

SHRMe VRF Outdoor Unit MMY-AP288S6FT9P-UL - Heat Recovery

TOSHIBA
Carrier

Submittal Data

Job Name _____ Location _____

Tag _____



SHRMe VRF Heat Recovery Features

- 14 and 10-ton modules are combined to form a 24-ton system
- Capable of simultaneous cooling and heating (flow selector boxes required)
- Modules have 2 inverter-driven twin rotary compressors
- Backup capability due to multiple compressors
- Compressor speed varied in 0.1 Hz increments for comfort and efficiency
- Direct drive, inverter-driven 64-step outdoor motor
- Up to 3281 ft (1000 m) actual total system piping (liquid line)
- Up to 591 ft (180 m) actual piping length from outdoor unit to furthest fan coil
- Up to 330 ft (100 m) outdoor control wiring
- Up to 6560 ft (2000 m) control wiring between outdoor and indoor units
- Operating temperature range
Cooling (db): 14 to 122 F (–10 to 50 C)
Heating (wb): –13 to 60 F (–25 to 15.6 C)
- Protection: high pressure switch, low pressure sensor and switch, PC board fuse, inverter overload protection
- 7-year compressor limited warranty, 5-year parts limited warranty

| | | |
|---|--------------------|---------------|
| Header Unit Model | MMY-MAP1686FT9P-UL | |
| Follower Unit Model | MMY-MAP1206FT9P-UL | |
| PERFORMANCE | | |
| Rated Cooling Capacity | Btu/h | 276,000 |
| Rated Heating Capacity | Btu/h | 308,000 |
| Maximum Total Connected Indoor Unit Capacity | | Up to 150% |
| SIMULTANEOUS COOLING AND HEATING EFFICIENCY* | | |
| SCHE, Ducted FCUs | | 25.90 |
| SCHE, Ductless FCUs | | 28.10 |
| COOLING EFFICIENCY* | | |
| EER/IEER, Ducted FCUs | | 9.80/19.70 |
| EER/IEER, Ductless FCUs | | 10.30/22.40 |
| HEATING EFFICIENCY* | | |
| COP at 47 F, Ducted FCUs | | 3.37 |
| COP at 47 F, Ductless FCUs | | 3.35 |
| Fan Type (Qty) | | Propeller (3) |
| Airflow, Standard Range | CFM | 10,852 + 7700 |
| Combined System Sound Pressure, Cooling/Heating | dBA | 66.1/67.5 |
| External Static Pressure† | in. wg | 0.16 |
| ELECTRICAL | | |
| Power Supply | V/Ph/Hz | 208-230/3/60 |
| Minimum Circuit Amps (MCA)** | A | 66.2 + 45.4 |
| Recommended Fuse Size** | A | 70 + 50 |

LEGEND

| | | |
|------|---|---|
| db | — | Dry Bulb |
| COP | — | Coefficient of Performance |
| EER | — | Energy Efficiency Ratio |
| FCU | — | Fan Coil Unit |
| IEER | — | Integrated Energy Efficiency Ratio |
| SCHE | — | Simultaneous Cooling and Heating Efficiency |
| wb | — | Wet Bulb |

| | | |
|--|-----|-----------------------------|
| COMPRESSORS | | |
| Type (Number) | | Inverter Twin Rotary (4) |
| Motor Output | kW | 2 x 6.5 + 2 x 4.0 |
| FAN MOTOR | | |
| Motor Type (Steps) | | Inverter Direct Driven (64) |
| Motor Output | kW | 1.0 + 1.0 + 1.0 |
| PHYSICAL DATA | | |
| Main Pipe Connection Size - Liquid (High Pressure)†† | in. | 7/8 (Flare) |
| Main Pipe Connection Size - Gas (Low Pressure)†† | in. | 1-3/8 (Brazed) |
| Main Discharge (High Pressure)†† | in. | 1-1/8 (Flare) |
| Balance | in. | 3/8 (Flare) |
| Refrigerant | | R-410A |
| Factory Charge*** | lb | 2 x 24.3 |
| External Finish | | Munsell 1Y8.5/0.5 |
| Header Unit/Follower Unit Width | in. | 63.0 / 47.6 |
| Header Unit/Follower Unit Height | in. | 72.9 / 72.9 |
| Header Unit/Follower Unit Depth | in. | 30.7 / 30.7 |
| Header Unit/Follower Unit Net Weight | lb | 838 + 684 |
| REQUIRED ACCESSORY | | |
| Connection Kit | | RBM-BT24FUL |

*Rated per AHRI (Air-Conditioning, Heating and Refrigeration Institute) 1230 Standard.

