

Job Name:

Schedule Reference:

Date:



MODULAR WATER-SOURCE VRF HEAT PUMP WITH HEAT RECOVERY SYSTEM

Standard Installation (*1) PQRV-P336ZSLMU-A1
Geothermal Installation (*1)(*2)(*3) PQRV-P336ZSLMU-A1

ACCESSORIES

- Twinning Kit * CMY-Q200CBK
* Twinning Kit is necessary to combine the refrigerant flow of the modules and is sold separately.
- BC Controller Main CMB-P108/1010/1016NU-HA1
- BC Controller Sub CMB-P104/108NU-GB1 / 1016NU-HB1
- Joint Adapter (Port Connector > 54,000 Btu/h) CMY-R160-J1
- T-Branch Joint (≤ 72,000 Btu/h) CMY-Y102SS-G2
- T-Branch Joint (73,000 - 144,000 Btu/h) CMY-Y102LS-G2
- T-Branch Joint (145,000 - 234,000 Btu/h) CMY-Y202S-G2
- T-Branch Joint (≥ 235,000 Btu/h) CMY-Y302S-G2

Specifications		System	Module 1	Module 2
Unit Type		PQRV-P336ZSLMU-A1	PQRV-P168ZLMU-A1	PQRV-P168ZLMU-A1
Nominal Cooling Capacity (575V)	Btu/h	336,000	168,000	168,000
Nominal Heating Capacity (575V)	Btu/h	378,000	188,000	188,000
Operating Temperature Range	Cooling (Indoor)	Refer to Module Data	59~75° F (15~24° C) WB	
	Heating (Indoor)		59~81° F (15~27° C) DB	
Operating Water Temperature Range	Cooling (*4)	Refer to Module Data	50~113° F (10~45° C)	
	Heating (*4)		50~113° F (10~45° C)	
External Dimensions (H x W x D)	In. (mm)	Refer to Module Data	57-1/8 x 34-11/16 x 21-11/16 (1450 x 880 x 550)	57-1/8 x 34-11/16 x 21-11/16 (1450 x 880 x 550)
Net Weight	Lbs. (kg)	1020 (462)	510 (231)	510 (231)
External Finish		Refer to Module Data	Galvanized steel sheet	
Electrical Power Requirements	Voltage, Phase, Hertz	Refer to Module Data (*5)	575V, 3-phase, 60Hz	
Minimum Circuit Ampacity (MCA) (*5) (*)	A	Refer to Module Data (*5)	16	16
Maximum Overcurrent Protection (MOP) (*5)	A	Refer to Module Data (*5)	25	25
Circulating Water (quality must meet regulations)				
Flow Rate	GPM	Refer to Module Data	31.7	31.7
Pressure Drop	psi		6.38	6.38
Operation Volume Range	GPM		19.8 - 50.9	19.8 - 50.9
Maximum Water Pressure	psi		290	290
Water-source Connection for Inlet and Outlet	In.		NPT1-1/2 Screw (Install strainer (more than 50 meshes) at water inlet piping of the unit)	
Piping Diameter (Brazed)				
From Twinning Kit to First Joint or Header (In. / mm)	Liquid (High Pressure)	1-1/8 / 28.58	Refer to System Data	Refer to System Data
	Gas (Low Pressure)	1-5/8 / 41.28	Refer to System Data	Refer to System Data
From Modules to Twinning Kit (In. / mm)	Liquid (High Pressure)	Refer to Module Data	7/8 / 22.20	7/8 / 22.20
	Gas (Low Pressure)	Refer to Module Data	-	1-1/8 / 28.58
Max. Total Refrigerant Line Length	Ft.	2,460	Refer to System Data	Refer to System Data
Max. Refrigerant Line Length (Bet. ODU & IDU)	Ft.	541		
Max. Control Wiring Length	Ft.	1,640		
Indoor Unit	Total Capacity	50~150%	Refer to System Data	Refer to System Data
	Model / Quantity	P06~P96 / 2~50 (*6)	Refer to System Data	Refer to System Data
Sound Pressure Level	dB(A)	59	56	56
Compressor Operating Range		8% - 100%	Refer to System Data	Refer to System Data
Compressor Type x Quantity		Refer to Module Data (*5)	Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1
Refrigerant		Refer to Module Data	R410A x 13 lbs. + 4 oz. (6.0 kg)	R410A x 13 lbs. + 4 oz. (6.0 kg)
Protection Devices	High Pressure	Refer to Module Data	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		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
AHRI Ratings (Ducted/Non-Ducted)	EER	11.1 / 12.3	Refer to System Data	
	IEER	16.8 / 20.1	Refer to System Data	
	COP	4.66 / 5.23	Refer to System Data	
	SCHE	19.7 / 19.0	Refer to System Data	

