OUTDOOR UNITS

H

Model			PUHY-HP72THMU-A(-BS)	PUHY-HP96THMU-A(-BS)
Power source			3-phase 3-wire 208-230V ±10% 60Hz	
Cooling capacity (Nominal)	*1	kW	21.1	28.1
		Btu / h	72,000	96,000
	Power input	kW	5.90	8.73
	Current input	A	18.2-16.5	27.0-24.4
Temp. range of cooling	Indoor	W.B.	59 to 75degF(15 to 24degC)	
	Outdoor	D.B.	23 to 109degF(-5 to 43degC)	
Heating capacity (Nominal)	*2	kW	23.4	31.7
		Btu / h	80,000	108,000
	Power input	kW	6.28	9.13
	Current input	A	19.4-17.6	28.2-25.5
Temp. range of heating	Indoor temp.	D.B.	59 to 81degF(15 to 27degC)	
	Outdoor temp.	W.B.	-13 to 60degF(-25 to 15.5degC)	
Indoor unit	Total capacity		50 to 130 % of outdoor unit capacity	
	Model / Quantity		P06 to P96 / 1 to 13	P06 to P96 / 1 to 16
Sound pressure level (measured in anechoic room)		dB <A>	56.0	57.0
			61.0(at outdoor temp -5degF in heating))	62.0(at outdoor temp -5degF in heating))
Refrigerant piping diameter	Liquid pipe	in.(mm)	1/2"(12.7) Brazed + Flare	
	Gas pipe	in.(mm)	3/4"(19.05) Brazed + Flare	7/8"(22.22) Brazed
External finish			Pre-coated galvanized sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,650 x 920 x 760	
		in.	64-31/32" x 36-1/4" x 29-15/16"	
Net weight		lbs(kg)	486(220)	
Heat exchanger			Salt-resistant cross fin & copper tube	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	5.3	6.7
	Case heater	kW	0.057	
	Lubricant		MEL32	
FAN	Air flow rate	m^3 / min	225	
		L/s	3,750	
		cfm	7,950	
*3	External static press.		0 in.WG (0 Pa)	
	Type x Quantity		Propeller fan x 1	
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	
	Motor output	kW	0.92	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe,tube-in-tube structure	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15MPa (601 psi)	
	Inverter		Over-heat protection, Over-current protection, Thermal switch	
	Compressor / Fan		Discharge thermo protection,Over-current protection	
Defrosting method			Auto-defrost mode (Reversed refrigerant circle)	
Refrigerant	Type x original charge		R410A x 19 lbs + 13 oz (9.0kg)	
	Control		Indoor LEV and HIC circuit (injection circuit)	
Drawing	External		WKB94L264	
	Wiring		WKE94C183	
	Refregerant circle		-	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw WKB94L264	
Optional parts			joint: CMY-Y102S/L-G2 Header: CMY-Y104/108-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.	

Note :	*1 Nominal cooling conditions	*2 Nominal heating conditions
Indoor :	80degF D.B. / 67degF W.B.	70degF D.B.
	(26.7degC D.B. / 19.4degC W.B.)	(21.1degC D.B.)
Outdoor :	95degF D.B.	47degF D.B. / 43degF W.B.
	(35degC D.B.)	(8.3degC D.B. / 6.1degC W.B.)
Pipe length :	25 ft. (7.6 m)	25 ft. (7.6 m)
Level difference :	0 ft. (0 m)	0 ft. (0 m)

*Due to continuing improvement, above specification may be subject to change without notice.

*3 External static pressure option is available (0.12 in.WG, 0.24 in.WG / 30Pa, 60Pa).

Unit convertor
kcal/h = kW x 860
BTU/h = kW x 3,412
cfm = m3/min x 35.31
lbs = kg / 0.4536
*Above specification data is subject to rounding variation.

Ref.:PUHY_THMU-A_SPC_EUDB_HP72-HP96

Model			PUHY-HP144TSHMU-A(-BS)
Power source			3-phase 3-wire 208-230V ±10% 60Hz
Cooling capacity (Nominal)	*1	kW	42.2
		Btu / h	144,000
	Power input	kW	12.15
	Current input	A	37.5-33.9
Temp. range of cooling	Indoor	W.B.	59 to 75degF(15 to 24degC)
	Outdoor	D.B.	23 to 109degF(-5 to 43degC)
Heating capacity (Nominal)	*2	kW	46.9
		Btu / h	160,000
	Power input	kW	12.94
	Current input	A	40.0-36.1
Temp. range of heating	Indoor temp.	D.B.	59 to 81degF(15 to 27degC)
	Outdoor temp.	W.B.	-13 to 60degF(-25 to 15.5degC)
Indoor unit	Total capacity		50 to 130 % of outdoor unit capacity
	Model / Quantity		P06 to P96 / 1 to 22
Sound pressure level		dB <A>	59.0
(measured in anechoic room)			64.0(at outdoor temp -5degF in heating)
Refrigerant piping diameter	Liquid pipe	in.(mm)	5/8"(15.88) Brazed
	Gas pipe	in.(mm)	1-1/8"(28.58) Brazed

Set Model

Model			PUHY-HP72THMU-A(-BS)	PUHY-HP72THMU-A(-BS)
External finish			Pre-coated galvanized sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension HxWxD		mm	1,650 x 920 x 760	1,650 x 920 x 760
		in.	64-31/32" x 36-1/4" x 29-15/16"	64-31/32" x 36-1/4" x 29-15/16"
Net weight		lbs(kg)	486(220)	486(220)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1
	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	0.057	0.057
	Lubricant		MEL32	MEL32
FAN	Air flow rate	m^3 / min	225	225
		L/s	3,750	3,750
		cfm	7,950	7,950
*3	External static press.		0 in.WG (0 Pa)	0 in.WG (0 Pa)
	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92	0.92
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe,tube-in-tube structure	Copper pipe,tube-in-tube structure
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		Over-heat protection, Over-current protection, Thermal switch	Over-heat protection, Over-current protection, Thermal switch
	Compressor / Fan		Discharge thermo protection,Over-current protection	Discharge thermo protection,Over-current protection
Defrosting method			Auto-defrost mode (Reversed refrigerant circle)	
Refrigerant	Type x original charge		R410A x 19 lbs + 13 oz (9.0kg)	R410A x 19 lbs + 13 oz (9.0kg)
	Control		Indoor LEV and HIC circuit (injection circuit)	
Refrigerant piping diameter	Liquid pipe	in.(mm)	3/8"(9.52)Brazed + Flare	3/8"(9.52)Brazed + Flare
	Gas pipe	in.(mm)	3/4"(19.05)Brazed + Flare	3/4"(19.05)Brazed + Flare
Drawing	External		WKB94L264	
	Wiring		WKE94C183	
	Refregerant circle		-	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw WKB94L264	
Optional parts			Outdoor Twinning kit: CMY-Y100VBK2 joint: CMY-Y102S/L-G2,CMY-Y202-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.	

Note :	*1 Nominal cooling conditions	*2 Nominal heating conditions
Indoor :	80degF D.B. / 67degF W.B.	70degF D.B.
	(26.7degC D.B. / 19.4degC W.B.)	(21.1degC D.B.)
Outdoor :	95degF D.B.	47degF D.B. / 43degF W.B.
	(35degC D.B.)	(8.3degC D.B. / 6.1degC W.B.)
Pipe length :	25 ft. (7.6 m)	25 ft. (7.6 m)
Level difference :	0 ft. (0 m)	0 ft. (0 m)

*Due to continuing improvement, above specification may be subject to change without notice.

*3 External static pressure option is available (0.12 in.WG, 0.24 in.WG / 30Pa, 60Pa).

Unit convertor
kcal/h = kW x 860
BTU/h = kW x 3,412
cfm = m3/min x 35.31
lbs = kg / 0.4536

*Above specification data is subject to rounding variation.

Ref.:PUHY_THMU-A_SPC_EUDB_HP144

Model			PUHY-HP192TSHMU-A(-BS)
Power source			3-phase 3-wire 208-230V ±10% 60Hz
Cooling capacity *1 (Nominal)		kW	56.3
		Btu / h	192,000
	Power input	kW	17.98
	Current input	A	55.5-50.2
Temp. range of cooling	Indoor	W.B.	59 to 75degF(15 to 24degC)
	Outdoor	D.B.	23 to 109degF(-5 to 43degC)
Heating capacity *2 (Nominal)		kW	63.3
		Btu / h	216,000
	Power input	kW	18.81
	Current input	A	58.1-52.5
Temp. range of heating	Indoor temp.	D.B.	59 to 81degF(15 to 27degC)
	Outdoor temp.	W.B.	-13 to 60degF(-25 to 15.5degC)
Indoor unit	Total capacity		50 to 130 % of outdoor unit capacity
	Model / Quantity		P06 to P96 / 1 to 24
Sound pressure level (measured in anechoic room)		dB <A>	60.0
			65.0(at outdoor temp -5degF in heating)
Refrigerant piping diameter	Liquid pipe	in.(mm)	5/8"(15.88) Brazed
	Gas pipe	in.(mm)	1-1/8"(28.58) Brazed

Set Model

Model			PUHY-HP96THMU-A(-BS)	PUHY-HP96THMU-A(-BS)
External finish			Pre-coated galvanized sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension HxWxD		mm	1,650 x 920 x 760	1,650 x 920 x 760
		in.	64-31/32" x 36-1/4" x 29-15/16"	64-31/32" x 36-1/4" x 29-15/16"
Net weight		lbs(kg)	486(220)	486(220)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1
	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	0.057	0.057
	Lubricant		MEL32	MEL32
FAN	Air flow rate	m^3 / min	225	225
		L/s	3,750	3,750
		cfm	7,950	7,950
*3	External static press.		0 in.WG (0 Pa)	0 in.WG (0 Pa)
	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92	0.92
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe,tube-in-tube structure	Copper pipe,tube-in-tube structure
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		Over-heat protection, Over-current protection, Thermal switch	Over-heat protection, Over-current protection, Thermal switch
	Compressor / Fan		Discharge thermo protection,Over-current protection	Discharge thermo protection,Over-current protection
Defrosting method			Auto-defrost mode (Reversed refrigerant circle)	
Refrigerant	Type x original charge		R410A x 19 lbs + 13 oz (9.0kg)	R410A x 19 lbs + 13 oz (9.0kg)
	Control		Indoor LEV and HIC circuit (injection circuit)	
Refrigerant piping diameter	Liquid pipe	in.(mm)	3/8"(9.52)Brazed + Flare	3/8"(9.52)Brazed + Flare
	Gas pipe	in.(mm)	7/8"(22.22)Brazed	7/8"(22.22)Brazed
Drawing	External		WKB94L264	
	Wiring		WKE94C183	
	Refregerant circle		-	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw WKB94L264	
Optional parts			Outdoor Twinning kit: CMY-Y100VBK2 joint: CMY-Y102S/L-G2,CMY-Y202-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.	

