

Job Name:

System Reference:

Date:

**FEATURES**

- Single modules up to 20 tons with the ability to combine single modules for systems up to 30 tons
- 208/230V, 3-Phase, 60Hz and 460V, 3-Phase, 60Hz options
- Designed for closed water loops
- Dual heat recovery - from water loop and refrigerant circuit
- 0-10V output signal to modulate water flow for compliance with energy codes
- Features Variable Evaporating Temperature (VET) technology, which enables the outdoor unit to raise the target evaporation temperature based on the difference between set point and return air temperature, saving energy.
- Water flow can be stopped while the unit is in a thermo-off state, saving on pump energy consumption. For twinned systems, both modules must be thermo-off to stop water flow.
- Enhanced water-side heat exchanger design for improved efficiency and reduced risk of clogging
- Self-cooling cabinet design
- Inlet water temperature range: 23-113° F
- Max. Total Refrigerant Piping Length: up to 2,460 feet based on model
- Connects to CITY MULTI® indoor units; controlled via CITY MULTI® Controls Network (CMCN)
- External finish: Acrylic-painted steel
- Stack multiple units on a field-supplied rack to take advantage of vertical space when available
- Extended 10-year parts and compressor warranty available

**ACCESSORIES**

- Joint Kit (for details see Pipe Accessories Submittal)
- BC Controller (for details see BC Controller Submittal)

## SPECIFICATIONS: PQRY-P72YLMU-A1

Specifications		Model Name	
Unit Type		PQRY-P72YLMU-A1	
Nominal Cooling Capacity (460V)		Btu/h	72,000
Nominal Heating Capacity (460V)		Btu/h	80,000
Operating Temperature Range	Cooling (Indoor)	W.B.	59~75°F (15~24°C)
	Heating (Indoor)	D.B.	59~81°F (15~27°C)
Operating Water Temperature Range	Circulating water	°F	50~113°F (10~45°C)
	Circulating water	°F	50~113°F (10~45°C)
External dimension H x W x D		In.	43-5/16 x 34-11/16 x 21-11/16
		mm	1,100 x 880 x 550
Net weight		lbs. (kg)	406 (184)
External finish		Galvanized steel sheets	
Electrical Power Requirements	Voltage, Phase, Hertz		460V, 3-phase, 60Hz
Minimum Circuit Ampacity		A	6
Maximum Overcurrent Protection		A	15
<b>Circulating Water (quality must meet regulations)</b>			
Flow Rate		G/min (gpm)	25.4
		L/s	1.6
Pressure Drop		Ft.	8.0
		psi	3.48
Operation Volume Range		G/min (gpm)	13.2 ~ 31.7
		L/m	50 ~ 120
Maximum Water Pressure		MPa	2
		psi	290
Water-source Connection for Inlet and Outlet		In.	1-1/2 NPT
Piping Diameter (Brazed)	Liquid (High Pressure)	In. (mm)	5/8 (15.88)
	Gas (Low Pressure)	In. (mm)	3/4 (19.05)
Max. Total Refrigerant Line Length		Ft.	1,804
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.	541
Max. Control Wiring Length		Ft.	1,640
Indoor Unit	Total capacity		50~150% of heat source unit capacity
	Model/Quantity		P06~P96/1~18
Sound pressure level (measured in anechoic room)		dB(A)	46
Compressor Operating Range		24% - 100%	
Compressor Type x Quantity		Inverter scroll hermetic compressor x 1	
Motor output		kW	4.3
Lubricant		MEL32	
Refrigerant		R410A x 11 lbs. + 1 oz. (5.0 kg)	

## SPECIFICATIONS: PQRYP72YLMU-A1

Specifications		Model Name
Unit Type		PQRYP72YLMU-A1
Protection Devices	High pressure protection	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	16.7 / 20.1
	IEER	24.2 / 28.1
	COP	5.51 / 6.05
	SCHE	23.6 / 24.4

Notes:

# DIMENSIONS: PQRV-P72YLMU-A1

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.

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 indoor 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.

