

# SUBMITTAL DATA SHEET

Series Name: Cooling Only AHU Series  
Model Number: BNG1A18ACN/BNGFA18DH2

## 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 / 488.54 |
| Indoor Noise Level (Turbo/H/M/L/Si) (dBA) |      | 44/43/41/33/33                             |
| Dimension (W×D×H)                         | inch | 17.52 x 21.02 x 45.00                      |
|                                           | mm   | 445.0×534.0×1143.0                         |
| 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) |      | 1,413                 |
| Outdoor Noise Level (dBA)    |      | 54                    |
| Dimension (W×D×H)            | inch | 31.69 x 12.99 x 21.81 |
|                              | mm   | 805×330×554           |
| Package (W×D×H)              | inch | 36.02 x 14.57 x 24.21 |
|                              | mm   | 915×370×615           |
| Net/Gross Weight             | lbs  | 66.80/73.41           |
|                              | kg   | 30.3/33.3             |

## EFFICIENCY

| Cooling |      | Heating |   |
|---------|------|---------|---|
| SEER2   | 18.5 | HSPF2-4 | / |
| EER2    | 11.7 | COP     | / |

## PERFORMANCE of Cooling

| Cooling (Btu/hr)                |                                                     |
|---------------------------------|-----------------------------------------------------|
| Rated Capacity                  | 18000                                               |
| Min/Max Capacity                | 7200~20000                                          |
| Moisture Removal(L/h)           | 1.7                                                 |
| 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 |

