

# R454b Refrigerant

# SUBMITTAL DATA SHEET



Series Name: Advanced Heat AHU Series  
Model Number: MAAHE-H36B-CA/MO1BE-H30B-2A

## Air Handler Heat Pump System

|               |               |
|---------------|---------------|
| Location:     | Approval:     |
| Engineer:     | Date:         |
| Submitted to: | Construction: |
| Submitted by: | Unit #:       |
| Reference:    | Drawing #:    |



## INDOOR SPECIFICATION

|                   |      |                          |
|-------------------|------|--------------------------|
| Dimension (W×D×H) | inch | 21 x 21 x 24             |
|                   | mm   | 534 x 533 x 611          |
| Package (W×D×H)   | inch | 20-1/2 x 26-1/8 x 26-3/8 |
|                   | mm   | 610 x 665 x 685          |
| Net/Gross Weight  | lbs  | 64 / 74                  |
|                   | kg   | 29.2 / 33.6              |

## OUTDOOR SPECIFICATION

|                              |      |                          |
|------------------------------|------|--------------------------|
| Compressor Type              |      | ROTARY                   |
| Compressor Model             |      | KTF250D22UMT             |
| Refrigerant                  |      | R454B                    |
| Refrigerant Oil Charge(mL)   |      | 670                      |
| Refrigerant Oil              |      | VG74                     |
| Outdoor Air Flow (Max) (CFM) |      | 3,002                    |
| Outdoor Noise Level (dBA)    |      | 60                       |
| Dimension (W×D×H)            | inch | 37-1/4 x 16-1/8 x 31-7/8 |
|                              | mm   | 946 x 410 x 810          |
| Package (W×D×H)              | inch | 42-7/8 x 19-5/8 x 34-7/8 |
|                              | mm   | 1090 x 500 x 885         |
| Net/Gross Weight             | lbs  | 142 / 152                |
|                              | kg   | 64.3 / 69.1              |

## EFFICIENCY

| Cooling |      | Heating |      |
|---------|------|---------|------|
| SEER2   | 15.8 | HSPF2-4 | 8.2  |
| EER2    | 10.0 | COP     | 3.12 |

## PERFORMANCE of Cooling

| Cooling (Btu/hr)                |                     |
|---------------------------------|---------------------|
| Rated Capacity                  | 29,000              |
| Min/Max Capacity                | 12,800~33,700       |
| Moisture Removal(L/h)           | 4                   |
| Standard Operating Range(*F/*C) | -13~122 ( -25 ~ 50) |
| Rated Cooling Conditions:       |                     |
| Indoor: 80°F DB/67°F WB         |                     |
| Outdoor: 95°F DB/75°F WB        |                     |

