MITSUBISHI ELECTRIC
Heating and Cooling

Submittal Data: PQHY-P360ZSLMU-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		*1	BTU/h	360,000	
(Nominal)			kW	105.5	
	Power input		kW	29.43	
(575)	Current input		A	32.8	
(Rated)			BTU/h	344,000	
			kW	100.8	
	Power input		kW	27.28	28.91
(575)	Current input		A	30.4	32.2
Temp. range of cooling	Indoor		D.B.	59 ~ 75°F (15 ~ 24°C)	
	Outdoor		°F	50 ~ 113°F (10 ~ 45°C)	
Heating capacity		*2	BTU/h	405,000	
(Nominal)			kW	118.7	
	Power input		kW	22.85	
(575)	Current input		A	25.4	
(Rated)			BTU/h	386,000	
			kW	113.1	
	Power input		kW	20.56	20.71
(575)	Current input		A	22.9	23.1
Temp. range of heating	Indoor		D.B.	59 ~ 81°F (15 ~ 27°C)	
	Outdoor		°F	50 ~ 113°F (10 ~ 45°C)	
Indoor unit connectable	Total capacity			50 ~ 130% of heatsource unit capacity	
	Model / Quantity			P04 ~ P96 / 2 ~ 50	
Sound power level	(measured in anechoic room)	*3	dB <A>	74.5	
Refrigerant piping diameter	Liquid pipe		in. (mm)	3/4 (19.05) Brazed	
	Gas pipe		in. (mm)	1-5/8 (41.28) Brazed	
AHRI Ratings (Ducted / Non-Ducted)	EER			11.20 / 12.10	
	IEER			16.20 / 16.60	
	COP @ 68°F			4.72 / 5.18	

Set Model

Model				PQHY-P192ZLMU-B	PQHY-P168ZLMU-B
Minimum Circuit Ampacity			A	26	21
Maximum Overcurrent Protection			A	45	35
Circulating water	Water flow rate		G/h	1,902 + 1,902	
			G/min	31.7 + 31.7	
			m^3/h	7.20 + 7.20	
			L/min	120 + 120	
			cfm	4.2 + 4.2	
	Pressure drop		psi	6.38	6.38
			kPa	44	44
	Operating volume range		G/h	1,189 + 1,189 ~ 3,054 + 3,054	
			G/min	19.8 + 19.8 ~ 50.9 + 50.9	
			m^3/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type x Quantity			Inverter scroll hermetic compressor x1	Inverter scroll hermetic compressor x1
	Starting method			Inverter	Inverter
	Motor output		kW	12.4	11.0
	Case heater		kW	0.045	0.045
	Lubricant			MEL32	MEL32
External finish				Galvanized steel sheets	Galvanized steel sheets
External dimension 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)
Protection devices	High Pressure protection			High pressure senor, High pressure switch at 4.15 MPa (601 psi)	High pressure senor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit			Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor			Over-heat protection	Over-heat protection
Refrigerant	Type x original charge			R410A x 13 lbs + 4 oz (6.0 kg)	R410A x 13 lbs + 4 oz (6.0 kg)
	Control			LEV and HIC circuit	LEV and HIC circuit
Net weight			lbs (kg)	499 (226)	499 (226)
Heat Exchanger				plate type	plate type
	Water volume in plate		G	1.22	1.22
			l	4.6	4.6
	Water pressure Max.		psi	290	290
			Mpa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)				Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe		in. (mm)	5/8 (15.88) Brazed	5/8 (15.88) Brazed
	Gas pipe		in. (mm)	1-1/8 (28.58) Brazed	1-1/8 (28.58) Brazed
Optional parts				Heat Source Twinning kit: CMY-Y200CBK2	
				Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2	
				Header: CMY-Y104, 108, 1010C-G	
Compressor Operating Range				15.8% to 100%	18.3% to 100%

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.

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Condenser Unit Outline and Dimensions:

<Accessories (Packaged in the accessory kit)>
- Refrigerant (Liquid) conn. pipe·····1pc.
- Refrigerant (Gas) conn. elbow·····1pc.
- Water stopper (Liquid,Gas)·····1pc. each
- Sealing material for water stopper (Liquid,Gas)·····1pc. each
- Sealing material for field piping (Liquid,Gas)·····1pc. each
- Sealing material for drain socket·····1pc.
- Pipe cover for gas·····1pc.
- Sealing material for base leg (two types)·····4 pcs.each
- Sealing material for panel·····1pc.

Back view

Right side view

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	ø34 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

Unit: mm(in)

Top view

Front view

Bottom view

Fig.A

Fig.B

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 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	
	Liquid	Gas	Liquid	Gas
PQHY-P144ZLMU-B	ø12.7 Brazed (1/2)*1 *2	ø28.58 Brazed (1-1/8)*1	ø15.88 (5/8)	ø28.58 (1-1/8)
PQHY-P168ZLMU-B	ø15.88 Brazed (5/8)*1			
PQHY-P192ZLMU-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.

