



# Submittal Data Sheet

Indoor Unit Model#: ACiQ-12-AHD

Outdoor Unit Model#: ACiQ-12-EHPD

## Air Handler Heat Pump System

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

System Product Code: 810175550091  
Indoor Unit Product Code: 810175550077  
Outdoor Unit Product Code: 810175550084



### INDOOR UNIT SPECIFICATIONS

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

### OUTDOOR UNIT SPECIFICATIONS

|                              |      |                       |
|------------------------------|------|-----------------------|
| 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 x 330.0 x 554.0 |
| Package (W×D×H)              | inch | 36.02 x 14.57 x 24.21 |
|                              | mm   | 915 x 370 x 615       |
| Net/Gross Weight             | lbs  | 77.16 / 83.77         |
|                              | kg   | 35 / 38               |

### EFFICIENCY RATINGS

| Cooling |      | Heating |      |
|---------|------|---------|------|
| SEER2   | 21.0 | HSPF2-4 | 10.0 |
| EER2    | 12.5 | COP     | 3.87 |

### COOLING PERFORMANCE

| Cooling (Btu/hr)                 |                          |
|----------------------------------|--------------------------|
| Rated Capacity                   | 12000                    |
| Min/Max Capacity                 | 5300~15000               |
| 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  |
|                                  | Outdoor: 95°F DB/75°F WB |

### HEATING PERFORMANCE

| Heating (Btu/hr)  |                          |
|---|--------------------------|
| 1. @ 47°F Rated   | 13000                    |
| 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  |
|   | 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 SPECIFICATIONS

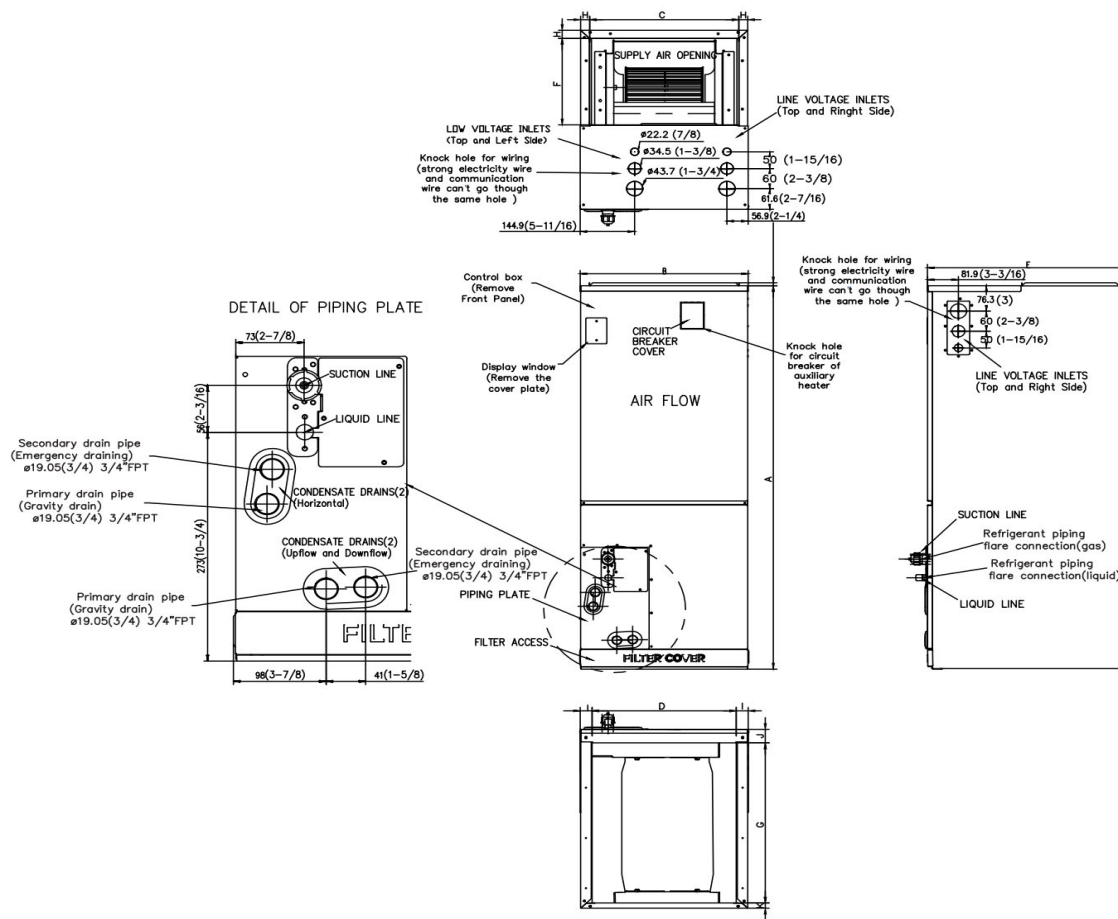
|                                  |                                      |
|----------------------------------|--------------------------------------|
| Indoor Power Supply              | 115/208/230V, 60Hz, 1Ph              |
| Indoor MCA 115V/(208/230V)       | 5.5 / 4.0                            |
| Indoor MOP                       | 15                                   |
| Outdoor Power Supply             | 208/230V, 60Hz, 1Ph                  |
| Outdoor MCA                      | 16                                   |
| Outdoor MOP                      | 20                                   |
| Communication Wiring             | AWG 20-2                             |
| Compressor RLA                   | 10                                   |
| Outdoor 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) | 960 (400 ~ 1900)                     |
| System Power Input @ Heating (W) | 909 (340 ~1650)                      |
| MCA: Min. circuit amps (A)       | MOP: Max. overcurrent protection (A) |
| RLA: Rated load amps (A)         | W: Fan motor rated output (W)        |

