

Job Name:

System Reference:

Date:

460V MODULAR WATER-SOURCE VRF HEAT PUMP SYSTEM**ACCESSORIES**

- ☐ Optical Relay for Flow Switch (One Piece)..... RIBTE24B
- ☐ Transformer 50VA (One Piece)..... TR50VA015
- ☐ 1.5" Temp sensor, optional (One Piece)..... ZM-TW150NPT KIT
- ☐ 1.5" EPIV Valve (One Piece)..... EV150S396NRXME
- ☒ Twinning Kit (Required)..... CMY-Q200CBK
- ☒ BC Controller (Required)..... for details see BC Controller Submittals
- ☐ Joint Kit..... for details see Pipe Accessories Submittal

NOTE:

Requires two transformers

Requires one optical relay

Requires two temp sensors per one EPIV valve if optional temps sensors are used.

Requires four temp sensors per one EPIV valve if optional temps sensor are used.

Specifications			System
Unit Type			PQRY-P336YSLMU-A1
Cooling Capacity (Nominal)		BTU/H	336,000
Heating Capacity (Nominal)		BTU/H	378,000
Net Weight		Lbs. [kg]	1,016 [460]
Refrigerant Piping Diameter (From Twinning Kit to First Joint or Header)	Liquid (High Pressure)	In. [mm]	1-1/8 [28.58] Braze
	Gas (Low Pressure)	In. [mm]	1-5/8 [41.28] Braze
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 Connectable		Total Capacity	50.0~150.0% of heatsource unit capacity
		Model/Quantity	P06~P96/2.0~50.0
Sound Pressure Level		dB(A)	59.0/59.0
Compressor Operating Range			8.0% to 100.0%
AHRI Ratings (Ducted/Non-ducted)	EER		11.1/12.3
	IEER		16.8/20.1
	COP		4.66/5.23
	SCHE		19.7/19.0

