CITYMULTI®

# 12-TON PQRY-P144TLMU-A2

MITSUBISHI ELECTRIC
HEATING & AIR CONDITIONING

Job Name:

System Reference: Date:



## ACCESSORIES

- ☐ 1.5” EPIV Valve (One Piece) ..... EV150S396NRXME
- ☐ Optical Relay for Flow Switch (One Piece) ..... RIBTE24B
- ☐ 1.5” Temp sensor, optional (One Piece) ..... ZM-TW150NPT KIT
- ☐ Transformer 50VA (One Piece) ..... TR50VA015
- ☑ BC Controller (Required) ..... for details see BC Controller Submittals
- ☑ HBC Controller (Required) ..... for details see HBC Controller Submittals
- ☐ Joint Kit ..... for details see Pipe Accessories Submittal

NOTE:
Requires two transformers
Requires one optical relay
Requires two temp sensors per one EPIV valve if optional temps sensors are used.

| Specifications | | | System |
|---|---|---|---|
| Unit Type | | | PQRY-P144TLMU-A2 |
| Cooling Capacity (Nominal) | | BTU/H | 144,000 |
| Heating Capacity (Nominal) | | BTU/H | 160,000 |
| Operating Temperature Range | Cooling (Indoor) | °F WB [°C WB] | 59~75 [15.0~24.0] |
| | Heating (Indoor) | °F DB [°C DB] | 59~81 [15.0~27.0] |
| Operating Water Temperature Range[1] | Cooling/Heating | °F [°C] | 50~113.0 [10~45.0] |
| External Dimensions (H x W x D) | | In. [mm] | 57-1/8 x 34-11/16 x 21-11/16 [ 1,450 x 880 x 550] |
| Net Weight | | Lbs. [kg] | 481 [218] |
| External Finish | | | Galvanized steel sheets |
| Electrical Power Requirements | Voltage, Phase, Hertz, Power Tolerance | | 208/230, 3, 60, ±10% |
| Minimum Circuit Ampacity | | A | 40.0/40.0 |
| Maximum Overcurrent Protection | | A | 70/70 |
| SCCR | | kA | 5 |
| Flow Rate | | G/min (gpm) | 31.7 |
| | | L/min | 120 |
| Pressure Drop | | psi | 6.38 |
| | | Ft. | 14.7 |
| Operation Volume Range | | G/min (gpm) | 19.8~50.9 |
| | | m3/h | 4.5~11.6 |
| Refrigerant Piping Diameter (From Twinning Kit to First Joint or Header) | Liquid (High Pressure) | In. [mm] | 7/8 [22.2] Brazed |
| | Gas (Low Pressure) | In. [mm] | 1-1/8 [28.58] Brazed |
| 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 Connectable | Total Capacity | | 50.0~150.0% of heatsource unit capacity |
| | Model/Quantity | | P04~P96/1.0~36.0 |
| Sound Power Level | | dB(A) | 68.0 |
| Compressor Operating Range | | | 19.0% to 100.0% |
| Compressor | Type x Quantity | | Inverter scroll hermetic x 1 |
| Compressor Motor Output | | kW | 9.5 |
| Refrigerant | Type x Original Charge | | R410A x 13.0 lbs. + 4.0oz. [6.0 kg] |
| Protection Devices | High Pressure Protection | | High pressure sensor, High pressure switch at 4.15 Mpa (601 psi) |
| | Inverter Circuit | | Over-heat protection, Over-current protection |
| | Compressor | | Over-heat protection |
| Lubricant | | | MEL32 |
| AHRI Ratings (Ducted/Non-ducted) | EER | | 12.6/13.9 |
| | IEER | | 17.5/20.2 |
| | COP | | 4.9/5.6 |
| | SCHE | | 20.1/20.1 |

NOTES:
[1]23°F EWT (Entering water temperature) is possible with glycol.



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# OUTDOOR UNIT: PQRY-P144TLMU-A2 – DIMENSIONS

Note1.Close a hole of the water piping, the refrigerant piping, the power supply, and the control wiring and unused knockout holes with the putty etc. so as not to infiltrate rain water etc.(field erection work)
Note2.At the time of product shipment, the front side piping specification serves as the local drainage connection. When connecting on the rear side, please remove the rear side plug sealing corks, and attach a front side. Ensure there is no leak after the attachment has been fitted.
Note3.Take notice of service space as Fig.A. (In case of single installation, 600mm(23-5/8) or more of back space as front space makes easier access when servicing the unit from rear side.)
Note4.If water pipes or refrigerant pipes stretch upward, required space for service and maintenance due to replacement of control box is shown in Fig.B.
Note5.Environmental condition for installation; -20~40°C(DB)(-4~104°F) as indoor installation.
Note6.In case the temperature around the heat source unit has possibility to drop under 0°C(32°F), be careful for the following point to prevent the pipe burst by the water pipe freeze-up.
•Circulate the water all the time even if the heat source unit is not in operation.
•Drain the water from inside of the heat source unit when the heat source unit will not operate for a long term.
Note7.Ensure that the drain piping is downward with a pitch of more than 1/100.
Note8.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).

