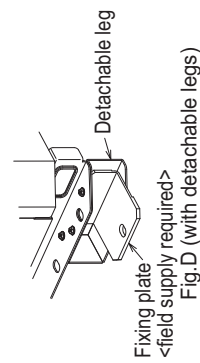
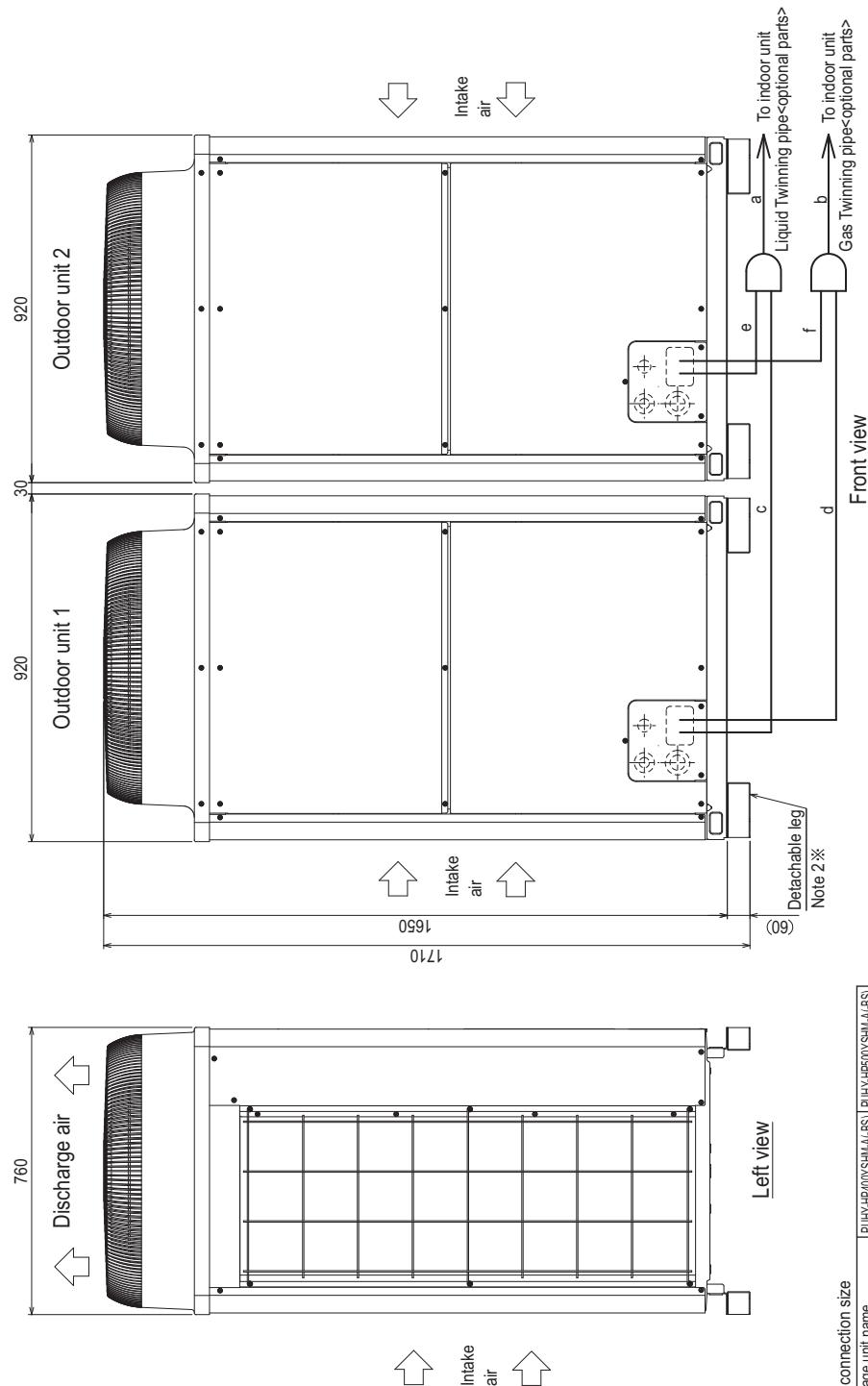


Fig.D (with detachable legs)

PUHY-HP400, 500YHM-A(-BS)

Unit : mm

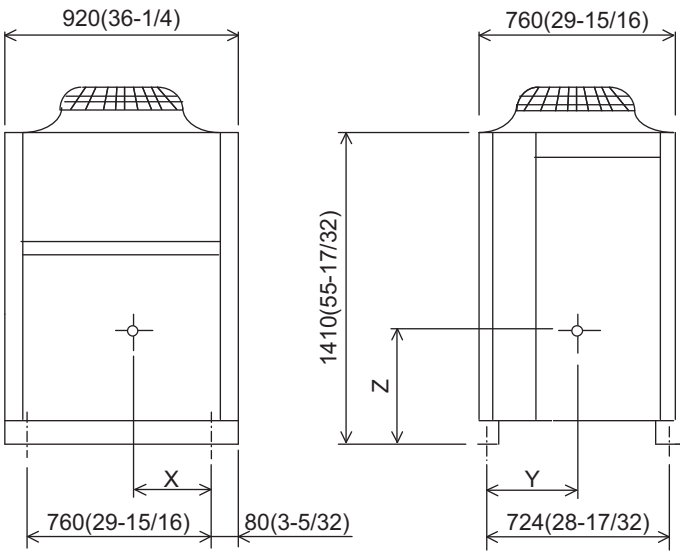


- Note 1. Connect the pipes as shown in the figure above. Refer to the table above for the pipe size.
- The detachable leg can be removed at site.
 - Twinning pipes should not be tilted more than 15 degrees from the ground. Be sure to see the Installation Manual for details of Twinning pipe installation.
 - The pipe section before the Twinning pipe (sections "a" and "b" in the figure) must have at least 500mm of straight section ("including the straight pipe that is supplied with the Twinning pipe).
 - Only use the Twinning pipe by Mitsubishi (optional parts).

Twinning pipe connection size		PUHY-HP400Y(S)M-A(-BS)	PUHY-HP500Y(S)M-A(-BS)
Package unit name	Component unit name	PUHY-HP200YHM-A(-BS)	PUHY-HP250YHM-A(-BS)
Outdoor unit	Outdoor unit 1	PUHY-HP200YHM-A(-BS)	PUHY-HP250YHM-A(-BS)
Outdoor unit	Outdoor unit 2	PUHY-HP200YHM-A(-BS)	PUHY-HP250YHM-A(-BS)
Indoor unit-Twinning pipe	Liquid	CMY-Y100VBK2/3	
	Gas	ø15.88	
	Liquid	ø9.52	
	Gas	ø19.05	
	Liquid	ø9.52	
	Gas	ø19.05	