## PERFORMANCE of Heating

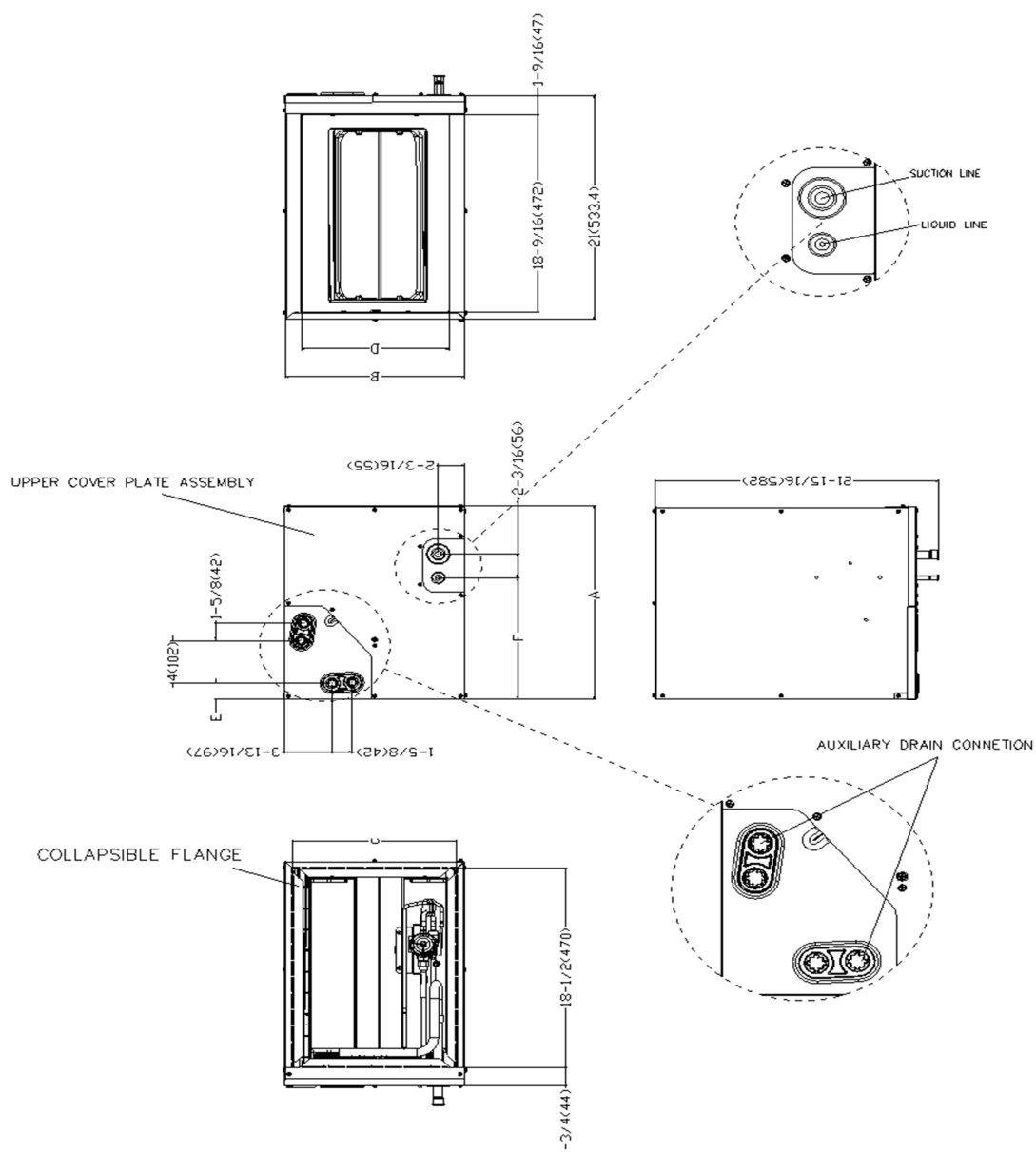
| Heating (Btu/hr)                  |                    |
|-----------------------------------|--------------------|
| 1. @ 47°F Rated                   | 30,000             |
| 2. @ 47°F Min/Max Capacity        | 8,600~31,000       |
| 3. @ 17°F Rated                   | 19,000             |
| 4. @ 5°F Rated: Capacity / COP    | 19,000/1.9         |
| 5. @ 5°F Max: Capacity            | 19,000             |
| Standard Operating Range(*F/*C)   | -13~75 ( -25 ~ 24) |
| 1. Rated Heating Conditions:      |                    |
| Indoor: 70°F DB/60°F WB           |                    |
| Outdoor: 47°F DB/43°F WB          |                    |
| 2. Rated Heating Conditions:      |                    |
| Indoor: 70°F DB/60°F WB           |                    |
| Outdoor: 17°F DB/15°F WB          |                    |
| 3. Heating Conditions, Compressor |                    |
| Operating at Max. Frequency       |                    |
| Indoor: 70°F DB/60°F WB           |                    |
| Outdoor: 5°F DB/5°F WB            |                    |

## ELECTRICAL

|                                  |                                        |
|----------------------------------|----------------------------------------|
| Indoor Power Supply              | 24V,60Hz,1Ph                           |
| Indoor MCA 115V/(208/230V)       | /                                      |
| Indoor MOP                       | /                                      |
| Outdoor Power Supply             | 208/230,60Hz,1Ph                       |
| Outdoor MCA                      | 22.5                                   |
| Outdoor MOP                      | 25.0                                   |
| Communication Wiring             | AWG 20-2                               |
| Compressor RLA                   | 17                                     |
| Outdoor Fan Motor RLA            | 1.1                                    |
| Outdoor Fan Motor W              | 120                                    |
| Indoor Fan Motor RLA             | /                                      |
| Indoor Fan Motor W               | /                                      |
| System Power Input @ Cooling (W) | 2,900 ( 1,060~3,240)                   |
| System Power Input @ Heating (W) | 2,820 ( 900~2,760)                     |
| MCA: Min. circuit amps (A)       | MOCP: Max. over current protection (A) |
| RLA: Rated load amps (A)         | W: Fan motor rated output (W)          |