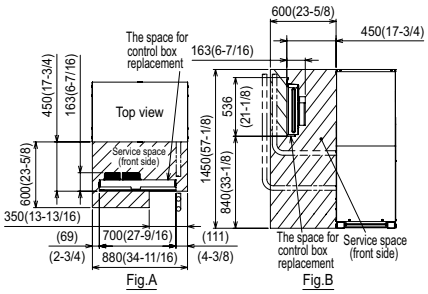
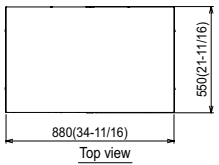


Fig.A Fig.B

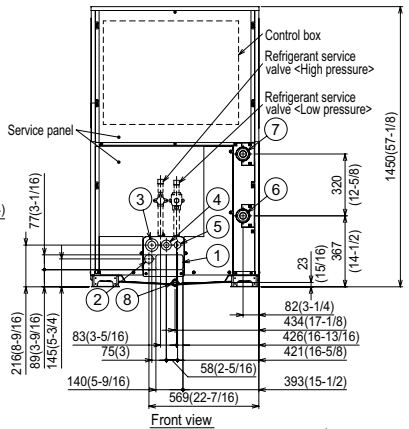
Connecting pipe specifications

| Model | Diameter | | | |
|---|---|---|---|---|
| | Refrigerant pipe | | Service valve | |
| | High pressure | Low pressure | High pressure | Low pressure |
| PQRY-P144TLMU-A2 | ø22.2 Brazed (7/8) *1 | ø28.58 Brazed (1-1/8) *1 | ø25.4 (1) | ø28.58 (1-1/8) |
| PQRY-P168TLMU-A2 | | | | |
| PQRY-P192TLMU-A2 | | | | |

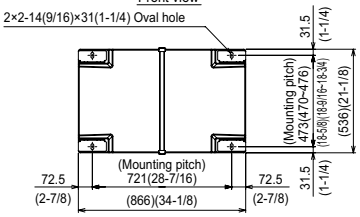
*1.Connect by using the connecting pipes that are supplied.



Top view



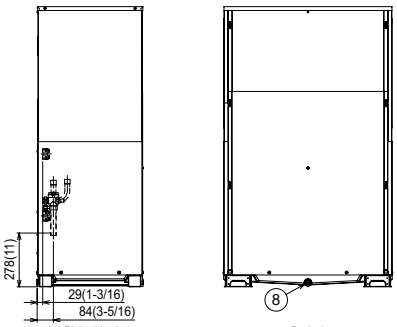
Front view



Bottom view

<Accessories (Packaged in the accessory kit)>
- Refrigerant (high pressure) conn. pipe ····· 1pc.
- Refrigerant (low pressure) conn. pipe ····· 1pc.
- Water stopper ····· 1pc.
- Sealing material for water stopper ····· 1pc.
- Sealing material for field piping (high pressure, low pressure) ····· 1pc. each
- Sealing material for drain socket ····· 1pc.
- Pipe cover for low pressure ····· 1pc.
- Sealing material for base leg (two types) ····· 4pcs.each
- Sealing material for panel ····· 1pc.

Unit: mm(in)



Right side view Back view

| NO. | Usage | | Specifications |
|---|---|---|---|
| ① | For pipes | Front through hole | 140 × 77 Knockout hole (5-9/16) (3-1/16) |
| ② | | Front through hole (Uses when twinning kit (optional parts) is mounted.) | ø45 Knockout hole (1-13/16) |
| ③ | For wires | Front through hole | ø62.7 or ø34.5 Knockout hole (2-1/2) (1-3/8) |
| ④ | | Front through hole | ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8) |
| ⑤ | For transmission cables | Front through hole | ø34 Knockout hole (1-3/8) |
| ⑥ | Water pipe | inlet | NPT1-1/2 Screw |
| ⑦ | | outlet | NPT1-1/2 Screw |
| ⑧ | Drain pipe | Rc3/4 Screw | |

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FORM# PQRY-P144TLMU-A2 - 202409

Specifications are subject to change without notice.
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