PUHY-HP200,250YHM-A

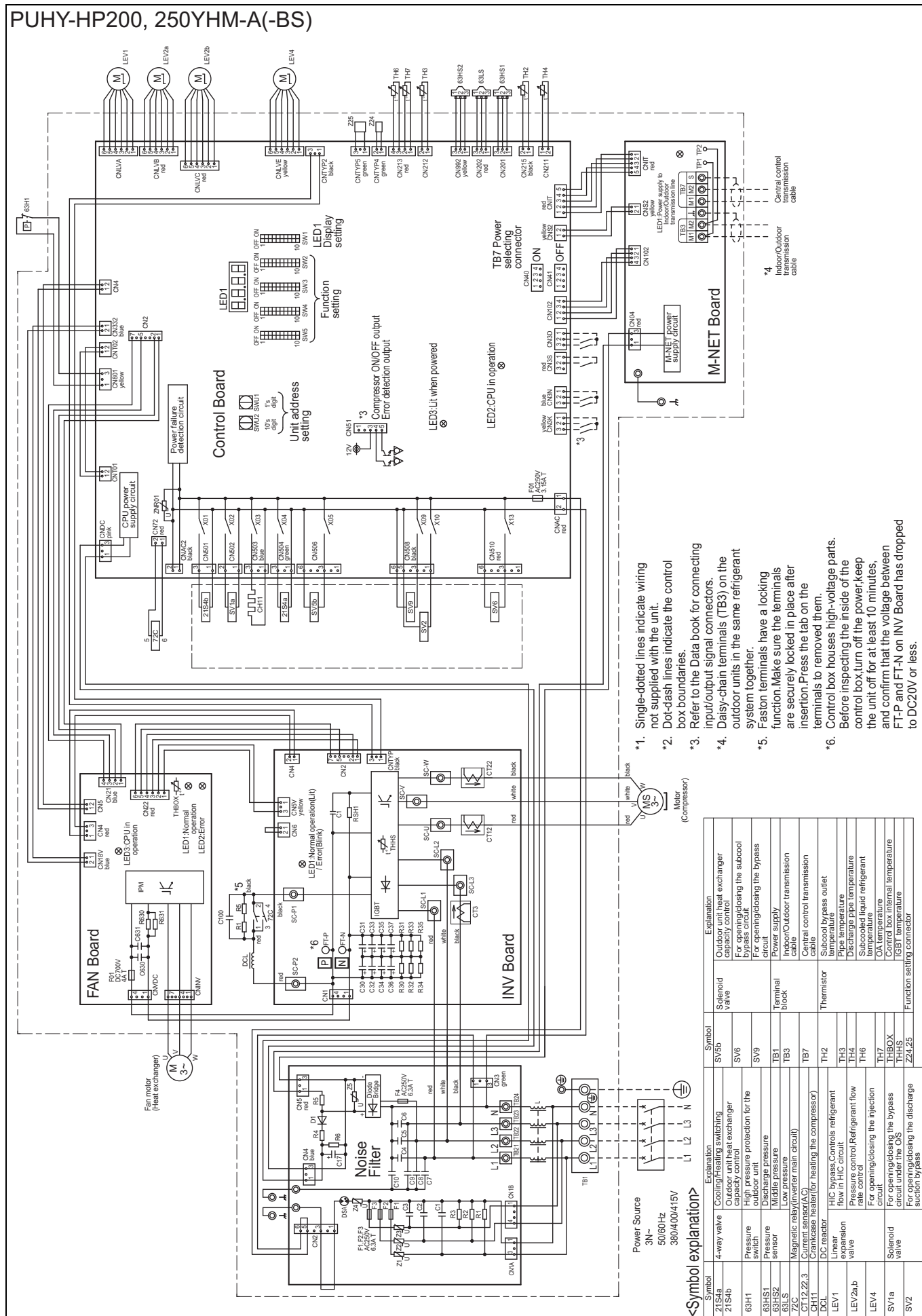
Unit : mm(in.)



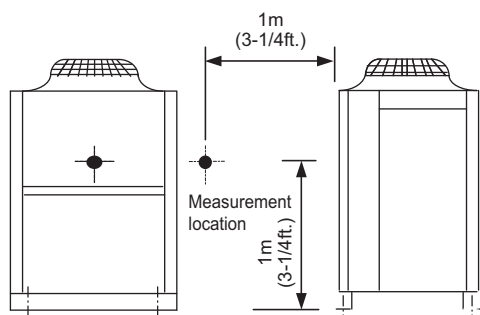
Model	X	Y	Z
PUHY-HP200YHM-A	315(12-13/32)	317(12-1/2)	635(25)
PUHY-HP250YHM-A	315(12-13/32)	317(12-1/2)	635(25)

HP

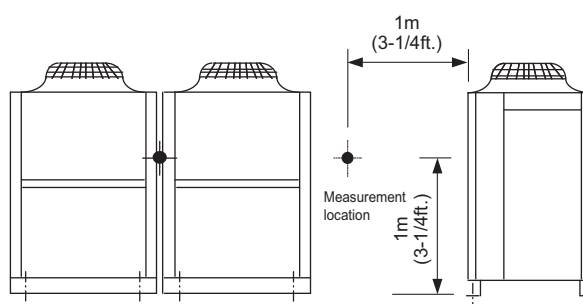
PUHY-HP200, 250YHM-A(-BS)



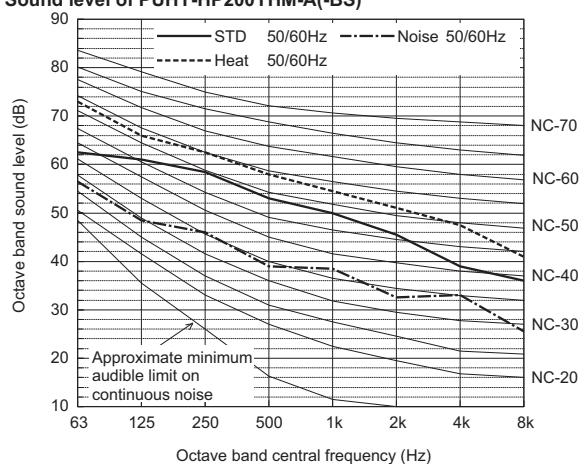
Measurement condition
PUHY-HP200,250YHM-A



Measurement condition
PUHY-HP400,500YSHM-A



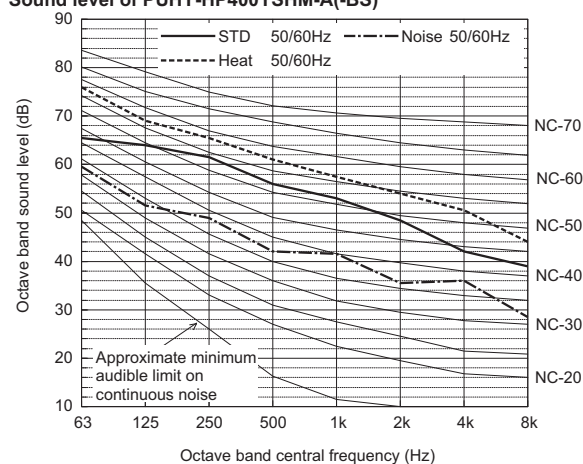
Sound level of PUHY-HP200YHM-A(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
STD cool/heat	50/60Hz	62.5	61.0	58.5	53.0	50.0	45.5	39.0	36.0	56.0
Low temp. heating	50/60Hz	73.0	66.5	62.5	58.0	54.5	51.0	47.5	41.0	61.0
Low noise mode	50/60Hz	56.5	48.5	46.0	39.0	38.5	32.5	33.0	25.5	44.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

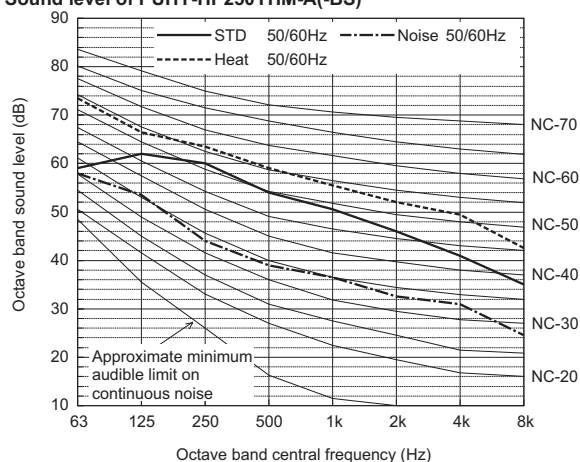
Sound level of PUHY-HP400YSHM-A(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
STD cool/heat	50/60Hz	65.5	64.0	61.5	56.0	53.0	48.5	42.0	39.0	59.0
Low temp. heating	50/60Hz	76.0	69.5	65.5	61.0	57.5	54.0	50.5	44.0	64.0
Low noise mode	50/60Hz	59.5	51.5	49.0	42.0	41.5	35.5	36.0	28.5	47.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

