



# Submittal Data Sheet

Indoor Unit Model#: ACiQ-24-AH32  
Outdoor Unit Model#: ACiQ-24-HP32

## 2-Ton Air Handler Heat Pump System

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

System Product Code: 810175552361  
Indoor Unit Product Code: 810175552286  
Outdoor Unit Product Code: 810175552323



### EFFICIENCY RATINGS

| Cooling |      | Heating   |      |
|---------|------|-----------|------|
| SEER2   | 18.0 | HSPF2     | 10.0 |
| EER     | 12.5 | COP (W/W) | 3.5  |

### COOLING PERFORMANCE

| Cooling (Btu/hr)                              |                               |
|-----------------------------------------------|-------------------------------|
| Rated Capacity                                | 24000                         |
| Cooling Capacity Range (Min/Max)              | 12000 - 30000                 |
| Ambient Temperature Range (Cooling Operation) |                               |
| Indoor Unit °F (°C)                           | 64.4°F ~ 89.6°F (18°C ~ 32°C) |
| Outdoor Unit °F (°C)                          | 5°F ~ 129.2°F (-15°C ~ 54°C)  |
| Rated Cooling Conditions:                     | Indoor: 80.1°F DB/66.9°F WB   |
|                                               | Outdoor: 95°F DB/75.0°F WB    |

### HEATING PERFORMANCE

| Heating (Btu/hr)                              |                               |
|-----------------------------------------------|-------------------------------|
| Rated Capacity                                | 24000                         |
| Heating Capacity Range (Min/Max)              | 12000 - 30000                 |
| Ambient Temperature Range (Heating Operation) |                               |
| Indoor Unit °F (°C)                           | 50°F ~ 80.6°F (10°C ~ 27°C)   |
| Outdoor Unit °F (°C)                          | -22°F ~ 75.2°F (-30°C ~ 24°C) |
| Rated Heating Conditions:                     | Indoor: 70.0°F DB/60.1°F WB   |
|                                               | Outdoor: 47.0°F DB/43.0°F WB  |

### AIR FILTER SPECIFICATIONS (INDOOR UNIT)

|                                      |      |                 |
|--------------------------------------|------|-----------------|
| Air Filter Material                  |      | Metal           |
| Air Filter Size (LxW/no. of Filters) | inch | 16.5 x 20.3 / 1 |
|                                      | mm   | 420 x 516 / 1   |
| Air Filter Size (Thickness)          | inch | 0.6             |
|                                      | mm   | 15              |

### INDOOR UNIT SPECIFICATIONS

|                                                  |      |                                       |
|--------------------------------------------------|------|---------------------------------------|
| Evaporator Material                              |      | Inner Groove Copper Tube-Aluminum Fin |
| ESP (inWG)                                       |      | 0.5                                   |
| Indoor Air Flow Volume (CFM)                     |      | 760                                   |
| Indoor Noise Level (dBA)                         |      | 60                                    |
| System Operation Control                         |      | Thermostat                            |
| Dimension (WxDxH)                                | inch | 18.11 x 21.26 x 43.5                  |
|                                                  | mm   | 460 x 540 x 1105                      |
| Package (WxDxH)                                  | inch | 25.98 x 20.59 x 46.26                 |
|                                                  | mm   | 660 x 523 x 1175                      |
| Net/Gross Weight                                 | lbs  | 135.6 / 144.4                         |
|                                                  | kg   | 61.5 / 65.5                           |
| Drainage Connection Size (O.D. x Wall Thickness) | inch | 1 x 0.05                              |
|                                                  | mm   | 25.4 x 1.2                            |