Note :	*1 Nominal cooling conditions	*2 Nominal heating conditions
Indoor :	80degF D.B. / 67degF W.B.	70degF D.B.
	(26.7degC D.B. / 19.4degC W.B.)	(21.1degC D.B.)
Outdoor :	95degF D.B.	47degF D.B. / 43degF W.B.
	(35degC D.B.)	(8.3degC D.B. / 6.1degC W.B.)
Pipe length :	25 ft. (7.6 m)	25 ft. (7.6 m)
Level difference :	0 ft. (0 m)	0 ft. (0 m)

*Due to continuing improvement, above specification may be subject to change without notice.

*3 External static pressure option is available (0.12 in.WG, 0.24 in.WG / 30Pa, 60Pa).

Unit convertor
kcal/h = kW x 860
BTU/h = kW x 3,412
cfm = m3/min x 35.31
lbs = kg / 0.4536

*Above specification data is subject to rounding variation.

Ref.:PUHY_THMU-A_SPC_EUDB_HP192

H

PUHY-HP72,96THMU-A(-BS)

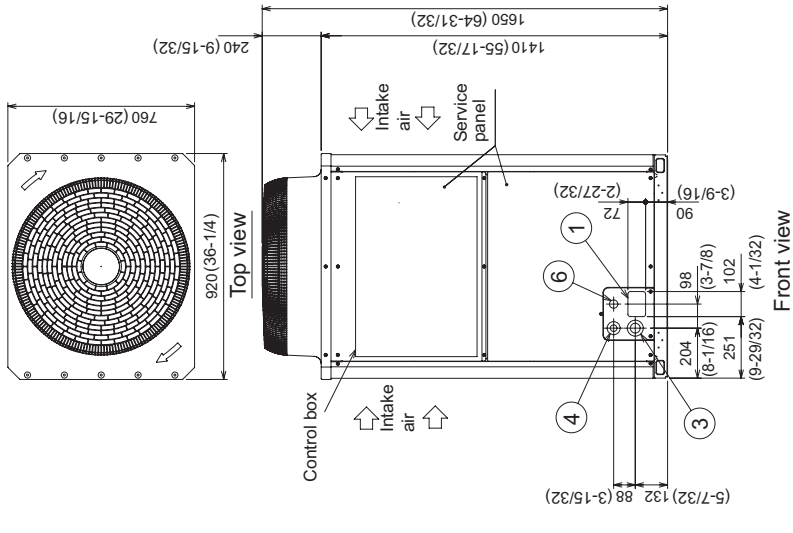
Ref.:PUHY_THMU-A_EXD_USDB_HP72-HP96_1

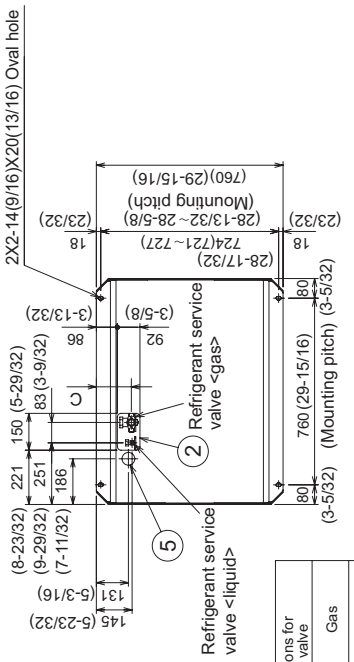
Unit : mm(in)

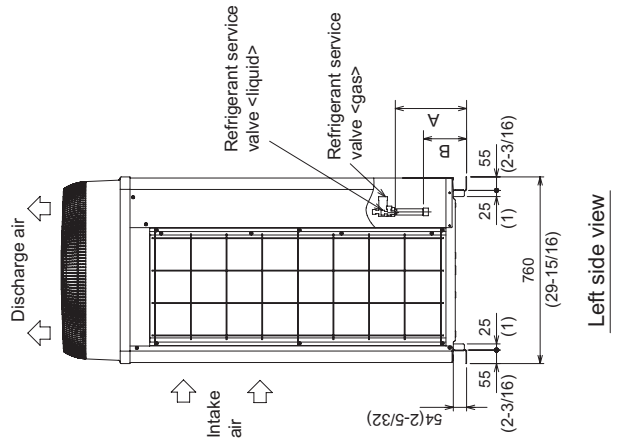
<Accessories>(Supplied only with the unit listed below)
- Connecting pipe <gas> ..... 1 pc.
  - ·PUHY-HP72THMU Models ..... Packaged with other accessories
  - ·PUHY-HP96THMU Models ..... Comes mounted on the refrigerant service valve
- Connecting pipe <liquid> ..... 1 pc.
  - ·PUHY-HP72,96THMU Models ..... Packaged with other accessories (For standalone use)
- Packing for connecting pipe <gas> ..... 1 pc.
  - Mounted adjacent to the refrigerant service valve on the gas side
  - ·PUHY-HP72,96THMU Models

Note. Please refer to (2/2) for information regarding necessary spacing around the unit and foundation work.

NO.	Usage		Specifications
①	For pipes	Front through hole	102 X 72 Knockout hole (4-1/32) (2-27/30)
②		Bottom through hole	150 X 92 Knockout hole (5-29/32) (3-5/8)
③	For wires	Front through hole	Ø65 or Ø40 Knockout hole (2-9/16) (1-19/32)
④		Front through hole	Ø52 or Ø27 Knockout hole (2-1/16) (1-3/32)
⑤		Bottom through hole	Ø52 Knockout hole (2-1/16)
⑥	For transmission cables	Front through hole	Ø34 Knockout hole (1-11/32)







Connecting pipe specifications

Model	Position dimensions for the refrigerant service valve			Connection specifications for the refrigerant service valve		
	Liquid	Gas		Liquid	Gas	
	A	B*1	C			
PUHY-HP72THMU	290 (11-7/16)	161 (6-11/32)	145 (5-23/32)	Multiple unit installation Ø9.52 Flare (3/8)	Ø19.05 Brazed (3/4)	
PUHY-HP96THMU	(242)*2 (9-17/32)	165 (6-1/2)	142 (5-19/32)	(Single unit installation) Ø12.7 Brazed (1/2)	Ø22.2 Brazed (7/8)	

*1 Indicates the dimensions for use with the pipe that is supplied.
*2 Indicates dimensions and connection specifications appropriate to installing the unit as a single unit.

H

PUHY-HP72,96THMU-A(-BS)

Ref.:PUHY_THMU-A_EXD_USDB_HP72-HP96_2

Unit : mm(in)

1.Required space around the unit

● In case of single installation

① Secure enough space around the unit as shown in the figure below.

· With a space of at least 300mm(11-13/16) to the wall on the back of the unit

· With a space of at least 100mm(3-15/16) to the wall on the back of the unit

<Unit:mm(in)>

② 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.

● In case of collective installation

① 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.

② At least two sides must be left open.

③ As with the single installation, add the height that exceeds the height limit <h> to the figures that are marked with an asterisk.

<Unit:mm(in)>

Fig.A (without detachable legs)

Fig.B(without detachable legs)

2.Foundation work

① 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.>

② Build the foundation in such way that the corner of the installation leg is securely supported as shown in the right figure.(Fig.A)

③ The protrusion length of the anchor bolt must not exceed 30mm(1-3/16).(Fig.A)

④ Use four fixing plates as shown in the right figure <field supply required> when using post-installed anchor bolts.(Fig.B)

⑤ 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>.