Cooling: Indoor 80 F (35 C) db/67 F (27 C) wb; Outdoor 95 F (35 C) db

Heating: Indoor 70 F (21 C) db; Outdoor 47 F (8 C) db/43 F (6 C) wb

†Requires setting by DIP switches.

**Separate power supply is required. MCA and fuse size for both units are given.

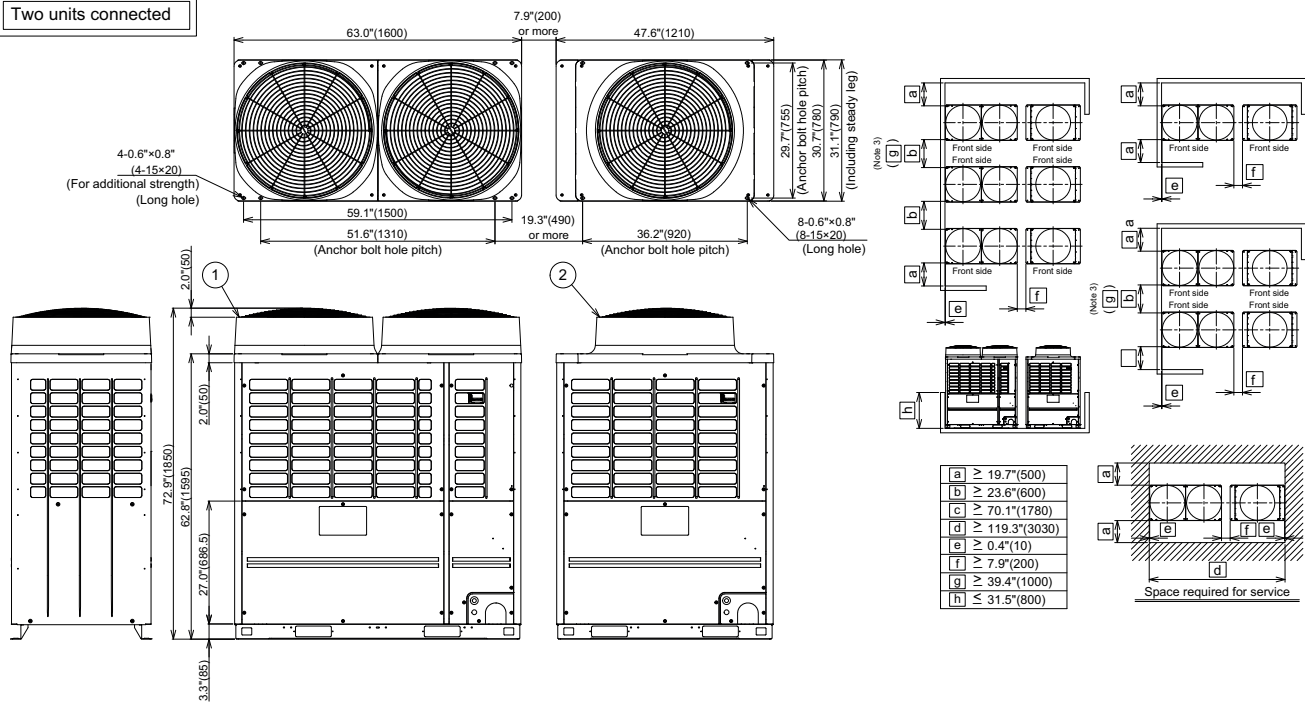
††Main pipe size leaving connection kit.

***Additional charges required.

NOTE: Unit cabinet and coil slab shall be capable of withstanding 500-hour salt spray test in accordance with the ASTM (American Society for Testing and Materials, U.S.A.) B-117 Standard.

