

Job Name:

Location:

Drawing Reference:

Schedule No.

System No.:

Date:

## OUTDOOR VRFZ HEAT PUMP SYSTEM FEATURES

- 3-phase, 208/230V
- Modular variable refrigerant flow zoning (VRFZ) systems; smaller capacity units can be piped together to form a single, large-capacity two-pipe system
- Selectable fan static, 0.12 or 0.24"WG external static pressure; factory set to 0"WG
- Max. Total Refrigerant Line Length: 3,280'; Max. Refrigerant Line Length: 541'; Max. Control Wiring Length: 1,640'
- Connects to CITY MULTI indoor units; controlled via CITY MULTI Controls Network
- External finish: Pre-coated Galvanized-steel Sheets
- Operating Temperature Range
  - Cooling (Outdoor): 23° ~ 115°F (-5° ~ +46°C) DB
  - Heating (Outdoor): -4° ~ +60°F (-20° ~ +16°C) WB



PUHY-P144TJMU-A

# INVERTER



## OPTIONAL PARTS

- ☐ T-Branch Joint (≤ 72,000 Btu/h).....CMY-Y102S-G2
- ☐ T-Branch Joint (73,000-144,000 Btu/h).....CMY-Y102L-G2
- ☐ T-Branch Joint (≤ 234,000 Btu/h).....CMY-Y202-G2
- ☐ Header - 4-Branch (Capacity: ≤ 72,000 Btu/h).....CMY-Y104-G
- ☐ Header - 8-Branch (Capacity: ≤ 144,000 Btu/h).....CMY-Y108-G
- ☐ Header - 10-Branch (Capacity: ≤ 234,000 Btu/h).....CMY-Y1010-G