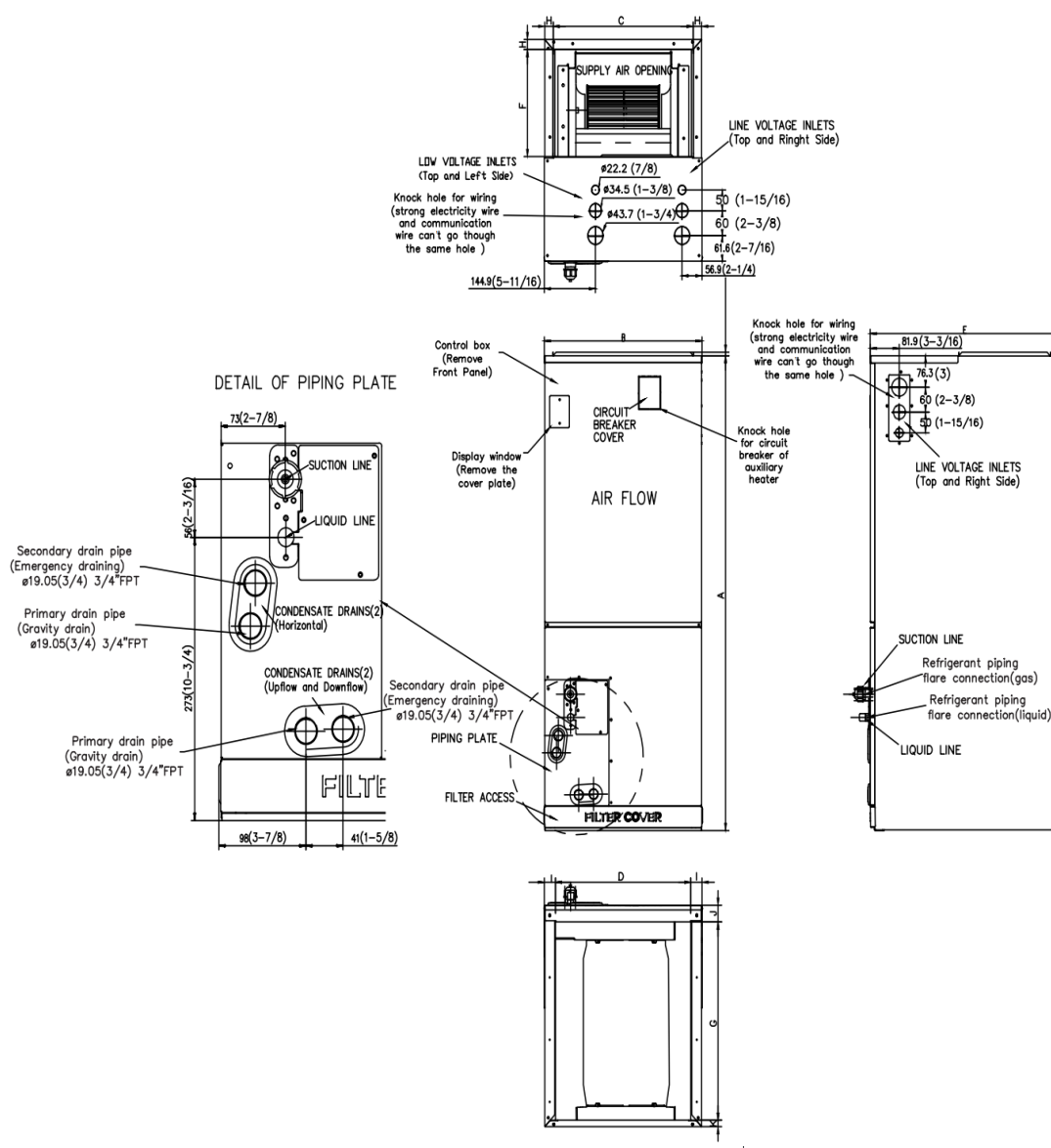
## ELECTRICAL

|                                  |                                        |
|----------------------------------|----------------------------------------|
| 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                   | 12                                     |
| Outdoor Fan Motor RLA            | 0.5                                    |
| Outdoor Fan Motor W              | /                                      |
| Indoor Fan Motor RLA             | 2                                      |
| Indoor Fan Motor W               | 250                                    |
| System Power Input @ Cooling (W) | 1540(400~1850)                         |
| System Power Input @ Heating (W) | /(/)                                   |
| 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(30)        |
| Max. Height Difference(ft/m)                   | 66(20)        |
| Max. Pre-charged Length(ft/m)                  | 24.6(7.5)     |
| Refrigerant Pre-charged Amount(oz/kg)          | 65(42.33)     |
| 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.

