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**SUBMITTAL**

15 SERIES

**Specifications**

Multi Zone Mini-Split  
Inverter System

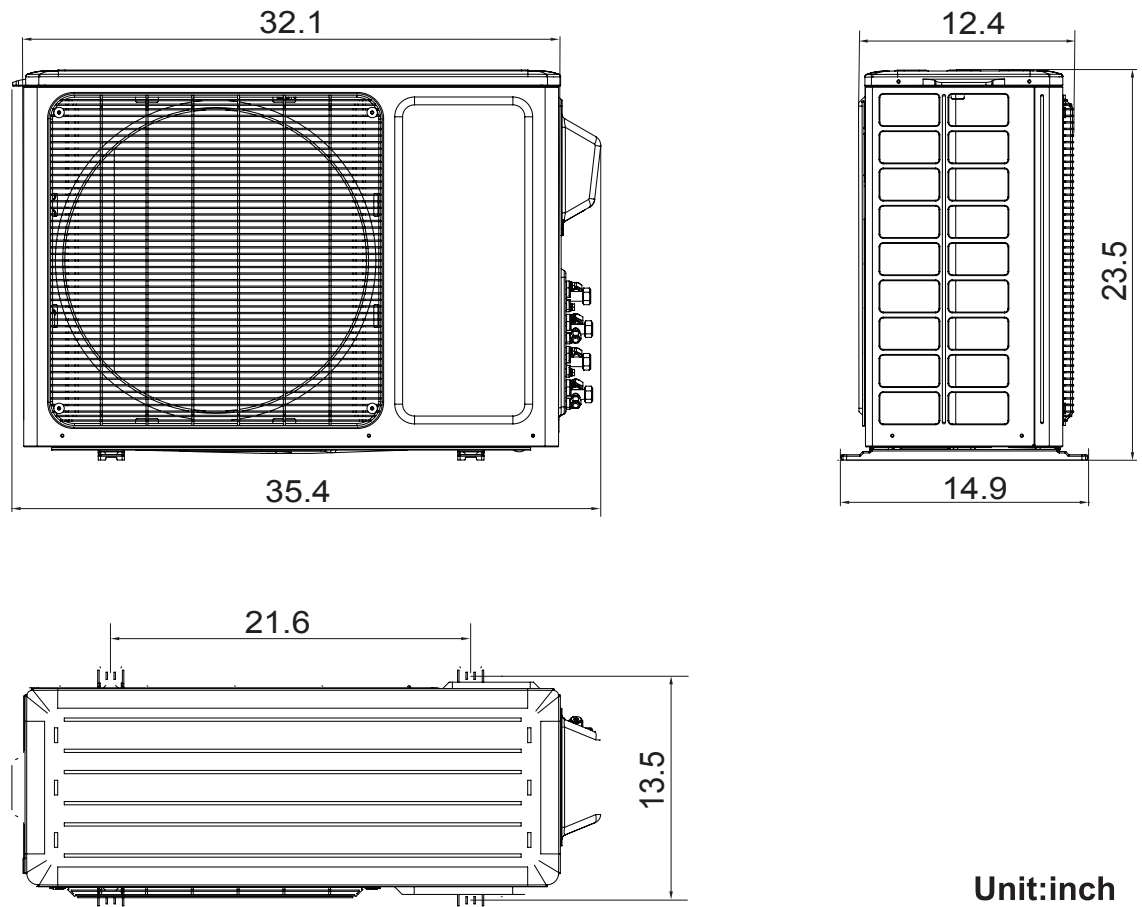
M4THM1518A12NB

| <b>MODEL - Heat Pump Only</b>                        | <b>M4THM1518A12NB</b>               |
|--|-------------------------------------|
| RATED Volts/PH<br>Frequency (Hz)                     | 208 / 230 / 1<br>60Hz               |
| <b>Outdoor Unit</b>                                  | <b>M4THM1518A12NB</b>               |
| Rated Cooling Capacity                               | 18000                               |
| Cooling Capacity Range (Btu/h)                       | 7000 - 21000                        |
| Rated Heating Capacity                               | 19000                               |
| Heating Capacity Range @ 47 F (Btu/h)                | 8530 - 22600                        |
| Max. Heating Capacity @ 17 F (Btu/h)                 | 9600                                |
| Max Heating Capacity @ 5 F (Btu/h)                   | 8600                                |
| SEER / HSPF  | 15.0 / 8.2                          |
| EER  | 10.0                                |
| Compressor Type                                      | Inverter Rotary                     |
| L.R.A. (A)   | 27                                  |
| Compressor RLA(A)                                    | 9.56                                |
| Compressor Power Input(W)                            | 1245                                |
| Throttling Method                                    | EEV                                 |
| Working Temp Range (°F) Cooling/Heating              | 0 ~ 118                      5 ~ 75 |
| Condenser  | Aluminum Fin-Copper Tube            |
| Pipe Diameter (inch)                                 | 5/16                                |
| Row Fin Gap (inch)                                   | 2 - 0.055                           |
| Coil length (L) x height (H) x coil width (W) (inch) | 30.6 x 1.5 x 21.7                   |
| Fan Motor Speed (rpm)                                | 830 / 670 / 500                     |
| Output of Fan Motor (W)                              | 60                                  |
| Fan Motor RLA (A)                                    | 0.54                                |
| Fuse (A)   | 20                                  |
| Air Flow Volume of Outdoor Unit (CFM)                | 1530                                |
| Fan Diameter (inch)                                  | 17.5                                |