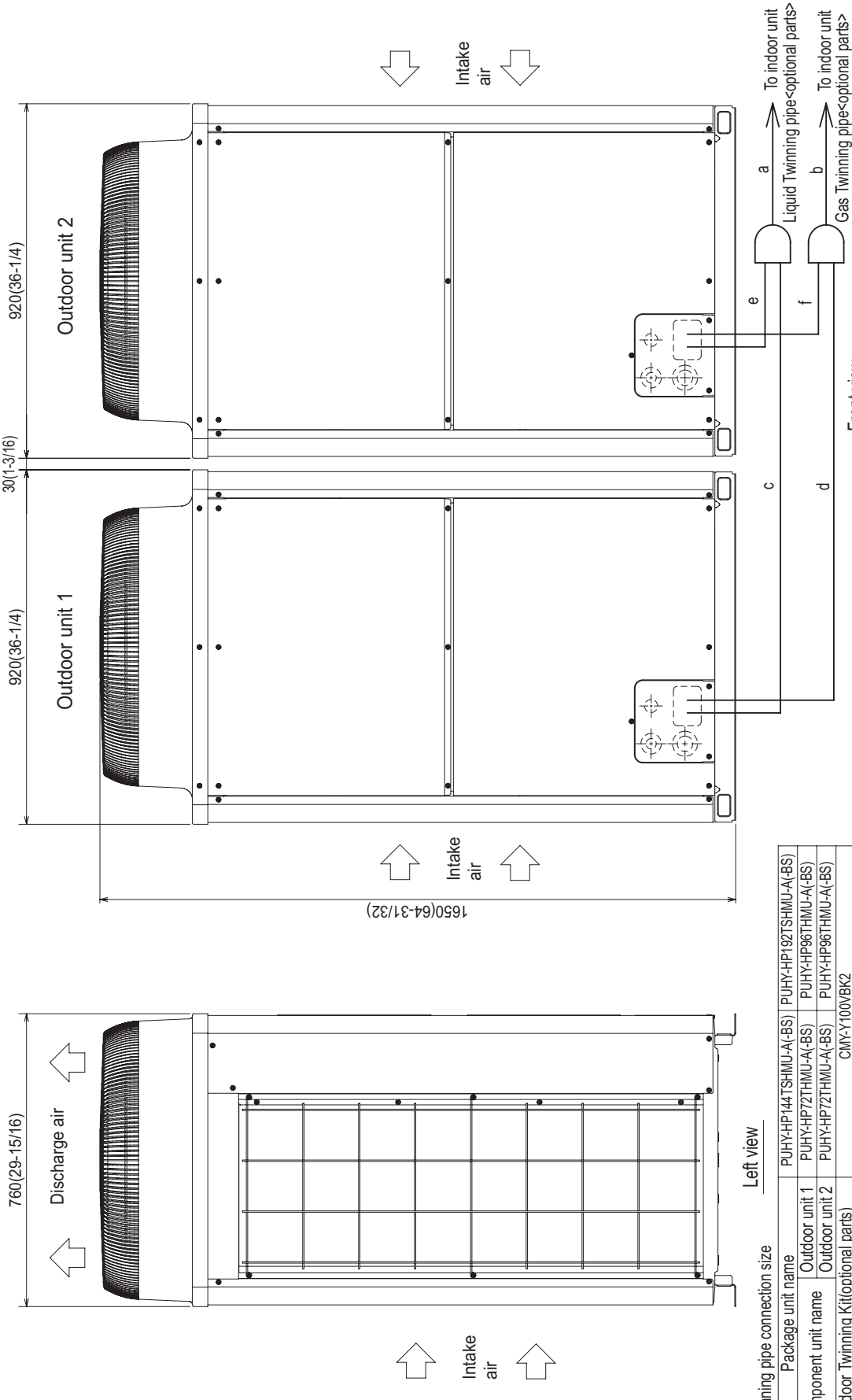
⑥ When the pipes or cables are routed at the bottom of the unit, make sure that the through hole at the base of the unit does not get blocked with the installation base.

⑦ Refer to the Installation Manual when installing units on an installation base.

PUHY-HP144,192TSHMU-A(-BS)

Ref.:PUHY_TSHMU-A_EXD_USDB_HP144-HP192

Unit : mm(in)



	Unit model	Liquid	Gas
Twinning pipe~Outdoor unit		c or e	d or f
	P72	ø9.52(3/8)	ø19.05(3/4)
	P96	ø9.52(3/8)	ø22.2(7/8)

Twinning pipe connection size

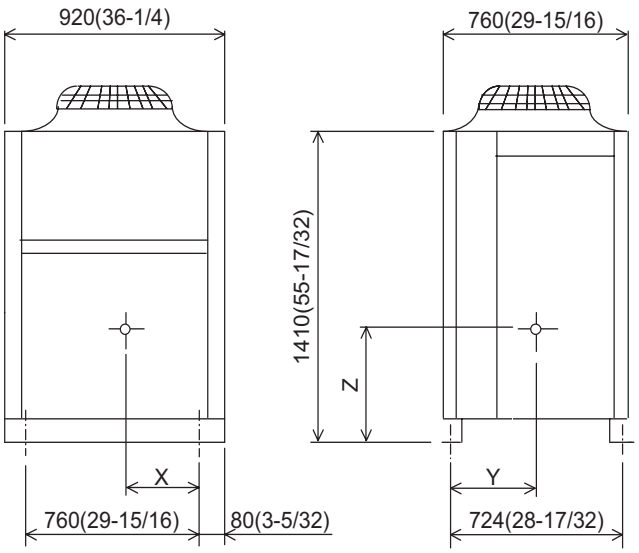
Package unit name			PUHY-HP144TSHMU-A(-BS)	PUHY-HP192TSHMU-A(-BS)
Component unit name	Outdoor unit 1		PUHY-HP72THMU-A(-BS)	PUHY-HP96THMU-A(-BS)
	Outdoor unit 2		PUHY-HP72THMU-A(-BS)	PUHY-HP96THMU-A(-BS)
Outdoor Twinning Kit(optional parts)			CMY-Y100VBK2	
Indoor unit ~ Twinning pipe	Liquid	a	ø15.88(5/8)	
	Gas	b	ø28.58(1-1/8)	

Note 1.Connect the pipes as shown in the figure above. Refer to the table above for the pipe size.
2.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.
3.The pipe section before the Twinning pipe (sections "a" and "b" in the figure) must have at least 500mm(19-11/16) of straight section
(*Including the straight pipe that is supplied with the Twinning pipe).
4.Only use the Twinning pipe by Mitsubishi (option parts).

H

PUHY-HP72,96THMU-A

Unit : mm[in.]



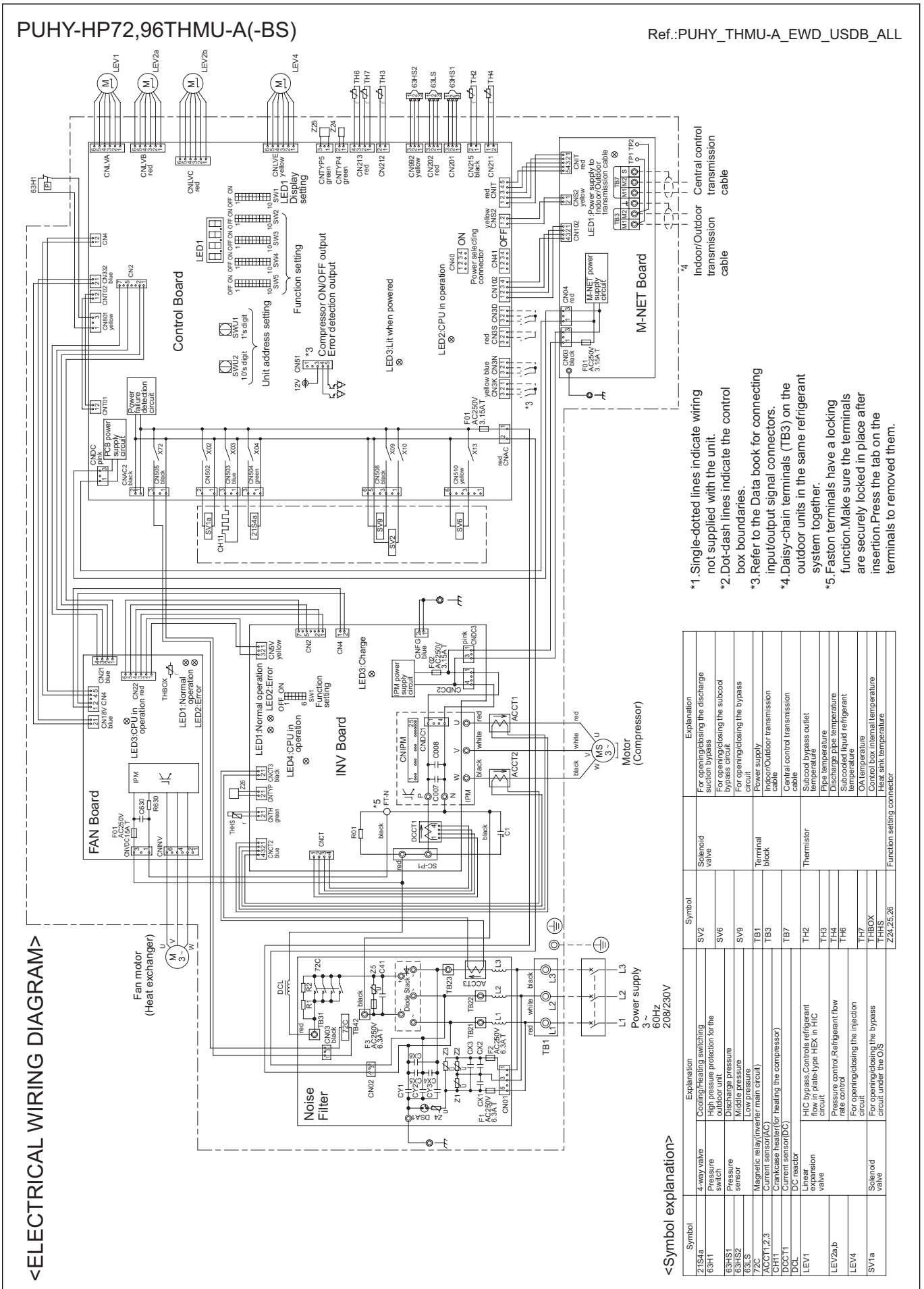
Model	X	Y	Z
PUHY-HP72THMU-A	325(12-13/16)	307(12-3/32)	590(23-1/4)
PUHY-HP96THMU-A	315(12-13/32)	317(12-1/2)	575(22-21/32)

Ref. : PUHY_ THMU_COG_USDB_HP

H

PUHY-HP72,96THMU-A(-BS)