NOTES: (*1) <CITY MULTI indoor unit>
Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 81°F D.B., 68°F W.B. (27°C D.B., 19°C W.B.),
Water temperature: 86°F (30°C)
Brine concentration 0%

Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 68°F D.B. (20°C D.B.),
Water temperature: 68°F (20°C)
Brine concentration 0%

(*2) <PWFY-P36/72NMMU-E-AU>
Nominal cooling conditions
Circulating water Temp.: 86°F (30°C)
Pipe length: 25 ft. (7.6 m)
Level difference: 0 ft. (0 m)
Inlet water Temp.: 149°F (23°C)
Water flow rate: 1.93 m³/h (8.3 gpm) <P36> / 3.86 m³/h (16.6 gpm) <P72>
Brine concentration: 0%

Nominal heating conditions
Circulating water Temp.: 68°F (20°C)
Pipe length: 25 ft. (7.6 m)
Level difference: 0 ft. (0 m)
Inlet water Temp.: 86°F (30°C)
Water flow rate: 2.15 m³/h (9.2 gpm) <P36> / 4.30 m³/h (18.5 gpm) <P72>
Brine concentration: 0%

(*3) <PWFY-P36NMMU-E-BU>
Nominal heating conditions
Circulating water Temp.: 68°F (20°C)
Pipe length: 25 ft. (7.6 m)
Level difference: 0 ft. (0 m)
Inlet water Temp.: 149°F (65°C)
Water flow rate: 2.15 m³/h (9.2 gpm)
Brine concentration: 0%

(*4) <If using circulating water temperatures between 23° and 50° F, Dip switch 3-9 must be turned on and glycol (antifreeze) must be added to the water loop to prevent freezing down to 5° F.>

(*5) <Each individual module requires a separate electrical connection. Reference electrical data for individual module.>

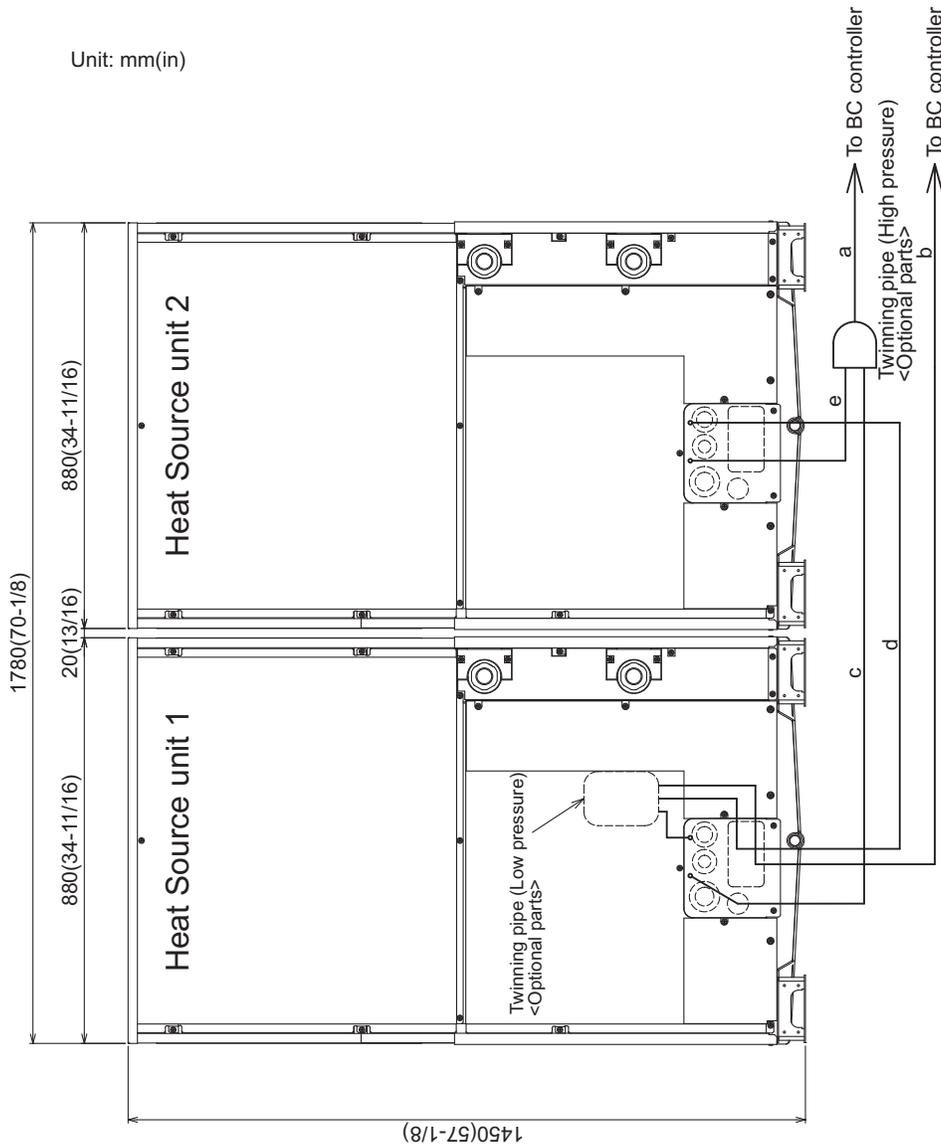
(*6) <Connectable branch pipe number is max. 48.>