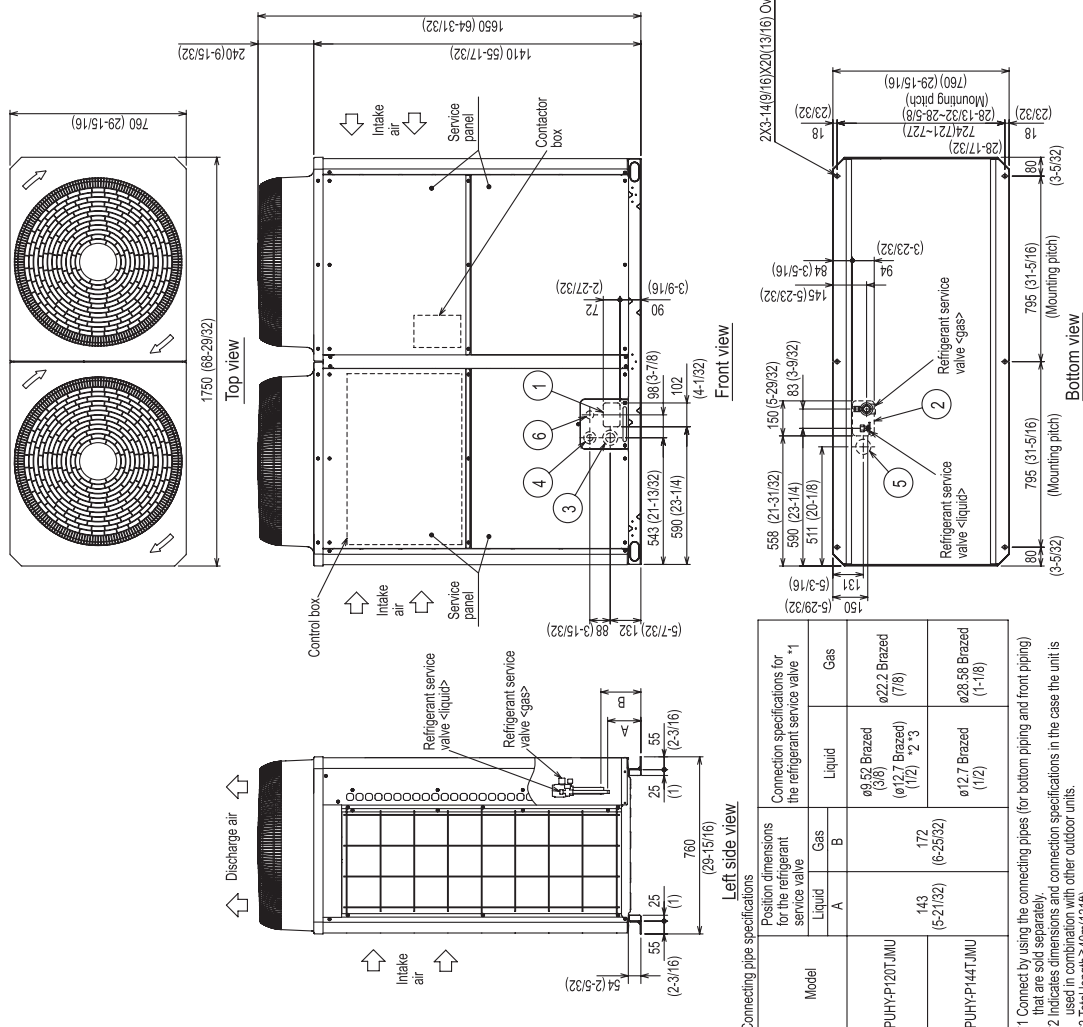
| Specifications                                                                                                                                                                                                                           |                        | Model Name                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------|
| Unit Type                                                                                                                                                                                                                                |                        | PUHY-P144TJMU-A                                |
| Nominal Cooling Capacity                                                                                                                                                                                                                 | Btu/h                  | 144,000                                        |
| Nominal Heating Capacity                                                                                                                                                                                                                 | Btu/h                  | 160,000                                        |
| External Dimensions (H x W x D)                                                                                                                                                                                                          | In. / mm               | 65 x 68-15/16 x 29-15/16 / 1,650 x 1,750 x 760 |
| Net Weight                                                                                                                                                                                                                               | Lbs. / kg              | 629 / 285                                      |
| Electrical Power Requirements                                                                                                                                                                                                            | Voltage, Phase, Hertz  | 208 / 230V, 3-phase, 60Hz                      |
| Cooling Power Input                                                                                                                                                                                                                      | kW                     | 12.42                                          |
| Heating Power Input                                                                                                                                                                                                                      | kW                     | 13.08                                          |
| Cooling Current (208/230V)                                                                                                                                                                                                               | R.L.A.                 | 38.3 / 34.6                                    |
| Heating Current (208/230V)                                                                                                                                                                                                               | R.L.A.                 | 40.3 / 36.4                                    |
| Minimum Circuit Ampacity (MCA)                                                                                                                                                                                                           | A                      | 59 / 54                                        |
| Recommended Fuse/Breaker Size                                                                                                                                                                                                            | A                      | 60                                             |
| Maximum Fuse Size                                                                                                                                                                                                                        | A                      | 90 / 80                                        |
| Piping Diameter (Brazed) (In. / mm)                                                                                                                                                                                                      | Liquid (High Pressure) | 1/2 / 12.7                                     |
|                                                                                                                                                                                                                                          | Gas (Low Pressure)     | 1-1/8 / 28.58                                  |
| Indoor Unit                                                                                                                                                                                                                              | Total Capacity         | 50 to 130% of Outdoor Unit Capacity            |
|                                                                                                                                                                                                                                          | Model / Quantity       | P06 to P96 / 1 to 31                           |
| Sound Pressure Levels                                                                                                                                                                                                                    | dB(A)                  | 61.0                                           |
| Fan                                                                                                                                                                                                                                      |                        |                                                |
| Type x Quantity                                                                                                                                                                                                                          |                        | Propeller Fan x 2                              |
| Airflow Rate                                                                                                                                                                                                                             | CFM                    | 12,010                                         |
| Direct-drive Inverter Motor Output                                                                                                                                                                                                       | kW                     | 0.92 + 0.92                                    |
| Compressor Operating Range                                                                                                                                                                                                               |                        | 14% to 100%                                    |
| Compressor Type x Quantity                                                                                                                                                                                                               |                        | Inverter-driven Scroll Hermetic x 1            |
| Compressor Motor Output                                                                                                                                                                                                                  | kW                     | 9.5                                            |
| Compressor Crankcase Heater                                                                                                                                                                                                              | kW                     | 0.045                                          |
| Refrigerant                                                                                                                                                                                                                              |                        | R410A                                          |
| Lubricant                                                                                                                                                                                                                                |                        | MEL32                                          |
| High-pressure Protection Device                                                                                                                                                                                                          |                        | 601 psi / 4.15 MPa                             |
| Compressor / Fan Protection Device                                                                                                                                                                                                       |                        | Overheat Protection / Thermal Switch           |
| Inverter Protection Device                                                                                                                                                                                                               |                        | Overheat / Overcurrent Protection              |
| Blue Fin Anti-corrosion Protection: Cellulose- and polyurethane-resin coating treatment applied to condenser coil that protects it from air contaminants; ≥1µm thick; Salt Spray Test Method - no unusual rust development to 480 hours. |                        |                                                |