Ref.:PUHY_THMU-A_EWD_USDB_ALL



<ELECTRICAL WIRING DIAGRAM>

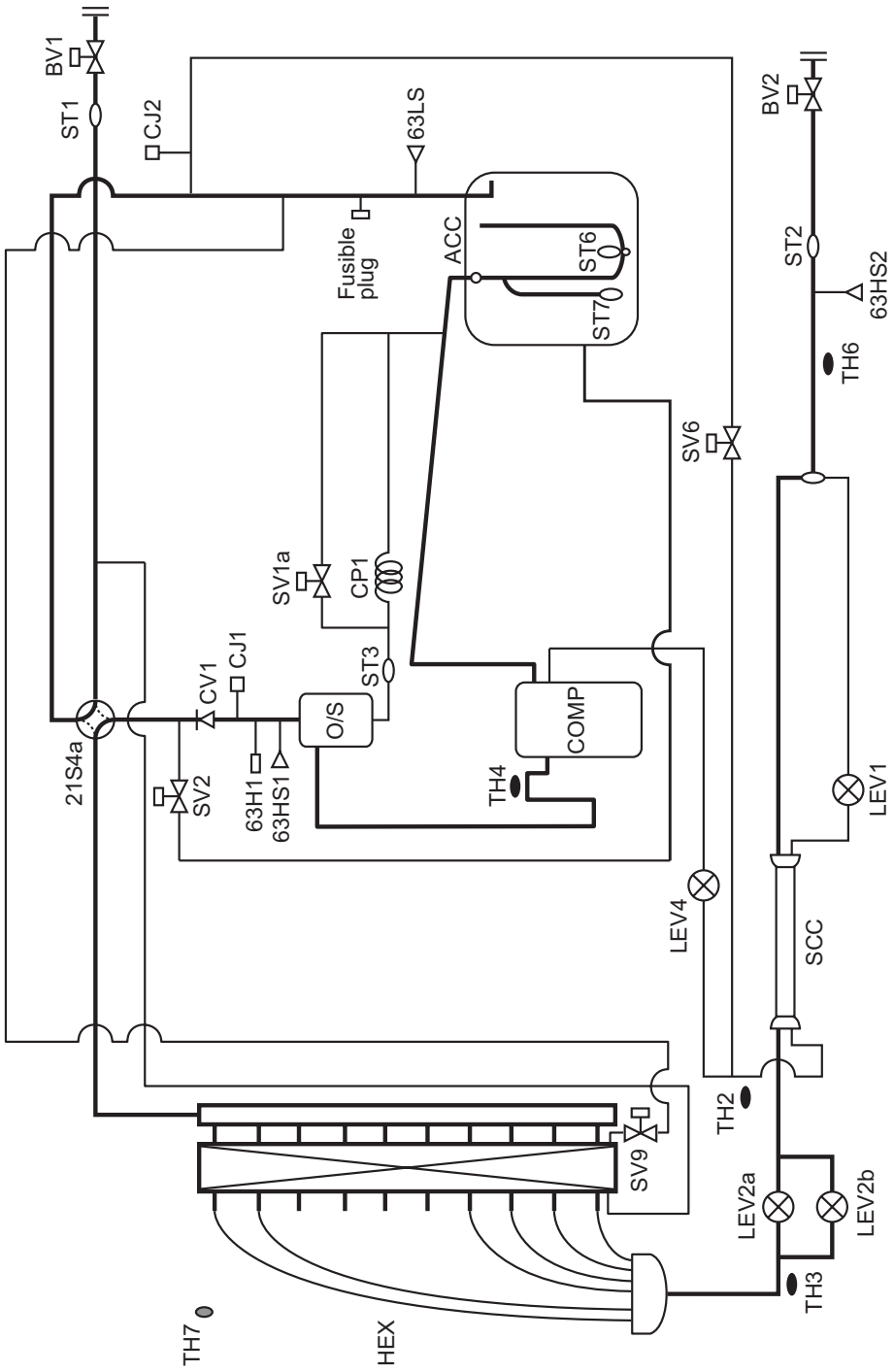
<Symbol explanation>

Symbol	Explanation	Symbol	Explanation
21S4a	4-way valve	SV2	Solenoid valve
63H1	Pressure switch	SV6	
63HS1	Pressure sensor	SV9	
63HS2			
63LS			
72C	Magnetic relay(inverter main circuit)	TB1	Terminal block
ACCT1,2,3	Current sensor(AC)	TB3	
CH11	Crankcase heater(for heating the compressor)	TB7	
DCCT1	Current sensor(DC)	TH2	Thermistor
DCL	DC reactor	TH3	
LEV1	Linear expansion valve	TH4	
LEV2a,b	HIC bypass,Controls refrigerant flow in plate-type HEX in HIC	TH6	
LEV4	Pressure control,Refrigerant flow rate control	TH7	
SV1a	For opening/closing the injection circuit	THBOX	
	For opening/closing the bypass circuit under the O/S	THHS	
	Solenoid valve	Z24,25,26	

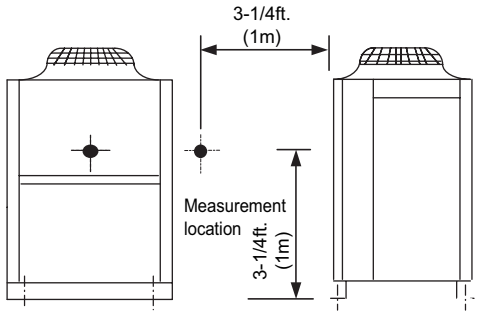
Explanation
For opening/closing the discharge suction bypass
For opening/closing the subcool bypass circuit
For opening/closing the bypass circuit
Power supply
Indoor/Outdoor transmission cable
Central control transmission cable
Subcool bypass outlet temperature
Pipe temperature
Discharge pipe temperature
Subcooled liquid refrigerant temperature
OA temperature
Control box internal temperature
Heat sink temperature
Function setting connector

H

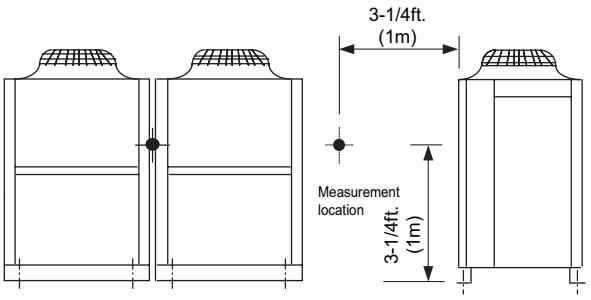
(1) PUHY-HP72, HP96 THMU(-BS)



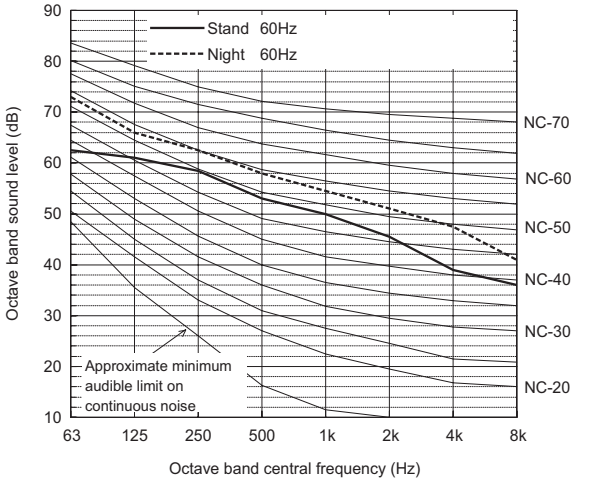
Measurement condition
PUHY-HP72,96THMU-A(-BS)



Measurement condition
PUHY-HP144,192TSHMU-A(-BS)



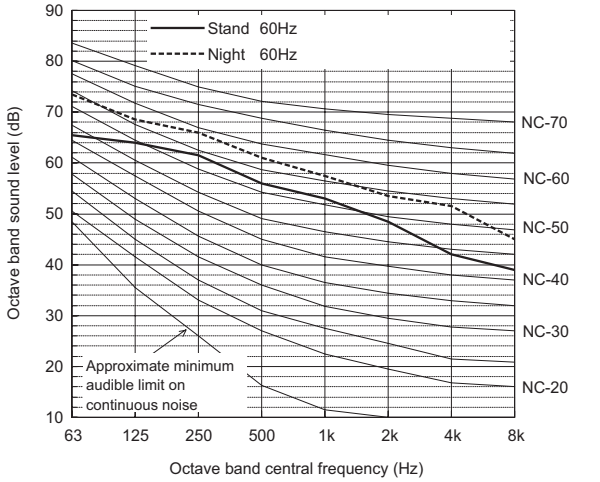
Sound level of PUHY-HP72THMU Ref.:PUHY_HP_THMU_NCC_USDB_HP72



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	62.5	61.0	58.5	53.0	50.0	45.5	39.0	36.0	56.0
Low noise mode	60Hz	73.0	66.0	62.5	58.0	54.5	51.0	47.5	41.0	61.0

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.

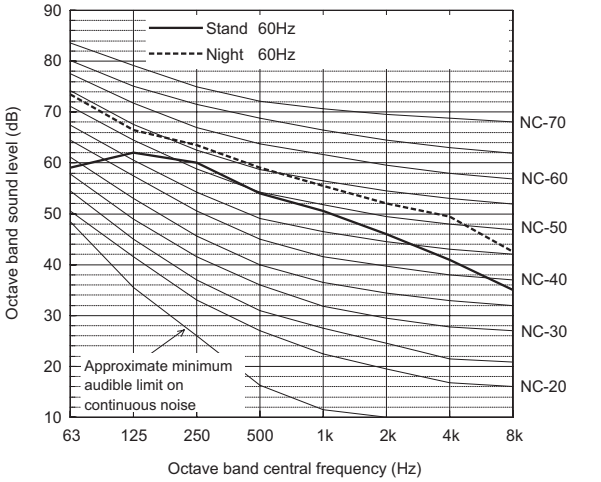
Sound level of PUHY-HP144TSHMU Ref.:PUHY_HP_THMU_NCC_USDB_HP144



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	65.5	64.0	61.5	56.0	53.0	48.5	42.0	39.0	59.0
Low noise mode	60Hz	73.5	68.5	66.0	61.0	57.5	53.5	51.5	45.0	64.0

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.