| Defrosting Method                                    | Automatic Defrosting                |
| Sound Power Level dB (A)                             | 66                                  |
| Sound PRESSURE Level dB (A)①                         | 56                                  |
| Uncrated Dimension (W/D/H) (inch)                    | 35.4 x 14.9 x 23.5                  |
| Crated Dimension of Package (L/W/H) (inch)           | 37.3 x 16.5 x 25.4                  |
| Net Weight /Gross Weight (lbs)                       | 94.8 / 105.8                        |
| Refrigerant Charge (oz)                              | 47.63                               |
| MCA  | 13.0                                |
| M.O.P  | 20.0                                |
| <b>Connection Pipe</b>                               |                                     |
| Outer Diameter Liquid Pipe (inch)                    | 1/4                                 |
| Outer Diameter Gas Pipe (inch)                       | 3/8                                 |
| Outer Diameter Liquid Pipe (inch)                    | 1/4                                 |
| Outer Diameter Gas Pipe (inch)                       | 3/8                                 |
| Outer Diameter Liquid Pipe (inch)                    | /                                   |
| Outer Diameter Gas Pipe (inch)                       | /                                   |
| Outer Diameter Liquid Pipe (inch)                    | /                                   |
| Outer Diameter Gas Pipe (inch)                       | /                                   |
| Outer Diameter Liquid Pipe (inch)                    | /                                   |
| Outer Diameter Gas Pipe (inch)                       | /                                   |
| Max Height Distance (ft)                             | 16                                  |
| Max Length Distance (ft) - Single Unit Each          | 33                                  |
| Max Length Distance (ft) - Multiple Units Total      | 75                                  |

① Sound PRESSURE Level @ 3.3 ft. dB(A)

# Outdoor Unit

18K Unit



Unit:inch

## NOTES:

- The refrigerant charge mentioned in the technical data does not include additional charge required for the indoor unit(s) and the refrigerant pipe.
- The amount of the additional refrigerant charge depends on the length of the liquid refrigerant pipe installed and the number of indoor units connected.
- Record the additional refrigerant charge for future maintenance.