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

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Note: Mitsubishi Electric (MESCA) supports the use of only MESCA supplied and approved accessories for proper functioning of the unit(s). Use of non-MESCA supported accessories will affect warranty coverage.

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) 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).

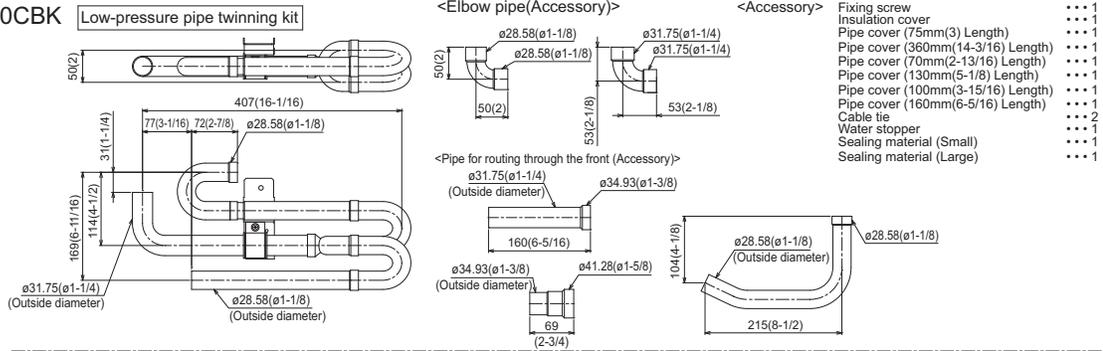
Twinning pipe connection size

Package unit name	PQRYP288ZSLMU-A1	PQRYP312ZSLMU-A1	PQRYP336ZSLMU-A1
Heat Source unit 1	PQRYP144ZLMU-A1	PQRYP168ZLMU-A1	PQRYP168ZLMU-A1
Heat Source unit 2	PQRYP144ZLMU-A1	PQRYP144ZLMU-A1	PQRYP168ZLMU-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)

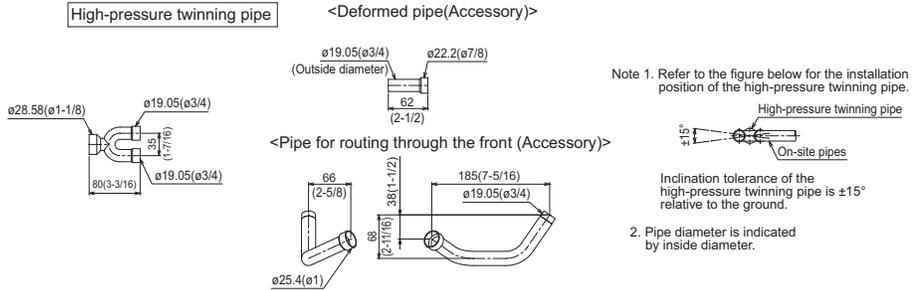
Twinning pipe~Heat source unit	Unit model	
	High pressure c or e	Low pressure d
P144	ø22.2(7/8)	ø28.58(1-1/8)
P168		

Twining Kit: CMY-Q200CBK

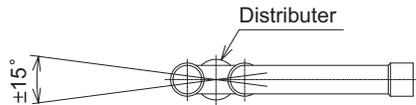
CMY-Q200CBK Low-pressure pipe twining kit



High-pressure twining pipe



Note 1. Reference the attitude angle of the branch pipe below the fig.



The angle of the branch pipe for high pressure is within $\pm 15^\circ$

2. Use the attached pipe to braze the port-opening of the distributor.
3. Pipe diameter is indicated by inside diameter.

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Notes:



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