## PIPING

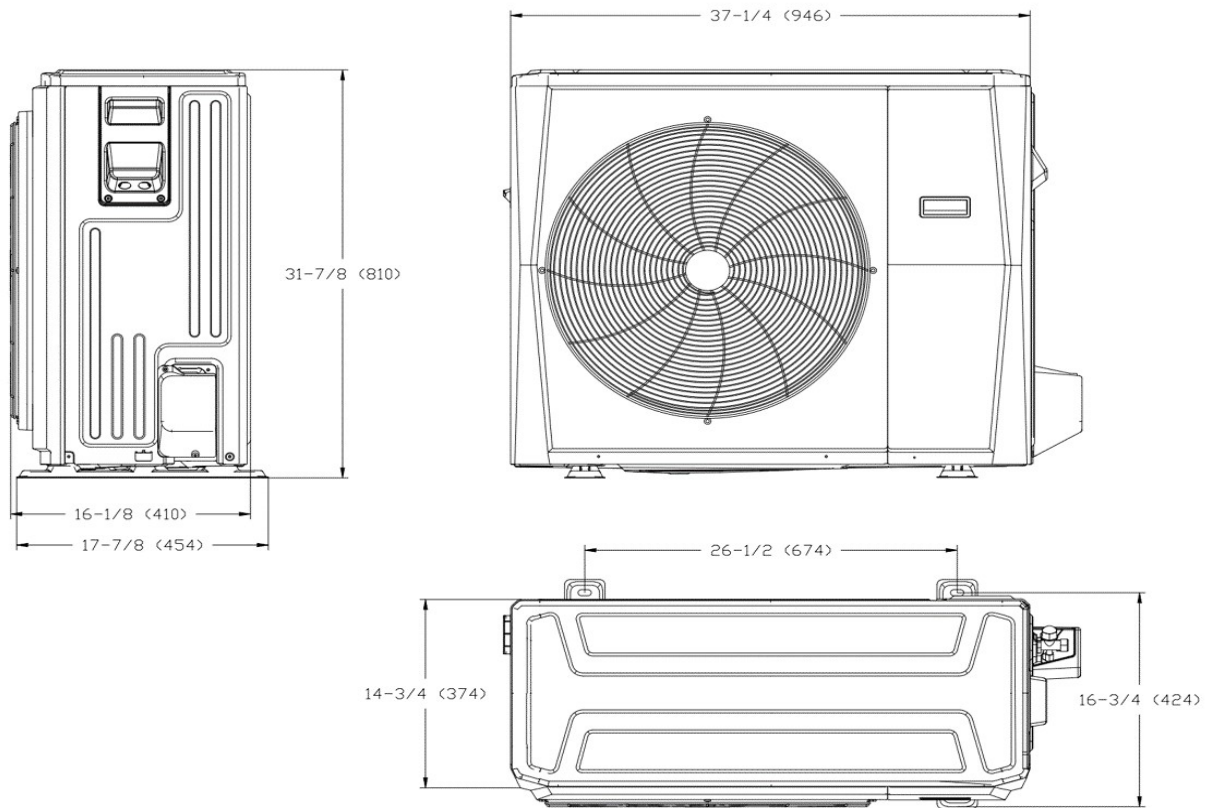
|                                               |               |
|-----------------------------------------------|---------------|
| Throttle type(Indoor)                         | TXV           |
| Throttle type(Outdoor)                        | EXV           |
| Liquid Size                                   | 3/8" (9.52mm) |
| Gas Size                                      | 3/4" (19mm)   |
| Max. Piping Length(ft/m)                      | 164 ( 50)     |
| Max. Height Difference(ft/m)                  | 82 ( 25)      |
| Max. Pre-charged Length(ft/m)                 | 25 (7.5)      |
| Refrigerant Pre-charged Amount(oz/kg)         | 92 ( 2.6)     |
| Additional Charge of Refrigerant(oz/ft)/(g/m) | 0.7 ( .65)    |
| Connection Method                             | Flared        |



