MITSUBISHI ELECTRIC
Heating and Cooling

Submittal Data: PQHY-P72ZLMU-B

CITY MULTI

Job Name:	Location:
Schedule Reference:	Submitted By:
Submitted To:	Reference: ☐ Approval: ☐ Construction: ☐
Engineer:	Date: / Application:

Specifications:

Indoor Model				Non-Ducted			Ducted	
Power source				3-phase 3-wire 575V ±10% 60 Hz				
Cooling capacity (Nominal) *1			BTU/h	72,000				
			kW	21.1				
		Power input	kW	3.61				
	(575)	Current input	A	4.0				
	(Rated)		BTU/h	69,000				
			kW	20.2				
		Power input	kW	3.60			3.59	
	(575)	Current input	A	4.0			4.0	
Temp. range of cooling		Indoor	W.B.	59 ~ 75°F (15 ~ 24°C)				
		Inlet water	°F	50 ~ 113°F (10 ~ 45°C)				
Heating capacity (Nominal) *2			BTU/h	80,000				
			kW	23.4				
		Power input	kW	4.04				
	(575)	Current input	A	4.5				
	(Rated)		BTU/h	76,000				
			kW	22.3				
		Power input	kW	3.78			3.36	
	(575)	Current input	A	4.2			3.7	
Temp. range of heating		Indoor	D.B.	59 ~ 81°F (15 ~ 27°C)				
		Inlet water	°F	50 ~ 113°F (10 ~ 45°C)				
Indoor unit connectable		Total capacity		50~130% of heatsource unit capacity				
		Model / Quantity		P04 ~ P96 / 1 ~ 18				
Sound power level		(measured in anechoic room) *3	dB <A>	60.5				
Refrigerant piping diameter		Liquid pipe	in. (mm)	3/8 (9.52) Brazed				
		Gas pipe	in. (mm)	3/4 (19.05) Brazed				
Minimum Circuit Ampacity			A	6				
Maximum Overcurrent Protection			A	15				
Circulating water		Water flow rate		G/h	G/min	m^3/h	L/min	cfm
				1,440	24	5.45	91	3.2
		Pressure drop	psi	3.48				
			kPA	24				
		Operating volume range	G/h	793 ~ 1,902				
			G/min	13.2 ~ 31.7				
			m^3/h	3.0 ~ 7.2				
Compressor		Type x Quantity		Inverter scroll hermetic compressor x1				
		Starting method		Inverter				
		Motor output	kW	4.3				
		Case heater	kW	0.035				
		Lubricant		MEL32				
External finish				Galvanized steel sheets				
External dimension H x W x D			in. (mm)	43-5/16 x 34-11/16 x 21-11/16 (1,100 x 880 x 550)				
Protection devices		High Pressure protection		High pressure senor, High pressure switch at 4.15 MPa (601 psi)				
		Inverter circuit		Over-heat protection, Over-current protection				
		Compressor		Over-heat protection				
Refrigerant		Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)				
		Control		LEV and HIC circuit				
Net weight			lbs (kg)	400 (181)				
Heat Exchanger				plate type				
		Water volume in plate	G	1.22				
			l	4.6				
		Water pressure Max.	psi	290				
			Mpa	2.0				
HIC circuit (HIC: Heat Inter-Changer)				Copper pipe, tube-in-tube structure				
Optional parts				Joint: CMY-Y102SS-G2, CMY-Y102LS-G2				
				Header: CMY-Y104, 108, 1010C-G				
Compressor Operating Range				23.8% to 100%				
AHRI Ratings (Ducted / Non-Ducted)		EER		17.3 / 18.30				
		IEER		22.30 / 23.80				
		COP @ 68°F		5.62 / 5.48				

Remarks - The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.)
- The ambient relative humidity of the Heat Source Unit needs to be kept below 80%.
- The Heat Source Unit should not be installed at outdoor.
- Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.
- Be sure to 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 cooling tower and the water circuit must be a closed circuit (water is not exposed to the atmosphere).

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)