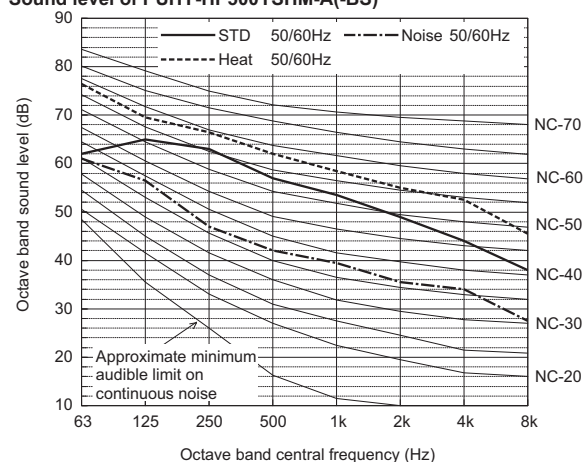
Sound level of PUHY-HP250YHM-A(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
STD cool/heat	50/60Hz	59.0	62.0	60.0	54.0	50.5	46.0	41.0	35.0	57.0
Low temp. heating	50/60Hz	73.5	66.5	63.5	59.0	55.5	52.0	49.5	42.5	62.0
Low noise mode	50/60Hz	58.0	53.5	44.0	39.0	36.5	32.5	31.0	24.5	44.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PUHY-HP500YSHM-A(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
STD cool/heat	50/60Hz	62.0	65.0	63.0	57.0	53.5	49.0	44.0	38.0	60.0
Low temp. heating	50/60Hz	76.5	69.5	66.5	62.0	58.5	55.0	52.5	45.5	65.0
Low noise mode	50/60Hz	61.0	56.5	47.0	42.0	39.5	35.5	34.0	27.5	47.0

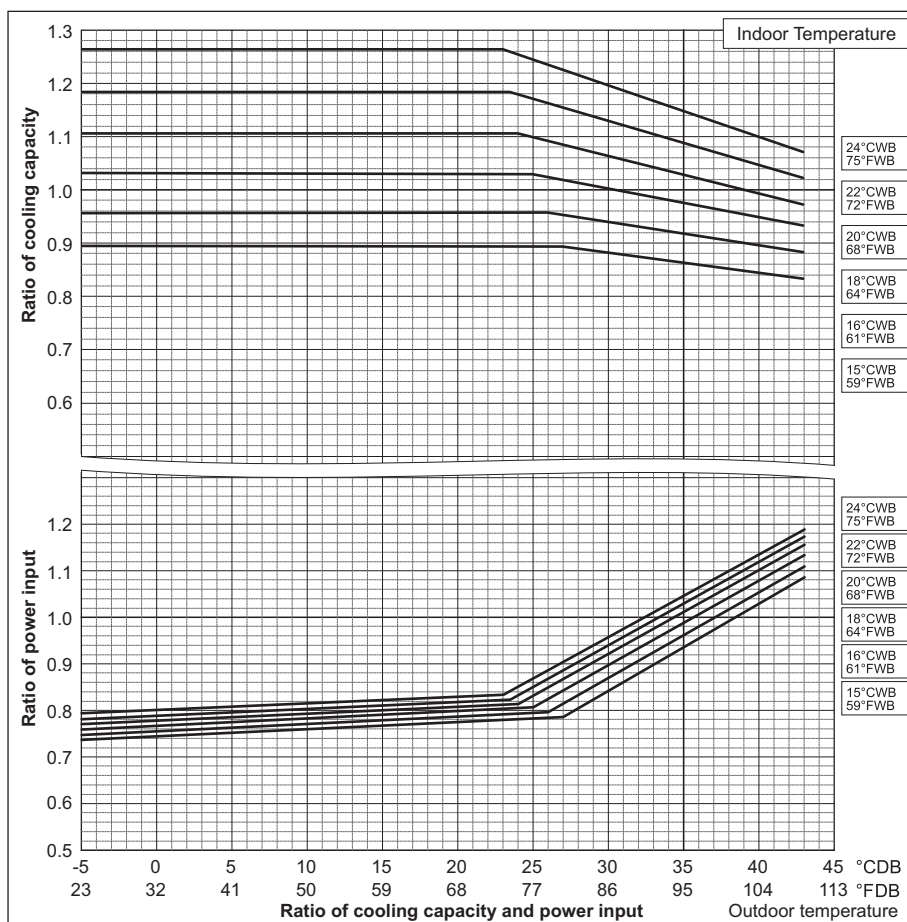
When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

6-1. Correction by temperature

CITY MULTI could have varied capacity at different designing temperature. Using the nominal cooling/heating capacity value and the ratio below, the capacity can be observed at various temperature.

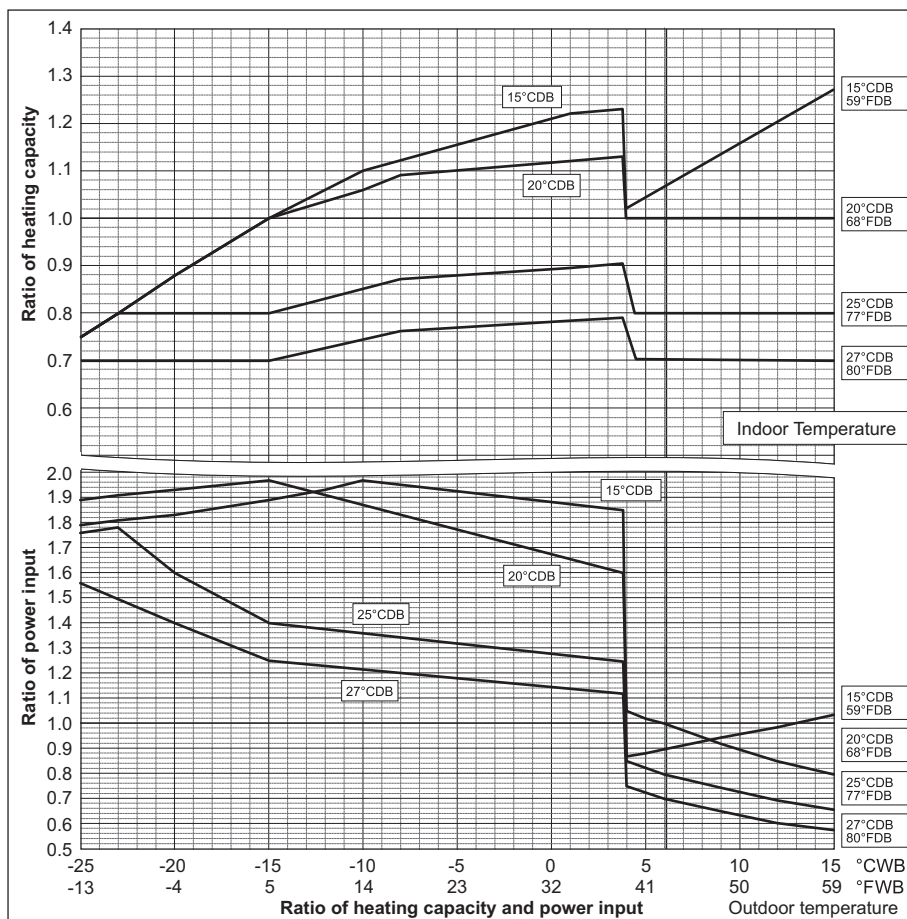
PUHY-		HP200YHM	HP250YHM
Nominal Cooling Capacity	kW	22.4	28.0
	BTU/h	76,400	95,500
Input	kW	6.40	9.06

PUHY-		HP400YSHM	HP500YSHM
Nominal Cooling Capacity	kW	45.0	56.0
	BTU/h	153,500	191,100
Input	kW	12.86	18.16



PUHY-		HP200YHM	HP250YHM
Nominal Heating Capacity	kW	25.0	31.5
	BTU/h	85,300	107,500
Input	kW	6.52	8.94