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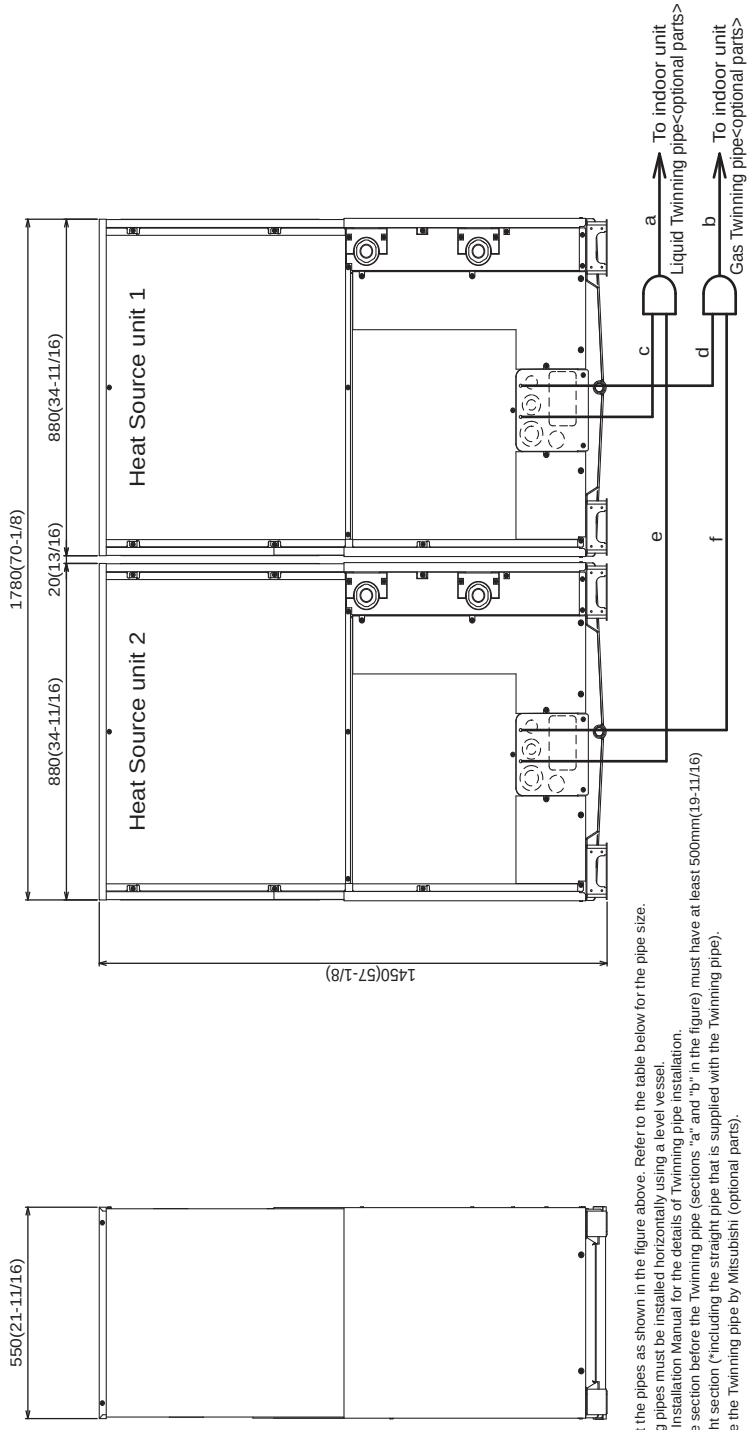
Condenser Unit Outline and Dimensions:



Note 1.Connect the pipes as shown in the figure above. Refer to the table below for the pipe size.
2.Twinning pipes must be installed horizontally using a level vessel.
3.See the Installation Manual for the details of Twinning pipe installation.
4.The pipe section before the Twinning pipe (sections "a" and "b" in the figure) must have at least 500mm(19-11/16) of straight section (*including the straight pipe that is supplied with the Twinning pipe).
5.Only use the Twinning pipe by Mitsubishi (optional parts).

Twinning pipe connection size

Package unit name			PQHY-P288ZSLMU-B	PQHY-P312ZSLMU-B	PQHY-P336ZSLMU-B	PQHY-P360ZSLMU-B
Component unit name	Heat Source unit 1		PQHY-P144ZLMU-B	PQHY-P168ZLMU-B	PQHY-P192ZLMU-B	PQHY-P192ZLMU-B
	Heat Source unit 2		PQHY-P144ZLMU-B	PQHY-P168ZLMU-B	PQHY-P168ZLMU-B	PQHY-P168ZLMU-B
Twinning Kit(optional parts)			CMY-Y200CBK2			
Indoor unit–Twinning pipe		Liquid	a	ø19.05(3/4)		
		Gas	b	ø34.93(1-3/8)		ø41.28(1-5/8)
Twinning pipe–Heat Source unit 1		Liquid	c	ø12.7(1/2)	ø15.88(5/8)	
		Gas	d	ø28.58(1-1/8)	ø15.88(5/8)	
Twinning pipe–Heat Source unit 2		Liquid	e	ø12.7(1/2)	ø28.58(1-1/8)	
		Gas	f			

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

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