

Job Name: \_\_\_\_\_  
 System Reference: \_\_\_\_\_ Date: \_\_\_\_\_



OUTDOOR VRF HEAT PUMP WITH HEAT RECOVERY SYSTEM

**UNIT OPTION**

- Standard Model.....PURY-P144YSLMU-A
- Seacoast (BS) Model.....PURY-P144YSLMU-A-BS

**ACCESSORIES**

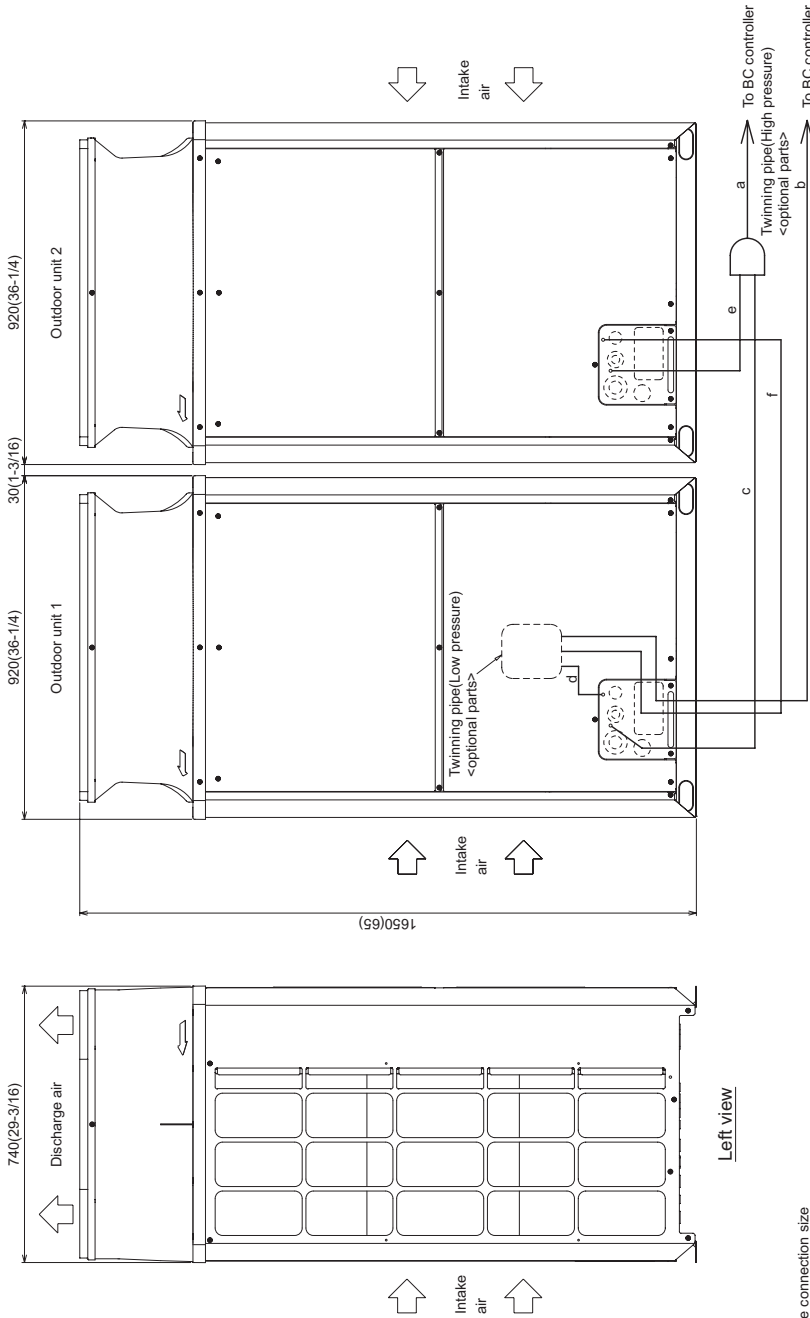
- Twinning Kit (required).....CMY-ER100CBK
- Joint Kit.....for details see Pipe Accessories Submittal
- BC Controller (required).....for details see BC Controller Submittals
- Low Ambient Kit .....for details see Low Ambient Kit Submittal
- Snow/Hail Guards Kit.....for details see Snow/Hail Guards Kit Submittal
- Base Pan Heater Kit.....for details see Base Pan Heater Kit Submittal

