Model: 12-TON PUHY-P144YKMU-U (-BS)

Job Name:	
System Reference:	Date:

OUTDOOR VRF HEAT PUMP SYSTEM FEATURES

- Assembled in USA
- INVERTER-driven compressor
- Air-source, heat pump system
- Long line lengths - for details see Engineering Manual
- Connects to CITY MULTI indoor units
- Controlled via CITY MULTI Controls Network

UNIT OPTION

□ Standard Model……..……..PUHY-P144YKMU-U
□ Sea Coast (BS) Model……..PUHY-P144YKMU-U-BS

OPTIONAL PARTS

□ Joint Kit.....…for details see Pipe Accesories Submittal
□ Header Kit.....…for details see Pipe Accesories Submittal
□ Low Ambient Kit .....…..for details see Low Ambient Kit Submittal
□ Snow/Hail Guards Kit.....…for details see Snow/Hail Guards Kit Submittal



PUHY-P144YKMU-U (-BS)

INVERTER

R410A

Specifications		Model Name
Unit Type		PUHY-P144YKMU-U (-BS)
Nominal Cooling Capacity (460V)	Btu/h	144,000
Nominal Heating Capacity (460V)	Btu/h	160,000
Operating Temperature Range *1	Cooling (Outdoor) *2	23~115° F (-5~46° C) DB
	Heating (Outdoor)	-13~60° F (-25~15.5° C) WB
External Dimensions (H x W x D)	In. / mm	64-31/32 x 68-29/32 x 29-5/32 / 1,650 x 1,750 x 740
Net Weight	Lbs. / kg	726 (329)
External Finish		Pre-coated galvanized steel sheet
Electrical Power Requirements	Voltage, Phase, Hertz	460V, 3-Phase, 60Hz
Minimum Circuit Ampacity (MCA)	A	24
Recommended Fuse/Breaker Size	A	25
Maximum Fuse Size	A	30
Piping Diameter		
From ODU to First Joint or Header (Brazed) (In. / mm)	Liquid (High Pressure)	1/2 (12.7) Brazed
	Gas (Low Pressure)	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	Total Capacity	50~130% of outdoor unit capacity
	Model / Quantity	P06~P96/1~31
Sound Pressure Levels	dB(A)	61
Fan		
Type x Quantity		Propeller fan x 2
Airflow Rate	CFM	11,300
External Static Pressure	In. WG (Pa)	Selectable; 0, 0.12 or 0.24"WG; factory set to 0"W.G.
Compressor Operating Range		14% to 100%
Compressor Type x Quantity		Inverter scroll hermetic compressor x 1
Refrigerant		R410A; 26 lbs. + 1 oz. (11.8 kg)
Protection Devices	High Pressure	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter Circuit (Comp. / Fan)	Over-current protection
	Fan Motor	Thermal switch
AHRI Ratings (Ducted/Non-Ducted)	EER	11.6 / 11.8
	IEER	19.3 / 20.2
	COP	3.56 / 3.72
Blue Fin Anti-corrosion Protection: Cellulose- and polyurethane-resin coating treatment applied to condenser coil that protects it from air contaminants **Standard:** ≥1µm thick; Salt Spray Test Method - no unusual rust development to 480 hours. **Sea Coast (BS):** ≥1µm thick; Salt Spray Test Method - no unusual rust development to 960 hours.		

NOTES:

*1. 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.
*2. For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal.

Specifications are subject to change without notice.

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Model: PUHY-P144YKMU-U (-BS) – DIMENSIONS

Unit : mm(in.)