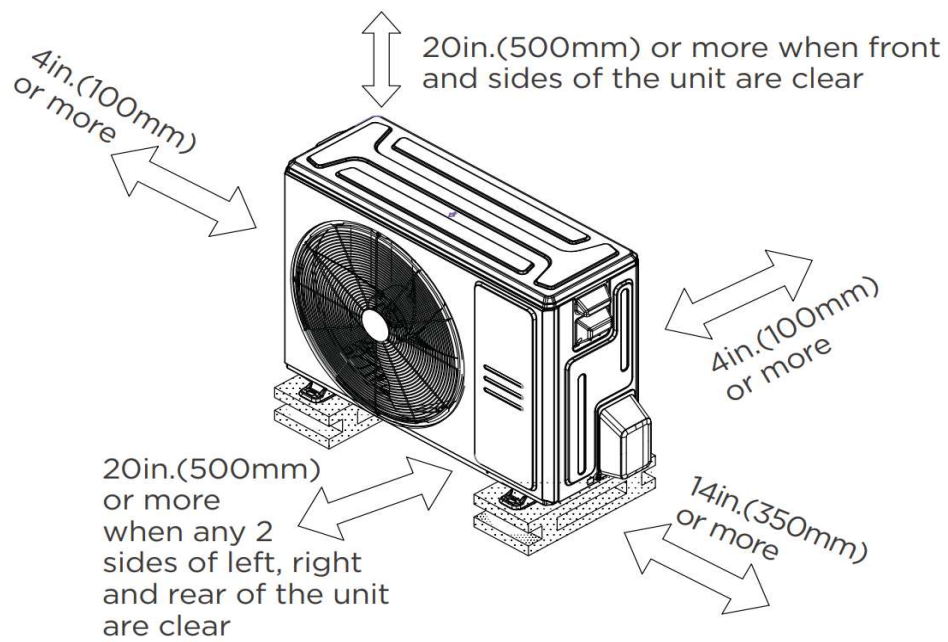
| Model(Btu/h) |                          | 24-A     |     | 36-A     |     | 36-B     |     |
|--------------|--------------------------|----------|-----|----------|-----|----------|-----|
| Dimensions   |                          | inch     | mm  | inch     | mm  | inch     | mm  |
| A            | Model Height             | 18       | 457 | 23-5/16  | 592 | 23-1/2   | 599 |
| B            | Model Width              | 14-1/2   | 368 | 14-1/2   | 368 | 17-1/2   | 445 |
| C            | Supply Air Opening Width | 13-1/4   | 336 | 13-1/4   | 336 | 16-3/16  | 411 |
| D            | Return Air Opening Width | 11-15/16 | 303 | 11-15/16 | 303 | 14-15/16 | 380 |
| E            | Condensate Drains Height | 1-7/16   | 38  | 1-7/16   | 38  | 1-7/16   | 38  |
| F            | Liquid Line Height       | 11-3/8   | 290 | 17-15/16 | 455 | 16-3/8   | 417 |
| Model(Btu/h) |                          | 24-B     |     | 36-C     |     |          |     |
| Dimensions   |                          | inch     | mm  | inch     | mm  |          |     |
| A            | Model Height             | 18       | 457 | 24       | 611 |          |     |
| B            | Model Width              | 17-1/2   | 445 | 21       | 534 |          |     |
| C            | Supply Air Opening Width | 16-3/16  | 411 | 19-3/4   | 502 |          |     |
| D            | Return Air Opening Width | 14-15/16 | 380 | 18-7/16  | 468 |          |     |
| E            | Condensate Drains Height | 1-7/16   | 38  | 2-3/16   | 55  |          |     |
| F            | Liquid Line Height       | 11-3/8   | 290 | 17-1/2   | 445 |          |     |

## Outdoor Unit Dimension

Unit:inch(mm)



## Installation Instruction For Outdoor Unit



#### Features

- Multi-position installation: horizontal(left or right), vertical( up or down)
- Aluminum Coil
- R454B refrigerant sensor
- Easy Maintenance
- Multiple control options available:
  - Two-way communication wired controller with built-in Wi-Fi: 120N (X6W)
  - Third-Party 24V Thermostat