## Calculation of the Additional Refrigerant Charge:

Unit: Feet

|                                   | M4THM1518 | M4THM1524 | M4THM1530 | M4THM1536 | M4THM1542 |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|
| Maximum total length              | 75        | 230       | 230       | 230       | 260       |
| Maximum length to single IDU      | 33        | 65        | 65        | 65        | 80        |
| Minimum distance to single IDU    | 10        | 10        | 10        | 10        | 10        |
| Maximum ODU/IDU height difference | 16        | 33        | 33        | 50        | 50        |
| Maximum IDU/IDU height difference | 16        | 25        | 25        | 25        | 25        |
| Maximum w/o adding charge         | 66        | 100       | 130       | 130       | 165       |
| Minimum w/o removing charge       | 33        | 50        | 65        | 80        | 100       |
| Amount of R410-A +/- (oz/ft)      | 0.22      | 0.22      | 0.22      | 0.24      | 0.24      |

## Ductless Multi-Zone Approved Combinations

| Indoor Unit Combinations with Associated Nominal Capacity (kBTUH) |                  |       |                    |          |          |                   |             |             |                   |                |
|---|------------------|-------|--------------------|----------|----------|-------------------|-------------|-------------|-------------------|----------------|
| <b>Outdoor Unit</b>   | <b>Two Units</b> |       | <b>Three Units</b> |          |          | <b>Four Units</b> |             |             | <b>Five Units</b> |                |
| M4THM1518A12N<br>18,000 BTUH                                      | 9+9              | 12+12 |                    |          |          |                   |             |             |                   |                |
|   | 9+12             |       |                    |          |          |                   |             |             |                   |                |
| <b>Outdoor Unit</b>   | <b>Two Units</b> |       | <b>Three Units</b> |          |          | <b>Four Units</b> |             |             | <b>Five Units</b> |                |
| M4THM1524A13N<br>24,000 BTUH                                      | 9+9              | 9+12  | 9+9+9              | 9+12+12  | 12+12+12 |                   |             |             |                   |                |
|   | 9+18             | 12+12 | 9+9+12             | 9+9+18   |          |                   |             |             |                   |                |
|   | 12+18            | 18+18 |                    |          |          |                   |             |             |                   |                |
| <b>Outdoor Unit</b>   | <b>Two Units</b> |       | <b>Three Units</b> |          |          | <b>Four Units</b> |             |             | <b>Five Units</b> |                |
| M4THM1530A14N<br>30,000 BTUH                                      | 9+9              | 9+12  | 9+9+9              | 9+9+12   | 9+9+18   | 9+9+9+9           | 9+9+9+12    | 9+9+12+12   |                   |                |
|   | 9+18             | 12+12 | 9+12+12            | 9+12+18  | 12+12+12 |                   |             |             |                   |                |
|   | 12+18            | 18+18 | 12+12+18           |          |          |                   |             |             |                   |                |
| <b>Outdoor Unit</b>   | <b>Two Units</b> |       | <b>Three Units</b> |          |          | <b>Four Units</b> |             |             | <b>Five Units</b> |                |
| M4THM1536A14N<br>36,000 BTUH                                      | 9+9              | 12+18 | 9+9+9              | 9+12+18  | 12+12+18 | 9+9+9+9           | 9+9+12+18   |             |                   |                |
|   | 9+12             | 12+24 | 9+9+12             | 9+12+24  | 12+12+24 | 9+9+9+12          | 9+9+18+18   |             |                   |                |
|   | 9+18             | 18+18 | 9+9+18             | 9+18+18  | 12+18+18 | 9+9+9+18          | 9+12+12+12  |             |                   |                |
|   | 9+24             | 18+24 | 9+9+24             | 9+18+24  | 18+18+18 | 9+9+9+24          | 9+12+12+18  |             |                   |                |
|   | 12+12            | 24+24 | 9+12+12            | 12+12+12 |          | 9+9+12+12         | 12+12+12+12 |             |                   |                |
| <b>Outdoor Unit</b>   | <b>Two Units</b> |       | <b>Three Units</b> |          |          | <b>Four Units</b> |             |             | <b>Five Units</b> |                |
| M4THM1542A15N<br>42,000 BTUH                                      | 9+9              | 12+18 | 9+9+9              | 9+12+24  | 12+12+24 | 9+9+9+9           | 9+9+12+24   | 9+12+18+18  | 9+9+9+9+9         | 9+9+9+18+18    |
|   | 9+12             | 12+24 | 9+9+12             | 9+18+18  | 12+18+18 | 9+9+9+12          | 9+9+18+18   | 9+18+18+18  | 9+9+9+9+12        | 9+9+12+12+12   |
|   | 9+18             | 18+18 | 9+9+18             | 9+18+24  | 12+18+24 | 9+9+9+18          | 9+9+18+24   | 12+12+12+12 | 9+9+9+9+18        | 9+9+12+12+18   |
|   | 9+24             | 18+24 | 9+9+24             | 9+24+24  | 12+24+24 | 9+9+9+24          | 9+12+12+12  | 12+12+12+18 | 9+9+9+9+24        | 9+12+12+12+12  |
|   | 12+12            | 24+24 | 9+12+12            | 12+12+12 | 18+18+18 | 9+9+12+12         | 9+12+12+18  | 12+12+12+24 | 9+9+9+12+12       | 9+12+12+12+18  |
|   |                  |       | 9+12+18            | 12+12+18 | 18+18+24 | 9+9+12+18         | 9+12+12+24  | 12+12+18+18 | 9+9+9+12+18       | 12+12+12+12+12 |

