

Job Name:

Schedule Reference:

Date:

VRF HEAT PUMP WITH HEAT
RECOVERY SYSTEM**UNIT OPTION**

- ☐
- Standard Model PQRV-P72TLMU-A1

ACCESSORIES

BC Controller Main	CMB-P108,1012,1016NU-JA1, CMB-P1016NU-KA1
BC Controller Sub	CMB-P104,108NU-KB1
BC controller:.....	CMB-P104,106,108,1012,1016NU-J1
Joint Adapter (Port Connector > 54,000 Btu/h).....	CMY-R160-J1
Branch Joint (Downstream capacity ≤72,000 Btu/h).....	CMY-Y102SS-G2
Branch Joint (Downstream capacity 73,000-96,000 Btu/h).....	CMY-Y102LS-G2
Branch Joint (Downstream capacity ≤126,000 Btu/h)	CMY-R201S-G
Branch Joint (Downstream capacity 127,000-216,000 Btu/h).....	CMY-R202S-G
Reducer (Between ODU and BC).....	CMY-R301S-G
Reducer (Between Main and Sub BC).....	CMY-R306S-G
Reducer (Between ODU and BC)	CMY-R302S-G1
Reducer (Between Main and Sub BC).....	CMY-R303S-G1
Reducer (Between Main and Sub BC).....	CMY-R304S-G1
Reducer (Between Main and Sub BC).....	CMY-R305S-G1

Specifications		Model Name
Unit Type		PQRV-P72TLMU-A1
Nominal Cooling Capacity	Btu/h	72,000
Nominal Heating Capacity	Btu/h	80,000
External Dimensions (H x W x D)	In. / mm	43-5/16 x 34-11/16 x 21-11/16 / 1,100 x 880 x 550
Net Weight	Lbs. / kg	380 / 172
Electrical Power Requirements	Voltage, Phase, Hertz	208/230V, 3-phase, 60Hz
Cooling Power Input	kW	3.23
Heating Power Input	kW	3.63
Cooling Current (208/230V)	A	9.9 / 9.9
Heating Current (208/230V)	A	11.1 / 10.1
Minimum Circuit Ampacity (MCA) *	A	13 / 12
Maximum Fuse Size	A	20 / 20
<i>Circulating Water (quality must meet regulations)</i>		
Flow Rate	GPM / L/s	25 / 1.5
Pressure Drop	psi	3.48
Operation Volume Range	GPM / L/s	13 - 32 / 1 - 2
Maximum Water Pressure	MPa / psi	2 / 290
Water-source Connection	In.	NPT1-1/2 Screw (Install strainer (more than 50 meshes) at water inlet piping of the unit)
Piping Diameter (Brazed) (In. / mm)	Liquid (High Pressure)	5/8 / 15.88
	Gas (Low Pressure)	3/4 / 19.05
Indoor Unit	Total Capacity	50 to 150% of Water-source Unit Capacity
	Model / Quantity	P06 to P96 / 1 to 18
Sound Pressure Levels	dB(A)	46
Compressor Operating Range		24 - 100%
Compressor Type x Quantity		Inverter-driven Scroll Hermetic x 1
Compressor Motor Output	kW	4.3
Compressor Crankcase Heater	kW	-
Refrigerant		R410A
Lubricant		MEL32
High-pressure Protection Device		601 psi / 4.15 MPa
Compressor / Fan Protection Device		Overheat Protection
Inverter Protection Device		Overheat / Overcurrent Protection

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Notes:

Note: Mitsubishi Electric (MESCA) supports the use of only MESCA supplied and approved accessories for proper functioning of the unit(s).
Use of non-MESCA supported accessories will affect warranty coverage.

Specifications are subject to change without notice.

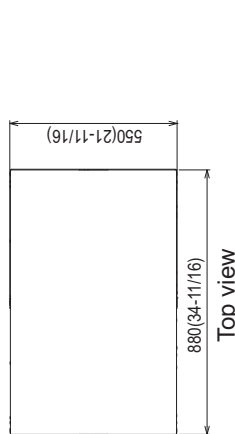


Module: PQRY-P72TLMU-A1 - DIMENSIONS

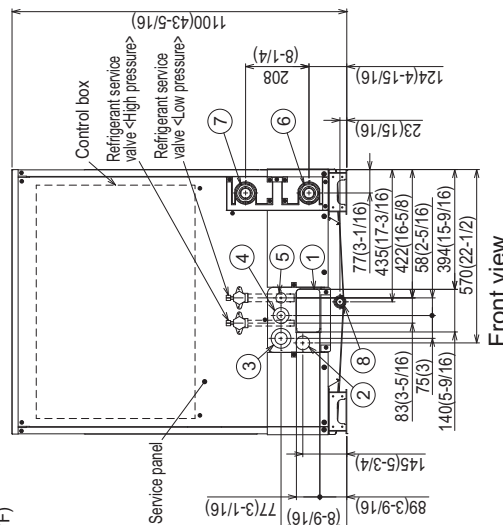
Unit: mm(in)

<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)



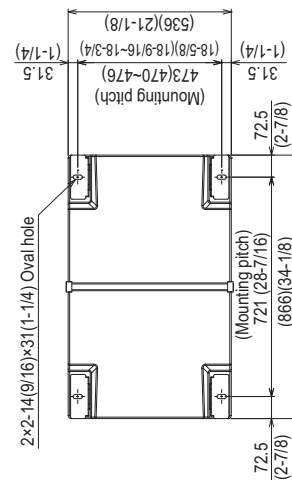
Top view



Front view

Back view

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



Bottom view

- Note1 Close a hole of the water piping, the refrigerant piping, the power supply, and the control wiring and unused knockout holes with the putty etc. so as not to infiltrate rain water etc.(field erection work)
- Note2 At the time of product shipment, the front side piping specification serves as the local drainage connection. When connecting on the rear side, please remove the rear side plug sealing corks, and attach a front side. Ensure there is no leak after the attachment has been fitted.
- Note3 Take notice of service space as Fig.A. (In case of single installation, 600mm(23-5/8) or more of back space as front space makes easier access when servicing the unit from rear side.)
- Note4 If water pipes or refrigerant pipes stretch upward, required space for service and maintenance due to replacement of control box is shown in Fig.B.
- Note5 Environmental condition for installation: -20~40°C(DB) (-4~104°F) as 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 the heat source unit is not in operation.
 - 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).

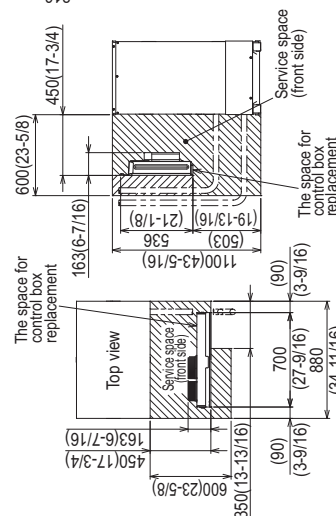


Fig.A

Fig.B

Connecting pipe specifications

Connecting pipe specifications				
Model	Refrigerant pipe		Diameter	
	High pressure	Low pressure	High pressure	Service valve
PQRY-P72TLMU-A1	ø15.88 Brazed (5/8) *1 *2	ø19.05 Brazed (3/4) *1 *2		
PQRY-P96TLMU-A1	ø19.05 Brazed (3/4) *1	ø22.2 Brazed (7/8) *1 *2	ø19.05 (3/4)	ø25.4 (1)
PQRY-P120TLMU-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.

