QAHV Heat Pump Water Heater

Cain White
Director of Commercial Product Management
METUS
QAHV – Heat Pump Water Heater

• Utilizes Natural refrigerant - CO2 (GWP of 1)

• High efficiency

• Supplies High Temp Hot water (up to 175°F)

• Operable at low outdoor temp (-13°F)

• Maintains 100% heating capacity to 26°F

• BMS connectivity (BACnet)

Nominal Capacity 40kw
(136,485 BTU/hr.)
Optimized Multiple Unit Cascade

- Built in cascade controller
- Up to 16 units can be connected together
- 2,183,770 BTU/Hr. (640kW) total system capacity
- Modulation allows steps of 1706 BTU/Hr. (0.5kW)
- Built in optimization to ensure the most efficient operation
Mitsubishi Network M-NET

Max 16 units

Max 24 units
Optimized Multiple Unit Cascade
QAHV System Schematic

**Optional Parts**

<table>
<thead>
<tr>
<th>Description</th>
<th>Image</th>
<th>Model name</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Remote Controller</td>
<td></td>
<td>PAR-W31MAA-J</td>
<td>The unit remote controller for QAHV</td>
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<tr>
<td>2 Representative water temp. sensor</td>
<td></td>
<td>TW-TH16-E</td>
<td>The water temperature sensor for QAHV</td>
</tr>
</tbody>
</table>
Local Control

IT terminal input or volt free contact input
On signal : Start operation
Off signal : Stop
3 Sensor Control Method
6 Sensor Control Method

- Requires min. 2 QAHV units
- Requires min. 2 tanks
Schematic Example With Secondary Heat Exchanger

- Heat exchanger 80kW
-Expansion tank
- Inverter pump
- Cushion tank
- Cold water
- Hot water storage tank
- 65°C
- TH16 (SUB)
- TH17 (SUB)
- TH15 (SUB)
- TH16

To Digital Mixing valve
Thank You