

# Submittal Data: PQRYP336ZSLMU-B

|               |  |               |  |
|---------------|--|---------------|--|
| Job Name:     |  | Location:     |  |
| Purchaser:    |  | Submitted By: |  |
| Submitted To: |  | Engineer:     |  |
| Date:         |  | Application:  |  |

☐ Reference
 ☐ Approval
 ☐ Construction



\*Reference image

## GENERAL FEATURES:

- Simultaneous heating and cooling operation
- Double heat recovery operation within refrigerant loop and water loop
- Water flow rate control via DC 0-10V from control board

| Outdoor Model                            | PQRYP336ZSLMU-B                                         |        |
|------------------------------------------|---------------------------------------------------------|--------|
| Power Source                             | 3-phase 3-wire 575 V $\pm$ 10% 60 Hz                    |        |
| Cooling                                  |                                                         |        |
| Cooling Capacity (Nominal)               | 336,000                                                 |        |
| Cooling Capacity (Nominal)               | 98.5                                                    |        |
| Power Input (Nominal)                    | 26.84                                                   | kW     |
| Current Input (Nominal)                  | 29.9                                                    | A      |
| Cooling Capacity (Rated)                 | 320000                                                  | BTU/h  |
| Cooling Capacity (Rated)                 | 93.8                                                    | kW     |
| Power Input (Rated) Non-Ducted/ Ducted   | 25.14/27.11                                             | kW     |
| Current Input (Rated) Non-Ducted/ Ducted | 28.0/30.2                                               | A      |
| Guaranteed Operating Range (Indoor)      | 59.0°F~75.0°F W.B. (15.0°C~24.0°C)                      |        |
| Guaranteed Operating Range (Outdoor)     | 50~113°F (10~45°C)                                      |        |
| Heating                                  |                                                         |        |
| Heating Capacity (Nominal)               | 378000                                                  | BTU/h  |
| Heating Capacity (Nominal)               | 110.8                                                   | kW     |
| Power Input (Nominal)                    | 20.77                                                   | kW     |
| Current Input (Nominal)                  | 23.1                                                    | A      |
| Heating Capacity (Rated)                 | 360000                                                  | BTU/h  |
| Heating Capacity (Rated)                 | 105.5                                                   | kW     |
| Power Input (Rated) Non-Ducted/ Ducted   | 18.49/19.10                                             | kW     |
| Current Input (Rated) Non-Ducted/ Ducted | 20.6/21.3                                               | A      |
| Operating Range (Indoor)                 | 59.0°F~81.0°F D.B. (15.0°C~27.0°C)                      |        |
| Operating Range (Outdoor)                | 50~113°F (10~45°C)                                      |        |
| Refrigerant Piping                       |                                                         |        |
| High Pressure Diameter                   | 1-1/8 (28.58) Brazed                                    |        |
| Low Pressure Diameter                    | 1-5/8 (41.28) Brazed                                    |        |
| Indoor Unit Connectable                  |                                                         |        |
| Total Capacity                           | 50~150% of heat source unit capacity                    |        |
| Model / Maximum Quantity                 | P04~P96/50 (Connectable branch pipe number is max. 48.) |        |
| Sound Power level (in anechoic room)     | 73                                                      | dB <A> |

| Accessories        | Model Numbers                                                                                                |
|--------------------|--------------------------------------------------------------------------------------------------------------|
| Twinning Kit       | CMY-Q200CBK                                                                                                  |
| Joint              | CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1, CMY-R201, 202, 203, 204, 205, 306S-G, CMY-R302, 303, 304, 305S-G1 |
| Main BC Controller | CMB-P108, 1012, 1016NU-JA2, CMB-P1016NU-KA2                                                                  |
| Sub BC Controller  | CMB-P104, 108NU-KB2                                                                                          |