### OUTDOOR UNIT SPECIFICATIONS

|                              |      |                                       |
|------------------------------|------|---------------------------------------|
| Compressor Type              |      | Inverter Rotary                       |
| Compressor Model             |      | QXFT-F310zN450B                       |
| Refrigerant Type             |      | R32                                   |
| Refrigerant Oil Charge (L)   |      | 1.12                                  |
| Refrigerant Oil              |      | FW68DA (FW68L)                        |
| Condenser Material           |      | Inner Groove Copper Tube-Aluminum Fin |
| Outdoor Air Flow (Max) (CFM) |      | 3176                                  |
| Outdoor Noise Level (dBA)    |      | 70                                    |
| Dimension (WxDxH)            | inch | 38.98 x 14.57 x 37.80                 |
|                              | mm   | 990 x 370 x 960                       |
| Package (WxDxH)              | inch | 45.39 x 18.82 x 43.70                 |
|                              | mm   | 1153 x 478 x 1110                     |
| Net/Gross Weight             | lbs  | 187.4 / 211.6                         |
|                              | kg   | 85 / 96                               |

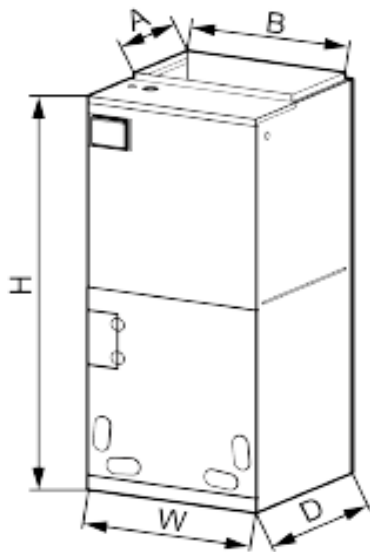
### ELECTRICAL SPECIFICATIONS

|                                    |  |                                        |
|------------------------------------|--|----------------------------------------|
| Power Supply                       |  | 208/230V, 60 Hz, 1 Ph                  |
| Min/Max Voltage                    |  | 187/253                                |
| Indoor Unit MCA                    |  | 4.7                                    |
| Indoor Unit MOP                    |  | 15                                     |
| Indoor Unit Fuse Current (A)       |  | 3.15                                   |
| Outdoor MCA                        |  | 21                                     |
| Outdoor MOP                        |  | 25                                     |
| Outdoor Unit Fuse Capacity (A)     |  | 25                                     |
| Recommended Power Cable (Core) (N) |  | 3                                      |
| Compressor RLA                     |  | 14                                     |
| Outdoor Fan Motor FLA              |  | 3                                      |
| Outdoor Fan Motor Output (HP)      |  | 1/6                                    |
| Outdoor Fan Motor Speed (RPM)      |  | 800                                    |
| Indoor Fan Motor FLA               |  | 1.2                                    |
| Indoor Fan Motor Output (HP)       |  | 1/2                                    |
| Cooling Power Input (kW)           |  | Indoor Unit: 0.20                      |
|                                    |  | Outdoor Unit: 2.05                     |
| Heating Power Input (kW)           |  | Indoor Unit: 0.20                      |
|                                    |  | Outdoor Unit: 2.01                     |
| MCA: Min. circuit amps (A)         |  | MOP: Max. over current protection (A)  |
| RLA: Rated load amps (A)           |  | HP: Fan motor rated horsepower (HP)    |
| FLA: Full load amps (A)            |  | RPM: Fan motor speed (revolutions/min) |

### REFRIGERANT PIPING SPECIFICATIONS

|                                                  |  |                                  |
|--------------------------------------------------|--|----------------------------------|
| Throttle type (Indoor)                           |  | Electronic Expansion Valve (EEV) |
| Throttle type (Outdoor)                          |  | Electronic Expansion Valve (EEV) |
| Liquid Size (in/mm)                              |  | 3/8 (9.52)                       |
| Gas Size (in/mm)                                 |  | 3/4 (19)                         |
| Max. Piping Length (ft/m)                        |  | 164 / 50                         |
| Max. Height Difference (ft/m)                    |  | 98.4 / 30                        |
| Max. Allowable Pressure (MPa)                    |  | 5.83                             |
| Refrigerant Charge Amount (oz/kg)                |  | 88.2 / 2.5                       |
| Additional Charge of Refrigerant ((oz/ft)/(g/m)) |  | 0.323 / 30                       |
| Connection Method                                |  | Flare Connection                 |