# Model: PUHY-P144TJMU-A – DIMENSIONS

- <Optional parts>  
 ● Connecting pipe  
 <Gas> Elbow (Dø28.58 (1-1/8)XODø28.58 (1-1/8))... P120, 144 1pc.  
 Pipe (Dø28.58 (1-1/8)XODø22.7 (7/8))... P120 1pc.  
 <Liquid> Pipe (Dø12.7 (1/2)XODø9.52 (3/8))... P120 1pc.  
 Pipe (Dø12.7 (1/2)XODø12.7 (1/2))... P120, 144 1pc.

Note 1. Please refer to (22) for information regarding necessary spacing around the unit and foundation work.  
 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).

| NO. | Usage               | Specifications                                 |
|-----|---------------------|------------------------------------------------|
| ①   | Front through hole  | 102 X 72 Knockout hole (4-1/32) (2-27/32)      |
| ②   | Bottom through hole | 150 X 94 Knockout hole (5-29/32) (3-23/32)     |
| ③   | 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   | Front through hole  | ø34 Knockout hole (1-11/32)                    |



Unit : mm(in.)

| Model         | Position dimensions for the refrigerant service valve |               | Connection specifications for the refrigerant service valve *1 |                      |
|---------------|-------------------------------------------------------|---------------|----------------------------------------------------------------|----------------------|
|               | Liquid                                                | Gas           | Liquid                                                         | Gas                  |
| PUHY-P120TJMU | 143 (5-21/32)                                         | 172 (6-25/32) | ø9.52 Braze (3/8) (ø12.7 Braze) (1/2) *2,3                     | ø22.2 Braze (7/8)    |
| PUHY-P144TJMU |                                                       |               | ø12.7 Braze (1/2)                                              | ø25.58 Braze (1-1/8) |

\*1 Connect by using the connecting pipes (for bottom piping and front piping) that are sold separately.  
 \*2 Indicates dimensions and connection specifications in the case the unit is used in combination with other outdoor units.  
 \*3 Total length=40m (131ft)



Certificate Number FM33568

Mitsubishi Electric Air Conditioning & Refrigeration Systems Works acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of quality warranties for the production of refrigeration and air conditioning equipment.

ISO Authorization System  
 The ISO 9000 series is a plant authorization system relating to quality warranties as stipulated by the ISO. ISO 9001 certifies quality warranties based on the "design, development, production, installation and auxiliary services" for products built at an authorized plant.

Mitsubishi Electric Air Conditioning & Refrigeration Systems Works acquired environmental management system standard ISO 14001 certification.

The ISO 14000 series is a set of standards applying to environmental protection set by the International Standard Organization (ISO).



Certificate Number EC97J1227

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Specifications are subject to change without notice.