CITYMULTI® Model: 12-TON PQRY-P144YLMU-A

MITSUBISHI ELECTRIC

Job Name:	
System Reference:	Date:



MODULAR WATER-SOURCE VRF HEAT PUMP SYSTEM

ACCESSORIES

Joint Kit ..... For details see Pipe Accessories Submittal
BC Controller ..... For details see BC Controller Submittal

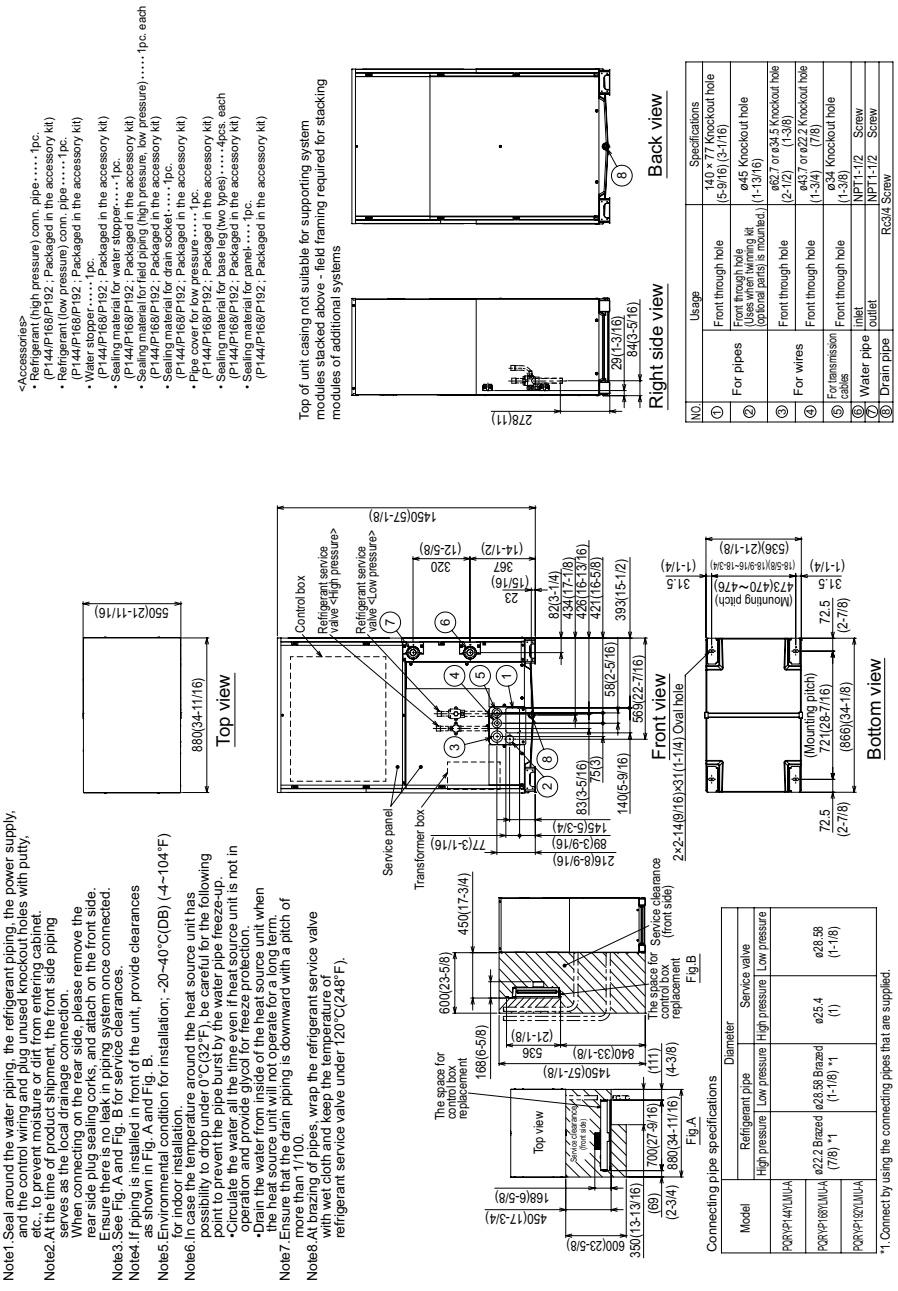
Specifications		Model Name
Unit Type		PQRY-P144YLMU-A
Nominal Cooling Capacity (460V)	Btu/h	144,000
Nominal Heating Capacity 460V)	Btu/h	160,000
Operating Temperature Range	Cooling (Indoor)	59~75° F 15~24° C) WB
	Heating (Indoor)	59~81° F (15~27° C) DB
Operating Water Temperature Range	Cooling	50~113° F (10~45° C)
	Heating	50~113° F (10~45° C)
External Dimensions (H x W x D)	In. (mm)	57-1/8 x 34-11/16 x 21-11/16 (1450 x 880 x 550)
Net Weight	Lbs. (kg)	505 (229)
External Finish		Galvanized steel sheet
Electrical Power Requirements	Voltage, Phase, Hertz	460V, 3-phase, 60Hz
Minimum Circuit Ampacity (MCA)	A	16
Maximum Overcurrent Protection (MOP)	A	25
Circulating Water (quality must meet regulations)		
Flow Rate	GPM / L/s	31.7 / 2
Pressure Drop	FT / psi	14.7 / 6.38
Operation Volume Range	GPM / L/m	19.8 - 50.9 / 75 - 193
Maximum Water Pressure	MPa / psi	2 / 290
Water-source Connection for Inlet and Outlet	In.	1-1/2 NPT
Piping Diameter (Brazed) (In. / mm)	High Pressure (Liquid)	7/8 / 22.20
	Low Pressure (Gas)	1-1/8 / 28.6
Max. Total Refrigerant Line Length	Ft.	2,460
Max. Refrigerant Line Length (Between ODU & IDU)	Ft.	541
Max. Control Wiring Length	Ft.	1,640
Indoor Unit	Total Capacity	50~150
	Model / Quantity	P6~P96/1~36
Sound Pressure Levels	dB(A)	54
Compressor Operating Range		19% - 100%
Compressor Type x Quantity		Inverter scroll hermetic compressor x 1
Refrigerant		R410A x 13 lbs. + 4 oz. (6.0 kg)
Protection Devices	High Pressure	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter Circuit	Over-heat protection, Over-current protection
	Compressor	Over-heat protection
AHRI Ratings (Ducted/Non-Ducted)	EER	12.1 / 15.4
	IEER	19.5 / 23.1
	COP	4.9 / 5.5
	SCHE	20.1 / 20.1