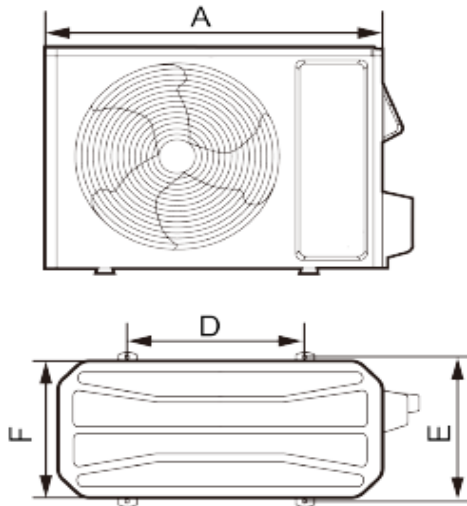
### Indoor Unit Dimensions



Unit: inch(mm)

| Model        | Dimension         |                 |                   |                 |                 |
|--------------|-------------------|-----------------|-------------------|-----------------|-----------------|
|              | W                 | D               | H                 | A               | B               |
| ACIQ-24-AH32 | 18-1/8<br>(460)   | 21-1/4<br>(540) | 43-1/2<br>(1105)  | 11-5/8<br>(295) | 16-3/4<br>(426) |
| ACIQ-36-AH32 | 21-1/4<br>(540)   | 21-1/4<br>(540) | 48-3/16<br>(1224) | 11-5/8<br>(295) | 20<br>(508)     |
| ACIQ-48-AH32 | 24-13/16<br>(630) | 21-1/4<br>(540) | 52<br>(1320)      | 11-5/8<br>(295) | 20<br>(508)     |
| ACIQ-60-AH32 |                   |                 |                   |                 |                 |

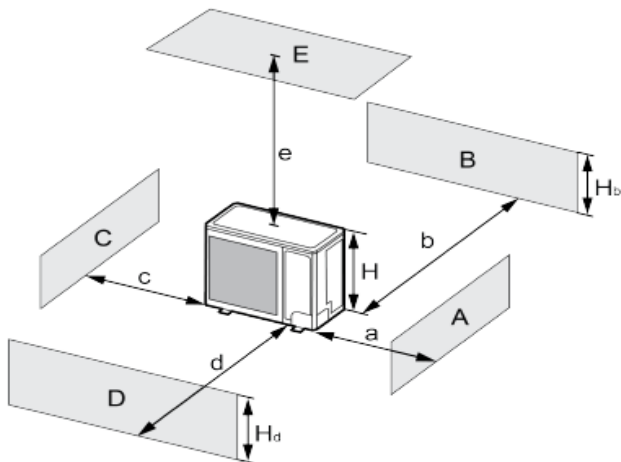
### Outdoor Unit Dimensions



Unit: inch(mm)

| Dimensions   | A           | B                 | C                 | D               | E                | F                |
|--------------|-------------|-------------------|-------------------|-----------------|------------------|------------------|
| Model        |             |                   |                   |                 |                  |                  |
| ACIQ-24-HP32 | 39<br>(990) | 16-13/16<br>(427) | 37-13/16<br>(960) | 29-3/4<br>(755) | 15-9/16<br>(396) | 14-9/16<br>(370) |
| ACIQ-36-HP32 |             |                   |                   |                 |                  |                  |