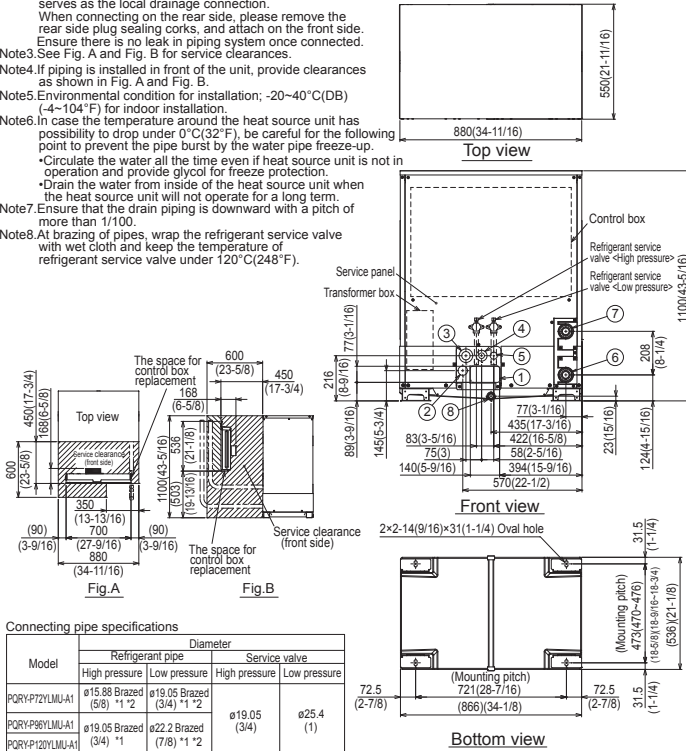
Note7. Ensure that the drain piping is downward with a pitch of more than 1/100.

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).

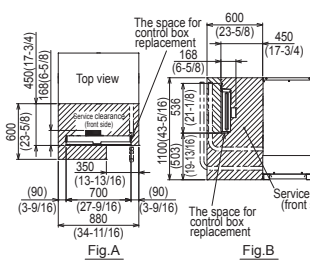
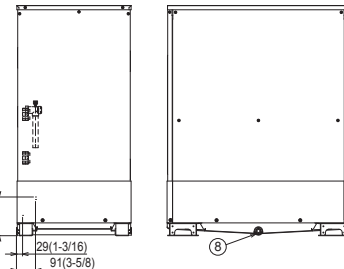
Unit : mm(in)

<Accessories>

- Refrigerant (high pressure) conn. pipe ..... 1pc.  
(P72/P96/P120 ; Packaged in the accessory kit)
- Refrigerant (low pressure) conn. elbow ..... 1pc.  
(P72/P96/P120 ; Packaged in the accessory kit)
- Water stopper ..... 1pc.  
(P72/P96/P120 ; Packaged in the accessory kit)
- Sealing material for water stopper ..... 1pc.  
(P72/P96/P120 ; Packaged in the accessory kit)
- Sealing material for field piping (high pressure, low pressure) ..... 1pc. each  
(P72/P96/P120 ; Packaged in the accessory kit)
- Sealing material for drain socket ..... 1pc.  
(P72/P96/P120 ; Packaged in the accessory kit)
- Pipe cover for low pressure ..... 1pc.  
(P72/P96/P120 ; Packaged in the accessory kit)



Top of unit casing not suitable for supporting system modules stacked above - field framing required for stacking modules of additional systems



Model	Diameter			
	Refrigerant pipe High pressure	Refrigerant pipe Low pressure	Service valve High pressure	Service valve Low pressure
PQRV-P72YLMU-A1	ø15.88 Brazed (5/8) *1 *2	ø19.05 Brazed (3/4) *1 *2	ø19.05 (3/4)	ø25.4 (1)
PQRV-P96YLMU-A1	ø19.05 Brazed (3/4) *1	ø22.2 Brazed (7/8) *1 *2		
PQRV-P120YLMU-A1				

\*1 Connect by using the connecting pipes and elbow that are supplied.  
\*2 Use the pipe joint(field supply) 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	For pipes	Front through hole (Uses wheel twinning kit (optional parts) is mounted.)
③	For wires	ø62.7 or ø34.5 Knockout hole (2-1/2) (1-3/8)
④	For wires	ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8)
⑤	For transmission cables	ø34 Knockout hole (1-3/8)
⑥	Water pipe	inlet NPT1-1/2 Screw outlet NPT1-1/2 Screw
⑦	Drain pipe	Rc3/4 Screw



**COOLING & HEATING**

1340 Satellite Boulevard, Suwanee, GA 30024  
Toll Free: 800-433-4822 www.mehvac.com



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Specifications are subject to change without notice.

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