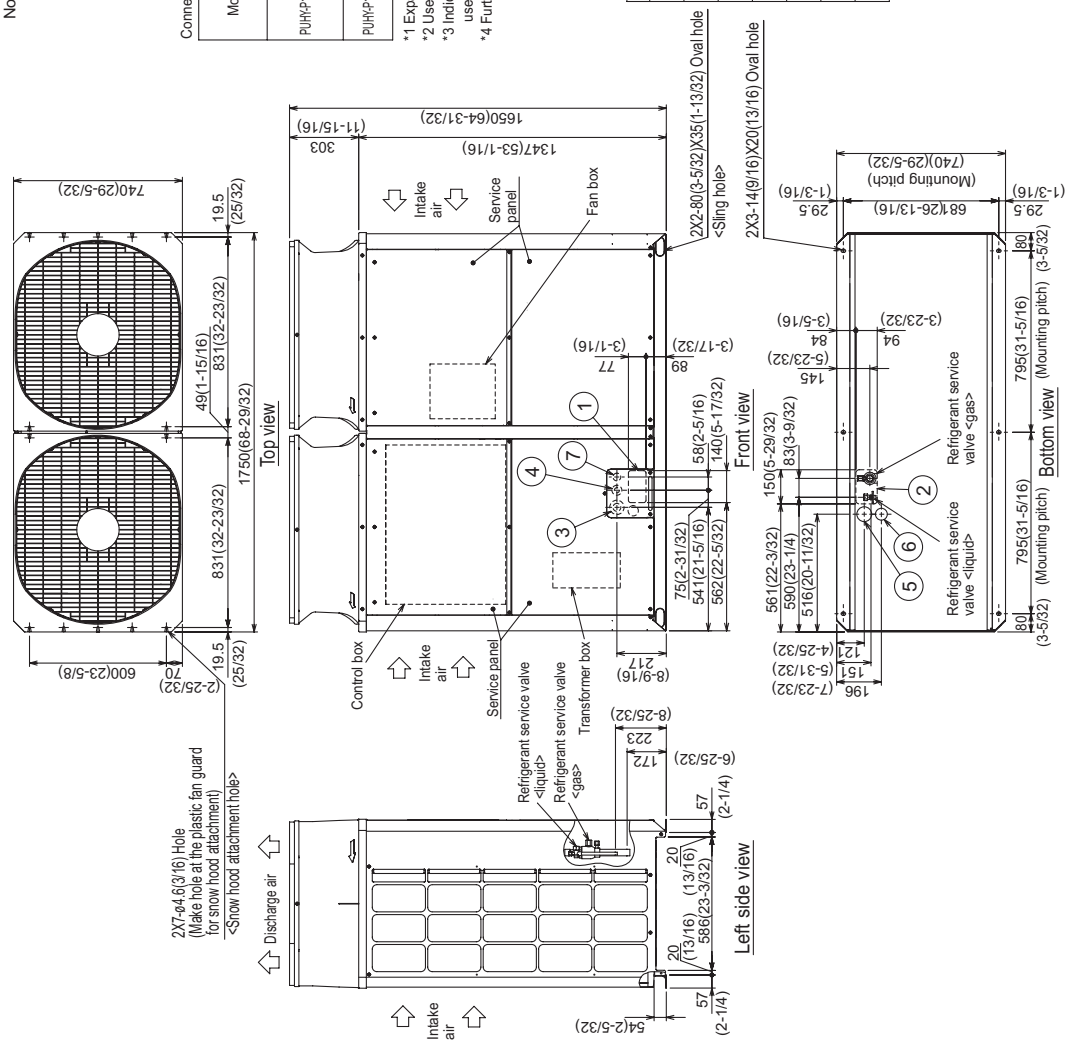
Note1.Please refer to the engineering manual for information regarding necessary spacing around the unit and foundation work. Outdoor unit must be mounted at least 12" off the ground or 12" above the highest average snow depth, whichever is greater.
2.At brazing of pipes, wrap the refrigerant service 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
PUHY-P120YKMU	ø9.52 Brazed (3/8) *2 (ø12.7 Brazed) (1/2) *1 *3 *4	ø28.58 Brazed (1-1/8) *2	ø12.7 (1/2)	ø28.58 (1-1/8)
PUHY-P144YKMU	ø12.7 Brazed (1/2) *1			

*1 Expand the on-site piping and connect to the refrigerant service valve piping.
*2 Use the pipe joint(field supply) and connect to the refrigerant service valve piping.
*3 Indicates dimensions and connection specifications in the case the unit is used in combination with other outdoor units.
*4 Furthest piping length (OU from IU)≤40m(131ft)

NO.	Usage		Specifications
①	For pipes	Front through hole	140 × 77 Knockout hole (5-17/32) (3-1/16)
②		Bottom through hole	150 × 94 Knockout hole (5-29/32) (3-23/32)
③	For wires	Front through hole	ø62.7, or ø34.5 Knockout hole (2-15/32) (1-3/8)
④		Front through hole	ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8)
⑤		Bottom through hole	ø65 Knockout hole (2-9/16)
⑥		Bottom through hole	ø62 Knockout hole (2-1/16)
⑦	For transmission cables	Front through hole	ø34 Knockout hole (1-11/32)



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