## Ductless Multi-Zone Quick Reference

| Multi-Zone Heat Pumps Outdoor |               |               |               |               |
|-------------------------------|---------------|---------------|---------------|---------------|
| 18,000 BTUH                   | 24,000 BTUH   | 30,000 BTUH   | 36,000 BTUH   | 42,000 BTUH   |
| M4THM1518A12N                 | M4THM1524A13N | M4THM1530A14N | M4THM1536A14N | M4THM1542A15N |

| Multi-Zone Heat Pumps Indoor Options |              |              |              |              |
|--------------------------------------|--------------|--------------|--------------|--------------|
|                                      | 9,000 BTUH   | 12,000 BTUH  | 18,000 BTUH  | 24,000 BTUH  |
| High-Wall Mounted                    | M4MHW1509A1N | M4MHW1512A1N | M4MHW1518A1N | M4MHW1524A1N |

## PERFORMANCE DATA

### M4THM1518A1 - Cooling Mode Performance Data

| Outdoor Ambient Air Temperature (°F) | Indoor Entering Air Temperature (Dry Bulb/Wet Bulb) |       |         |       |         |       |         |       |
|--------------------------------------|---|-------|---------|-------|---------|-------|---------|-------|
|                                      | 68/57°F   |       | 73/61°F |       | 80/67°F |       | 82/68°F |       |
|                                      | TC*   | SHC** | TC      | SHC   | TC      | SHC   | TC      | SHC   |
| 65                                   | 17100   | 13400 | 18100   | 14200 | 19200   | 15100 | 20700   | 16200 |
| 70                                   | 16700   | 13100 | 17700   | 13900 | 19000   | 14900 | 20400   | 16000 |
| 75                                   | 16300   | 12800 | 17300   | 13600 | 18800   | 14800 | 20200   | 15800 |
| 80                                   | 16000   | 12600 | 17100   | 13400 | 18600   | 14600 | 19900   | 15600 |
| 85                                   | 15800   | 12400 | 16900   | 13200 | 18400   | 14400 | 19700   | 15500 |
| 90                                   | 15600   | 12200 | 16700   | 13100 | 18200   | 14300 | 19700   | 15400 |
| 95                                   | 15400   | 12100 | 16500   | 12900 | 18000   | 14100 | 19700   | 15400 |
| 100                                  | 15100   | 11800 | 16200   | 12700 | 17900   | 14000 | 19400   | 15200 |
| 105                                  | 14700   | 11600 | 15800   | 12400 | 17700   | 13900 | 19100   | 15000 |
| 110                                  | 14300   | 11200 | 15400   | 12100 | 17300   | 13500 | 18700   | 14600 |
| 115                                  | 13900   | 10900 | 15000   | 11700 | 16900   | 13200 | 18200   | 14300 |