DIMENSIONAL DRAWING

OUTDOOR UNIT COMBINATION HEAT RECOVERY MMY-AP288S6FT9P-UL



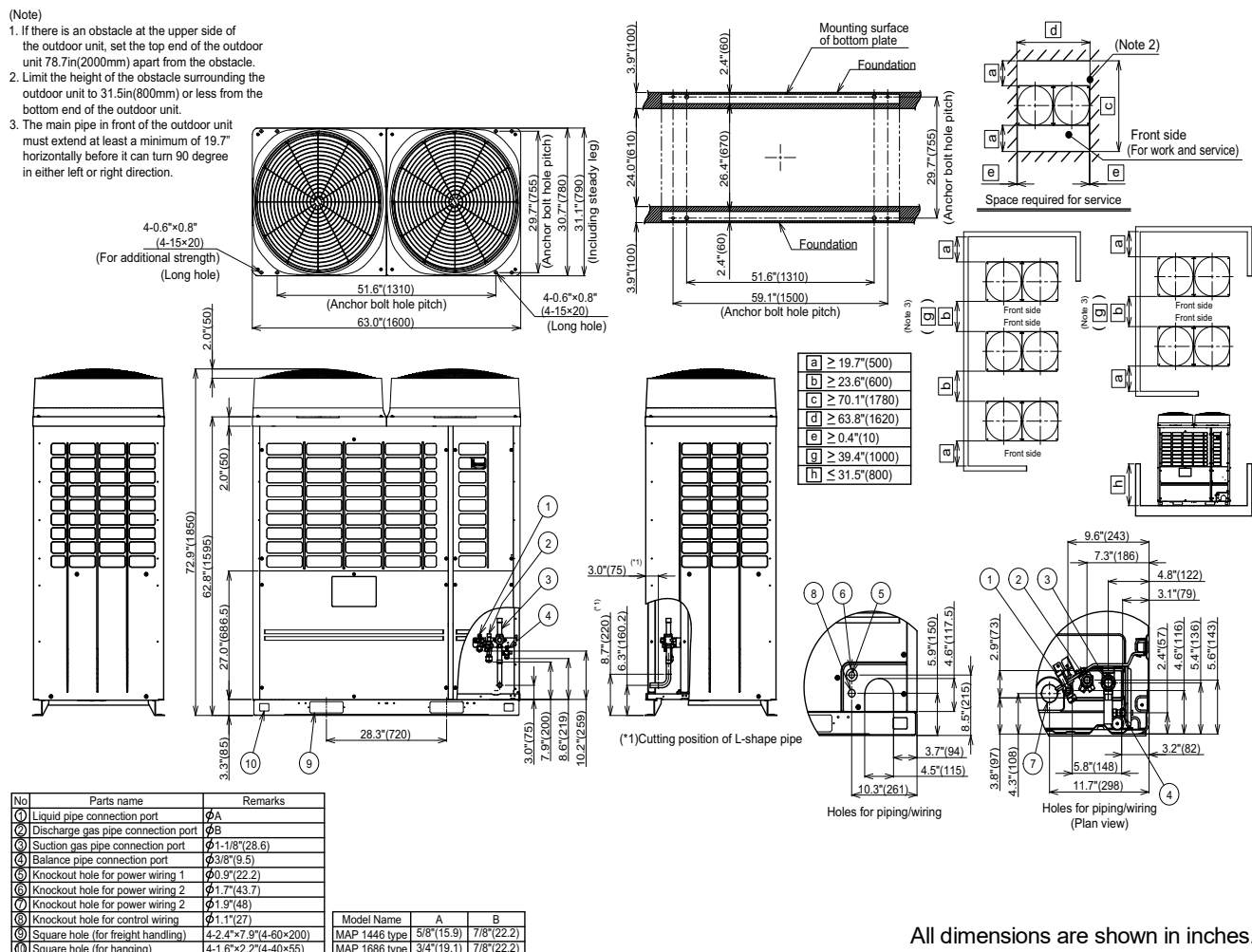
All dimensions are shown in inches.

- (Note)
1. If there is an obstacle at the upper side of the outdoor unit, set the top end of the outdoor unit 78.7"(2000mm) apart from the obstacle.
 2. Limit the height of the obstacle surrounding the outdoor unit to 31.5"(800mm) or less from the bottom end of the outdoor unit.
 3. The main pipe in front of the outdoor unit must extend at least a minimum of 19.7" horizontally before it can turn 90 degree in either left or right direction.
 4. Arrange each outdoor unit in order of its capacity.
(Header unit① ≥ Follower unit②)

| MODEL | OUTDOOR UNIT | |
|--------------------|--------------------|--------------------|
| | HEADER UNIT ① | FOLLOWER UNIT ② |
| MMY-AP288S6FT9P-UL | MMY-MAP1686FT9P-UL | MMY-MAP1206FT9P-UL |

DIMENSIONAL DRAWING
OUTDOOR UNIT HEAT RECOVERY/SINGLE UNIT MMY-MAP1686FT9P-UL

1. If there is an obstacle at the upper side of the outdoor unit, set the top end of the outdoor unit 78.7in(2000mm) apart from the obstacle.
2. Limit the height of the obstacle surrounding the outdoor unit to 31.5in(800mm) or less from the bottom end of the outdoor unit.
3. The main pipe in front of the outdoor unit must extend at least a minimum of 19.7" horizontally before it can turn 90 degree in either left or right direction.



