CITYMULTI®

12-TON PUHY-EP144YNU-A(-BS)

MITSUBISHI ELECTRIC
HEATING & AIR CONDITIONING

Job Name:
System Reference: Date:

460V OUTDOOR VRF HEAT PUMP SYSTEM



UNIT OPTION

☑ Standard Model PUHY-EP144YNU-A
☑ Seacoast (BS) Model PUHY-EP144YNU-A-BS

ACCESSORIES

☑ Big Foot Stand ..... for details see Big Foot Stands submittals
☑ Header Kit ..... for details see Pipe Accessories Submittal
☑ Joint Kit ..... for details see Pipe Accessories Submittal
☑ Low Ambient Kit ..... for details see Low Ambient Kit Submittal
☑ Panel Heater Kit ..... for details see Panel Heater Kit Submittal
☑ Snow/Hail Guards Kit ..... for details see Snow/Hail Guards Kit Submittal

Specifications			System
Unit Type			PUHY-EP144YNU-A(-BS)
Cooling Capacity (Nominal)		BTU/H	144,000
Heating Capacity (Nominal)		BTU/H	160,000
Guaranteed Operating Range	Cooling	°F [°C]	23~126 [-5.0~52.0]
	Heating	°F [°C]	-13~60 [-25.0~15.5]
Extended Operating Range	Heating	°F [°C]	-27.4~60 [-33.0~15.5]
External Dimensions (H x W x D)		In. [mm]	71-5/8 x 48-7/8 x 29-3/16 [1,818 x 1,240 x 740]
Net Weight		Lbs. [kg]	715 [324]
External Finish			Pre-coated galvanized steel sheet (+powder coating for -BS type) [MUNSELL 3Y 7.8/1.1 or similar]
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		460V, 3-phase, 60 Hz, ±10%
Minimum Circuit Ampacity		A	33.0
Maximum Overcurrent Protection		A	50
Recommended Fuse Size		A	35
Recommended Minimum Wire Size		AWG [mm]	8 [8.4]
SCCR		kA	5
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]	1/2 [12.7] Brazed
	Gas (Low Pressure)	In. [mm]	1-1/8 [28.58] Brazed
Max. Total Refrigerant Line Length		Ft.	3,280
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.	541
Max. Control Wiring Length		Ft.	1,640
Indoor Unit Connectable	Total Capacity		50.0~130.0% of outdoor unit capacity
	Model/Quantity		P04~P96/1.0~36.0
Sound Pressure Levels		dB(A)	62.0/64.5
Sound Power Levels		dB(A)	82.5/83.5
FAN[4]	Type x Quantity		Propeller fan x 2
	Fan Motor Output	kW	0.46+0.46
	Airflow Rate	CFM	9,200
	External Static Pressure	In. WG	Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG
Compressor Operating Range			15.0% to 100.0%
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1
Refrigerant	Type x Original Charge		R410A x 23.0 lbs + 12.0 oz [10.8 kg]
Protection Devices	High Pressure Protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter Circuit (Comp./Fan)		Over-current protection
AHRI Ratings (Ducted/Non-ducted)	EER		10.5/10.7
	IEER		21.2/23.2
	COP		3.68/4.01

NOTES:
Nominal cooling conditions (Test conditions are based on AHRI 1230-2023)
Indoor: 80°FD.B./67°FW.B. (26.7°CD.B./19.4°CW.B.), Outdoor: 95°FD.B. (35°CD.B.)
Nominal heating conditions (Test conditions are based on AHRI 1230-2023)
Indoor: 70°FD.B. (21.1°CD.B.), Outdoor: 47°FD.B./43°FW.B. (8.3°CD.B./6.1°CW.B.)

[1]Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
[2]For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
[3]When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
[4]Unit will continue to operate in extended operating range, but capacity is not guaranteed

Specifications are subject to change without notice.
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OUTDOOR UNIT: PUHY-EP144YNU-A(-BS) – DIMENSIONS

PUHY-EP96, 120, 144YNU-A(-BS)

Unit: mm (in.)