Specifications		System	Module 1	Module 2
Unit Type		PURY-P144YSLMU-A (-BS)	PURY-P72YLMU-A (-BS)	PURY-P72YLMU-A (-BS)
Nominal Cooling Capacity (460V)	Btu/h	144,000	72,000	72,000
Nominal Heating Capacity (460V)	Btu/h	160,000	80,000	80,000
Operating Temperature Range *1	Cooling (Outdoor) *2	Refer to Module Data	23~126° F (-5~52° C) DB	
	Heating (Outdoor)		-13~60° F (-25~15.5° C) WB	
External Dimensions (H x W x D)	In. (mm)	Refer to Module Data	64-31/32 x 36-1/4 x 29-5/32 (1,650 x 920 x 740)	64-31/32 x 36-1/4 x 29-5/32 (1,650 x 920 x 740)
Net Weight	Lbs. (kg)	948 (430)	474 (215)	474 (215)
External Finish		Refer to Module Data	Pre-coated galvanized steel sheet	
Electrical Power Requirements	Voltage, Phase, Hertz	Refer to Module Data**	460V, 3-Phase, 60Hz	
Minimum Circuit Ampacity (MCA)	A	Refer to Module Data**	11	11
Maximum Overcurrent Protection (MOP)	A	Refer to Module Data**	20	20
<i>Piping Diameter (Brazed)</i>				
From From Twinning Kit to BC Controller (In. / mm)	Liquid (High Pressure)	7/8 (22.2) Brazed	Refer to System Data	
	Gas (Low Pressure)	1-1/8 (28.58) Brazed		
Max. Total Refrigerant Line Length	Ft.	1,969	Refer to System Data	
Max. Refrigerant Line Length (Between ODU & IDU)	Ft.	541		
Max. Control Wiring Length	Ft.	1,640		
Indoor Unit	Total Capacity	50~150% of ODUs	Refer to System Data	
	Model / Quantity	P06~P96/1~36	Refer to System Data	
Sound Pressure Level	dB(A)	61.0	Refer to System Data	
<i>Fan</i>				
Type x Quantity		Refer to Module Data	Propeller fan x 1	Propeller fan x 1
Airflow Rate	CFM		6,550	6,550
External Static Pressure	In. WG	Refer to Module Data	Selectable; 0, 0.12 or 0.24"WG; factory set to 0"W.G.	
Compressor Operating Range		6% to 100%	Refer to System Data	
Compressor Type x Quantity		Refer to Module Data	Inverter-driven Scroll Hermetic x 1	Inverter-driven Scroll Hermetic x 1
Refrigerant		Refer to Module Data	R410A; 13 lbs. + 3 oz. (6.0 kg)	R410A; 13 lbs. + 3 oz. (6.0 kg)
Protection Devices	High Pressure	Refer to Module Data	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-current protection	Over-current protection
	Fan Motor		Thermal switch	Thermal switch
AHRI Ratings (Ducted/Non-Ducted)	EER	12.3 / 14.2	Refer to System Data	
	IEER	21.2 / 26.6		
	COP	3.58 / 4.07	Refer to System Data	
	SCHE	25.0 / 28.8		

**NOTES:**  
 \*1. When applying product below -4° F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating.  
 \*2. For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal.  
 \*\* Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

# Outdoor Unit: PURY-P144YSLMU-A (-BS) – DIMENSIONS

Unit: mm (in.)



Front view

Left view

Twinning pipe connection size

Package unit name	PURY-P144YSLMU-A(-BS)	Unit model	P144	
Component unit name	PURY-P72YLMU-A(-BS)	Component unit model	P72	P72
Outdoor unit 1	PURY-P72YLMU-A(-BS)	High pressure	c	ø15.88(5/8)
Outdoor unit 2	PURY-P72YLMU-A(-BS)	Low pressure	d	- (Note 5)
Outdoor Twinning Kit (optional parts)	CMY-ER100CBK	Twinning Kit ~ Outdoor unit	e	ø15.88(5/8)
BC controller - Twinning pipe High pressure	ø22.2(7/8)		f	ø19.05(3/4)
BC controller - Twinning pipe Low pressure	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.

Note 2 Twinning pipe (High pressure) should not be tilted more than 15 degrees from the horizontal plane.

Note 3 Be sure to see the installation Manual for details of Twinning pipe installation.

Note 4 The pipe section before the Twinning pipe (section "a" in the figure) must have at least 500mm(19-11/16) of straight section.

Note 5 (\*1) Use the straight pipe that is supplied with the Twinning pipe.