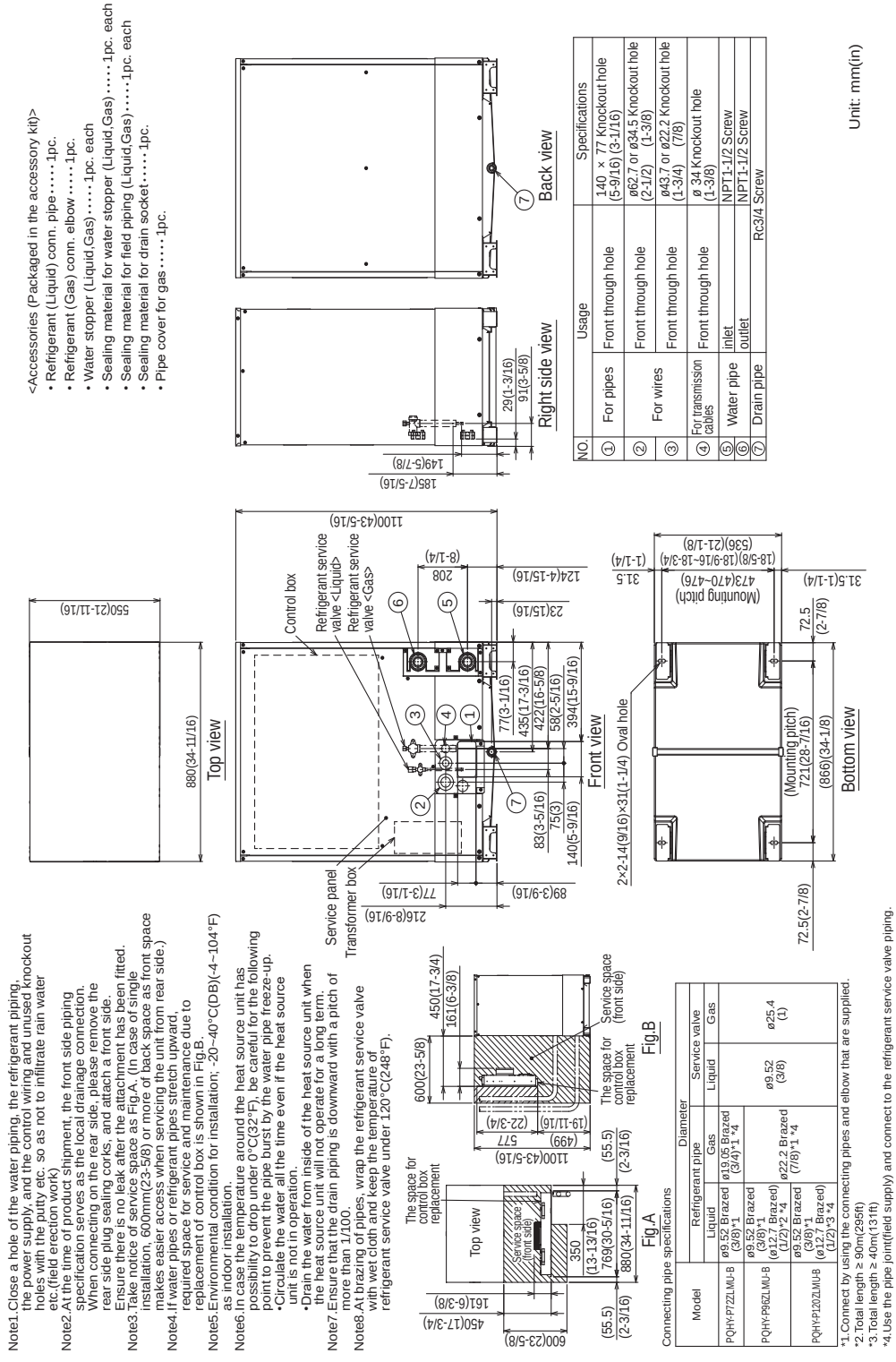
4.All electrical work shall comply with National (CEC) and local codes and regulations.

5.Mitsubishi Electric Sales Canada Inc. (MESCA) supports the use of only MESCA supplied and approved components and accessories for proper functioning of the unit(s).

6.Mitsubishi Electric Sales Canada Inc. (MESCA) supports the use of only MESCA supplied and approved Snow Guard / Wind Deflectors / Windscreens and accessories for proper functioning of the unit(s).
Use of non-MESCA supported Snow Guard / Wind Deflectors / Windscreens and accessories will affect warranty coverage.

7.Should any person change this document in any manner whatsoever without MESCA's written permission, the document shall be of no force and effect and any change shall be deemed to be a representation and warranty made by that person and not MESCA. That person, and not MESCA, shall assume full responsibility for the consequences of such changes.
MESCA assumes no responsibility for any consequences in such cases.

Condenser Unit Outline and Dimensions:



NO.	Usage		Specifications
①	For pipes	Front through hole	140 × 77 Knockout hole (5-9/16) (3-1/16)
②	For wires	Front through hole	ø62.7 or ø34.5 Knockout hole (2-1/2) (1-3/8)
③		Front through hole	ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8)
④	For transmission cables	Front through hole	ø 34 Knockout hole (1-3/8)
⑤	Water pipe	inlet	NPT1-1/2 Screw
⑥		outlet	NPT1-1/2 Screw
⑦	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).

Fig.A

Fig.B

Connecting pipe specifications

Model	Diameter			
	Refrigerant pipe		Service valve	
	Liquid	Gas	Liquid	Gas
PQHY-P72ZLMU-B	ø9.52 Brazed (3/8)*1	ø19.05 Brazed (3/4)*1 *4	ø9.52 (3/8)	ø25.4 (1)
PQHY-P96ZLMU-B	ø9.52 Brazed (3/8)*2 *4 (1/2)*2 *4	ø22.2 Brazed (7/8)*1 *4		
PQHY-P120ZLMU-B	ø9.52 Brazed (3/8)*1 (ø12.7 Brazed (1/2)*3 *4			

*1. Connect by using the connecting pipes and elbow that are supplied.
*2. Total length ≥ 90m(295ft)
*3. Total length ≥ 40m(131ft)
*4. Use the pipe joint(field supply) and connect to the refrigerant service valve piping.

CONFORMS TO ANSI/UL STD. 1995 CERTIFIED TO CAN/CSA STD. C22. 2 NO. 236

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