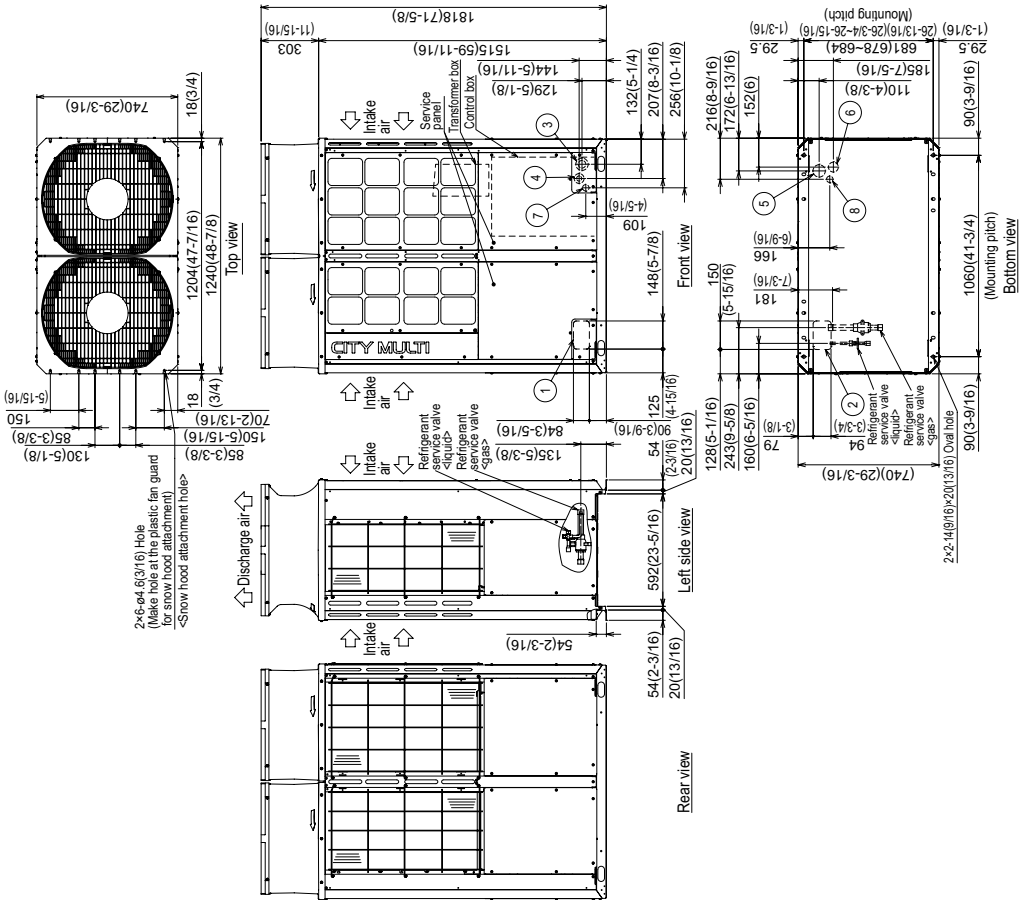
Note 1. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C(248°F).

Connecting pipe specifications

Model	Diameter			
	Refrigerant pipe		Service valve	
	Liquid	Gas	Liquid	Gas
EP96	ø9.52(3/8) Brazed (ø12.7(1/2) Brazed)*1,*3	ø22.2(7/8) Brazed*1,*2	ø12.7(1/2)	ø28.58(1-1/8)
EP120	ø9.52(3/8) Brazed (ø12.7(1/2) Brazed)*1,*2,*4			
EP144	ø12.7(1/2) Brazed	ø28.58(1-1/8) Brazed		

*1 Connect the refrigerant pipe to the service valve according to the Installation Manual.
*2 Indicates dimensions and connection specifications in the case the unit is used in combination with other outdoor units.
*3 Furthest piping length (OU from IU)≥90m
*4 Furthest piping length (OU from IU)≥40m

NO.	Usage	Specifications
①	For pipes	Front through hole: 149(5-7/8) × 84(3-5/16) Knockout hole
②		Bottom through hole: 150(5-15/16) × 94(3-3/4) Knockout hole
③	For wires	Front through hole: ø62.7(2-1/2) or ø34.5(1-3/8) Knockout hole
④		Front through hole: ø43.7(1-3/4) or ø22.2(7/8) Knockout hole
⑤		Bottom through hole: ø65(2-9/16) Knockout hole
⑥		Bottom through hole: ø52(2-1/16) Knockout hole
⑦	For transmission cables	Front through hole: ø34(1-3/8) Knockout hole
⑧		Bottom through hole: ø34(1-3/8) Knockout hole



NOTES:
SEACOAST PROTECTION
Anti-corrosion Protection: A coating treatment is applied to condenser coil for protection from air contaminants.
Standard: Salt Spray Test Method - no unusual rust development to 480 hours.
Sea Coast (BS): Salt Spray Test Method (JRA 9002) - no unusual rust development to 960 hours.

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