

Job Name:

System Reference:

Date:

FEATURES

- INVERTER-driven compressor
- Air-source, heat pump system
- Long line lengths - for details see Engineering Manual
- Connects to CITY MULTI® indoor units
- Controlled via CITY MULTI® Controls Network

UNIT OPTION

- Standard Model (PUHY-P1050TSKA)
- Sea Coast <BS> Model (PUHY-P1050TSKA-BS)

ACCESSORIES

- Twinning Kit (required).....CMY-Y300VBK3
- Joint Kit.....for details see Pipe Accessories Submittal
- Header Kit.....for details see Pipe Accessories Submittal
- Low Ambient Kit.....for details see Low Ambient Kit Submittal
- Snow/Hail Guards.....for details see Snow/Hail Guards Submittal
- Base Pan Heater Kit.....for details see Base Pan Heater Kit Submittal

SPECIFICATIONS: PUHY-P1050TSKA (-BS)

Model		SYSTEM	
Model		PUHY-P1050TSKA (-BS)	
Electrical Power Requirements		3-phase 3-wire 208-220-230 V 50/60 Hz	
Cooling capacity			
*1 (Nominal) *1		kW kcal/h Btu/h	115.0 103,000 392,400
Power input		kW	32.57
Current input		A	100.4-94.9-90.8
EER		kW/kW	3.53
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity			
*1 (Nominal) *1		kW kcal/h Btu/h	115.0 103,000 392,400
Power input		kW	31.50
Current input		A	97.1-91.8-87.8
COP		kW/kW	3.65
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
MCA		A	51.0 for each 300TKA; 59.2 for 450TKA
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	66.5
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed
Max. Total Refrigerant Line Length		Ft.	3280
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.	541
Max. Control Wiring Length		Ft.	1640

Refer to Module Data ¹

Specifications			Module 1 ¹	Module 2 ¹
Model			PUHY-P300TKA (-BS)	PUHY-P450TKA (-BS)
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
FAN*3	Type x Quantity		Propeller fan x 1	
	Air flow rate	m ³ /min	185	210
		L/s	3,083	3,500
		cfm	6,532	7,415
Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	

SPECIFICATIONS: PUHY-P1050TSKA (-BS)

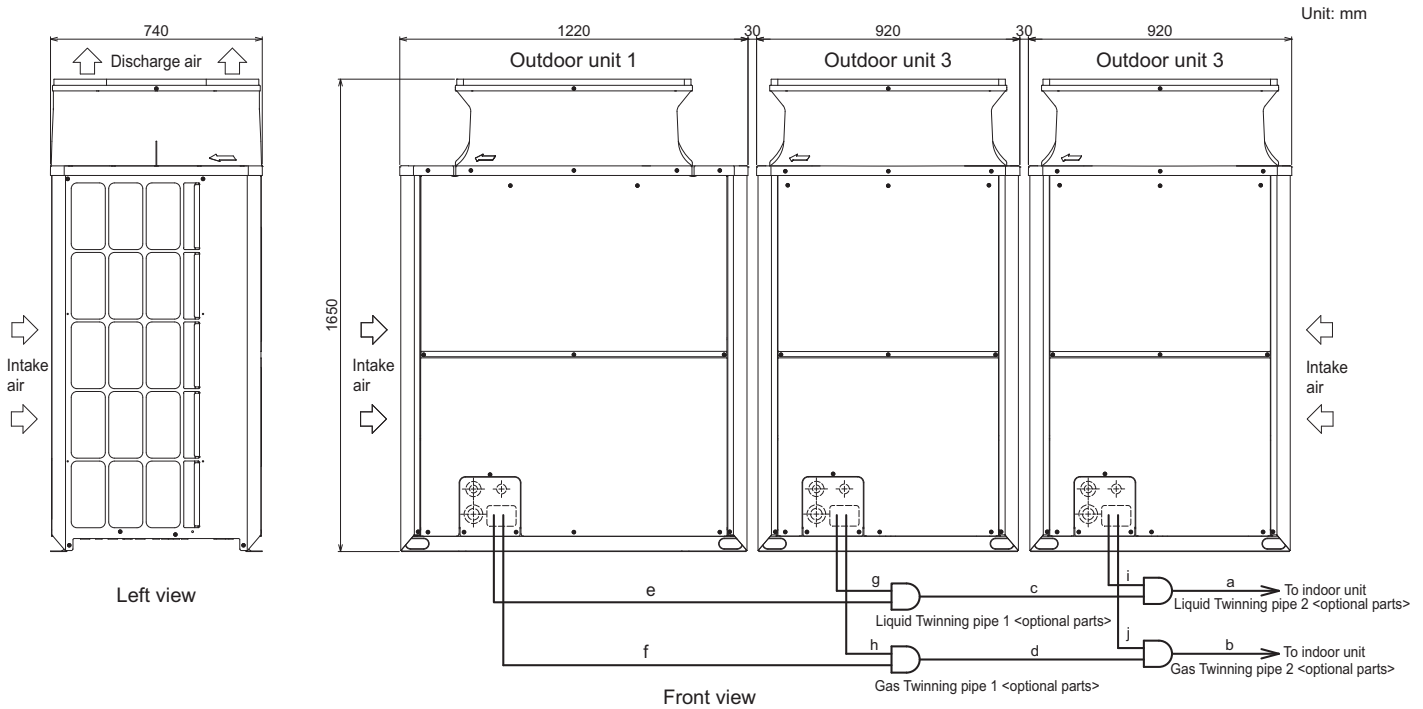
Specifications			Module 1 ¹	Module 2 ¹
Model			PUHY-P300TKA (-BS)	PUHY-P450TKA (-BS)
	Motor output	kW	0.92 x 1	0.92 x 1
	External static press.	Pa (mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	8.1	12.4
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type)<MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type)<MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm in.	1,650 x 920 x 740 65 x 36-1/4 x 29-3/16	1,650 x 1,220 x 740 65 x 48-1/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit	LEV and HIC circuit
Net weight		kg (lbs)	209 (461)	244 (538)
Heat exchanger			Salt-resistant cross fin & aluminium 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 cycle)	Auto-defrost mode (Reversed refrigerant cycle)