Note 6 (\*2) Only use the twinning pipe by Mitsubishi (optional parts).

Note 7 Connect the outdoor unit 1 with the twinning pipe (Low pressure) (section "d" in the figure).

**NOTES:**

**SEACOAST PROTECTION**

- Anti-corrosion Protection: A coating treatment is applied to condenser coil for protection from air contaminants.
- Standard: Salt Spray Test Method - no unusual rust development to 480 hours.
- Sea Coast (BS): Salt Spray Test Method (JRA 9002) - no unusual rust development to 960 hours.

# Modules 1 and 2: PURY-P72YLMU-A (-BS) – DIMENSIONS

Unit: mm (in.)

- <Accessories>  
 • Connecting pipe  
 <Low pressure>  
 • Pipe (ID $\phi$ 28.88(1-1/8) $\times$ OD $\phi$ 22.2(7/8)) ... 1pc.  
 • Pipe (ID $\phi$ 22.2(7/8) $\times$ OD $\phi$ 19.05(3/4)) ... 1pc.  
 • Elbow (ID $\phi$ 28.88(1-1/8) $\times$ OD $\phi$ 28.58(1-1/8)) ... 1pc.  
 <High pressure>  
 • Pipe (ID $\phi$ 25.4(1) $\times$ ID $\phi$ 15.88(5/8)) ... 1pc.  
 • Pipe (ID $\phi$ 25.4(1) $\times$ OD $\phi$ 15.88(5/8)) ... 1pc.

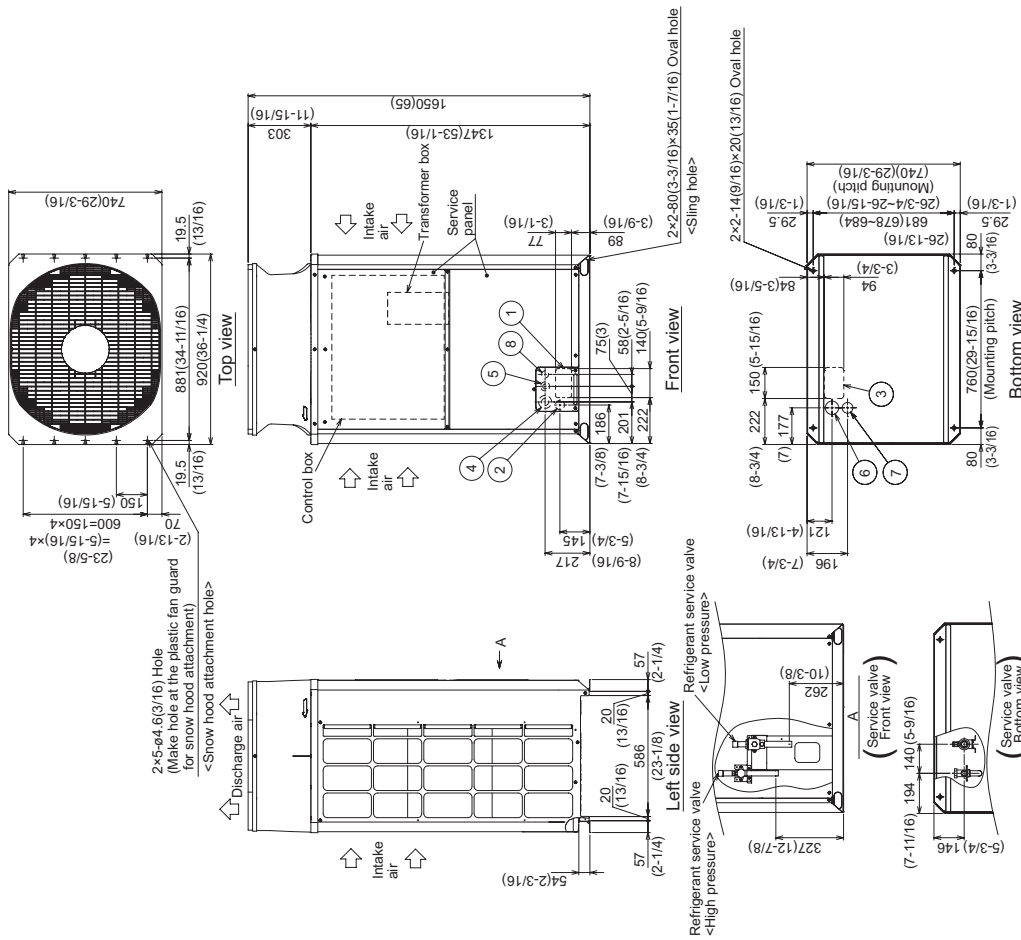
Note 1. Please refer to the engineering manual for information regarding necessary spacing around the unit and foundation work. Outdoor unit must be mounted at least 12" off the ground or 12" above the highest average snow depth, whichever is greater.  
 2. At brazing of pipes wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C(248 °F).

