

**Air Handler Heat Pump System**

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



**INDOOR SPECIFICATION**

|   |   |                       |  |
|---|---|-----------------------|--|
| Indoor Air Flow (Turbo/H/M/L/Si) (CFM)    | 618.03 / 576.83 / 529.74 / 488.54 / N/A |                       |  |
| Indoor Noise Level (Turbo/H/M/L/Si) (dBA) | 44/43/41/33/N/A                         |                       |  |
| Dimension (W×D×H)                         | inch                                    | 21.02 x 17.52 x 45.00 |  |
|   | mm                                      | 534.0×445.0×1143.0    |  |
| Package (W×D×H)                           | inch                                    | 26.57 x 20.87 x 48.62 |  |
|   | mm                                      | 675×530×1235          |  |
| Net/Gross Weight                          | lbs                                     | 105.82/126.76         |  |
|   | kg                                      | 48/57.5               |  |

**OUTDOOR SPECIFICATION**

|                              |              |                       |  |
|------------------------------|--------------|-----------------------|--|
| Compressor Type              | ROTARY       |                       |  |
| Compressor Model             | KSN140D58UFZ |                       |  |
| Refrigerant                  | R454B        |                       |  |
| Refrigerant Oil Charge(mL)   | 440          |                       |  |
| Refrigerant Oil              | VG74         |                       |  |
| Outdoor Air Flow (Max) (CFM) | 1450.9       |                       |  |
| Outdoor Noise Level (dBA)    | 55           |                       |  |
| Dimension (W×D×H)            | inch         | 31.69 x 12.99 x 21.81 |  |
|                              | mm           | 805.0×330.0×554.0     |  |
| Package (W×D×H)              | inch         | 36.02 x 14.57 x 24.21 |  |
|                              | mm           | 915×370×615           |  |
| Net/Gross Weight             | lbs          | 77.16/83.77           |  |
|                              | kg           | 35/38                 |  |

**EFFICIENCY**

| Cooling |      | Heating |      |
|---------|------|---------|------|
| SEER2   | 18.8 | HSPF2-4 | 9.1  |
| EER2    | 11.0 | COP     | 3.15 |

**PERFORMANCE of Cooling**

| Cooling (Btu/hr)                |   |
|---------------------------------|---|
| Rated Capacity                  | 18000   |
| Min/Max Capacity                | 5350~20000  |
| Moisture Removal(L/h)           | 1.71  |
| Standard Operating Range(°F/°C) | -13~122(-25~50)                                     |
| Rated Cooling Conditions:       | Indoor: 80°F DB/67°F WB<br>Outdoor: 95°F DB/75°F WB |

**PERFORMANCE of Heating**

| Heating (Btu/hr)  |   |
|---|---|
| 1. @ 47°F Rated   | 18000   |
| 2. @ 47°F Min/Max Capacity                                    | 5600~19000  |
| 3. @ 17°F Rated   | 12600   |
| 4. @ 5°F Rated: Capacity / COP                                | 11200/2   |
| 5. @ 5°F Max: Capacity  | 11200   |
| Standard Operating Range(°F/°C)                               | -13~75(-25~24)                                      |
| 1. Rated Heating Conditions:                                  | Indoor: 70°F DB/60°F WB<br>Outdoor: 47°F DB/43°F WB |
| 2. Rated Heating Conditions:                                  | Indoor: 70°F DB/60°F WB<br>Outdoor: 17°F DB/15°F WB |
| 3. Heating Conditions, Compressor Operating at Max. Frequency | Indoor: 70°F DB/60°F WB<br>Outdoor: 5°F DB/5°F WB   |