¹ Each individual module requires a separate electrical connection. Reference electrical data for each individual module.

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°C.D.B./19°C.W.B. (81°F.D.B./66°F.W.B.),
Outdoor: 35°C.D.B. (95°F.D.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°C.D.B. (68°F.D.B.),
Outdoor: 7°C.D.B./6°C.W.B. (45°F.D.B./43°F.W.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. ESP option is available (30Pa, 60Pa/3.1mmH₂O, 6.1mmH₂O).

DIMENSIONS: PUHY-P1050TSKA (-BS)

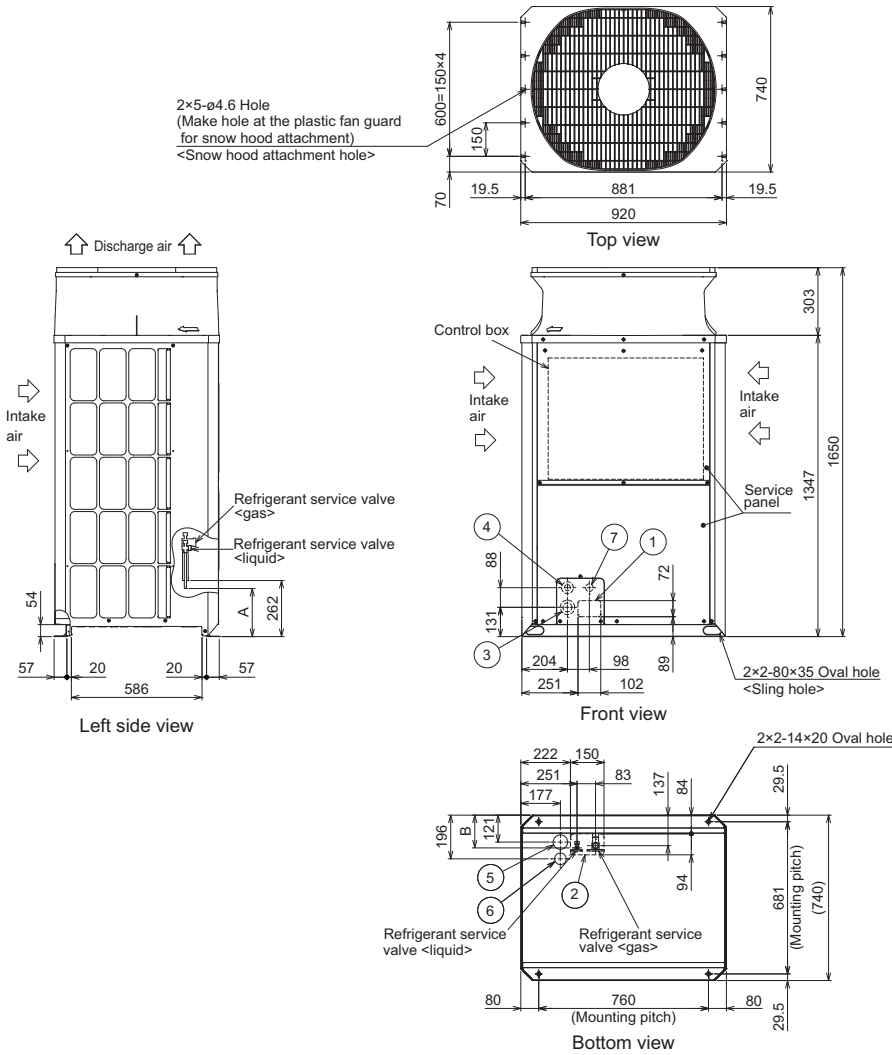


Twinning pipe connection size

Package unit name		PUHY-EP750TSKA(-BS)	PUHY-EP800TSKA(-BS)	PUHY-EP850TSKA(-BS)	PUHY-EP900TSKA(-BS)	PUHY-EP950TSKA(-BS)	PUHY-P1050TSKA(-BS)				
Component unit name	Outdoor unit 1	PUHY-P350TKA(-BS)	PUHY-P350TKA(-BS)	PUHY-P350TKA(-BS)	PUHY-P350TKA(-BS)	PUHY-P350TKA(-BS)	PUHY-P450TKA(-BS)				
	Outdoor unit 2	PUHY-P200TKA(-BS)	PUHY-P250TKA(-BS)	PUHY-P250TKA(-BS)	PUHY-P300TKA(-BS)	PUHY-P300TKA(-BS)	PUHY-P300TKA(-BS)				
	Outdoor unit 3	PUHY-P200TKA(-BS)	PUHY-P200TKA(-BS)	PUHY-P250TKA(-BS)	PUHY-P250TKA(-BS)	PUHY-P300TKA(-BS)	PUHY-P300TKA(-BS)				
Outdoor Twinning Kit(optional parts)		CMY-Y300VBK3									
Indoor unit-Twinning pipe 2	Liquid a			ø19.05							
