

Submittal Data: PQRYP168ZSLMU-B

Job Name:		Location:	
Purchaser:		Submitted By:	
Submitted To:		Engineer:	
Date:		Application:	

☐ Reference
 ☐ Approval
 ☐ Construction



*Reference image

GENERAL FEATURES:

- Simultaneous heating and cooling operation
- Double heat recovery operation within refrigerant loop and water loop
- Water flow rate control via DC 0-10V from control board

Accessories	Model Numbers
Twinning Kit	CMY-Q100CBK2
Joint	CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1, CMY-R201, 202, 203, 204, 306S-G, CMY-R302, 303, 304, 305S-G1
Main BC Controller	CMB-P108, 1012, 1016NU-JA2, CMB-P1016NU-KA2
Sub BC Controller	CMB-P104, 108NU-KB2

Outdoor Model	PQRY-P168ZSLMU-B	
Power Source	3-phase 3-wire 575 V ±10% 60 Hz	
Cooling		
Cooling Capacity (Nominal)	168,000	
Cooling Capacity (Nominal)	49.2	
Power Input (Nominal)	9.33	kW
Current Input (Nominal)	10.4	A
Cooling Capacity (Rated)	160000	BTU/h
Cooling Capacity (Rated)	46.9	kW
Power Input (Rated) Non-Ducted/ Ducted	8.87/9.66	kW
Current Input (Rated) Non-Ducted/ Ducted	9.8/10.7	A
Guaranteed Operating Range (Indoor)	59.0°F~75.0°F W.B. (15.0°C~24.0°C)	
Guaranteed Operating Range (Outdoor)	50~113°F (10~45°C)	
Heating		
Heating Capacity (Nominal)	188000	BTU/h
Heating Capacity (Nominal)	55.1	kW
Power Input (Nominal)	9.34	kW
Current Input (Nominal)	10.4	A
Heating Capacity (Rated)	178000	BTU/h
Heating Capacity (Rated)	52.2	kW
Power Input (Rated) Non-Ducted/ Ducted	8.05/8.04	kW
Current Input (Rated) Non-Ducted/ Ducted	8.9/8.9	A
Operating Range (Indoor)	59.0°F~81.0°F D.B. (15.0°C~27.0°C)	
Operating Range (Outdoor)	50~113°F (10~45°C)	
Refrigerant Piping		
High Pressure Diameter	7/8 (22.2) Brazed	
Low Pressure Diameter	1-1/8 (28.58) Brazed	
Indoor Unit Connectable		
Total Capacity	50~150% of heat source unit capacity	
Model / Maximum Quantity	P04~P96/42	
Sound Power level (in anechoic room)	66.5	dB <A>