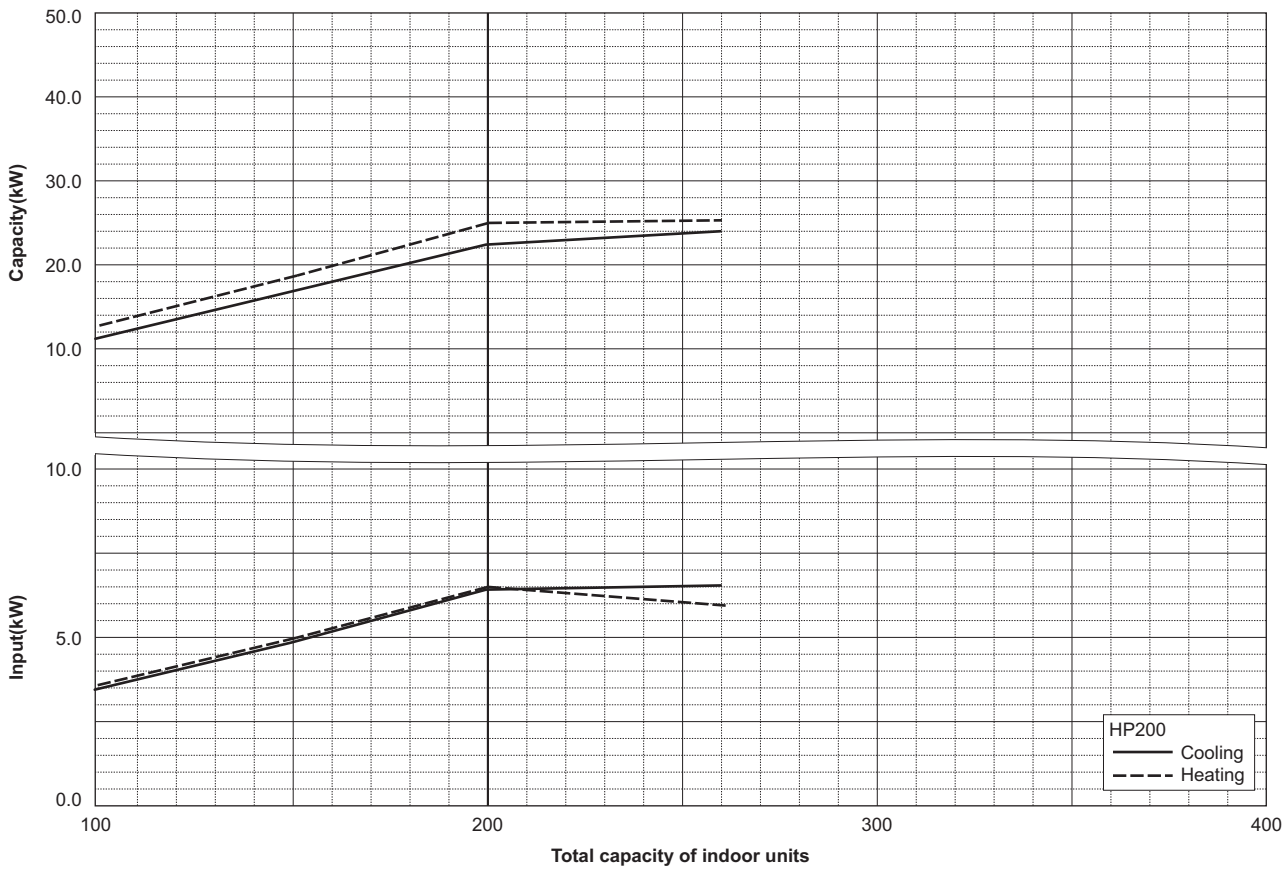
PUHY-		HP400YSHM	HP500YSHM
Nominal Heating Capacity	kW	50.0	63.0
	BTU/h	170,600	215,000
Input	kW	13.35	18.04



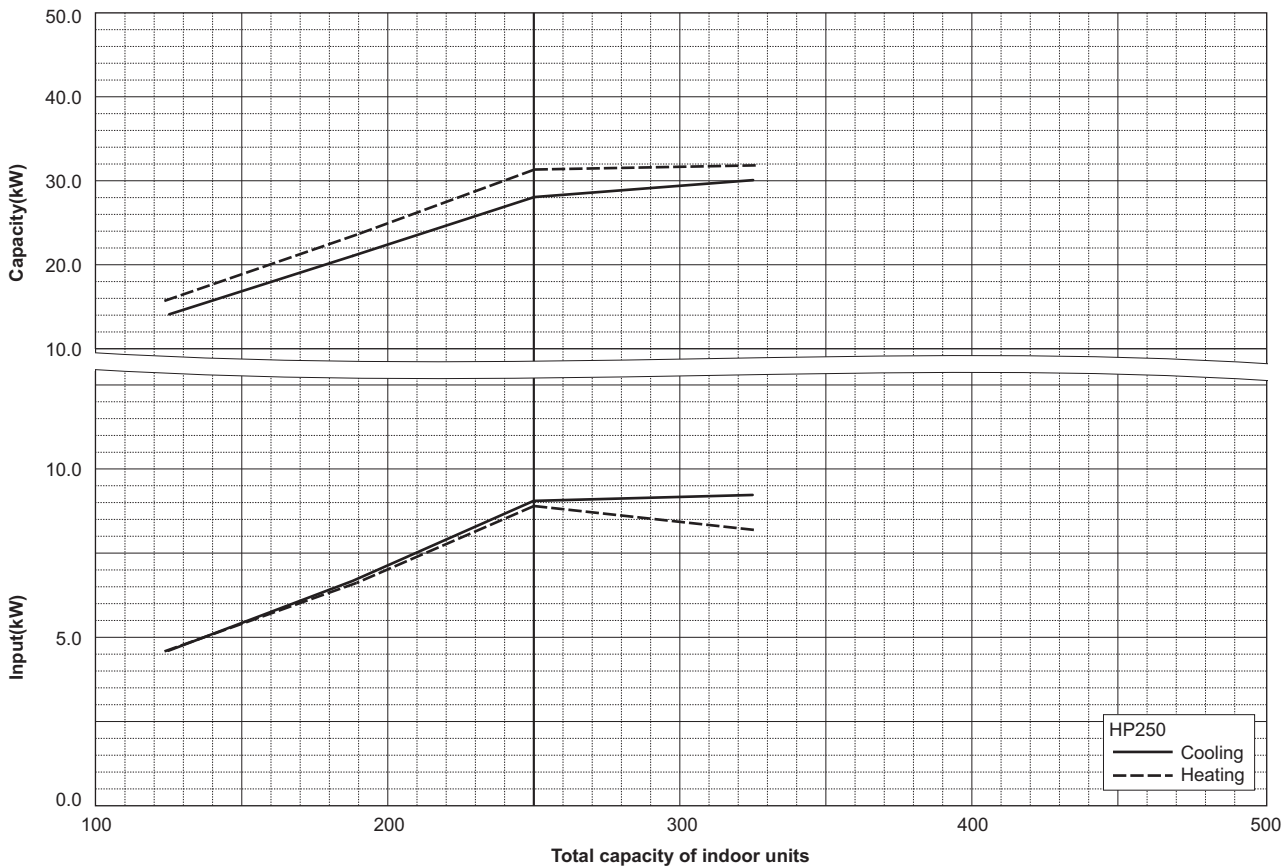
6-2. Correction by total indoor

CITY MULTI system has different capacity and input at different total capacity of indoor unit connected. Using following tables, the maximum capacity can be observed so as to ensure the system having enough capacity.