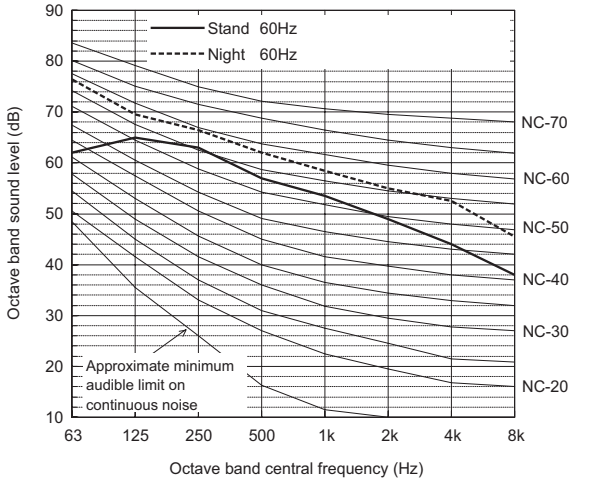
Sound level of PUHY-HP96THMU Ref.:PUHY_HP_THMU_NCC_USDB_HP96



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	59.0	62.0	60.0	54.0	50.5	46.0	41.0	35.0	57.0
Low noise mode	60Hz	73.5	66.5	63.5	59.0	55.5	52.0	49.5	42.5	62.0

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-HP192TSHMU Ref.:PUHY_HP_THMU_NCC_USDB_HP192



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	62.0	65.0	63.0	57.0	53.5	49.0	44.0	38.0	60.0
Low noise mode	60Hz	76.5	69.5	66.5	62.0	58.5	55.0	52.5	45.5	65.0

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.

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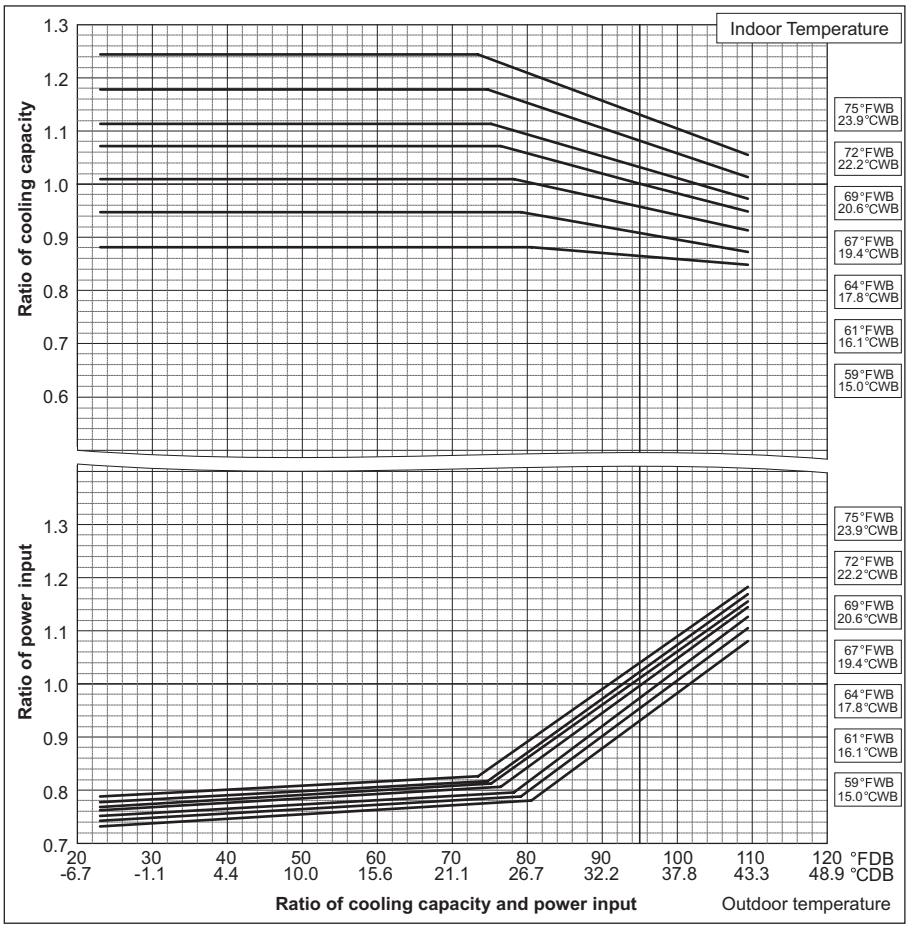
7-1. Correction by temperature

CITY MULTI could have various capacities at different designing temperatures. Using the nominal cooling/heating capacity values and the ratios below, the capacity can be found for various temperatures.

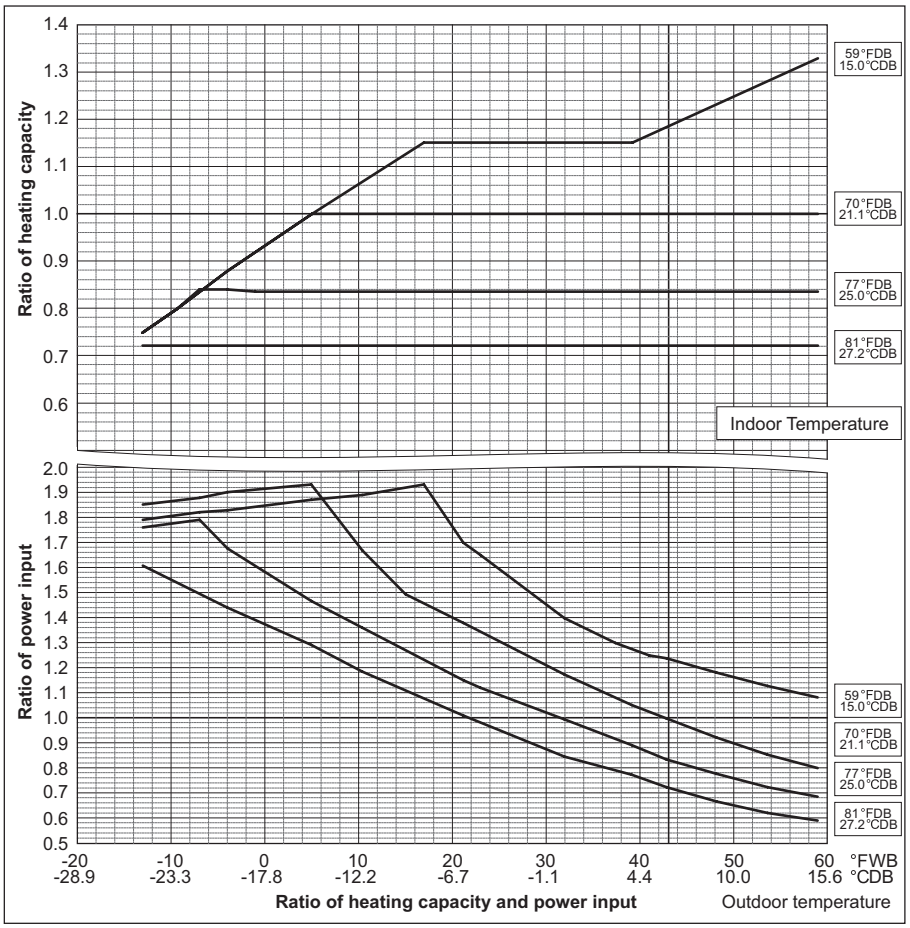
PUHY-		HP72THMU	HP96THMU
Nominal Cooling Capacity	kW	21.1	28.1
	BTU/h	72,000	96,000
Input	kW	5.90	8.73

PUHY-		HP144TSHMU	HP192TSHMU
Nominal Cooling Capacity	kW	42.2	56.3
	BTU/h	144,000	192,000
Input	kW	12.15	17.98



PUHY-		HP72THMU	HP96THMU
Nominal Heating Capacity	kW	23.4	31.7
	BTU/h	80,000	108,000
Input	kW	6.28	9.13

PUHY-		HP144TSHMU	HP192TSHMU
Nominal Heating Capacity	kW	46.9	63.3
	BTU/h	160,000	216,000
Input	kW	12.94	18.81