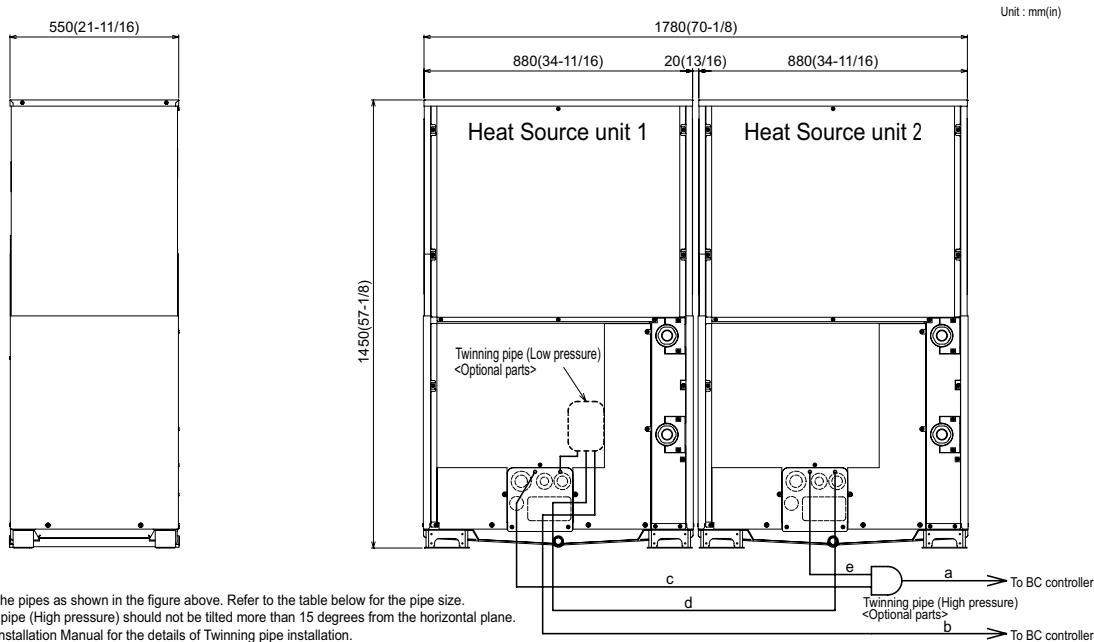
Specifications			Module 1	Module 2
Unit Type			PQRY-P168YLMU-A1	PQRY-P168YLMU-A1
Cooling Capacity (Nominal)		BTU/H	168,000	168,000
Heating Capacity (Nominal)		BTU/H	188,000	188,000
Operating Temperature Range	Cooling (Indoor)	°F WB [°C WB]	59~75 [15.0~ 24.0]	59~75 [15.0~ 24.0]
	Heating (Indoor)	°F DB [°C DB]	59~81 [15.0~27.0]	59~81 [15.0~27.0]
Operating Water Temperature Range¹	Cooling/Heating	°F [°C]	50~113.0 [10~45.0]	50~113.0 [10~45.0]
External Dimensions (H x W x D)		In. [mm]	57-1/8 x 34-11/16 x 21-11/16 [1,450 x 880 x 550]	57-1/8 x 34-11/16 x 21-11/16 [1,450 x 880 x 550]
Net Weight		Lbs. [kg]	508 [230]	508 [230]
External Finish			Galvanized steel sheets	Galvanized steel sheets
Electrical Power Requirements		Voltage, Phase, Hertz, Power Tolerance	460, 3, 60, ±10	460, 3, 60, ±10
Minimum Circuit Ampacity		A	20.0	20.0
Maximum Overcurrent Protection		A	35	35
SCCR		kA	5	5
Flow Rate		G/min [gpm]	31.7	31.7
		L/min	120	120
Pressure Drop		psi	6.38	6.38
		Ft.	14.7	14.7
Operation Volume Range		G/min [gpm]	19.8~50.9	19.8~50.9
		m3/h	4.5~11.6	4.5~11.6
Refrigerant Piping Diameter (From Twinning Kit)	Liquid (High Pressure)	In. [mm]	7/8 [22.2] Braze	7/8 [22.2] Braze
	Gas (Low Pressure)	In. [mm]	1-1/8 [28.58] Braze	1-1/8 [28.58] Braze
Compressor		Type x Quantity	Inverter scroll hermetic x 1	Inverter scroll hermetic x 1
Compressor Motor Output		kW	11.0	11.0
Refrigerant		Type x Original Charge	R410A x 13.0 lbs. + 4.0oz. [6.0 kg]	R410A x 13.0 lbs. + 4.0oz. [6.0 kg]
Lubricant		Lubricant	MEL32	MEL32
Protection Devices	High Pressure Protection	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	Inverter Circuit	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor	Compressor	Over-heat protection	Over-heat protection

NOTES:

¹23°F EWT (Entering water temperature) is possible with glycol.

Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

OUTDOOR UNIT: PQRYP336YSLMU-A1 – DIMENSIONS



Note 1. Connect the pipes as shown in the figure above. Refer to the table below for the pipe size.

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

3. See the Installation Manual for the details of Twinning pipe installation.

4. Only use the Twinning pipe by Mitsubishi (optional parts).

Twinning pipe connection size

Package unit name		PQRY-P288YSLMU-A1	PQRY-P312YSLMU-A1	PQRY-P336YSLMU-A1
Component unit name	Heat Source unit 1	PQRY-P144YLMU-A1	PQRY-P168YLMU-A1	PQRY-P168YLMU-A1
	Heat Source unit 2	PQRY-P144YLMU-A1	PQRY-P144YLMU-A1	PQRY-P168YLMU-A1
Twinning pipe Kit(optional parts)		CMY-Q200CBK		
BC controller-Twinning pipe	High pressure	a	ø28.58(1-1/8)	
	Low pressure	b	ø34.93(1-3/8)	
			ø41.28(1-5/8)	

	Unit model	High pressure c or e	Low pressure d
		P144 ø22.2(7/8)	P168 ø28.58(1-1/8)

MODULE 1: PQRY-P168YLMU-A1 – DIMENSIONS

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 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.