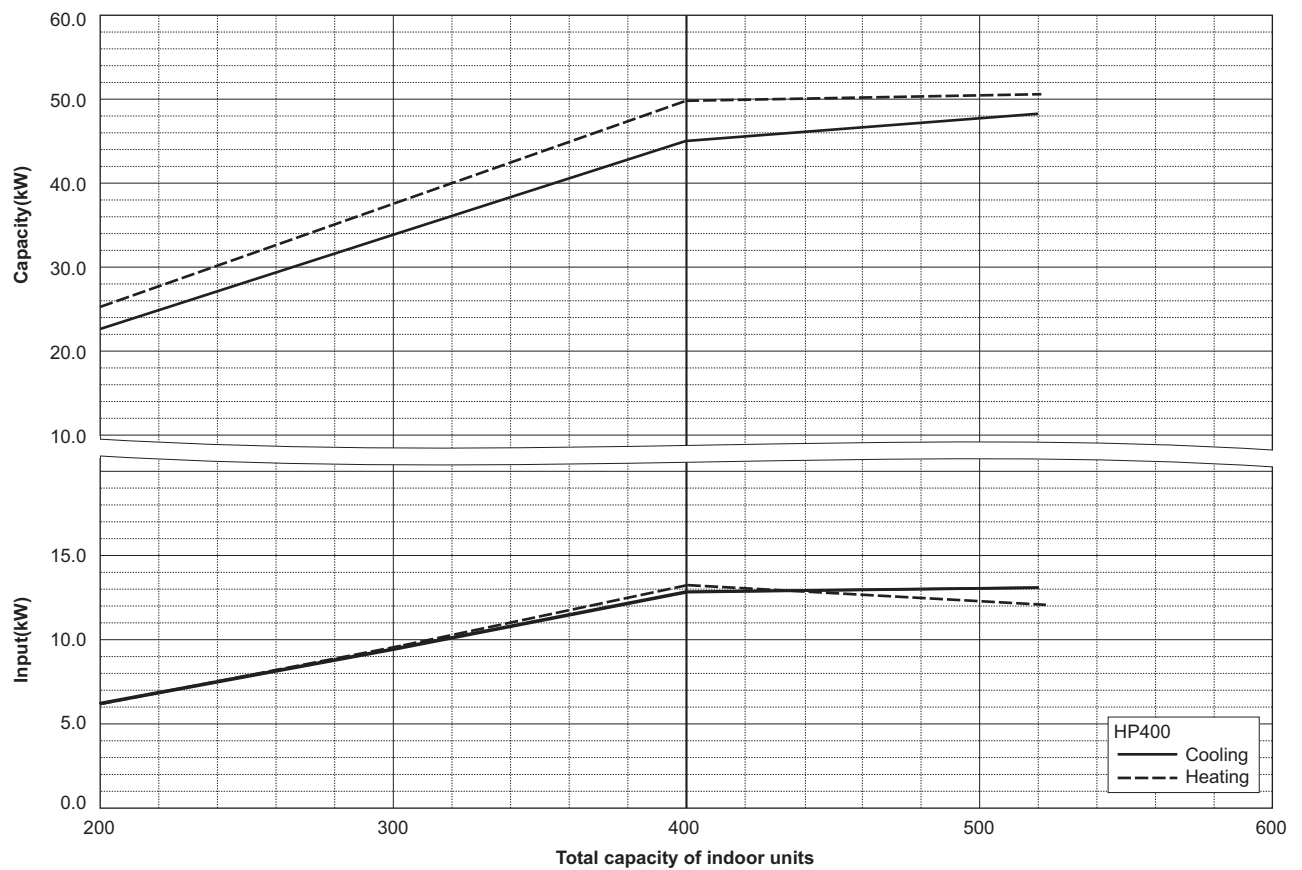
PUHY-HP200YHM-A



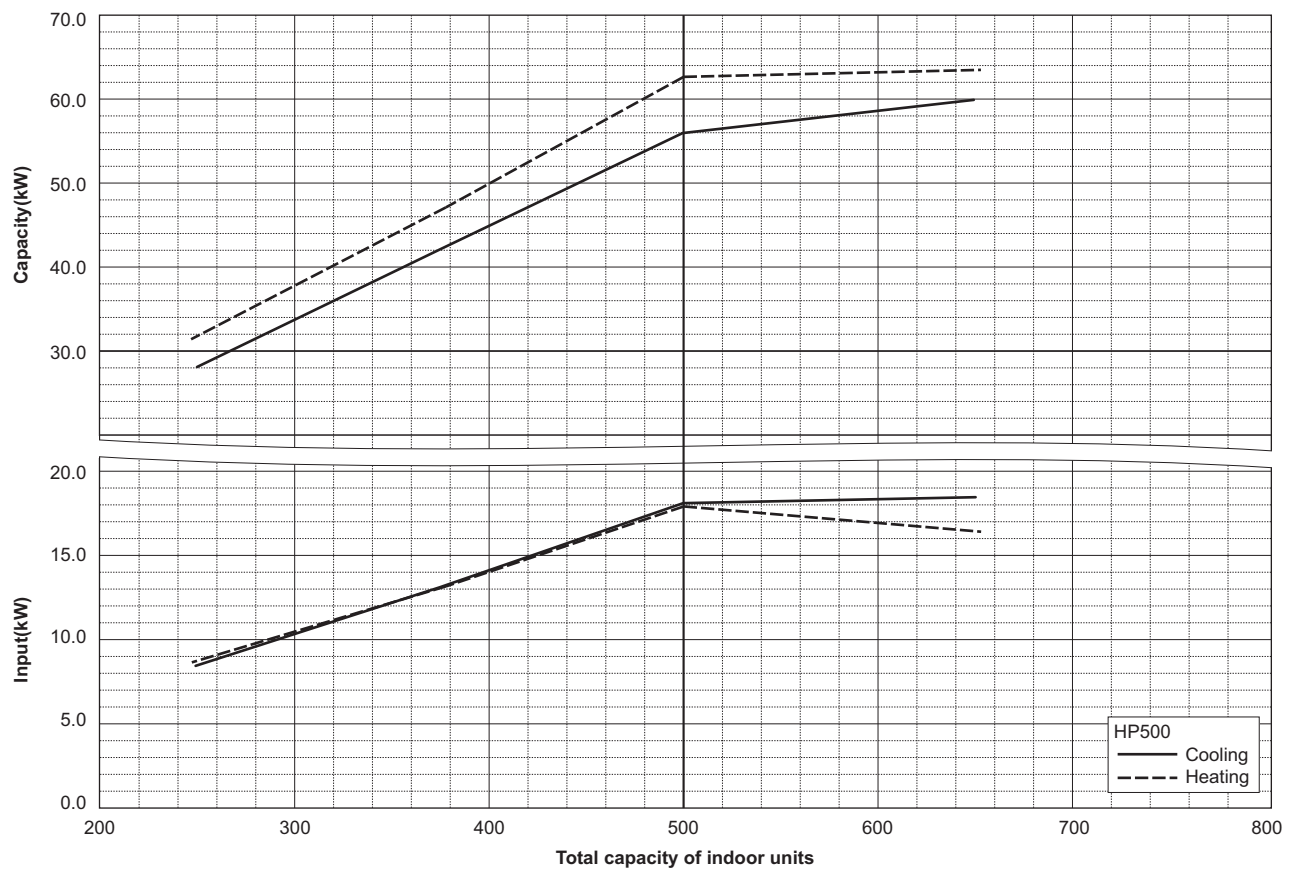
PUHY-HP250YHM-A



PUHY-HP400YSHM-A



PUHY-HP500YSHM-A

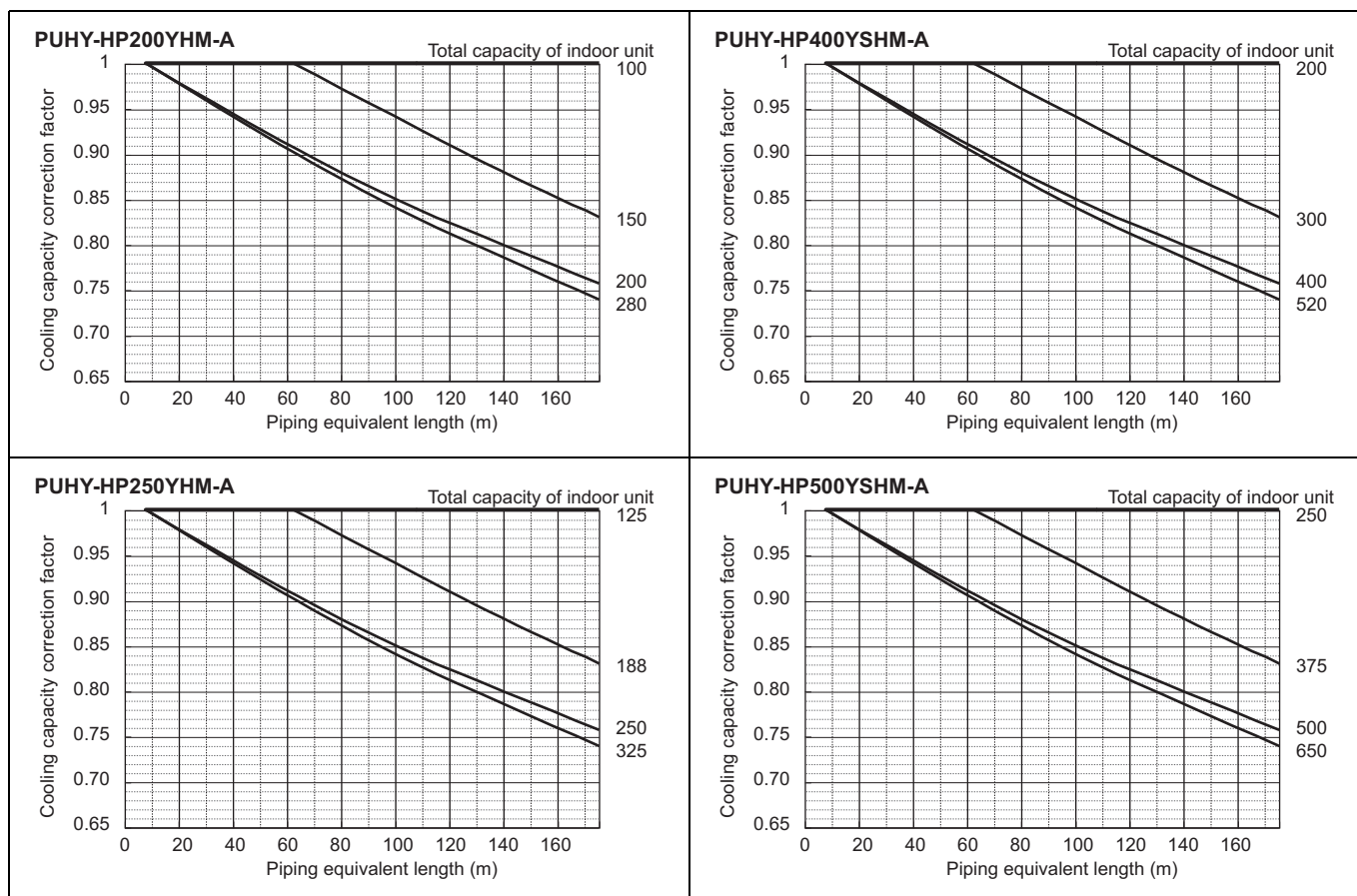


HP

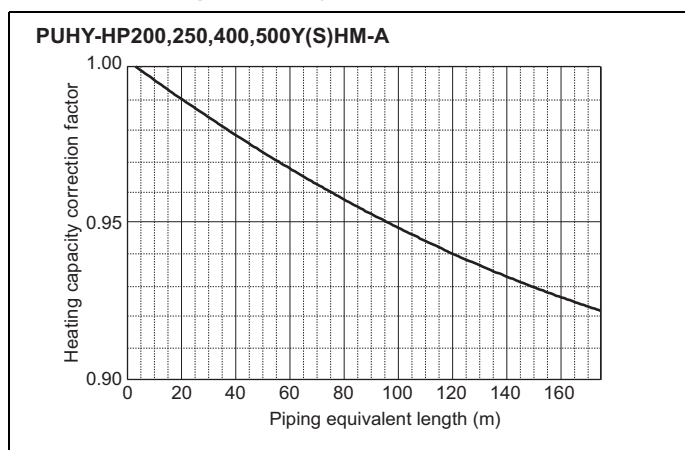
6-3. Correction by refrigerant piping length

CITY MULTI system can extend the piping flexibly within its limitation for the actual situation. Yet, a decrease of cooling/heating capacity could happen correspondently. Using following correction factor according to the equivalent length of the piping shown at 6-3-1 and 6-3-2, the capacity can be observed. 6-3-3 shows how to obtain the equivalent length of piping.

6-3-1. Cooling capacity correction



6-3-2. Heating capacity correction



6-3-3. How to obtain the equivalent piping length

- PUHY-HP200YHM**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.35 x number of bends in the piping) m
- PUHY-HP250YHM**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 x number of bends in the piping) m