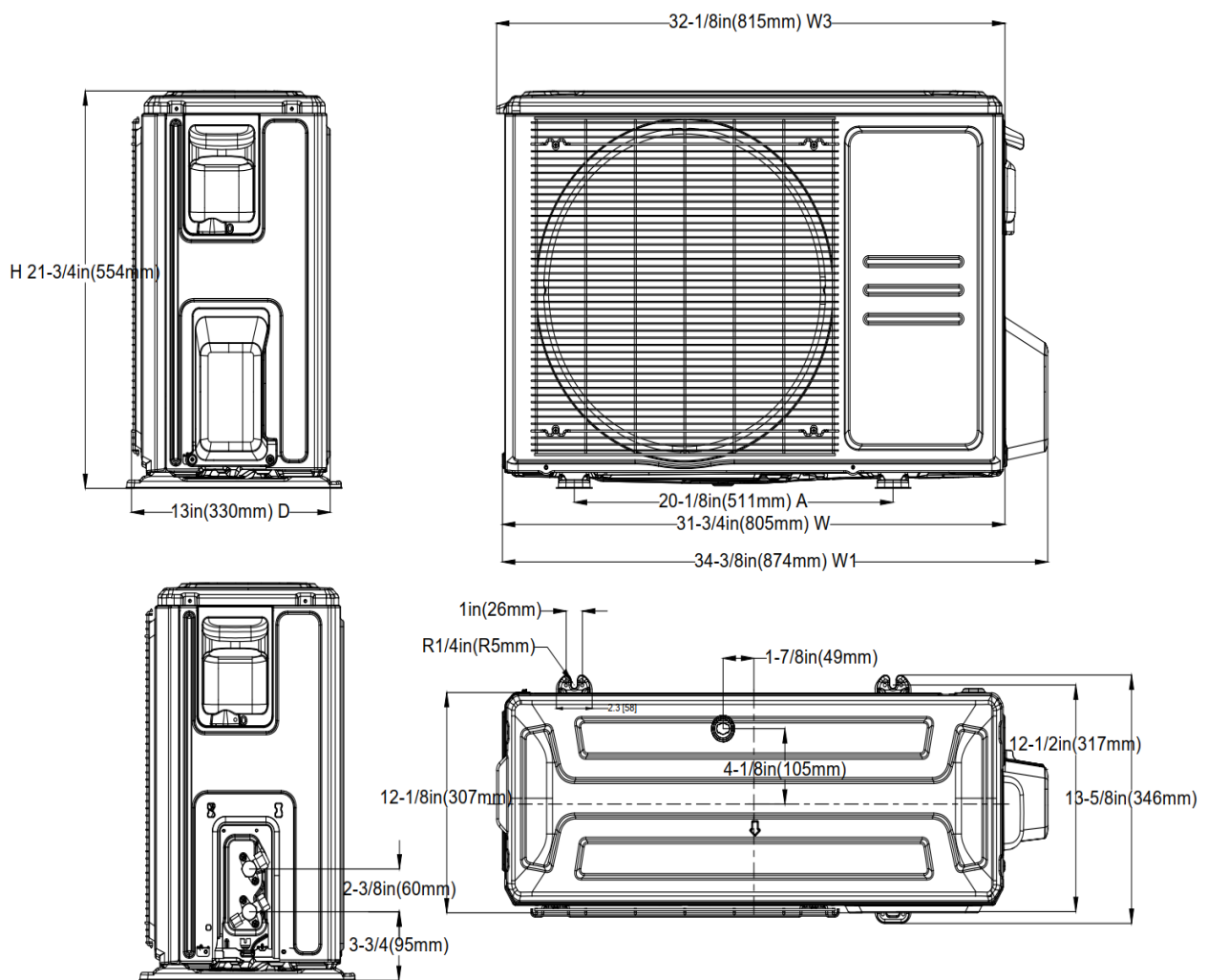
## Indoor Unit Dimension



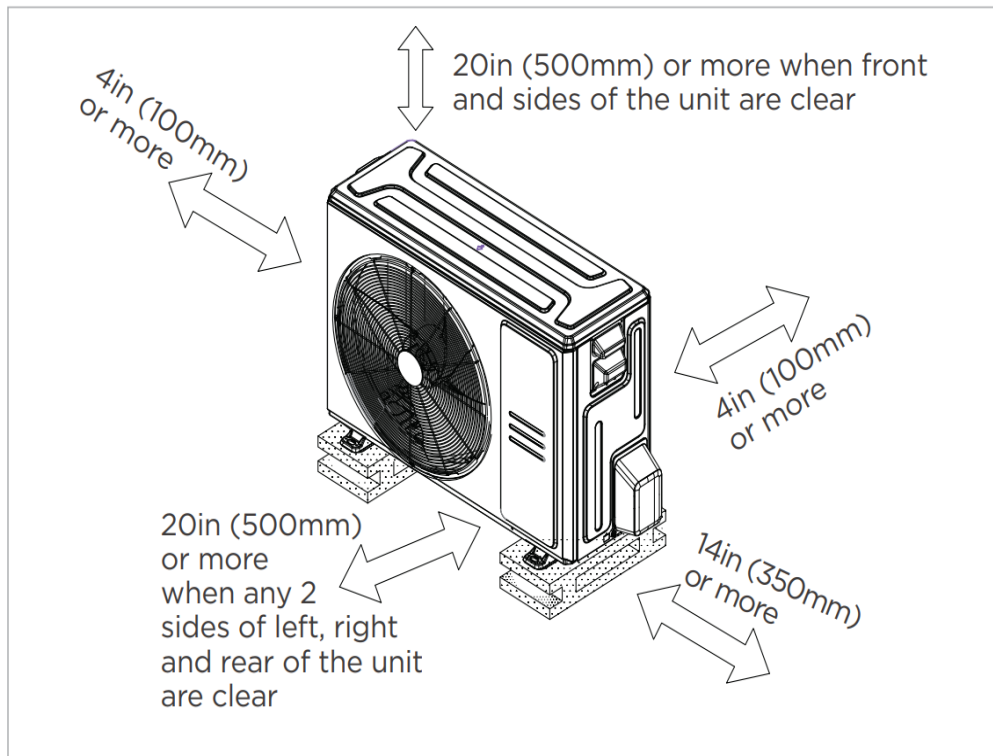
| Dimensions |              | 18k/24k |      | 30k/36k |      | 48k/60k |      |
|------------|--------------|---------|------|---------|------|---------|------|
|            |              | inch    | mm   | inch    | mm   | inch    | mm   |
| A          | Model Height | 45      | 1143 | 49      | 1245 | 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