### REFRIGERANT PIPING SPECIFICATIONS

|  |                  |
|--|------------------|
| Throttle type (Indoor)                           | EXV              |
| Throttle type (Outdoor)                          | EXV              |
| Liquid Size                                      | 9.52 mm (3/8 in) |
| Gas Size   | 19 mm (3/4 in)   |
| 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*          |

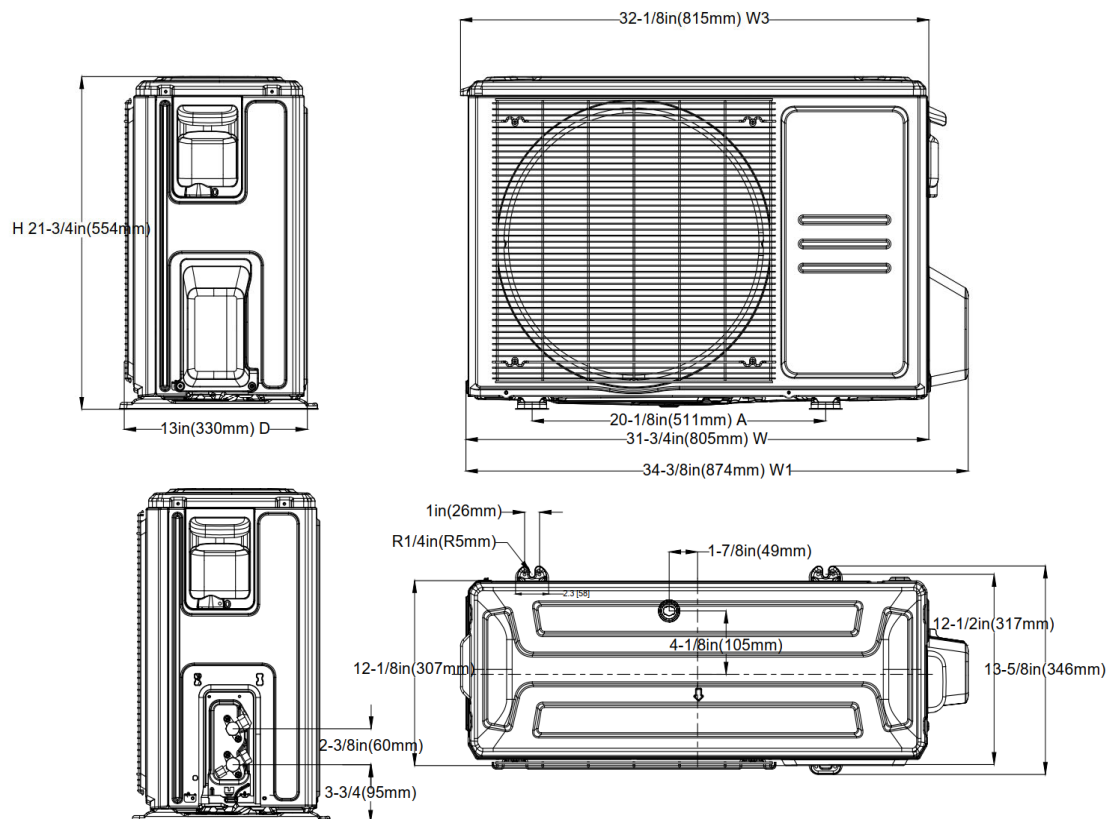
\*The gas valve of the outdoor unit is 5/8", 5/8" to 3/4" flare to flare connector is required for the installation.

