Submittal Data: PQRY-P72ZLMU-B

MITSUBISHI ELECTRIC
Heating and Cooling

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
- Compatible with Mitsubishi Hybrid VRF system with HBC Controller(s)

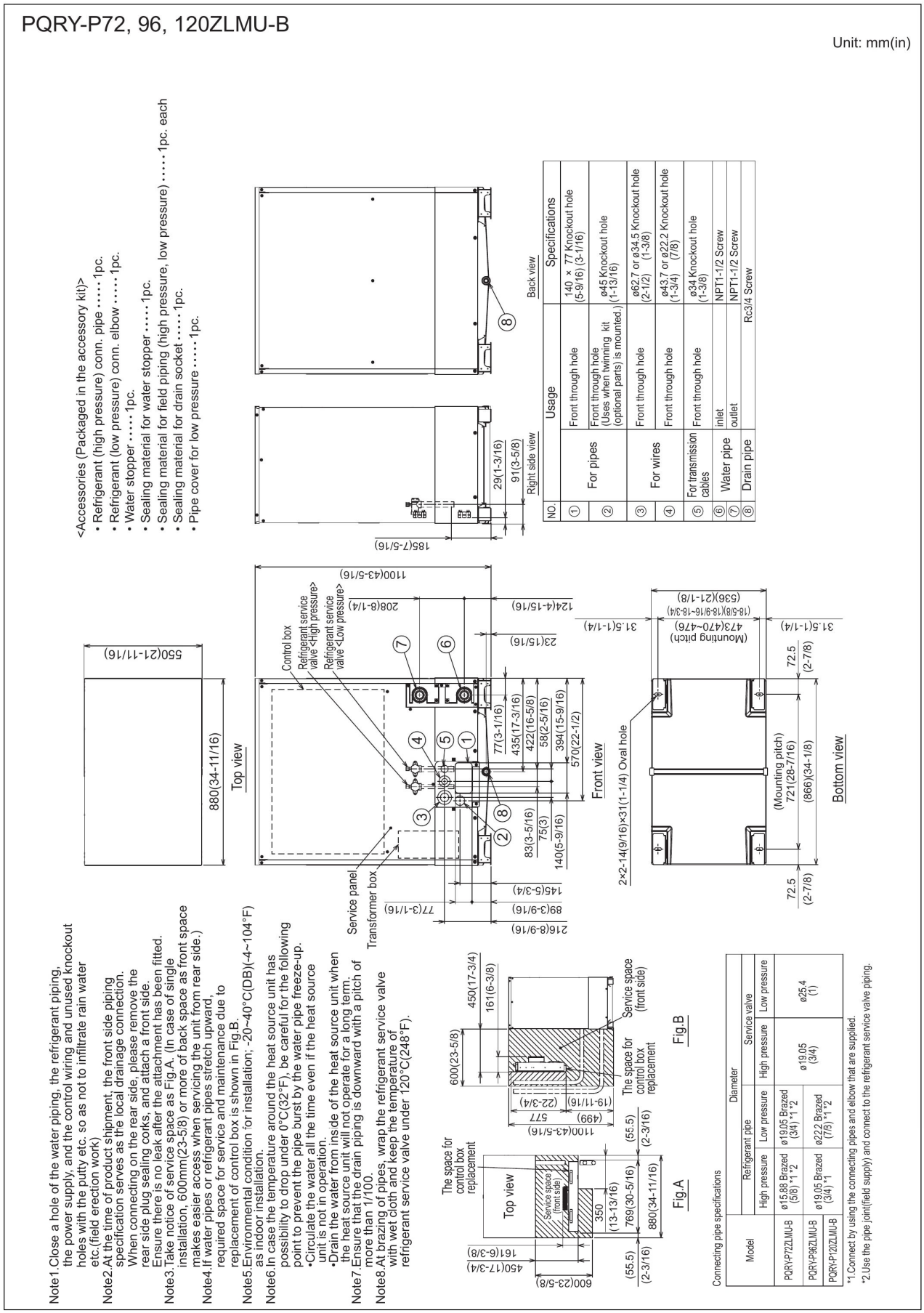
Accessory	Model Numbers
Joint	CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1, CMY-R201, 301, 306S-G, CMY-R302, 303, 304, 305S-G1
BC Controller	CMB-P104, 106, 108, 1012, 1016NU-J2
Main BC Controller	CMB-P108, 1012, 1016NU-JA2, CMB-P1016NU-KA2
Sub BC Controller	CMB-P104, 108NU-KB2
Main HBC Controller	CMB-WP108, CMB-1016NU-AA
Sub-HBC Controller	CMB-WP108, CMB-1016NU-AB