### Outdoor Unit Clearance Requirements



| A~E     | H <sub>b</sub>                  | H <sub>d</sub>            | H          | (mm) |      |      |       |       |
|---------|---------------------------------|---------------------------|------------|------|------|------|-------|-------|
|         |                                 |                           |            | a    | b    | c    | d     | e     |
| B       | —                               | —                         | —          | —    | ≥100 | —    | —     | —     |
| A,B,C,  | —                               | —                         | —          | ≥300 | ≥100 | ≥100 | —     | —     |
| B,E     | —                               | —                         | —          | —    | ≥100 | —    | —     | ≥1000 |
| A,B,C,E | —                               | —                         | —          | ≥300 | ≥150 | ≥150 | —     | ≥1000 |
| D       | —                               | —                         | —          | —    | —    | —    | ≥1000 | —     |
| D,E     | —                               | —                         | —          | —    | —    | —    | ≥1000 | ≥1000 |
| B,D     | H <sub>b</sub> < H <sub>d</sub> | H <sub>d</sub> > H        | —          | ≥100 | —    | —    | ≥1000 | —     |
|         | H <sub>b</sub> > H <sub>d</sub> | H <sub>d</sub> < H        | —          | ≥100 | —    | —    | ≥1000 | —     |
| B,D,E   | H <sub>b</sub> < H <sub>d</sub> | H <sub>b</sub> ≤ 1/2H     | —          | ≥250 | —    | —    | ≥2000 | ≥1000 |
|         |                                 | 1/2H < H <sub>b</sub> ≤ H | —          | ≥250 | —    | —    | ≥2000 | ≥1000 |
|         |                                 | H <sub>b</sub> > H        | Prohibited |      |      |      |       |       |
|         | H <sub>b</sub> > H <sub>d</sub> | H <sub>d</sub> ≤ 1/2H     | —          | ≥100 | —    | —    | ≥2000 | ≥1000 |
|         |                                 | 1/2H < H <sub>d</sub> ≤ H | —          | ≥200 | —    | —    | ≥2000 | ≥1000 |
|         |                                 | H <sub>d</sub> > H        | Prohibited |      |      |      |       |       |

**Cooling Performance Table**

| Outdoor Temperature | Indoor Temperature °F |         |      |         |         |      |         |         |      |
|---------------------|-----------------------|---------|------|---------|---------|------|---------|---------|------|
|                     | 60                    |         |      | 70      |         |      | 80      |         |      |
|                     | TC                    | SHC     | PI   | TC      | SHC     | PI   | TC      | SHC     | PI   |
| °F                  | (Btu/h)               | (Btu/h) | (W)  | (Btu/h) | (Btu/h) | (W)  | (Btu/h) | (Btu/h) | (W)  |
| 50                  | 13500                 | 13690   | 1060 | 18000   | 17690   | 1240 | 23000   | 18450   | 1280 |
| 65                  | 14200                 | 13500   | 1120 | 19000   | 17500   | 1380 | 24000   | 18500   | 1450 |
| 75                  | 15200                 | 14100   | 1290 | 20000   | 18100   | 1540 | 24000   | 18980   | 1640 |
| 85                  | 17600                 | 14220   | 1520 | 21680   | 18220   | 1750 | 25000   | 19290   | 1890 |
| 95                  | 15200                 | 14550   | 1640 | 20000   | 18550   | 1860 | 24000   | 19380   | 2150 |
| 105                 | 15600                 | 14220   | 1860 | 20500   | 18220   | 2080 | 24000   | 19250   | 2260 |
| 115                 | 16400                 | 14620   | 2230 | 20600   | 17950   | 2260 | 23500   | 18800   | 2540 |

**Heating Performance Table**

| Outdoor Temperature | Indoor Temperature °F |      |         |      |         |       |
|---------------------|-----------------------|------|---------|------|---------|-------|
|                     | 60                    |      | 70      |      | 80      |       |
|                     | TC                    | PI   | TC      | PI   | TC      | PI    |
| °F                  | (Btu/h)               | (W)  | (Btu/h) | (W)  | (Btu/h) | (W)   |
| -22                 | 14800                 | 4020 | 14000   | 4120 | 13200   | 4310  |
| -15                 | 16500                 | 4350 | 15000   | 4460 | 15600   | 4680  |
| -5                  | 17500                 | 5480 | 16200   | 5670 | 16700   | 5770  |
| 5                   | 20000                 | 5120 | 19800   | 5260 | 19300   | 5420  |
| 17                  | 24000                 | 2040 | 23000   | 3170 | 20400   | 3340  |
| 32                  | 24000                 | 2190 | 23000   | 2320 | 20500   | 2470  |
| 47                  | 25000                 | 1970 | 24000   | 2020 | 21000   | 2150  |
| 60                  | 28800                 | 2280 | 28000   | 2340 | 26500   | 24300 |

**Indoor Unit Fan Performance Chart**