**ELECTRICAL**

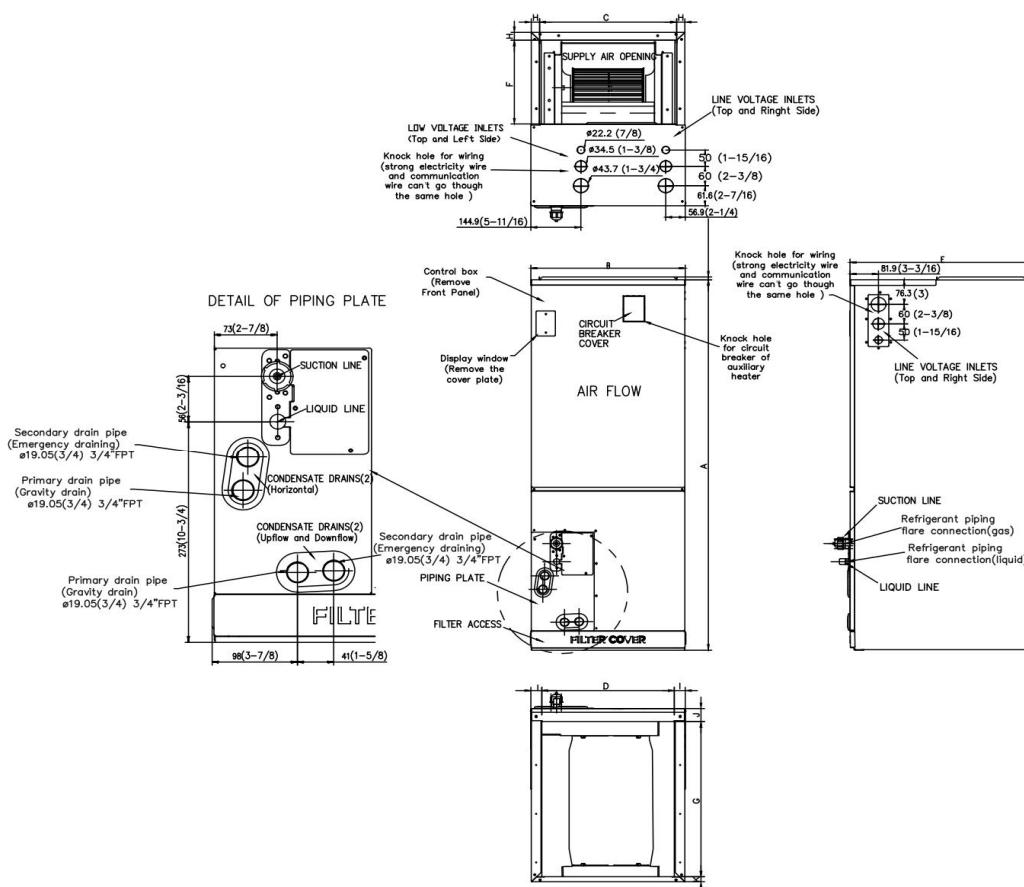
|                                  |  |  |
|----------------------------------|--|--|
| Indoor Power Supply              | 115/208/230V,60Hz,1Ph                  |  |
| Indoor MCA 115V/(208/230V)       | 5.5/4.0                                |  |
| Indoor MOP                       | 15                                     |  |
| Outdoor Power Supply             | 208/230V,60Hz,1Ph                      |  |
| Outdoor MCA                      | 16                                     |  |
| Outdoor MOP                      | 20                                     |  |
| Communication Wiring             | AWG 20-2                               |  |
| Compressor RLA                   | 10                                     |  |
| Indoor Fan Motor RLA             | 0.8                                    |  |
| Outdoor Fan Motor W              | 34                                     |  |
| Indoor Fan Motor RLA             | 2                                      |  |
| Indoor Fan Motor W               | 250                                    |  |
| System Power Input @ Cooling (W) | 1635(400 ~ 1900)                       |  |
| System Power Input @ Heating (W) | 1675(340 ~ 1650)                       |  |
| 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)                           | EXV           |
| Throttle type(Outdoor)                          | EXV           |
| Liquid Size                                     | 9.52mm(3/8in) |
| Gas Size  | 19mm(3/4in)   |
| Max. Piping Length(ft/m)                        | 98.4(30)      |
| Max. Height Difference(ft/m)                    | 65.6(20)      |
| Max. Pre-charged Length(ft/m)                   | 24.6(7.5)     |
| Refrigerant Pre-charged Amount(oz/kg)           | 51.15(1.45)   |
| Additional Charge of Refrigerant((oz/ft)/(g/m)) | 0.7(65)       |
| Connection Method                               | Flared*       |

