

Job Name:

Schedule Reference:

Date:



**WATER-SOURCE
VRF HEAT PUMP WITH
HEAT RECOVERY SYSTEM**

- Standard Installation (*1) PQRV-P144ZLMU-A1
- Geothermal Installation (*1)(*2)(*3) PQRV-P144ZLMU-A1

ACCESSORIES

- BC Controller Main CMB-P108/1010/1013/1016NU-GA1
- 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

Specifications		Model Name
Unit Type		PQRV-P144ZLMU-A1
Nominal Cooling Capacity (575V)	(*1) Btu/h	144,000
Nominal Heating Capacity (575V)	(*1)(*2)(*3) Btu/h	160,000
Operating Temperature Range	Cooling (Indoor)	59~75° F (15~24° C) WB
	Heating (Indoor)	59~81° F (15~27° C) DB
Operating Water Temperature Range	Cooling (*4)	50~113° F (10~45° C)
	Heating (*4)	50~113° F (10~45° C)
External Dimensions (H x W x D)	In. (mm)	57-1/8 x 34-11/16 x 21-11/16 (1450 x 880 x 550)
Net Weight	Lbs. (kg)	510 (231)
External Finish		Galvanized steel sheet
Electrical Power Requirements	Voltage, Phase, Hertz	575V, 3-phase, 60Hz
Minimum Circuit Ampacity (MCA) *	A	13
Maximum Overcurrent Protection (MOP)	A	20
<i>Circulating Water (quality must meet regulations)</i>		
Flow Rate	GPM	31.7
Pressure Drop	psi	6.38
Operation Volume Range	GPM	19.8 - 50.9
Maximum Water Pressure	psi	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) (In. / mm)	High Pressure (Liquid)	7/8 / 22.2
	Low Pressure (Gas)	1-1/8 / 28.58
Max. Total Refrigerant Line Length	Ft.	2,460
Max. Refrigerant Line Length (Between ODU & IDU)	Ft.	541
Max. Control Wiring Length	Ft.	1,640
Indoor Unit	Total Capacity	50~150%
	Model / Quantity	P06~P96/1~36
Sound Pressure Levels	dB(A)	54
Compressor Operating Range		19% - 100%
Compressor Type x Quantity		Inverter scroll hermetic compressor x 1
Refrigerant		R410A x 13 lbs. + 4 oz. (6.0 kg)
Protection Devices	High Pressure	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter Circuit	Over-heat protection, Over-current protection
	Compressor	Over-heat protection
AHRI Ratings (Ducted/Non-Ducted)	EER	12.1 / 15.4
	IEER	19.5 / 23.1
	COP	4.90 / 5.50
	SCHE	20.1 / 20.1

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NOTES: (*1) <CITY MULTI indoor unit>
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.),
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: 98°F (20°C)
Brine concentration 0%

(*2) <PWFY-P36/72NMU-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-P36NMU-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 %

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.

(*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.

Notes:

Specifications are subject to change without notice.

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