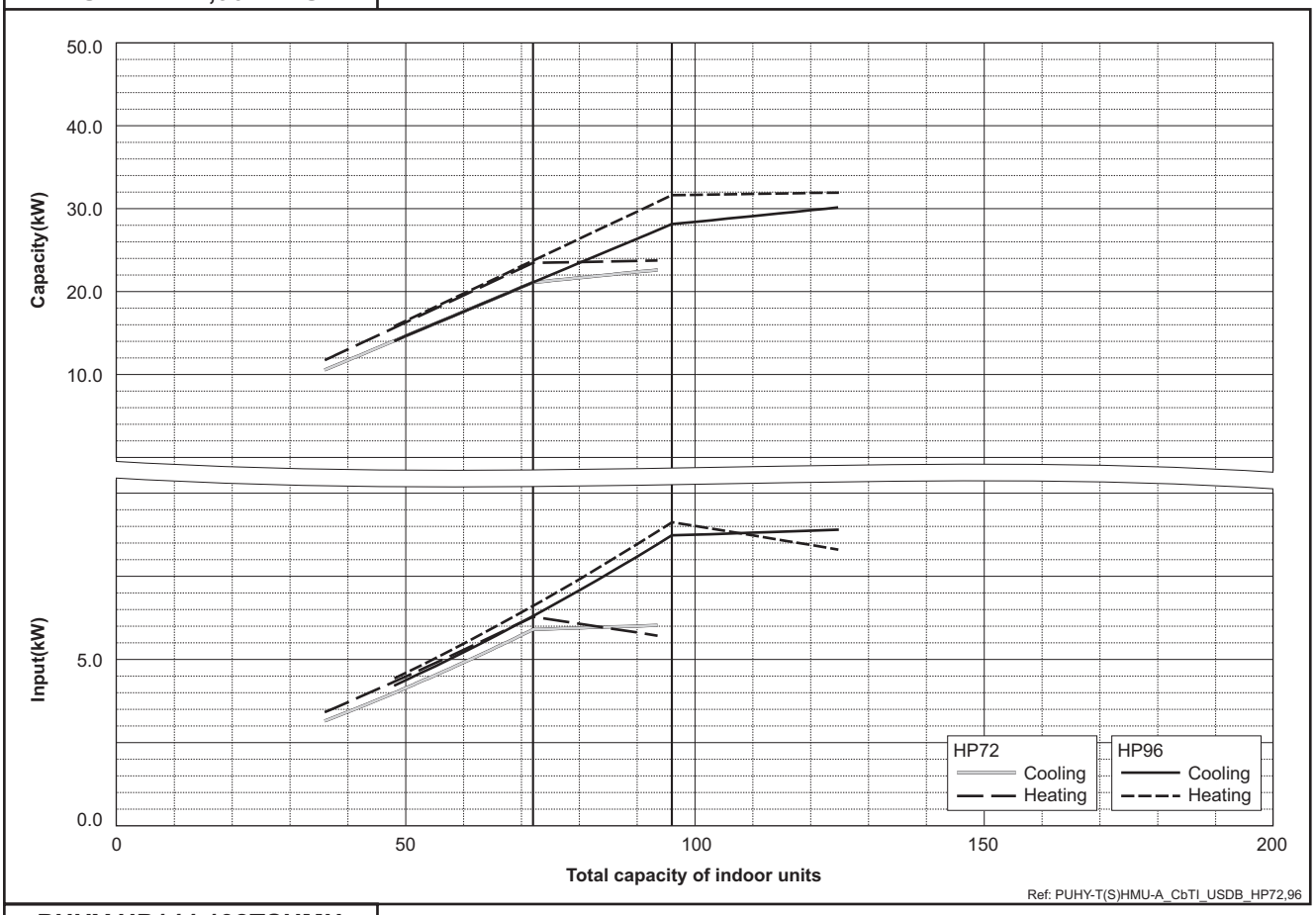


Ref:PUHY_T(S)HMU-A_CbT_USDB-HP72-192

7-2. Correction by total indoor

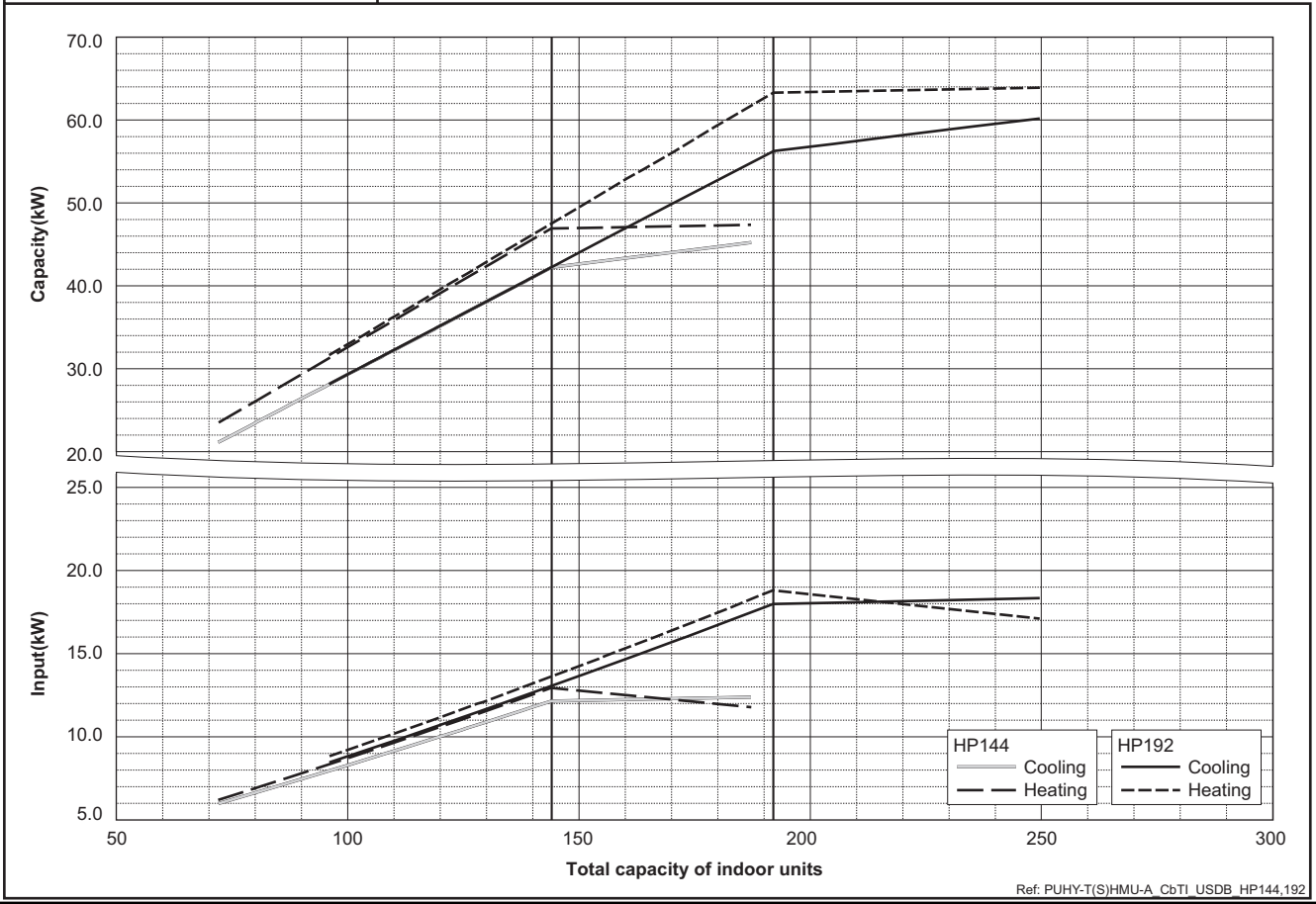
CITY MULTI system have different capacities and inputs when many combinations of indoor units with different total capacities are connected. Using following tables, the maximum capacity can be found to ensure the system is installed with enough capacity for a particular application.

PUHY-HP72,96THMU



Ref: PUHY-T(S)HMU-A_CbTI_USDB_HP72,96

PUHY-HP144,192TSHMU



Ref: PUHY-T(S)HMU-A_CbTI_USDB_HP144,192

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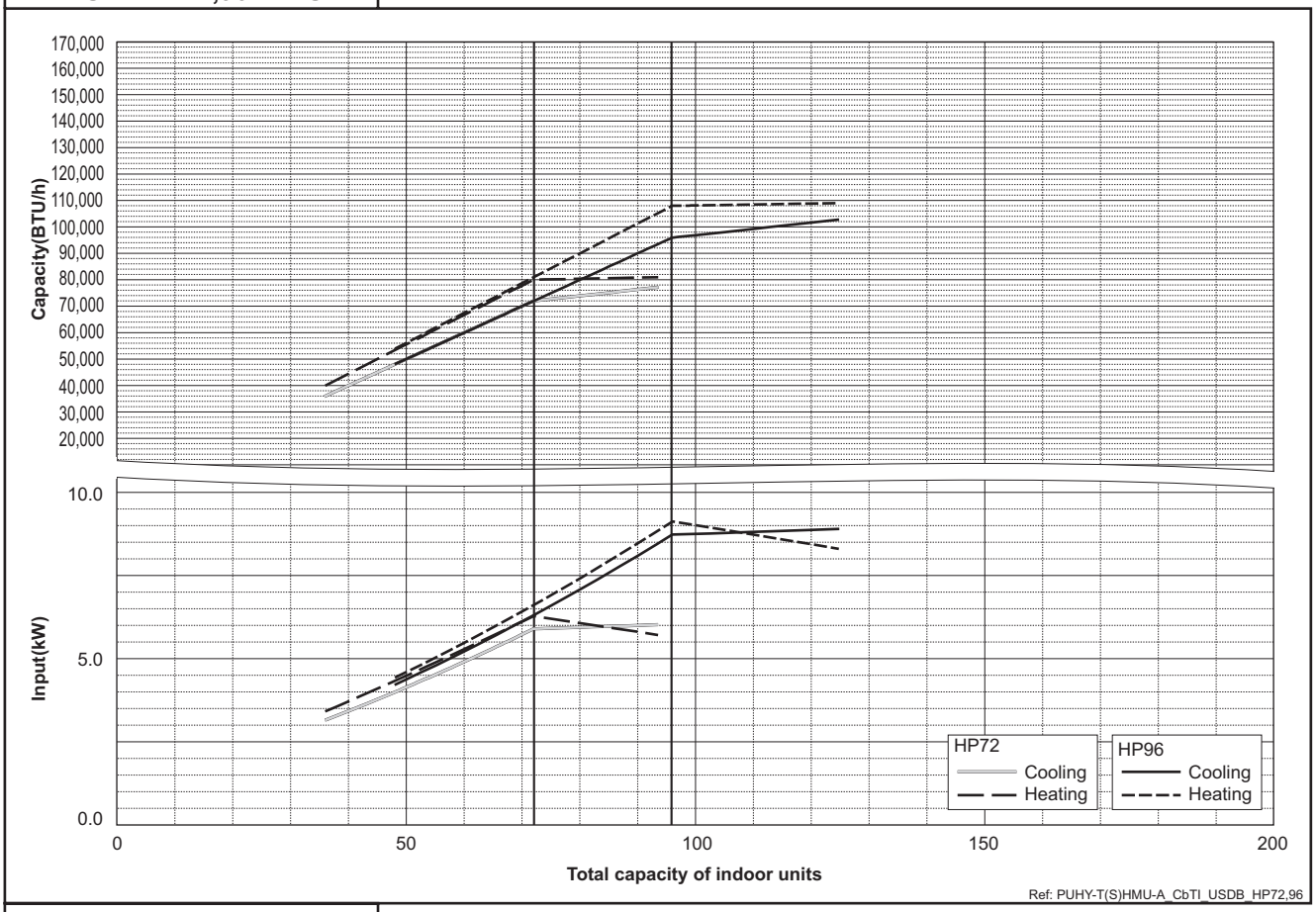
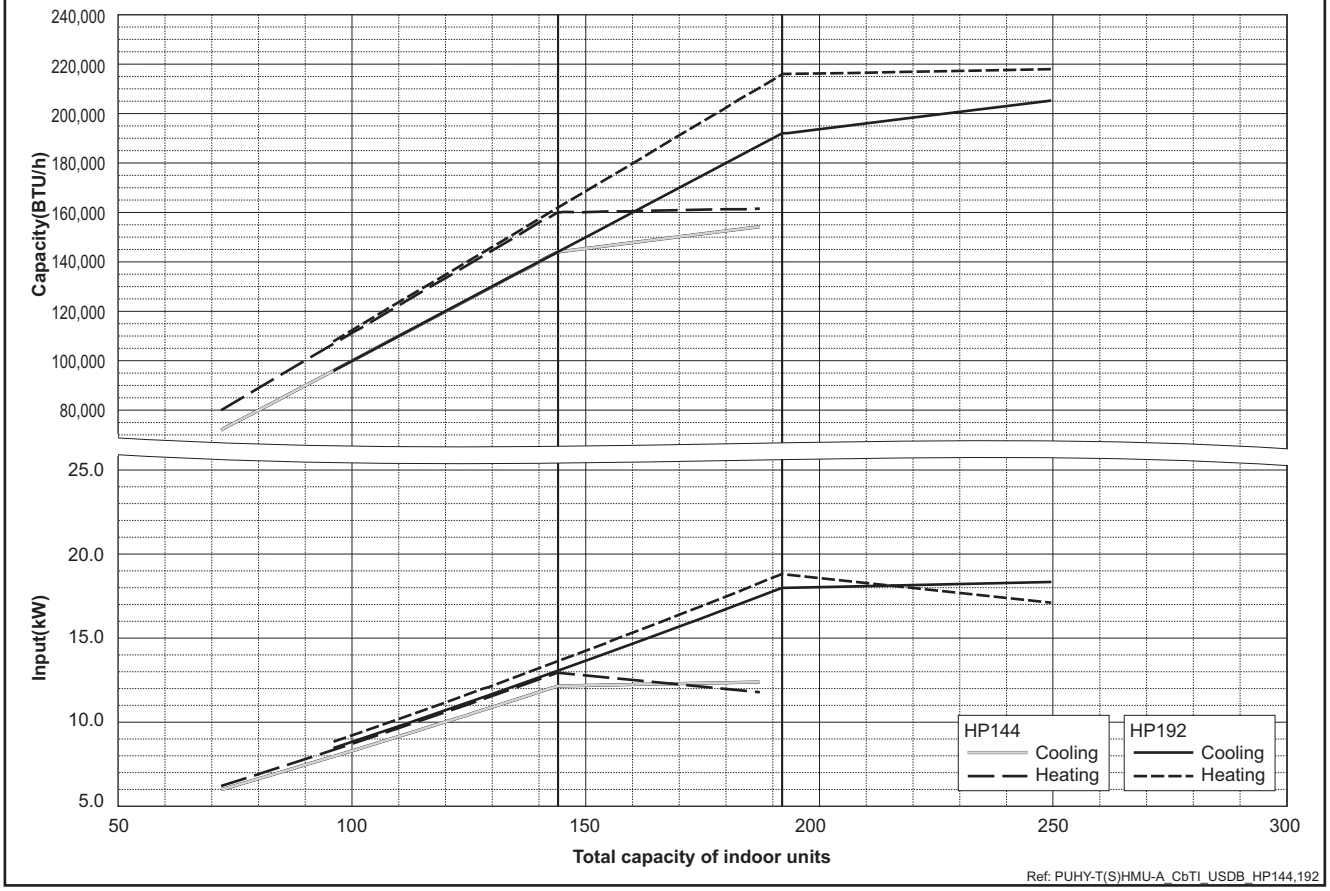
PUHY-HP72,96THMU