	Gas b	ø34.93				ø41.28					
Twinning pipe 1-Twinning pipe 2	Liquid c			ø19.05							
	Gas d			ø34.93							
								Twinning pipe-Outdoor unit	Unit model	Liquid e or g or i	Gas f or h or j
									P200	ø9.52	ø22.2
									P250	ø9.52	ø22.2
									P300	ø12.7	ø22.2
								P350	ø12.7	ø28.58	
								P450	ø15.88	ø28.58	

- 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 horizontal plane.
 Be sure to see the Installation Manual for details of Twinning pipe installation.
 3. The pipe section before the Twinning pipe (sections "a", "b", "c" and "d" in the figure) must have at least 500mm of straight section (*including the straight pipe that is supplied with the Twinning pipe).
 4. Only use the Twinning pipe by Mitsubishi (optional parts).

DIMENSIONS: PUHY-P300TKA (-BS)



<Accessories>

• Connecting pipe			
<Gas>	·Pipe (ID25.4×OD22.2)·····P200,P250,P300	1pc.	
<Liquid>	·Pipe (ID9.52×OD9.52)·····P200,P250	1pc.	
	·Pipe reducer (ID9.52×OD12.7)·····P250	1pc.	
	·Pipe (ID12.7×OD12.7)·····P300	1pc.	
	·Pipe reducer (ID12.7×OD9.52)·····P300	1pc.	

Unit: mm

- Note1. Please refer to the next page for information regarding necessary spacing around the unit and foundation work.
2. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.