\*Total Capacity \*\*Sensible Heat Capacity

### M4THM1518A1 - Heating Mode Performance Data

| Outdoor Ambient Air Temperature (°F) | Indoor Entering Air Temperature |       |       |       |
|--------------------------------------|---------------------------------|-------|-------|-------|
|                                      | 68°F                            | 73°F  | 80°F  | 82°F  |
|                                      | TC*                             | TC    | TC    | TC    |
| 0                                    | 13400                           | 13100 | 12900 | 12600 |
| 5                                    | 14300                           | 14100 | 13800 | 13500 |
| 10                                   | 14900                           | 14700 | 14400 | 14100 |
| 15                                   | 15400                           | 15200 | 14900 | 14600 |
| 20                                   | 16000                           | 15700 | 15400 | 15100 |
| 25                                   | 16500                           | 16300 | 16000 | 15700 |
| 30                                   | 17100                           | 16900 | 16600 | 16300 |
| 35                                   | 17500                           | 17300 | 17000 | 16700 |
| 40                                   | 17800                           | 17600 | 17300 | 17100 |
| 45                                   | 18700                           | 18500 | 18100 | 17700 |
| 50                                   | 19300                           | 19000 | 18600 | 18200 |
| 55                                   | 19600                           | 19300 | 18900 | 18400 |
| 60                                   | 19900                           | 19500 | 19100 | 18700 |

\*Total Capacity

# Mechanical Specifications

## Multi-Zone Outdoor Unit

### General

This unit comes pre-charged with refrigerant from the factory. It is designed to operate at outdoor ambient temperatures as high as 118 F. Cooling capacities with its associated indoor units shown in the catalog are AHRI certified. It is also ETL listed for outdoor application.

### Unit Casing

The unit casing is constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint.

### Refrigerant Controls

Refrigeration system controls include a condenser fan and compressor relay. High and low pressure controls are inherent to the compressor. A suction line multi function service valve is standard

### Compressor

The compressor features internal over temperature and over pressure protection; it also has dipped hermetic motor windings. Other features include: a centrifugal oil pump and low vibration and noise.

### Condenser Coil

The coil consists of aluminum finned coils brazed to copper tubing. It provides air flow resistance, efficient heat transfer, and is protected by the casing.

### Low Ambient Cooling

Matched ductless products have a cooling capability to 0° F.

## Optional Equipment

### Optional outdoor unit accessories

| Model Number | Description               | M4THM15 Multi-Zone up to 15 SEER |
|--------------|---------------------------|----------------------------------|
| TAYREFLN050  | Lineset Kit 1/4x3/8 - 25' | ✓                                |
| TAYREFLN055  | Lineset Kit 1/4x3/8 - 35' | ✓                                |
| TAYREFLN060  | Lineset Kit 1/4x3/8 - 50' | ✓                                |
| TAYREFLN560  | Lineset Kit 1/4x1/2 - 25' | ✓                                |
| TAYREFLN565  | Lineset Kit 1/4x1/2 - 35' | ✓                                |
| TAYREFLN570  | Lineset Kit 1/4x1/2 - 50' | ✓                                |
| TAYREFLN155  | Lineset Kit 1/4x5/8 - 25' | ✓                                |
| TAYREFLN160  | Lineset Kit 1/4x5/8 - 35' | ✓                                |
| TAYREFLN165  | Lineset Kit 1/4x5/8 - 50' | ✓                                |

### About Trane and American Standard Heating and Air Conditioning

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