Ref: PUHY-T(S)HMU-A_CbTI_USDB_HP72,96

PUHY-HP144,192TSHMU

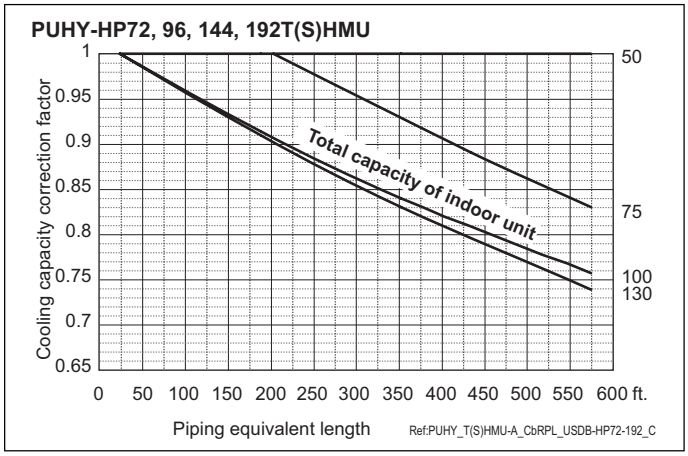


Ref: PUHY-T(S)HMU-A_CbTI_USDB_HP144,192

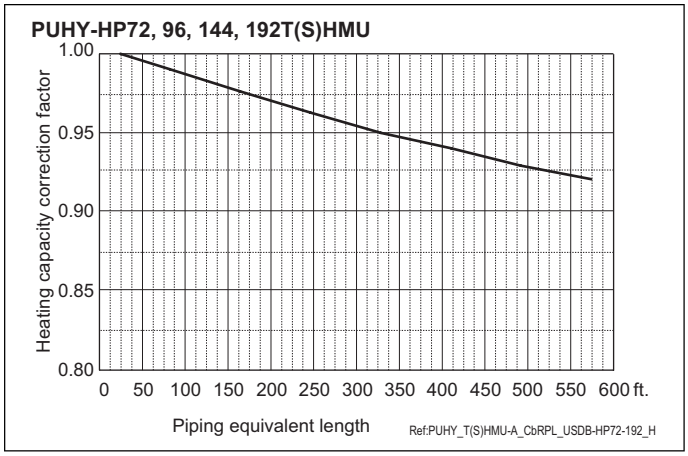
7-3. Correction by refrigerant piping length

CITY MULTI systems can have extended piping lengths if certain limitations are followed, but cooling/heating capacity could be reduced. Using following correction factor by equivalent piping length shown at 7-3-1 and 7-3-2, capacity can be found. 7-3-3 shows how to obtain the equivalent piping length.

7-3-1. Cooling capacity correction



7-3-2. Heating capacity correction



7-3-3. How to obtain the equivalent piping length

1 PUHY-HP72THMU-A

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.35 x number of bends in the piping) m
+ (1.15 x number of bends in the piping) ft.

2 PUHY-HP96THMU-A

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 x number of bends in the piping) m
+ (1.38 x number of bends in the piping) ft.

3 PUHY-HP144,192TSHMU-A

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 x number of bends in the piping) m
+ (1.64 x number of bends in the piping) ft.

Ref.: EPL_T(S)HMU

7-4. 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-HP72,96THMU	1.00	0.95	0.84	0.83	0.83	0.87	0.90	0.95	0.95	0.95	0.95

Ref.: CaF_THMU

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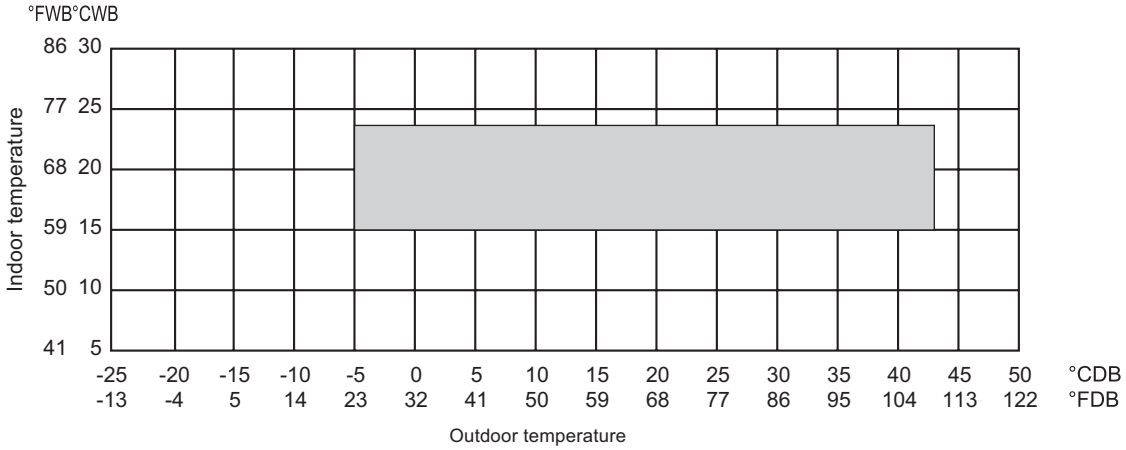
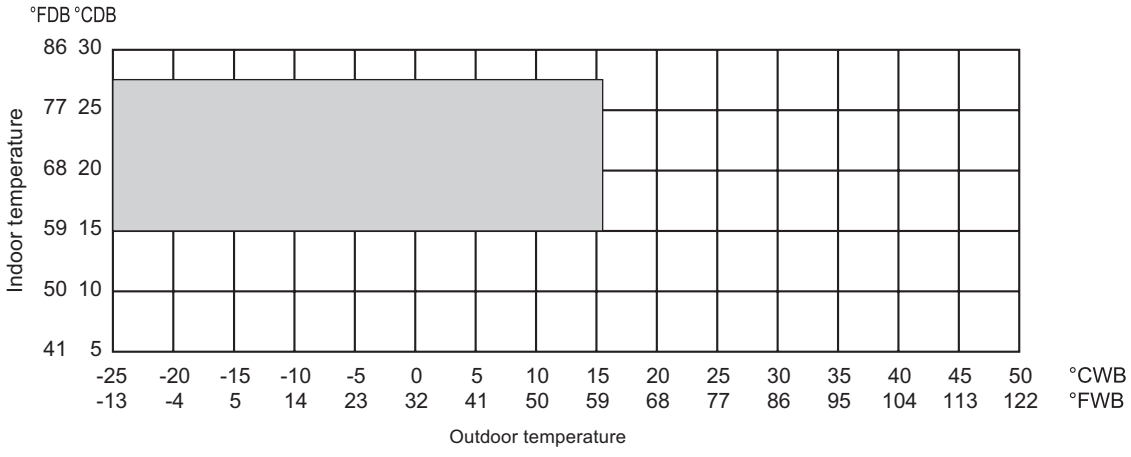
7-5. Operation temperature range

• Cooling



* The operation temperature of outdoor unit is limited into 0~43°CDB (32~109°FDB) when the outdoor unit is installed in a location that is positioned lower than the indoor units.