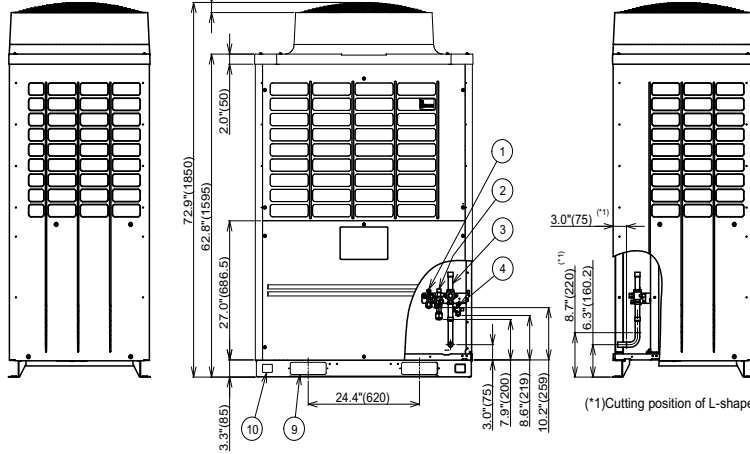
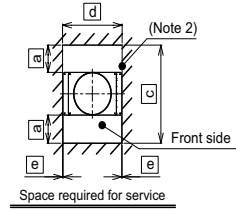
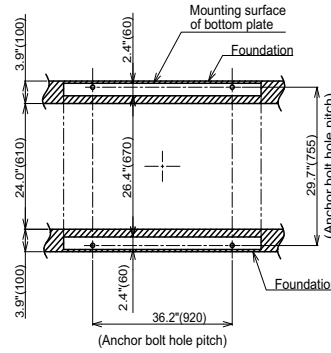
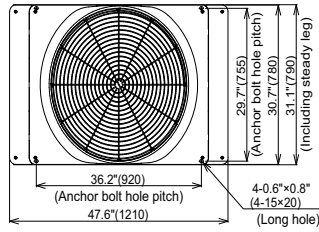
All dimensions are shown in inches.

DIMENSIONAL DRAWING

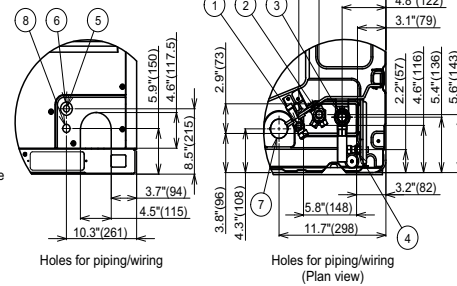
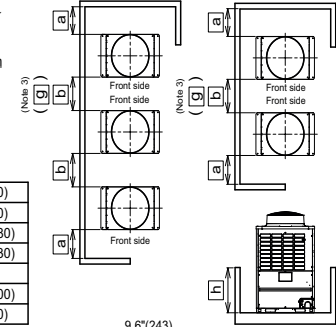
OUTDOOR UNIT HEAT RECOVERY/SINGLE UNIT MMY-MAP1206FT9P-UL

(Note)

1. If there is an obstacle at the upper side of the outdoor unit, set the top end of the outdoor unit 78.7in(2000mm) apart from the obstacle.
2. Limit the height of the obstacle surrounding the outdoor unit to 31.5in(800mm) or less from the bottom end of the outdoor unit.
3. The main pipe in front of the outdoor unit must extend at least a minimum of 19.7" horizontally before it can turn 90 degree in either left or right direction.



| | |
|---|----------------|
| a | ≥ 19.7\"(500) |
| b | ≥ 23.6\"(600) |
| c | ≥ 70.1\"(1780) |
| d | ≥ 48.4\"(1230) |
| e | ≥ 0.4\"(10) |
| g | ≥ 39.4\"(1000) |
| h | ≤ 31.5\"(800) |



| No. | Parts name | Remarks |
|-----|------------------------------------|-------------------------|
| ① | Liquid pipe connection port | φ 1/2\"(12.7) |
| ② | Discharge gas pipe connection port | φ 3/4\"(19.1) |
| ③ | Suction gas pipe connection port | φ A |
| ④ | Balance pipe connection port | φ 3/8\"(9.5) |
| ⑤ | Knockout hole for power wiring 1 | φ 0.9\"(22.2) |
| ⑥ | Knockout hole for power wiring 2 | φ 1.7\"(43.7) |
| ⑦ | Knockout hole for power wiring 2 | φ 1.9\"(48) |
| ⑧ | Knockout hole for control wiring | φ 1.1\"(27) |
| ⑨ | Square hole (for freight handling) | 4-2.4\"×7.9\"(4-60×200) |
| ⑩ | Square hole (for hanging) | 4-1.6\"×2.2\"(4-40×55) |

| | |
|---------------|---------------|
| Model Name | A |
| MAP 0966 type | 7/8\"(22.2) |
| MAP 1206 type | 1-1/8\"(28.6) |

All dimensions are shown in inches.