### Connecting pipe specifications

Model	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
PURY-P72YLMU	$\phi$ 15.88 Braze (5/8) - 1	$\phi$ 19.05 Braze (3/4) - 1	$\phi$ 25.4 (1)	$\phi$ 28.58 (1-1/8)

\*1 Use the included connecting pipe and connect to the refrigerant service valve piping.

NO.	Usage	Specifications
①	Front through hole	140 x 77 Knockout hole (5-9/16) (3-1/16)
②	Front through hole (Uses when twinning kit (optional parts) is mounted.)	$\phi$ 45 Knockout hole (1-1/3/16)
③	Bottom through hole	150 x 94 Knockout hole (5-15/16) (3-3/4)
④	Front through hole	$\phi$ 62.7 or $\phi$ 34.5 Knockout hole (2-1/2) (1-3/8)
⑤	Front through hole	$\phi$ 43.7 or $\phi$ 22.2 Knockout hole (1-3/4) (7/8)
⑥	Bottom through hole	$\phi$ 65 Knockout hole (2-9/16)
⑦	Bottom through hole	$\phi$ 52 Knockout hole (2-1/16)
⑧	Front through hole	$\phi$ 34 Knockout hole (1-3/8)



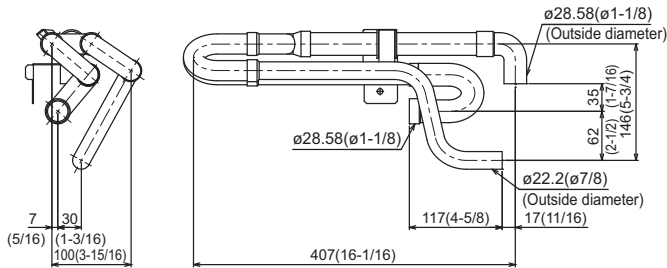
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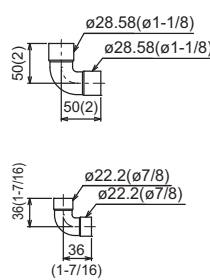
# Twinning Kit: CMY-ER100CBK

Unit: mm (inch)

### Low-pressure pipe twinning kit

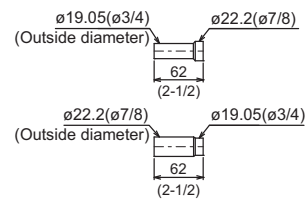


### <Elbow pipe(Accessory)>

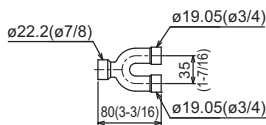


- <Accessory> Fixing screw ... 1
- Pipe cover ... 1
- Cable tie ... 2
- Insulation cover ... 1
- Buffer ... 1

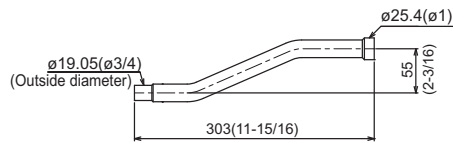
### <Deformed pipe(Accessory)>



### High-pressure twinning pipe



### <Pipe for routing through the bottom (Accessory)>



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

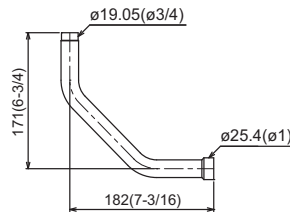
Twinning pipe on the high-pressure side



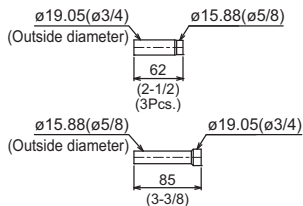
Slope of the twinning pipe is at an angle within  $\pm 15^\circ$  to the horizontal plane.

2: Pipe diameter is indicated by inside diameter.

### <Pipe for routing through the front (Accessory)>



### <Deformed pipe(Accessory)>



COOLING & HEATING

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