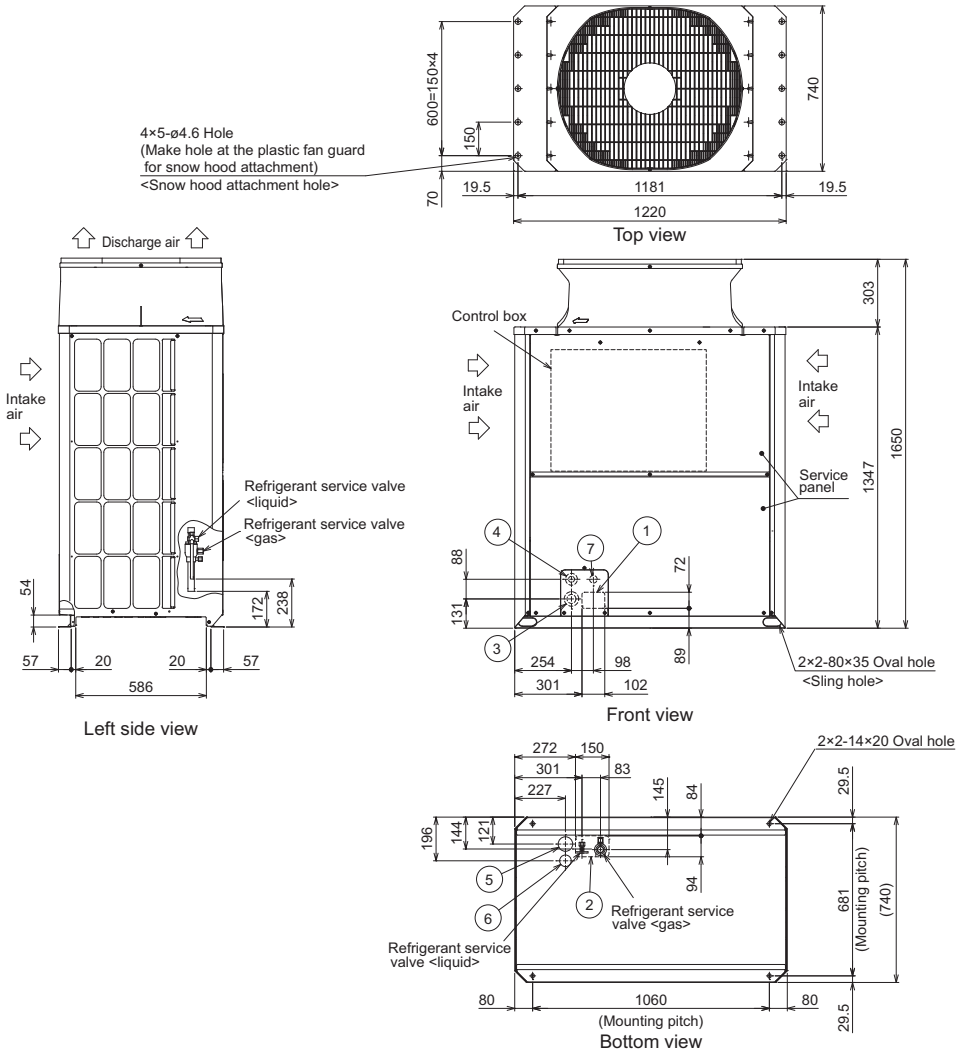
Connecting pipe specifications

Model	Position dimensions for the refrigerant service valve		Diameter			
			Refrigerant pipe *1		Service valve	
	Liquid		Liquid	Gas	Liquid	Gas
PUHY-P200TKA(-BS)	222	147	ø9.52 Brazed	ø22.2 Brazed	ø9.52	ø25.4
PUHY-P250TKA(-BS)			ø9.52 Brazed (ø12.7 Brazed) *2			
PUHY-P300TKA(-BS)	223	143	ø9.52 Brazed (ø12.7 Brazed) *3,*4		ø12.7	

- *1 Connect by using the connecting pipes (for bottom piping and front piping) that are supplied.
- *2 Furthest piping length (OU from IU)≥90m
- *3 Furthest piping length (OU from IU)≥40m
- *4 Indicates dimensions and connection specifications in the case the unit is used in combination with other outdoor units.