Outdoor Model	PQRY-P72ZLMU-B	
Power Source	3-phase 3-wire 575 V ±10% 60 Hz	
Cooling		
Cooling Capacity (Nominal)	72000	BTU/h
Cooling Capacity (Nominal)	21.1	kW
Power Input (Nominal)	3.61	kW
Current Input (Nominal)	4	A
Cooling Capacity (Rated)	69000	BTU/h
Cooling Capacity (Rated)	20.2	kW
Power Input (Rated) Non-Ducted/ Ducted	3.6/3.59	kW
Current Input (Rated) Non-Ducted/ Ducted	4.0/4.0	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)	80000	BTU/h
Heating Capacity (Nominal)	23.4	kW
Power Input (Nominal)	4.04	kW
Current Input (Nominal)	4.5	A
Heating Capacity (Rated)	76000	BTU/h
Heating Capacity (Rated)	22.3	kW
Power Input (Rated) Non-Ducted/ Ducted	3.78/3.36	kW
Current Input (Rated) Non-Ducted/ Ducted	4.2/3.7	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)	
Electrical		
Minimum Circuit Ampacity (MCA)	6	A
Maximum Overcurrent Protection (MOP)	15	A
Refrigerant Piping		
High Pressure Diameter	5/8 (15.88) Brazed	in (mm)
Low Pressure Diameter	3/4 (19.05) Brazed	in (mm)
Circulating Water		
Circulating water flowrate	24 (91)	G/min (L/min)
Circulating water Pressure drop	3.48 (24)	psi (kPa)
Circulating water flowrateure operating range	13.2 ~ 31.7 (3.0~7.2)	G/min (m3/h)
Compressor		
Type × Quantity	Inverter scroll hermetic × 1	
Motor Output	4.3	kW
Starting Method	Inverter	
Case Heater	0.035	kW
Lubricant	MEL32	
Physical & Finish		
External finish	Galvanized steel sheet	
External Dimensions (H × W × D)	43-5/16 x 34-11/16 x 21-11/16	in
External Dimensions (H × W × D)	1,100 x 880 x 550	mm
Net Weight	406 (184)	lb (kg)
Sound Levels		
Sound Power Level (in anechoic room)	60.5	dB<A>
Indoor Unit Connectable		
Total Capacity	50~150% of heat source unit capacity	
Model / Maximum Quantity	P04~P96/18	
Refrigerant		
Type × Original Charge	R410A x 11 lbs + 1 oz (5.0 kg)	

Notes:
1.Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 81°F D.B./66°FW.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)
2.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)
3.The sound values are sound power level (PWL) based on ISO 3744:2010 (r=3.5m).
Test conditions: Indoor: 81°FD.B./66°FW.B. (27°CD.B./19°CW.B.), Inlet water temperature: 86°F (30°C)
4. 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
5. The ambient temperature of the Heat Source Unit is to be below 104°F D.B. (40°C D.B.)
6. The ambient relative humidity of the Heat Source Unit is to be below 80%.
7. The Heat Source Unit should not be installed at outdoor.
8. Use a strainer (more than 50 meshes) at the water inlet piping of the unit.
9. Provide interlocking for the unit operation and water circuit.
10. Install the supplied insulation material to the unused drain-socket.
11. When installing insulation material around both water and refrigerant piping, follow the installation manual.
12. The water circuit must be a closed circuit (water is not exposed to the atmosphere).
13. All electrical work shall comply with Nation (CEC) and local codes and regulations
14. 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.
15. Mitsubishi Electric (MESCA) supports the use of only MESCA supplied and approved accessories. Use of non-MESCA supported accessories will affect warranty coverage

PQRY-P72, 96, 120ZLMU-B

Unit: mm(in)



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 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		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. 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).

Connecting pipe specifications

Model	Diameter			
	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
PQRY-P72ZLMU-B	ø15.88 Brazed (5/8) *1 *2	ø19.05 Brazed (3/4) *1 *2	ø19.05 (3/4)	ø25.4 (1)
PQRY-P96ZLMU-B	ø19.05 Brazed (3/4) *1	ø22.2 Brazed (7/8) *1 *2		
PQRY-P120ZLMU-B				

*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.