- PUHY-HP400,500YSHM**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 x number of bends in the piping) m

6-4. Correction at frost and defrost

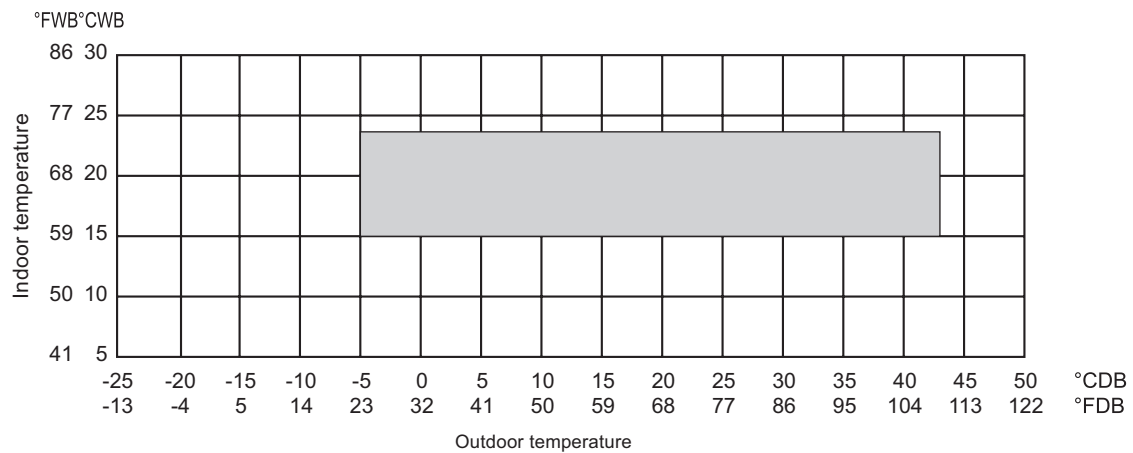
Due to frost at the outdoor heat exchanger and the automatic defrost operation, the heating capacity of the outdoor unit can be calculated by multiplying the correction factor shown in the table below.

Table of correction factor at frost and defrost

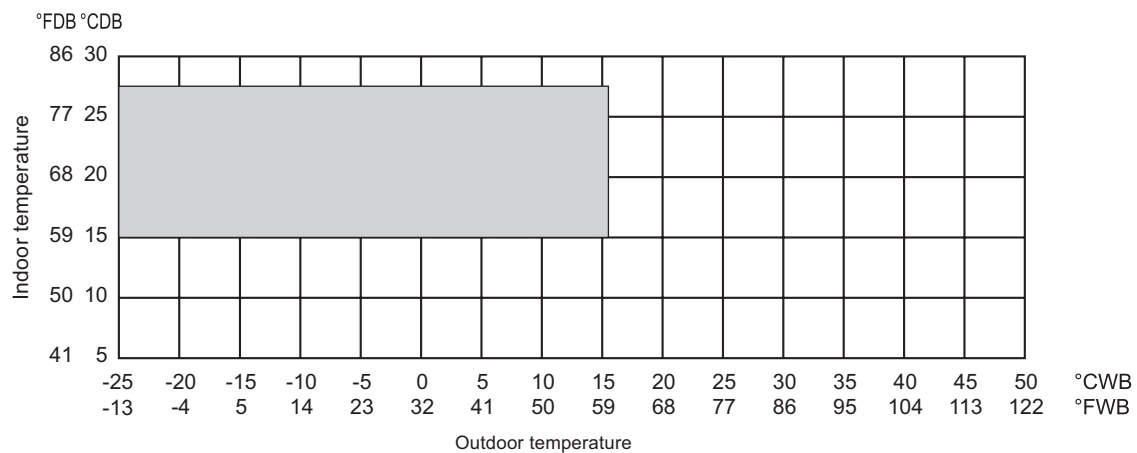
Outdoor inlet air temp. °CWB	6	4	2	1	0	-2	-4	-6	-8	-10	-25
Outdoor inlet air temp. °FWB	43	39	36	34	32	28	25	21	18	14	-13
PUHY-HP200,250,400,500Y(S)HM	1.00	0.95	0.85	0.85	0.85	0.87	0.87	0.87	0.87	0.92	0.95

6-5. Operation temperature range

• Cooling



• Heating

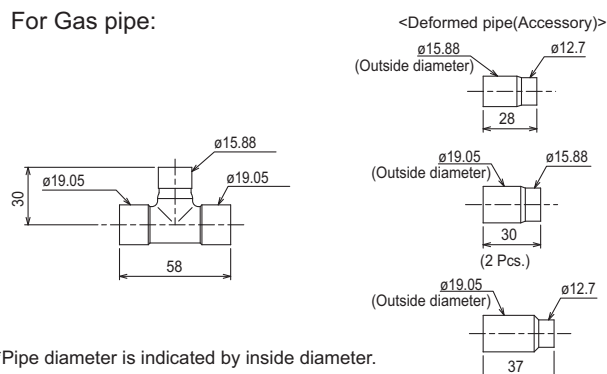


7-1. JOINT

CITY MULTI units can be easily connected by using Joint sets and Header sets provided by Mitsubishi Electric. Three kinds of Joint sets are available for use. Refer to section 3 in "System Design" or the Installation Manual that comes with the Joint set for how to install the Joint set.