• Heating



Ref.: tr-thmu-y

8-1. JOINT

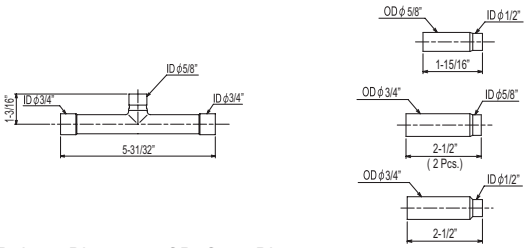
CITY MULTI piping can be installed easily with joints and headers provided by MITSUBISHI ELECTRIC CORP.
Three sets of joints are available. Details for installing the joint sets are found in System Design 5-1, or their own Installation Manual.

CMY-Y102S-G2

Ref.: CMY_Y102S_G2_EXD_EUDB_SI
in.

For Gas pipe:

<Deformed pipe(Accessory)>



For Liquid pipe:

<Deformed pipe(Accessory)>

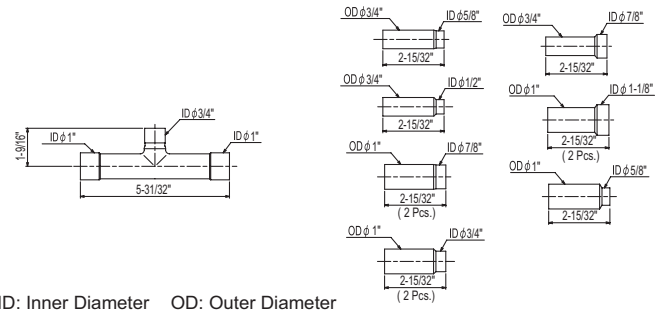
ID: Inner Diameter OD: Outer Diameter

CMY-Y102L-G2

Ref.: CMY_Y102L_G2_EXD_EUDB_SI
in.

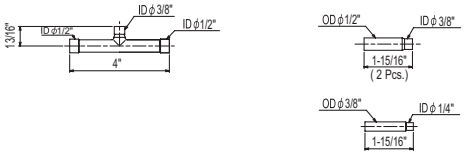
For Gas pipe:

<Reducer(Accessory)>



For Liquid pipe:

<Reducer(Accessory)>



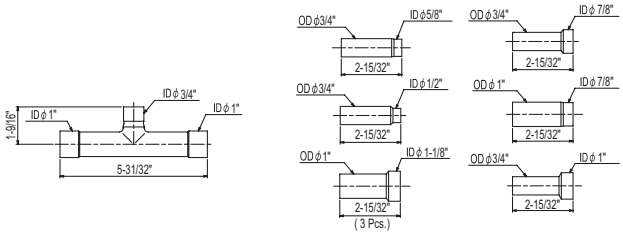
ID: Inner Diameter OD: Outer Diameter

CMY-Y202-G2

Ref.: CMY_Y202_G2_EXD_EUDB_SI
in.

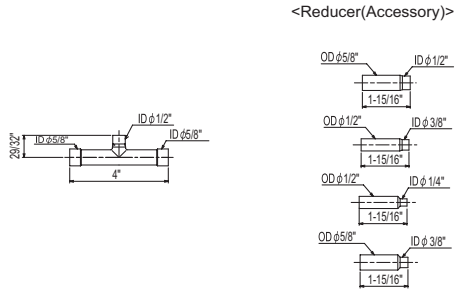
For Gas pipe:

<Reducer(Accessory)>



For Liquid pipe:

<Reducer(Accessory)>



ID: Inner Diameter OD: Outer Diameter

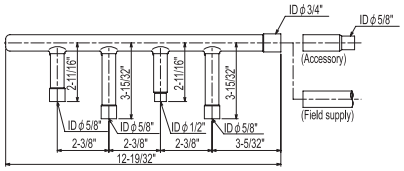
8-2. HEADER

CITY MULTI piping can be installed easily with joints and headers provided by MITSUBISHI ELECTRIC CORP.
Three sets of headers are available. Details for installing the header sets are found in System Design 5-2, or their own Installation Manual.

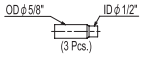
CMY-Y104-G

Ref.: W901636
in.

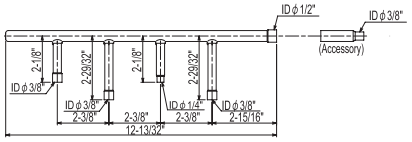
For gas pipe:



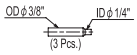
<Reducer(Accessory)>



For liquid pipe:



<Reducer(Accessory)>

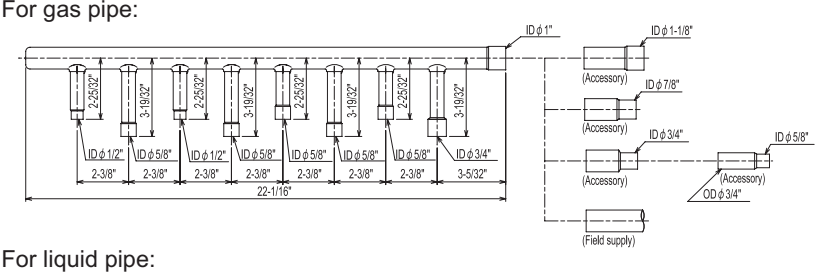


ID: Inner Diameter OD: Outer Diameter
NOTE: Besides above mentioned accessories, caps for φ1/4", φ3/8", φ1/2", φ5/8" pipes (each diameter 1 piece) are included in the Header set.

CMY-Y108-G

Ref.: W901637
in.

For gas pipe:



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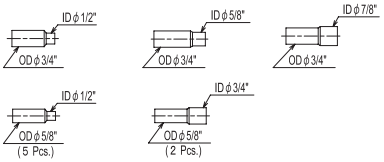
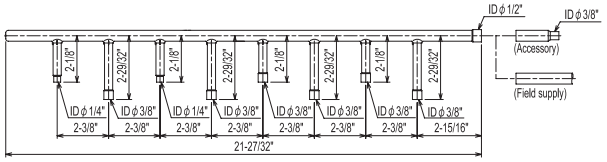


For liquid pipe:



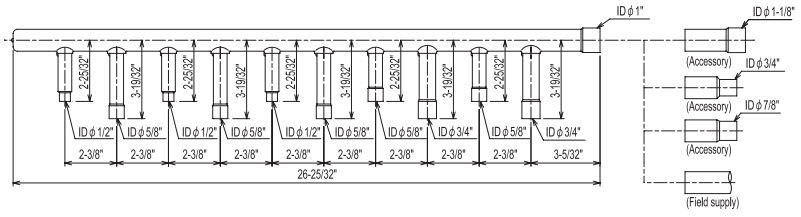
<Reducer(Accessory)>

ID: Inner Diameter OD: Outer Diameter
NOTE: Besides above mentioned accessories, caps for φ1/4", φ3/8", φ1/2", φ5/8" pipes (each diameter 2 pieces) and 1 cap for φ3/4" pipe are included in the Header set.

CMY-Y1010-G

Ref.: W901638
in.

For gas pipe:



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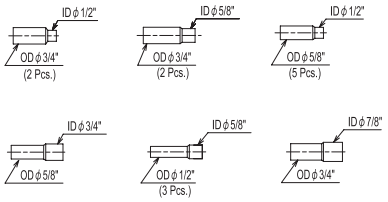
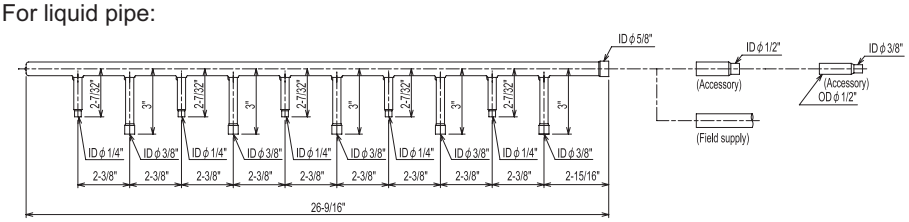


For liquid pipe:



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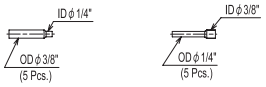


ID: Inner Diameter OD: Outer Diameter
NOTE: Besides above mentioned accessories, caps for φ1/4", φ3/8", φ1/2", φ5/8" pipes (each diameter 2 pieces) and 1 cap for φ3/4" pipe are included in the Header set.

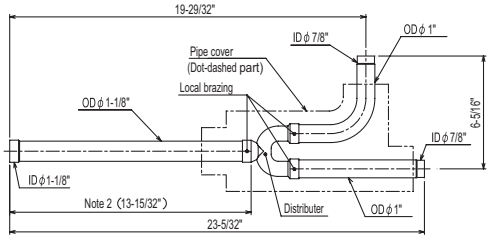
8-3. OUTDOOR TWINNING KIT

The Outdoor Twinning Kit is needed for PUHY-HP-TSHMU to combine to refrigerant flows of the PUHY-HP-THMU units.

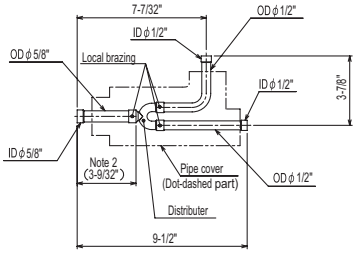
CMY-Y100VBK2

Ref.: CMY_Y100VBK2_EXD_EUDB_SI
in.

For Gas pipe:



For Liquid pipe:



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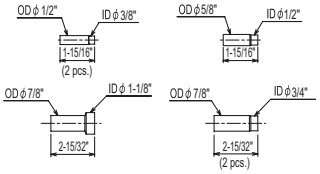

ID: Inner Diameter OD: Outer Diameter

H