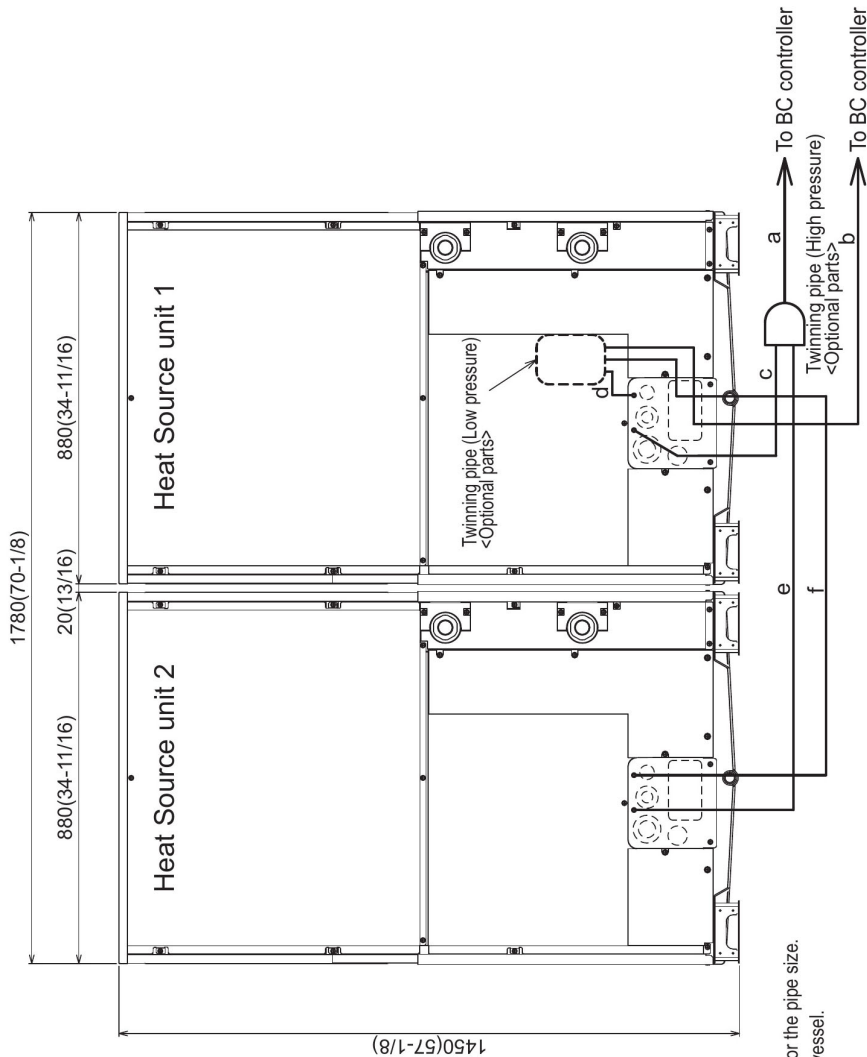
| Outdoor Model                                       | PQRYP168ZLMU-B                                      | PQRYP168ZLMU-B                 |               |
|-----------------------------------------------------|-----------------------------------------------------|--------------------------------|---------------|
| Electrical                                          |                                                     |                                |               |
| Minimum Circuit Ampacity (MCA)                      | 21                                                  | 21                             | A             |
| Maximum Overcurrent Protection (MOP)                | 35                                                  | 35                             | A             |
| Circulating Water                                   |                                                     |                                |               |
| Circulating water flowrate                          | 31.7 + 31.7 (120 + 120)                             |                                | G/min (L/min) |
| Circulating water Pressure drop                     | 6.38 (44)                                           | 6.38 (44)                      | psi (kPa)     |
| Circulating water flowrate/pressure operating range | 19.8 + 19.8 ~ 50.9 + 50.9 (4.5 + 4.5 ~ 11.6 + 11.6) |                                | G/min (m3/h)  |
| Refrigerant Piping between unit and distributor     |                                                     |                                |               |
| High Pressure Diameter                              | 7/8 (22.2) Brazed                                   | 7/8 (22.2) Brazed              | in. (mm)      |
| Low Pressure Diameter                               | -                                                   | 1-1/8 (28.58) Brazed           | in. (mm)      |
| Compressor                                          |                                                     |                                |               |
| Type x Quantity                                     | Inverter scroll hermetic x 1                        | Inverter scroll hermetic x 1   |               |
| Motor Output                                        | 11                                                  | 11                             | kW            |
| Starting Method                                     | Inverter                                            | Inverter                       |               |
| Case Heater                                         | 0.045                                               | 0.045                          | kW            |
| Lubricant                                           | MEL32                                               | MEL32                          |               |
| Physical & Finish                                   |                                                     |                                |               |
| External finish                                     | Galvanized steel sheets                             | Galvanized steel sheets        |               |
| External Dimensions (H x W x D)                     | 57-1/8 x 34-11/16 x 21-11/16                        | 57-1/8 x 34-11/16 x 21-11/16   | in            |
| External Dimensions (H x W x D)                     | 1,450 x 880 x 550                                   | 1,450 x 880 x 550              | mm            |
| Net Weight                                          | 510 (231)                                           | 510 (231)                      | lb (kg)       |
| Refrigerant                                         |                                                     |                                |               |
| Type x Original Charge                              | R410A x 13 lbs + 4 oz (6.0 kg)                      | R410A x 13 lbs + 4 oz (6.0 kg) |               |

