

SMMS-e Single VRF Outdoor Unit MMY-MAP1686HT9P-UL - Heat Pump

TOSHIBA
Carrier

Submittal Data

Job Name _____ Location _____
Tag _____



SMMS-e VRF Heat Pump Features

- 6, 8, 10, 12, & 14 ton modules are available.
- Modules have 2 inverter-driven twin rotary compressor.
- 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
- Modules can be combined to form larger systems up to 38 tons.
- 985 ft (300 m) actual total system piping (liquid line)
- Up to 330 ft (100 m) control wiring between outdoor units

- 623 ft (190 m) actual piping length from outdoor unit to furthest fan coil
- Up to 6560 ft (2000 m) control wiring between the outdoor unit 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, process controller board fuse, inverter overload protection
- 7-year compressor limited warranty, 5-year parts limited warranty

Header Unit Model	MMY-MAP1686HT9P	
PERFORMANCE		
Rated Cooling Capacity	Btu/h	160,000
Rated Heating Capacity	Btu/h	180,000
Maximum Total Connected Indoor Unit Capacity*		Up to 150%
COOLING EFFICIENCY†		
EER/IEER, Ducted FCUs		10.90 / 19.00
EER/IEER, Ductless FCUs		11.00 / 23.80
HEATING EFFICIENCY†		
COP at 47 F, Ducted FCUs		3.63
COP at 47 F, Ductless FCUs		3.74
Fan Type (Qty)		Propeller (2)
Airflow, Standard Range	CFM	10080
Sound Pressure, Cooling/Heating	dBA	64/65
External Static Pressure**	in. wg	0.16
ELECTRICAL		
Power Supply	V/Ph/Hz	208-230/3/60
Minimum Circuit Amps (MCA)	A	69
Recommended Fuse Size	A	80

COMPRESSORS		
Type (Number)	Inverter Twin Rotary (2)	
Motor Output	kW	2 x 6.5
FAN MOTOR		
Motor Type (Steps)	Inverter Direct Driven (64)	
Motor Output	kW	1.0 + 1.0
PHYSICAL DATA		
Pipe Connection Size - Liquid (High Pressure)	in.	5/8 (Flare)
Pipe Connection Size - Gas (Low Pressure)	in.	1-1/8 (Brazed)
Balance	in.	3/8 (Flare)
Refrigerant	R-410A	
Factory Charge††	lb	25.4
External Finish	Munsell 1Y8.5/0.5	
Header Unit/Follower Unit Width	in.	63
Header Unit/Follower Unit Height	in.	72-7/8
Header Unit/Follower Unit Depth	in.	30-11/16
Header Unit/Follower Unit Net Weight	lb	838

*When total connected indoor unit capacity exceeds 135%, number and types of indoor units are limited.

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

Cooling: Indoor 80 F (27 C) db/67 F (20 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.

††Additional charge required.

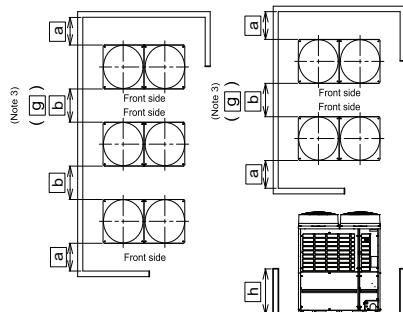
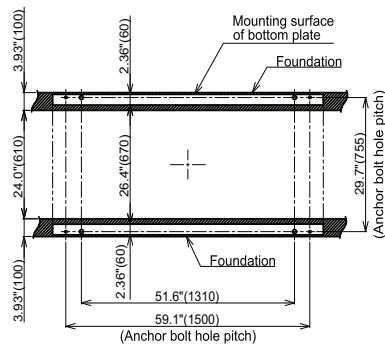
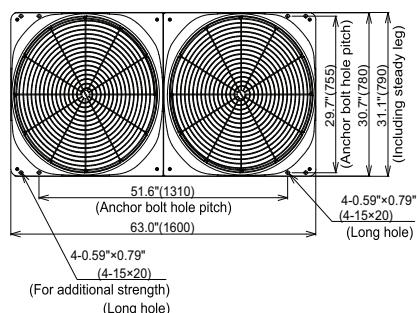
NOTE: Unit cabinet and coil slab shall be capable of withstanding 500-hour salt spray test in accordance with the ASTM (American Society for Testing and Materials, U.S.A.) B-117 Standard.