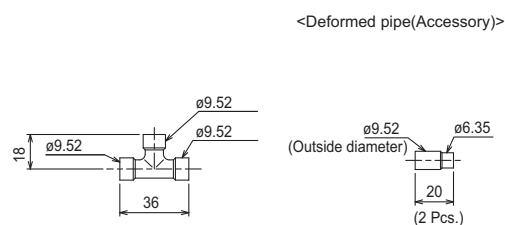
CMY-Y102SS-G2

For Gas pipe:



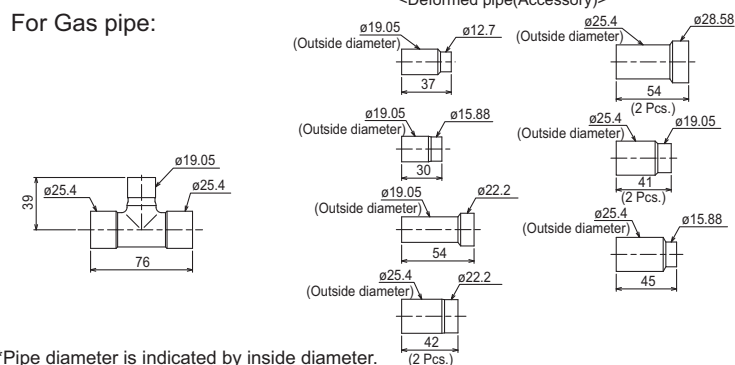
*Pipe diameter is indicated by inside diameter.

For Liquid pipe:



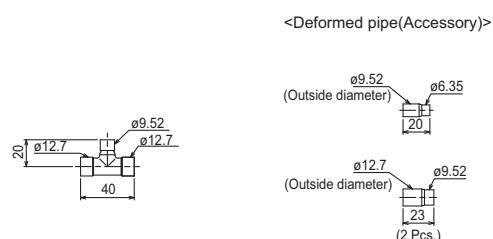
CMY-Y102LS-G2

For Gas pipe:



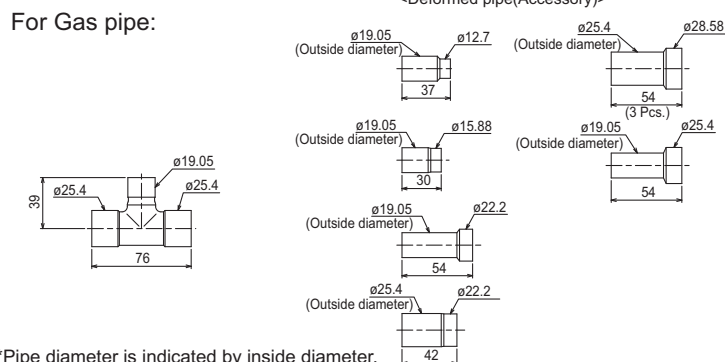
*Pipe diameter is indicated by inside diameter.

For Liquid pipe:



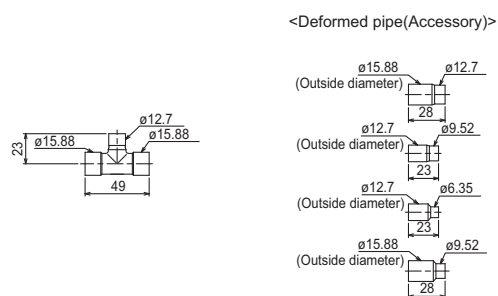
CMY-Y202S-G2

For Gas pipe:



*Pipe diameter is indicated by inside diameter.

For Liquid pipe:



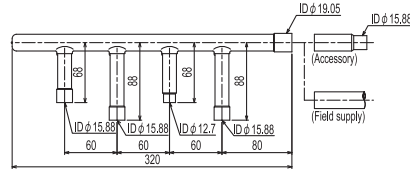
7-2. HEADER

CITY MULTI units can be easily connected by using Joint sets and Header sets provided by Mitsubishi Electric. Three kinds of Header sets are available for use. Refer to section 3 in "System Design" or the Installation Manual that comes with the Header set for how to install the Header set.

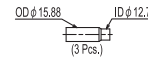
CMY-Y104-G

Ref.: CMY_Y104-G_EXD_EUDB_SI
mm

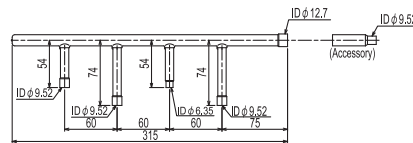
For Gas pipe:



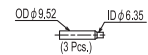
<Deformed pipe(Accessory)>



For Liquid pipe:



<Deformed pipe(Accessory)>



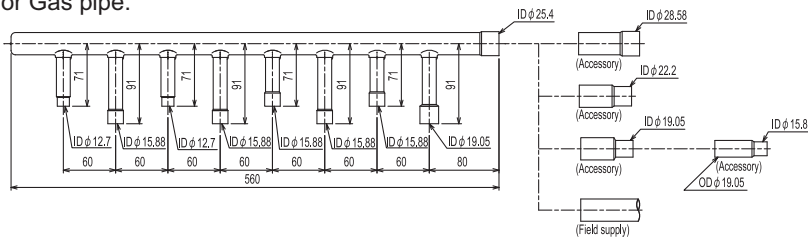
ID: Inner Diameter OD: Outer Diameter

NOTE: Besides above mentioned accessories, caps for pipe of $\phi 6.35$, $\phi 9.52$, $\phi 12.7$, $\phi 15.88$ (each diameter 1 piece) are included in the Header set.

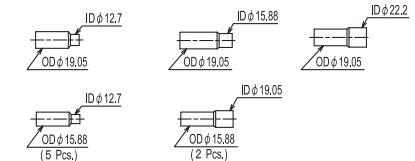
CMY-Y108-G

Ref.: CMY_Y108-G_EXD_EUDB_SI
mm

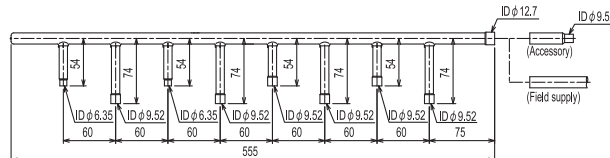
For Gas pipe:



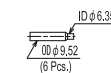
<Deformed pipe(Accessory)>



For Liquid pipe:



<Deformed pipe(Accessory)>



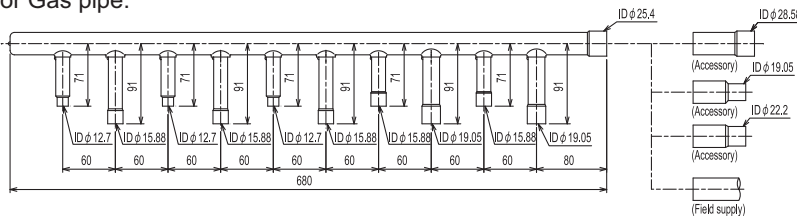
ID: Inner Diameter OD: Outer Diameter

NOTE: Besides above mentioned accessories, caps for pipe of $\phi 6.35$, $\phi 9.52$, $\phi 12.7$, $\phi 15.88$ (each diameter 2 pieces) and 1 cap for pipe of $\phi 19.05$ are included in the Header set.