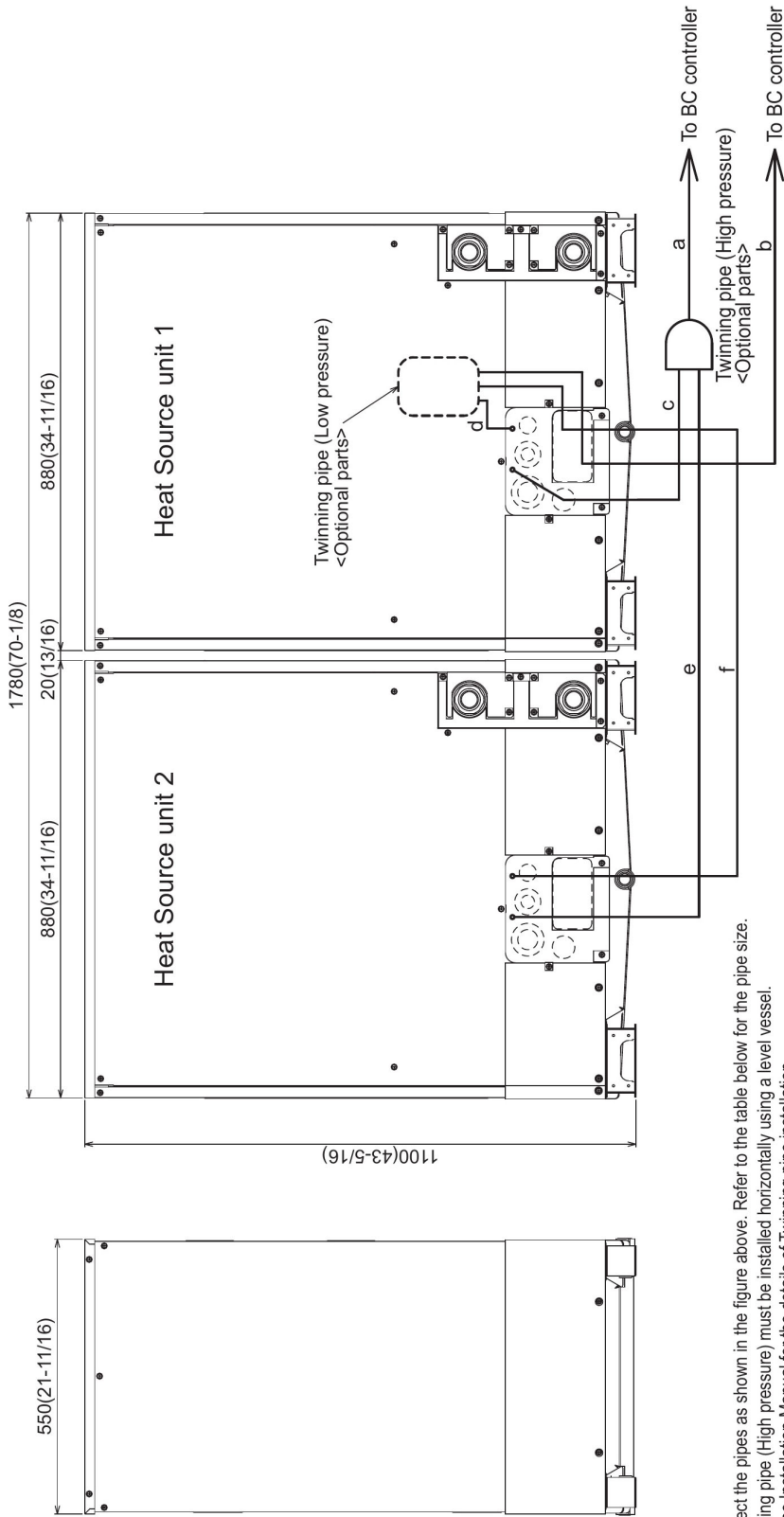
Outdoor Model	PQRY-P96ZLMU-B	PQRY-P72ZLMU-B	
Electrical			
Minimum Circuit Ampacity (MCA)	9	6	A
Maximum Overcurrent Protection (MOP)	15	15	A
Circulating Water			
Circulating water flowrate	25.4 + 25.4 (96 + 96)		G/min (L/min)
Circulating water Pressure drop	3.48 (24)	3.48 (24)	psi (kPa)
Circulating water flowrate/pressure operating range	13.2 + 13.2 - 31.7 + 31.7 (3.0 + 3.0 - 7.2 + 7.2)		G/min (m3/h)
Refrigerant Piping between unit and distributor			
High Pressure Diameter	3/4 (19.05) Brazed	3/4 (19.05) Brazed	in. (mm)
Low Pressure Diameter	-	7/8 (22.2) Brazed	in. (mm)
Compressor			
Type x Quantity	Inverter scroll hermetic x 1	Inverter scroll hermetic x 1	
Motor Output	6	4.3	kW
Starting Method	Inverter	Inverter	
Case Heater	0.035	0.035	kW
Lubricant	MEL32		
Physical & Finish			
External finish	Galvanized steel sheets		
External Dimensions (H x W x D)	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16	in
External Dimensions (H x W x D)	1,100 x 880 x 550	1,100 x 880 x 550	mm
Net Weight	406 (184)	406 (184)	lb (kg)
Refrigerant			
Type x Original Charge	R410A x 11 lbs + 1 oz (5.0 kg)	R410A x 11 lbs + 1 oz (5.0 kg)	