# Indoor Unit Dimensions

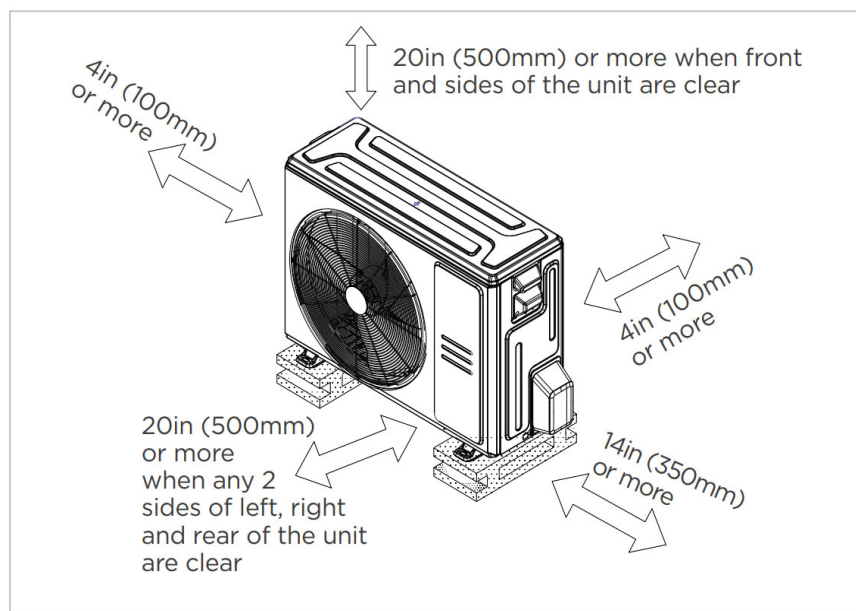


| Dimensions | Model                              | 18k/24k |      | 30k/36k |      | 48k/60k |      |
|------------|------------------------------------|---------|------|---------|------|---------|------|
|            |                                    | inch    | mm   | inch    | mm   | inch    | 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   |

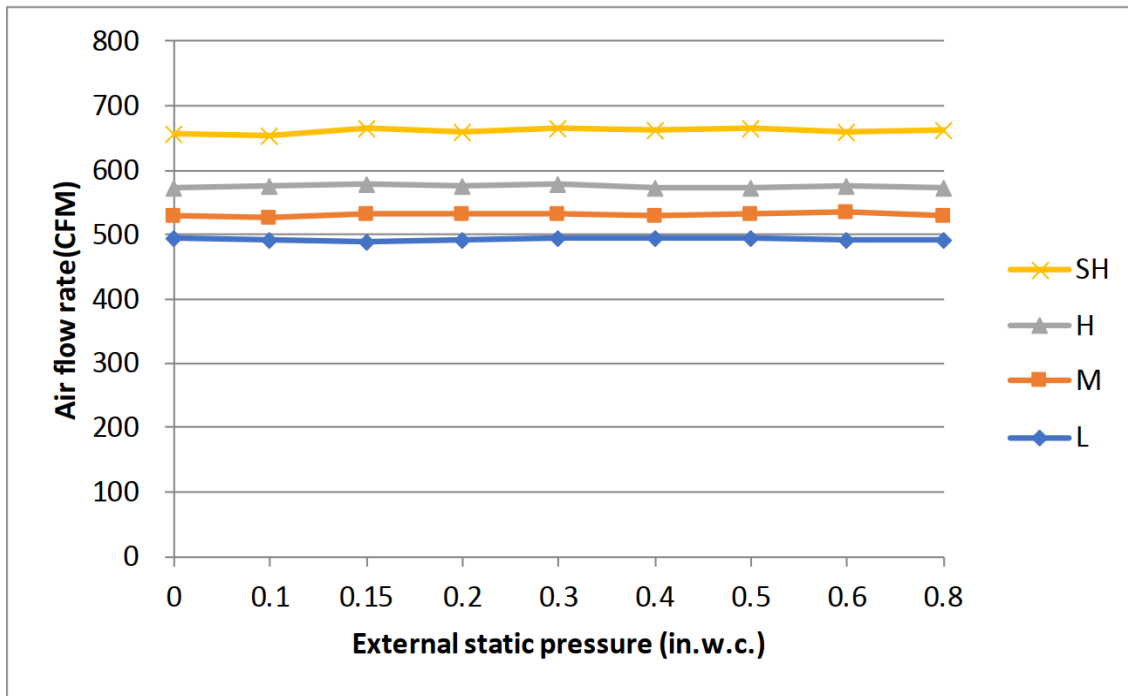
## Outdoor Unit Dimensions



## Installation Instructions for Outdoor Unit



- ☒ Meets all spatial requirements shown in Installation Clearance Requirements above.



#### 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:120N(X6)
  - Two way communication wired controller with built-in WiFi:120N(X6W)
  - Wireless remote controller
  - Third-Party 24V Thermostat
- Adaptive Control System
- High efficiency up to 21 SEER2, 12.5 EER2, 10 HSPF2
- Chassis heater and crankcase heater equipped as standard