LEGEND

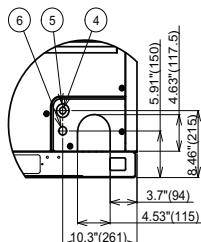
db	— Dry Bulb
COP	— Coefficient of Performance
EER	— Energy Efficiency Ratio
FCU	— Fan Coil Unit
IEER	— Integrated Energy Efficiency Ratio
wb	— Wet Bulb

DIMENSIONAL DRAWING

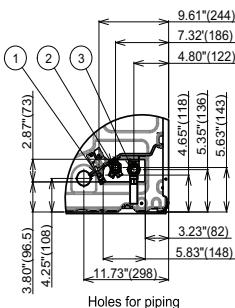
OUTDOOR UNIT: HEAT PUMP/SINGLE UNIT MMY-MAP1686HT9P-UL



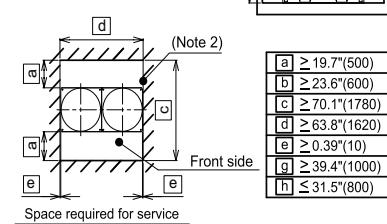
No.	Parts name	Remarks
①	Balance pipe connection port	$\phi 3/8"$ (9.5)
②	Liquid pipe connection port	$\phi 3/4"$ (19.1)
③	Discharge gas pipe connection port	$\phi 1"$ (25.4)
④	Knockout hole for power wiring 1	$\phi 0.87"$ (22.2)
⑤	Knockout hole for power wiring 2	$\phi 1.72"$ (43.7)
⑥	Knockout hole for control wiring	$\phi 1.06"$ (27)
⑦	Square hole (for freight handling)	4.2.36" x 7.87"(4-60x200)
⑧	Square hole (for hanging)	4.1.58" x 2.17"(4-40x55)



Holes for piping/wiring



Holes for piping
(Plan view)

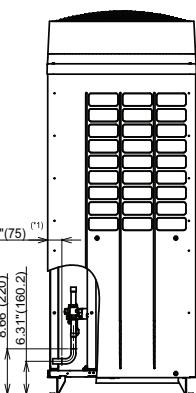
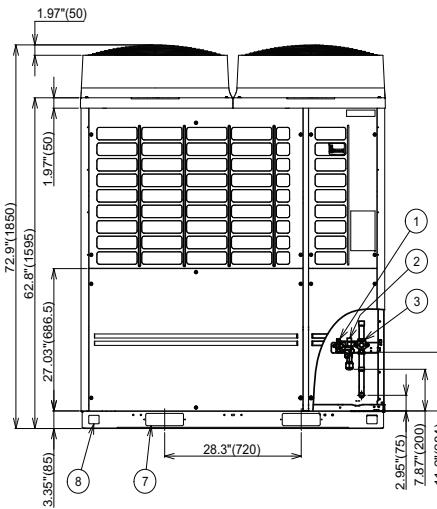
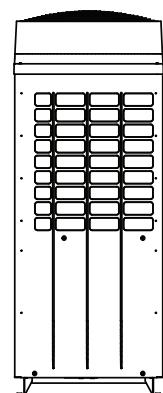


(Note 2)

(Note 3)

NOTES:

1. A minimum clearance of 78.7 in. (2000 mm) is required above the unit.
2. Any wall or barrier should not exceed 31.5 in. (800 mm) from the bottom of the unit.
3. The main pipe in front of the unit must extend at least a minimum of 19.7 in. (500 mm) before it can turn 90 degrees in either left or right direction.
4. Dimensions in parentheses are in millimeters.



(*1)Cutting position of L-shape pipe



Variable Refrigerant Flow (VRF) Multi-Split AC and HP
AHRI Standard 1230