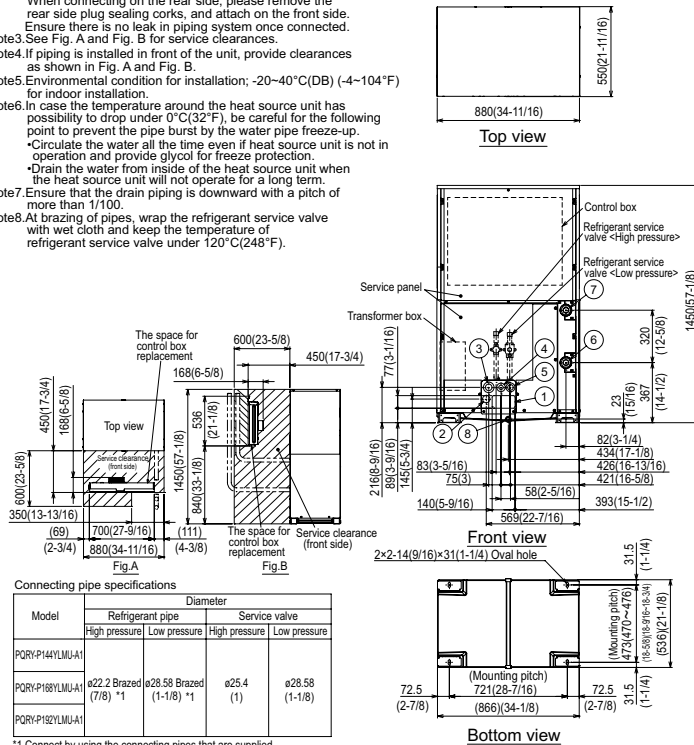
Note8. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C(248°F).

Unit: mm(in)

<Accessories>

- Refrigerant (high pressure) conn. pipe.....1pc.
(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)

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



Connecting pipe specifications

Model	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
PQRY-P144YLMU-A1	ø22.2 Braze (7/8) *1	ø28.58 Braze (1-1/8) *1	ø25.4 (1)	ø28.58 (1-1/8)
PQRY-P168YLMU-A1	ø22.2 Braze (7/8) *1	ø28.58 Braze (1-1/8) *1	ø25.4 (1)	ø28.58 (1-1/8)
PQRY-P192YLMU-A1	ø22.2 Braze (7/8) *1	ø28.58 Braze (1-1/8) *1	ø25.4 (1)	ø28.58 (1-1/8)

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

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 when twinning 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	For wires	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	Water pipe outlet	NPT1-1/2 Screw
⑧	Drain pipe	Rc3/4 Screw

MODULE 2: PQRY-P168YLMU-A1 – DIMENSIONS

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.

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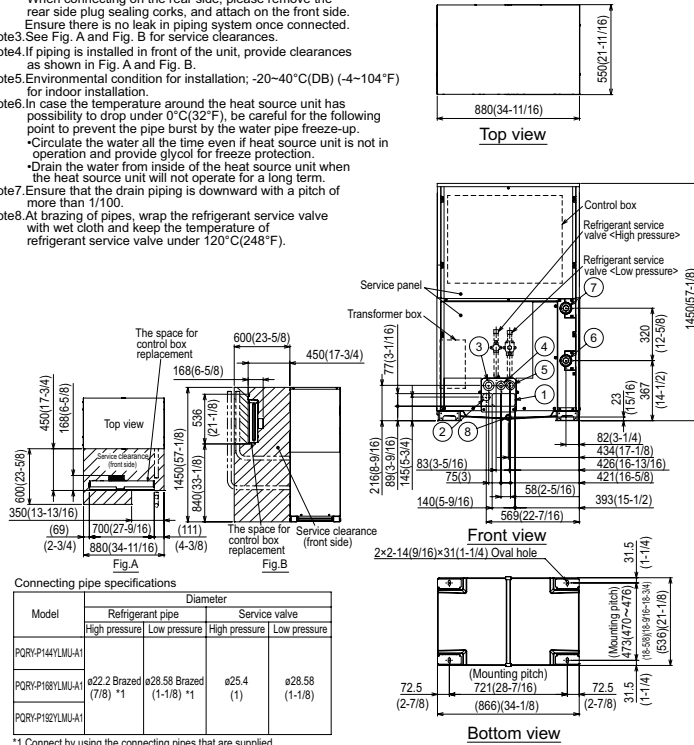
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⑤	For transmission cables	Front through hole ø34 Knockout hole (1-3/8)
⑥	Water pipe inlet	NPT1-1/2 Screw
⑦	Water pipe outlet	NPT1-1/2 Screw
⑧	Drain pipe	Rc3/4 Screw