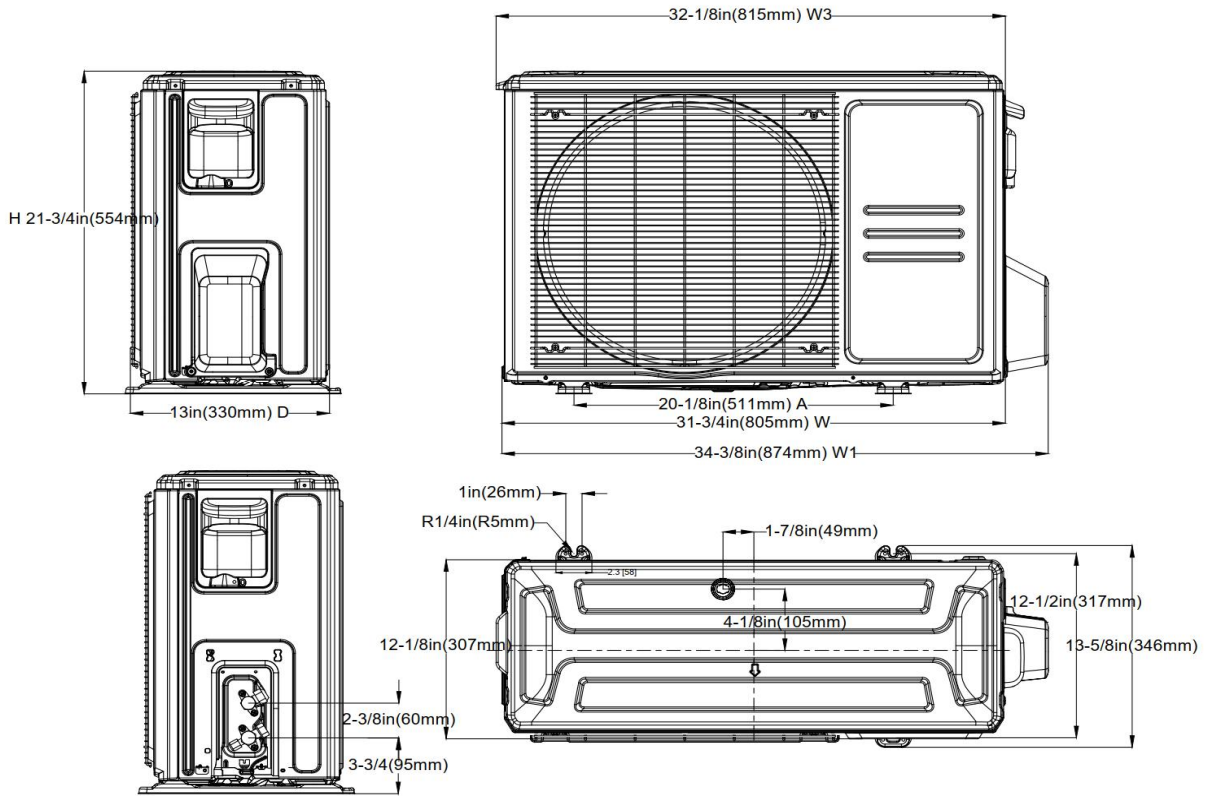
\*The gas valve of the outdoor unit is 5/8", 5/8" to 3/4" flare to flare connector is required for the installation.