## Notes:

- 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.), Inlet water temperature: 86°F (30°C)
- Nominal heating conditions (Test conditions are based on AHRI 1230)  
Indoor: 68°F D.B. (20°C D.B.), Inlet water temperature: 68°F (20°C)
- The sound values are sound power level (PWL) based on ISO 3744:2010 (r=3.5m).  
Test conditions: Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Inlet water temperature: 86°F (30°C)
- 23°F EWT (Entering water temperature) is possible via DipSwitch Setting. Antifreeze (glycol) must be added to the water loop to prevent freezing down to 5°F
- The ambient temperature of the Heat Source Unit is to be below 104°F D.B. (40°C D.B.)
- The ambient relative humidity of the Heat Source Unit is to be below 80%.
- The Heat Source Unit should not be installed at outdoor.
- Use a strainer (more than 50 meshes) at the water inlet piping of the unit.
- Provide interlocking for the unit operation and water circuit.
- Install the supplied insulation material to the unused drain-socket.
- When installing insulation material around both water and refrigerant piping, follow the installation manual.
- The water circuit must be a closed circuit (water is not exposed to the atmosphere).
- All electrical work shall comply with Nation (CEC) and local codes and regulations
- Should this document be altered or changed without MESCA's permission, it becomes null and void. MESCA assumes no responsibility for any consequences in such cases.
- Mitsubishi Electric (MESCA) supports the use of only MESCA supplied and approved accessories. Use of non-MESCA supported accessories will affect warranty coverage.

PQRYP288, 312, 336ZSLMU-B

Unit: mm(in)



- Note 1. Connect the pipes as shown in the figure above. Refer to the table below for the pipe size.
2. Twinning pipe (High pressure) must be installed horizontally using a level vessel.
3. See the Installation Manual for the details of Twinning pipe installation.
4. Only use the Twinning pipe by Mitsubishi (optional parts).
5. Connect the heat source unit 1 with the Twinning pipe (Low pressure) (section "d" in the figure).

Twinning pipe connection size

| Package unit name                |                    | PQRYP288ZSLMU-B | PQRYP312ZSLMU-B | PQRYP336ZSLMU-B |
|----------------------------------|--------------------|-----------------|-----------------|-----------------|
| Component unit name              | Heat Source unit 1 | PQRYP144ZLMU-B  | PQRYP168ZLMU-B  | PQRYP188ZLMU-B  |
|                                  | Heat Source unit 2 | PQRYP144ZLMU-B  | PQRYP144ZLMU-B  | PQRYP168ZLMU-B  |
| Twinning Kit (optional parts)    |                    | CMY-Q200CBK     |                 |                 |
| BC controller~Twinning pipe      | High pressure      | a               | ø28.58(1-1/8)   | ø41.28(1-5/8)   |
|                                  | Low pressure       | b               | ø34.93(1-3/8)   | ø22.2(7/8)      |
| Twinning pipe~Heat source unit 1 | High pressure      | c               | ø22.2(7/8)      | - (Note 5)      |
|                                  | Low pressure       | d               | ø22.2(7/8)      | ø22.2(7/8)      |
| Twinning pipe~Heat source unit 2 | High pressure      | e               | ø22.2(7/8)      | ø22.2(7/8)      |
|                                  | Low pressure       | f               | ø28.58(1-1/8)   | ø28.58(1-1/8)   |

PQRY-P144, 168, 192ZLMU-B

Unit: mm(in)

- <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) ..... 4 pcs. each
  - Sealing material for panel ..... 1pc.