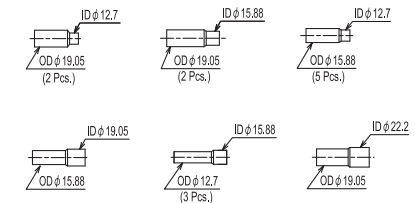
CMY-Y1010-G

Ref.: CMY_Y1010-G_EXD_EUDB_SI
mm

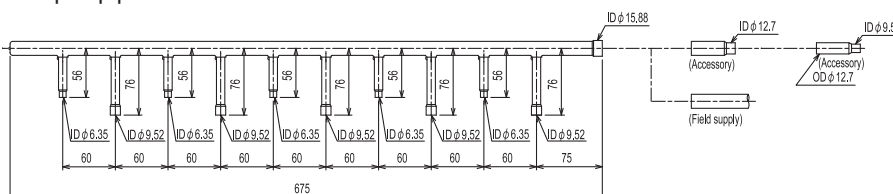
For Gas pipe:



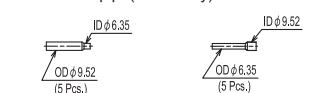
<Deformed pipe(Accessory)>



For Liquid pipe:



<Deformed pipe(Accessory)>



ID: Inner Diameter OD: Outer Diameter

NOTE: Besides above mentioned accessories, caps for pipe of $\phi 6.35$, $\phi 9.52$, $\phi 12.7$, $\phi 15.88$ (each diameter 2 pieces) and 1 cap for pipe of $\phi 19.05$ are included in the Header set.

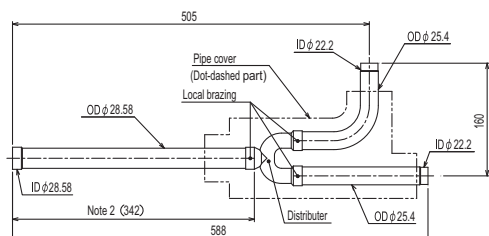
7-3. OUTDOOR TWINNING KIT

The following optional Outdoor Twinning Kit is needed to use to combine multiple refrigerant pipes. Refer to the chapter entitled System Design Section for the details of selecting a proper twinning kit.

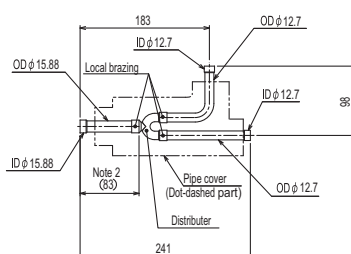
CMY-Y100VBK2

mm

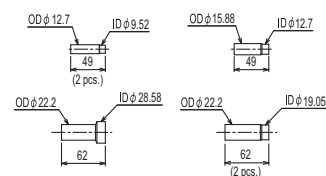
For Gas pipe:



For Liquid pipe:



<Deformed pipe(Accessory)>

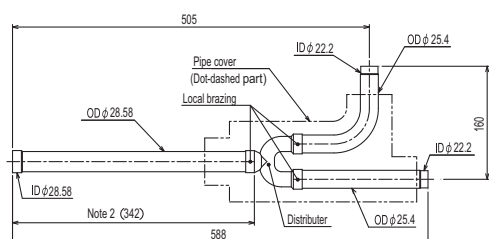


ID: Inner Diameter OD: Outer Diameter

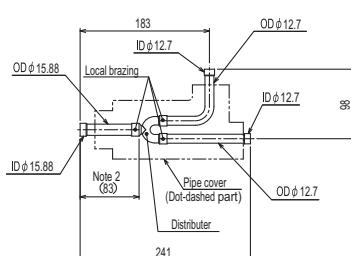
CMY-Y100VBK3

mm

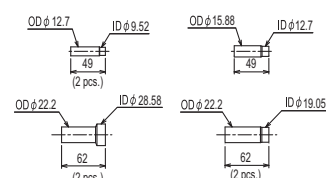
For Gas pipe:



For Liquid pipe:

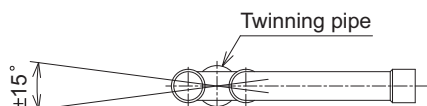


<Deformed pipe(Accessory)>



ID: Inner Diameter OD: Outer Diameter

Note 1. Refer to the figure below for the installation position of the twinning pipe.

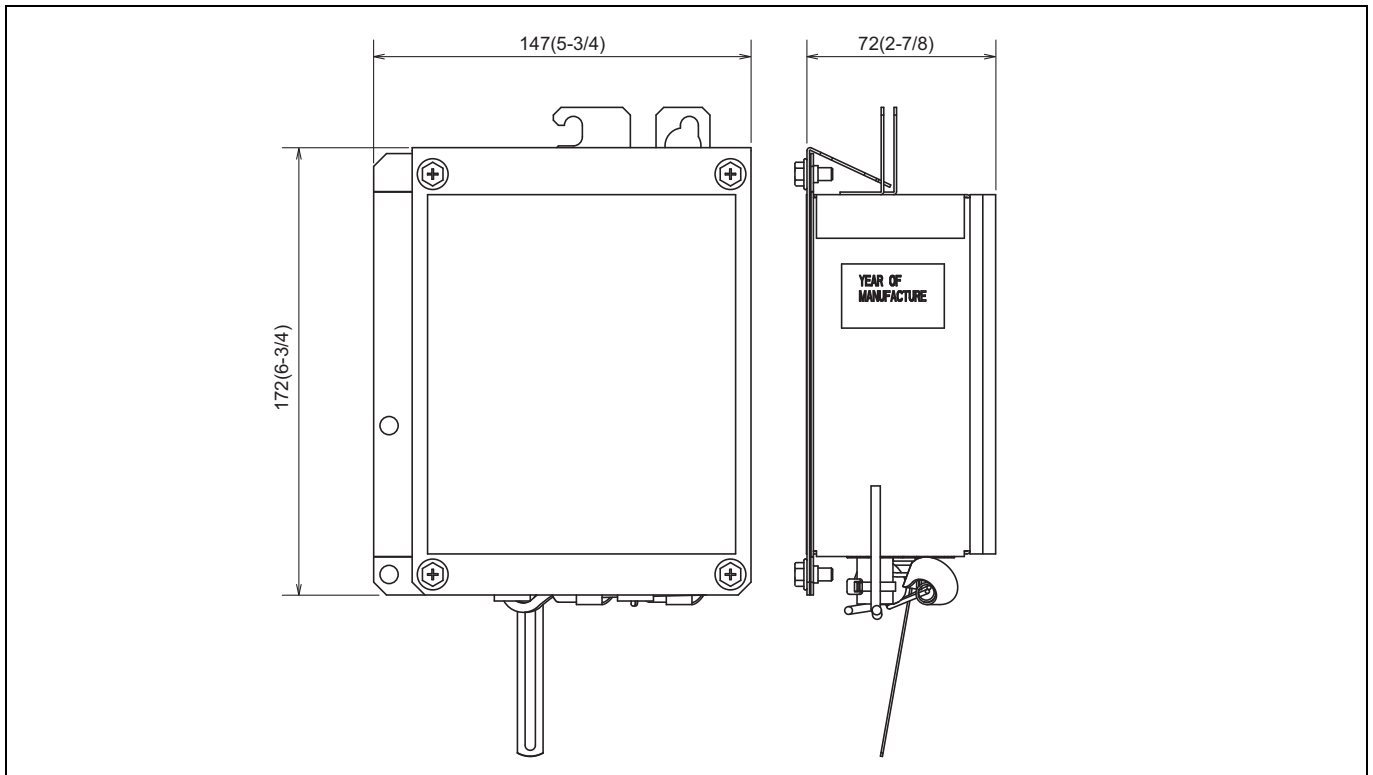


Slope of the twinning pipes are at an angle within $\pm 15^\circ$ to the horizontal plane.

2. Use the attached pipe to braise the port-opening of the twinning pipe.
3. Pipe diameter is indicated by inside diameter.
4. Only use the twinning pipe by Mitsubishi (optional parts).

7-4. RELAY BOX

If there is a risk that the drain water will freeze inside the outdoor unit, the installation of a base heater is recommended. PAC-BH02KTY-E is a relay box for controlling the electric base heater. For details, refer to the relay box Installation Manual.



7-5. BASE HEATER

If there is a risk that the drain water will freeze inside the outdoor unit, the installation of a base heater is recommended. For details, refer to the base heater Installation Manual.

PAC-BH01EHT-E (for S module)