Specifications are subject to change without notice.

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Model:PQRY-P144YLMU-A- DIMENSIONS

Unit : mm(in)



<Accessories>
- Refrigerant (high pressure) conn. pipe……1pc. (P144/P168/P192 : Packaged in the accessory kit)
- Refrigerant (low pressure) conn. pipe……1pc. (P144/P168/P192 : Packaged in the accessory kit)
- Water stopper……1pc. (P144/P168/P192 : Packaged in the accessory kit)
- Sealing material for water stopper……1pc. (P144/P168/P192 : Packaged in the accessory kit)
- Sealing material for field piping (high pressure, low pressure)……1pc. each (P144/P168/P192 : Packaged in the accessory kit)
- Sealing material for drain socket……1pc. (P144/P168/P192 : Packaged in the accessory kit)
- Pipe cover for low pressure……1pc. (P144/P168/P192 : Packaged in the accessory kit)
- Sealing material for base leg (two types)……4pcs. each (P144/P168/P192 : Packaged in the accessory kit)
- Sealing material for panel……1pc. (P144/P168/P192 : Packaged in the accessory kit)

NO		Usage	Specifications
①	For pipes	Front through hole	140 × 77 Knockout hole (5-9/16) (3-1/16)
②		Front through hole (Uses when turning kit (optional parts) is mounted.)	ø45 Knockout hole (1-13/16)
③	For wires	Front through hole	ø62.7 or ø34.5 Knockout hole (2-1/2) (1-3/8)
④		Front through hole	ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8)
⑤	For transmission cables	Front through hole	ø34 Knockout hole (1-3/8)
⑥	Water pipe	inlet	NPT1-1/2 Screw
⑦		outlet	NPT1-1/2 Screw
⑧	Drain pipe		Rc3/4 Screw

Note1. Seal around the water piping, the refrigerant piping, the power supply, and the control wiring and plug unused knockout holes with putty, etc., to prevent moisture or dirt from entering cabinet.
Note2. At the time of product shipment, the front side piping serves as the local drainage connection.
When connecting on the rear side, please remove the rear side plug sealing corks, and attach on the front side. Ensure there is no leak in piping system once connected.
Note3. See Fig. A and Fig. B for service clearances.
Note4. If piping is installed in front of the unit, provide clearances as shown in Fig. A and Fig. B.
Note5. Environmental condition for installation; -20~40°C(DB) (-4~104°F) for more installation.
Note6. In case the temperature around the heat source unit has possibility to drop under 0°C(32°F), be careful for the following point to prevent the pipe burst by the water pipe freeze-up.
•Circulate the water all the time even if heat source unit is not in operation and provide glycol for freeze protection.
•Drain the water from inside of the heat source unit when the heat source unit will not operate for a long term.
Note7. Ensure that the drain piping is downward with a pitch of more than 1/100.
Note8. 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	Diameter			
	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
PQRY-P144YLMU-A	ø22.2 Brazed (7/8) *1	ø28.58 Brazed (1-1/8) *1	ø25.4 (1)	ø28.58 (1-1/8)
PQRY-P168YLMU-A				
PQRY-P192YLMU-A				

*1. Connect by using the connecting pipes that are supplied.

MITSUBISHI ELECTRIC
COOLING & HEATING

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AHRI CERTIFIED www.ahridirectory.org Variable Refrigerant Flow (VRF) Multi-Split AC and HP AHRI Standard 1230

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FORM# PQRY-P144YLMU-A-201708

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