Notes:

- Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)
- Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 68°F D.B. (20°C D.B.), Inlet water temperature: 68°F (20°C)
- The sound values are sound power level (PWL) based on ISO 3744:2010 (r=3.5m).
Test conditions: Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)
- 23°F EWT (Entering water temperature) is possible via DipSwitch Setting. Antifreeze (glycol) must be added to the water loop to prevent freezing down to 5°F
- The ambient temperature of the Heat Source Unit is to be below 104°F D.B. (40°C D.B.)
- The ambient relative humidity of the Heat Source Unit is to be below 80%.
- The Heat Source Unit should not be installed at outdoor.
- Use a strainer (more than 50 meshes) at the water inlet piping of the unit.
- Provide interlocking for the unit operation and water circuit.
- Install the supplied insulation material to the unused drain-socket.
- When installing insulation material around both water and refrigerant piping, follow the installation manual.
- The water circuit must be a closed circuit (water is not exposed to the atmosphere).
- All electrical work shall comply with Nation (CEC) and local codes and regulations
- Should this document be altered or changed without MESCA's permission, it becomes null and void. MESCA assumes no responsibility for any consequences in such cases.
- Mitsubishi Electric (MESCA) supports the use of only MESCA supplied and approved accessories. Use of non-MESCA supported accessories will affect warranty coverage

PQRYP144, 168, 192, 216, 240ZSLMU-B

Unit: mm(in)



- 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) must be installed horizontally using a level vessel.
3. See the Installation Manual for the details of Twinning pipe installation.
4. Only use the Twinning pipe by Mitsubishi (optional parts).
5. Connect the heat source unit 1 with the Twinning pipe (Low pressure) (section "d" in the figure).

Twinning pipe connection size

Package unit name	PQRYP144ZSLMU-B	PQRYP168ZSLMU-B	PQRYP192ZSLMU-B	PQRYP216ZSLMU-B	PQRYP240ZSLMU-B
Heat source unit 1	PQRYP72ZLMU-B	PQRYP96ZLMU-B	PQRYP120ZLMU-B	PQRYP144ZLMU-B	PQRYP168ZLMU-B
Heat source unit 2	PQRYP72ZLMU-B	PQRYP96ZLMU-B	PQRYP120ZLMU-B	PQRYP144ZLMU-B	PQRYP168ZLMU-B
Twinning Kit(optional parts)	QWY-Q100CBK2				
High pressure	ø22.2(7/8)				
Low pressure	ø22.2(7/8) *1				
BC controller-Twinning pipe	ø28.58(1-1/8)				
High pressure	ø15.88(5/8)				
Low pressure	ø19.05(3/4)				
Heat source unit 1	ø15.88(5/8)				
Low pressure	ø19.05(3/4)				
Heat source unit 2	ø15.88(5/8)				
Low pressure	ø19.05(3/4)				

*1. When the piping length is 65 m (213 ft) or longer, use the ø28.58(1-1/8) pipe for the part that exceeds 65 m (213 ft).

Unit: mm(in)