## Indoor Unit Dimension

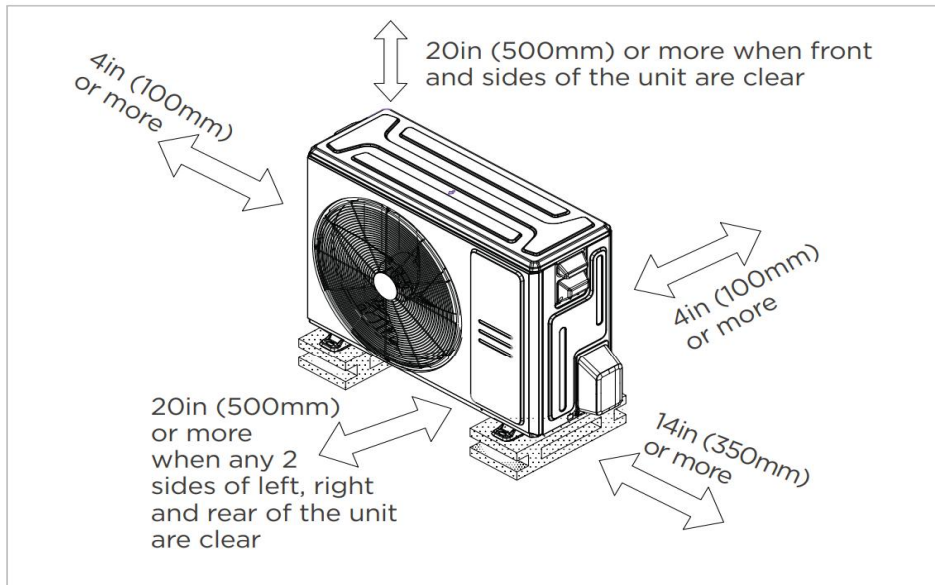


| Dimensions | Model                              | 18k/24k |      | 30k/36k |      | 48k/60k |      |
|------------|------------------------------------|---------|------|---------|------|---------|------|
|            |                                    | inch    | mm   | inch    | mm   | inch    | mm   |
| A          | Model Height                       | 45      | 1143 | 49      | 1245 | 53      | 1346 |
| B          | Model Width                        | 17-1/2  | 445  | 21      | 534  | 24-1/2  | 622  |
| C          | Supply Air Opening Width           | 15-5/8  | 397  | 19-1/8  | 486  | 22-5/8  | 575  |
| D          | Return Air Opening Width           | 15-1/8  | 384  | 18-5/8  | 473  | 22-1/8  | 562  |
| E          | Model Depth                        | 21      | 534  | 21      | 534  | 21      | 534  |
| F          | Supply Air Opening Depth           | 10-1/4  | 260  | 10-1/4  | 260  | 10-1/4  | 260  |
| G          | Return Air Opening Depth           | 18-3/4  | 476  | 18-3/4  | 476  | 18-3/4  | 476  |
| H          | Supply Air Opening Clearance       | 15/16   | 24   | 15/16   | 24   | 15/16   | 24   |
| I          | Return Air Opening Side Clearance  | 1-1/4   | 32   | 1-1/4   | 32   | 1-1/8   | 28   |
| J          | Return Air Opening Front Clearance | 1-1/2   | 38   | 1-5/8   | 41   | 1-5/8   | 41   |
| K          | Return Air Opening Back Clearance  | 5/8     | 16   | 5/8     | 16   | 3/4     | 19   |

### Outdoor Unit Dimension

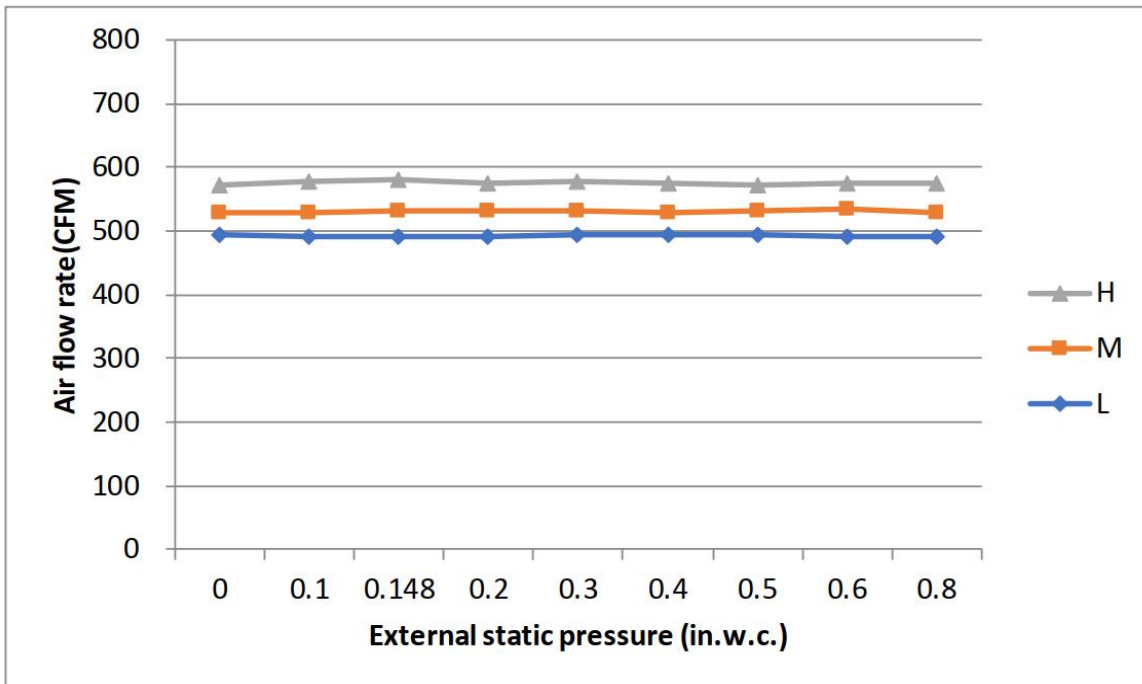


### Installation Instruction For Outdoor Unit



Meets all spatial requirements shown in Installation Clearance Requirements above.

## Fan Performance For Indoor Unit



## Features

- Multi-position installation: horizontal(left or right), vertical( up or down)
- Aluminum Coil
- Constantly Air Flow system up to 0.80 In.W.G
- 1 inch R4.2 fiberglass free insulation reduces condensation and boosts efficiency(optional)
- Optional Auxiliary heat kit up to 25kW
- Easy Maintenance
- Multiple control options available:
  - Two way communication wired controller with built-in WiFi:AWC-8P-LC-WIFI
  - Wireless remote controller
  - Third-Party 24V Thermostat
- Adaptive Control System
- High efficiency up to 18.8 SEER2, 11 EER2, 9.7 HSPF2
- Chassis heater and crankcase heater equipped as standard