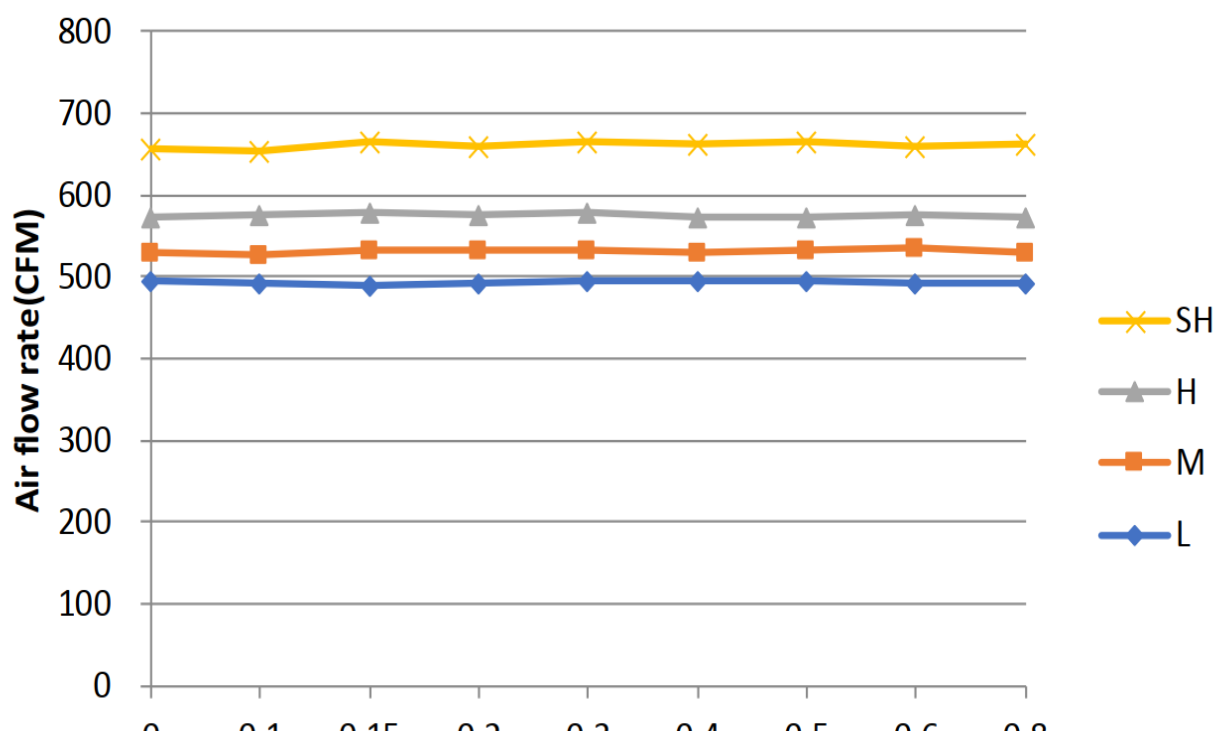


### Installation Instruction For Outdoor Unit



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

#### Fan Performance For Indoor Unit



0      0.1      0.15      0.2      0.3      0.4      0.5      0.6      0.8

**External static pressure (in.w.c.)**

#### 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
- Chassis heater and crankcase heater equipped as standard