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

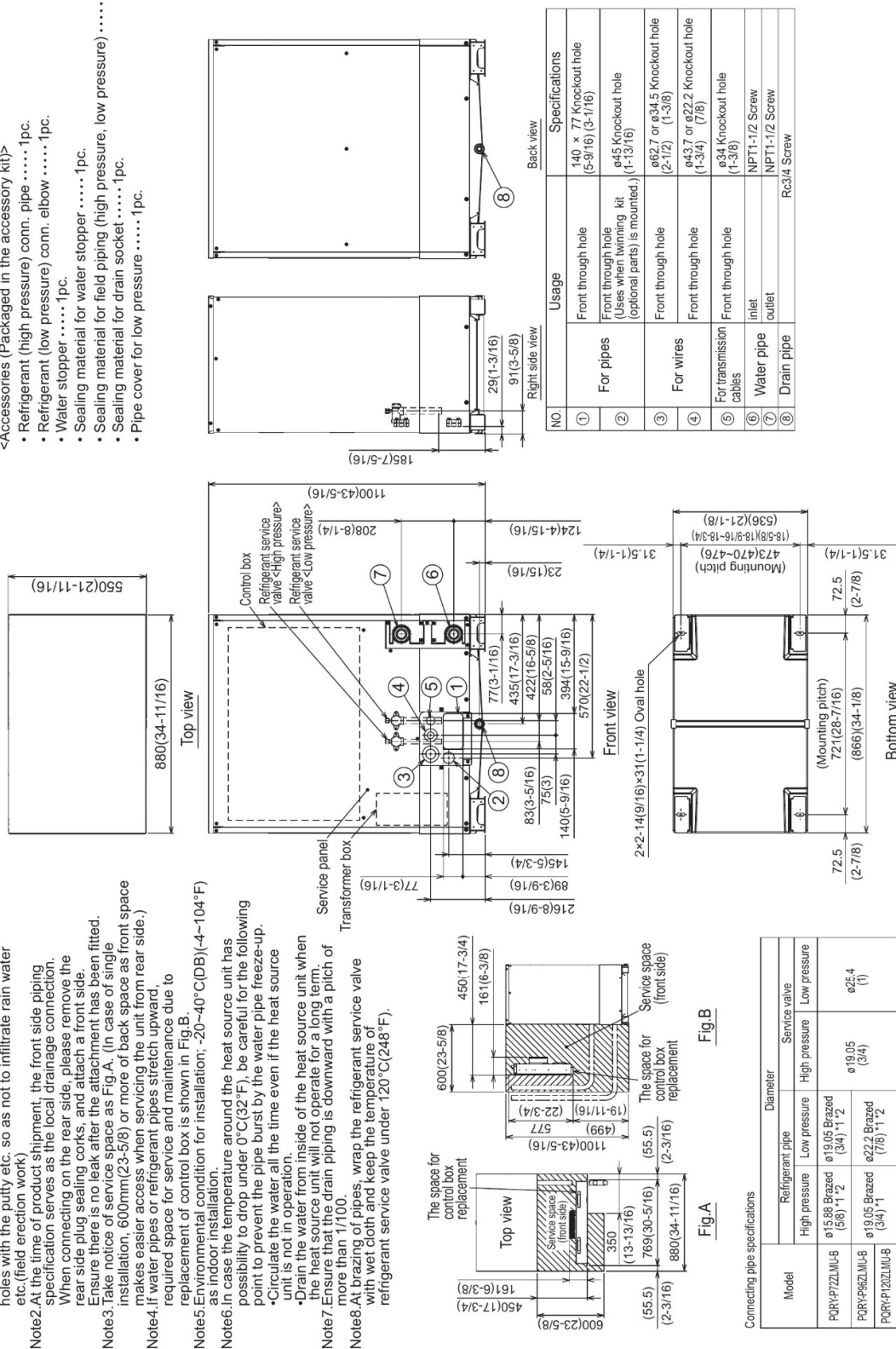


Fig. B

Fig. A

Connecting pipe specifications

Model	Diameter		
	Refrigerant pipe		Service valve
	High pressure	Low pressure	High pressure
PORV1P77ZMLU-6	ø15.88 Brazed (5/8)" 1/2	ø19.05 Brazed (3/4)" 1/2	ø25.4 (1")
PORV1P66ZMLU-6	ø19.05 Brazed (3/4)" 1/2	ø22.2 Brazed (7/8)" 1/2	ø19.05 (3/4)"
PORV1P107ZMLU-6			

*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.