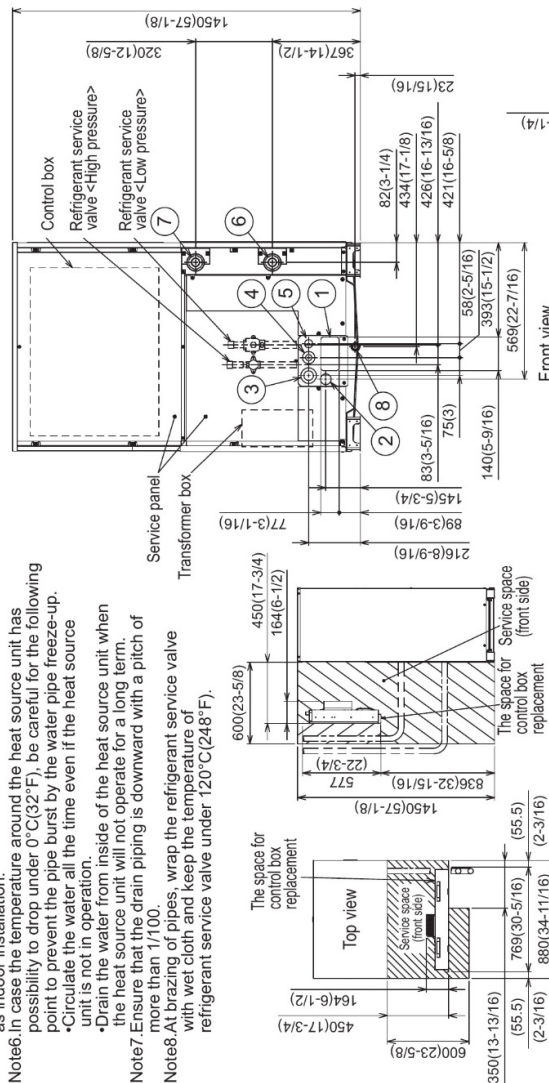
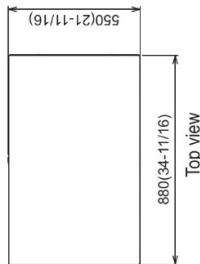
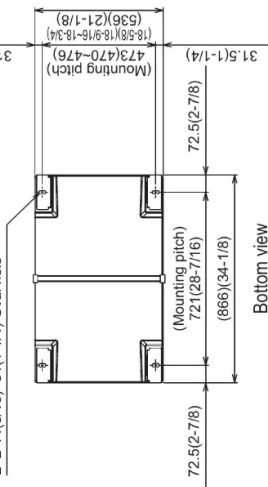
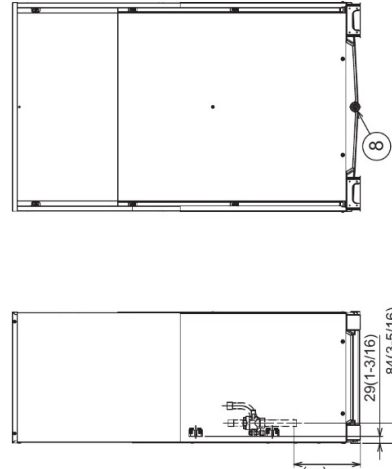


Fig. B



Bottom view



Right side view

| NO. | Usage                   | Specifications                                                           |                                              |
|-----|-------------------------|--------------------------------------------------------------------------|----------------------------------------------|
|     |                         | Front through hole                                                       | Back view                                    |
| ①   | For pipes               | Front through hole (Uses when mounting kit (optional parts) is mounted.) | 140 x 77 Knockout hole (5-9/16) (3-1/16)     |
| ②   |                         |                                                                          | 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   |                         |                                                                          | 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   | Water pipe outlet       |                                                                          | NPT1-1/2 Screw                               |
| ⑧   | Drain pipe              |                                                                          | Rc3/4 Screw                                  |

- 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).

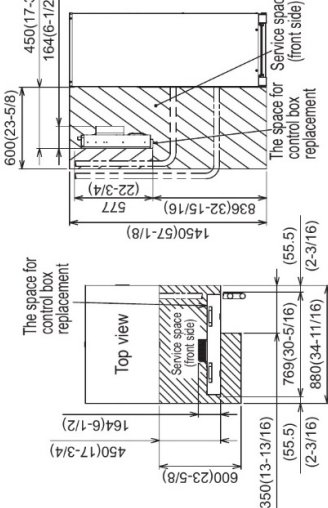


Fig. A

| Model           | Refrigerant pipe      |                          | Service valve |                |
|-----------------|-----------------------|--------------------------|---------------|----------------|
|                 | High pressure         | Low pressure             | High pressure | Low pressure   |
| PQRY-P144ZLMU-B | ø22.2 Brazed (7/8) *1 | ø28.58 Brazed (1-1/8) *1 | ø25.4 (1)     | ø28.58 (1-1/8) |
| PQRY-P168ZLMU-B |                       |                          |               |                |
| PQRY-P192ZLMU-B |                       |                          |               |                |

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