NO.	Usage	Specifications
①	For pipes	Front through hole 102 × 72 Knockout hole
②		Bottom through hole 150 × 94 Knockout hole
③	For wires	Front through hole ø65 or ø40 Knockout hole
④		Front through hole ø52 or ø27 Knockout hole
⑤		Bottom through hole ø65 Knockout hole
⑥		Bottom through hole ø52 Knockout hole
⑦	For transmission cables	Front through hole ø34 Knockout hole

DIMENSIONS: PUHY-P450TKA (-BS)



<Accessories>

•Connecting pipe		Unit: mm
<Gas>	-Elbow (ID28.58×OD28.58)·····P350,P400,P450	1pc.
<Liquid>	-Pipe (ID15.88×OD15.88)·····P350,P400,P450	1pc.
	-Pipe reducer (ID15.88×OD12.7)·····P350,P400	1pc.

- Note1. Please refer to the next page for information regarding necessary spacing around the unit and foundation work.
 2. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.

Connecting pipe specifications

Model	Diameter			
	Refrigerant pipe *1		Service valve	
	Liquid	Gas	Liquid	Gas
PUHY-P350TKA(-BS)	ø12.7 Brazed	ø28.58 Brazed	ø15.88	ø28.58
PUHY-P400TKA(-BS)	ø12.7 Brazed (ø15.88 Brazed) *2			
PUHY-P450TKA(-BS)	ø15.88 Brazed			

*1 Connect by using the connecting pipes (for bottom piping and front piping) that are supplied.

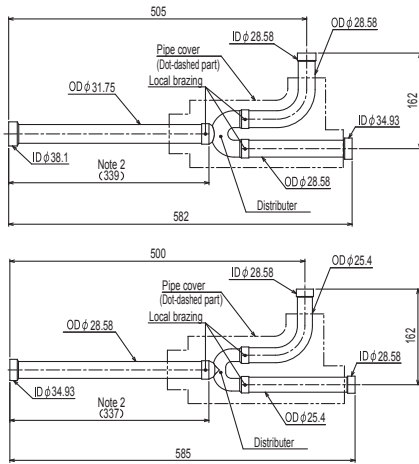
*2 Indicates dimensions and connection specifications in the case the unit is used in combination with other outdoor units.

NO.	Usage	Specifications
①	For pipes	Front through hole 102 × 72 Knockout hole
②		Bottom through hole 150 × 94 Knockout hole
③	For wires	Front through hole ø65 or ø40 Knockout hole
④		Front through hole ø52 or ø27 Knockout hole
⑤		Bottom through hole ø65 Knockout hole
⑥		Bottom through hole ø52 Knockout hole
⑦	For transmission cables	Front through hole ø34 Knockout hole

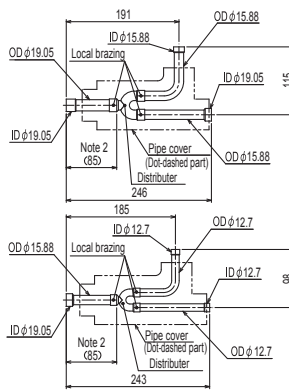
DIMENSIONS: CMY-Y300VBK3 (TWINNING KIT)

mm

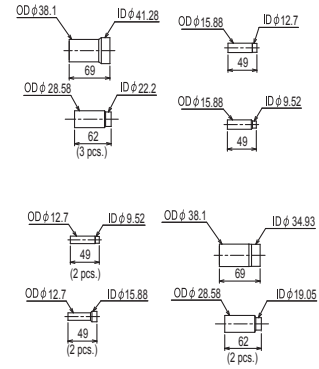
For Gas pipe:



For Liquid pipe:

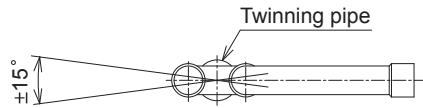


<Deformed pipe(Accessory)>



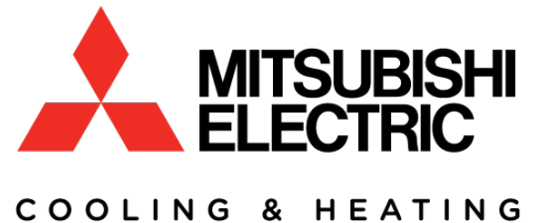
ID: Inner Diameter OD: Outer Diameter

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 braze 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).



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FORM# PUHY-P1050TSKA (-BS) - 201806

Specifications are subject to change without notice.

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