

# SUBMITTAL DATA SHEET

## Air Handler Heat Pump System BNG3DH48

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



### INDOOR SPECIFICATION

|                                           |      |                                         |
|-------------------------------------------|------|-----------------------------------------|
| ESP(in.W.G)                               |      | 0-0.8                                   |
| Indoor Air Flow (Turbo/H/M/L/Si) (CFM)    |      | 1601.0 / 1471.5 / 1283.1 / 1094.8 / N/A |
| Indoor Noise Level (Turbo/H/M/L/Si) (dBA) |      | N/A/52/50/34/N/A                        |
| Dimension (W×D×H)                         | inch | 24.49 x21.02 x 52.99                    |
|                                           | mm   | 622.0×534.0×1346.0                      |
| Package (W×D×H)                           | inch | 27.95 x 26.77 x 56.50                   |
|                                           | mm   | 710×680×1435                            |
| Net/Gross Weight                          | lbs  | 162.92/190.92                           |
|                                           | kg   | 73.9/86.6                               |

### OUTDOOR SPECIFICATION

|                              |      |                       |
|------------------------------|------|-----------------------|
| Compressor Type              |      | ROTARY                |
| Compressor Model             |      | MTH550UKPC8FU         |
| Refrigerant                  |      | R454B                 |
| Refrigerant Oil Charge(mL)   |      | 1800                  |
| Refrigerant Oil              |      | HAF68D1C              |
| Outdoor Air Flow (Max) (CFM) |      | 3037.1                |
| Outdoor Noise Level (dBA)    |      | 65                    |
| Dimension (W×D×H)            | inch | 38.58 x 16.34 x 38.39 |
|                              | mm   | 980.0×415.0×975.0     |
| Package (W×D×H)              | inch | 45.08 x 19.68 x 42.52 |
|                              | mm   | 1145×500×1080         |
| Net/Gross Weight             | lbs  | 201.06/232.36         |
|                              | kg   | 91.2/105.4            |

### EFFICIENCY

| Cooling |      | Heating |      |
|---------|------|---------|------|
| SEER2   | 16.5 | HSPF2-4 | 9.5  |
| EER2    | 10.5 | COP     | 3.40 |

### PERFORMANCE of Cooling

| Cooling (Btu/hr)                |                                                     |
|---------------------------------|-----------------------------------------------------|
| Rated Capacity                  | 48000                                               |
| Min/Max Capacity                | 15600~51000                                         |
| Moisture Removal(L/h)           | 3.85                                                |
| Standard Operating Range(°F/°C) | -22~122(-30~50)                                     |
| 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                                               | 50000                                               |
| 2. @ 47°F Min/Max Capacity                                    | 15500~57300                                         |
| 3. @ 17°F Rated                                               | 37000                                               |
| 4. @ 5°F Rated: Capacity / COP                                | 46000/1.9                                           |
| 5. @ 5°F Max: Capacity                                        | 46000                                               |
| Standard Operating Range(°F/°C)                               | -22~75(-30~24)                                      |
| 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   |

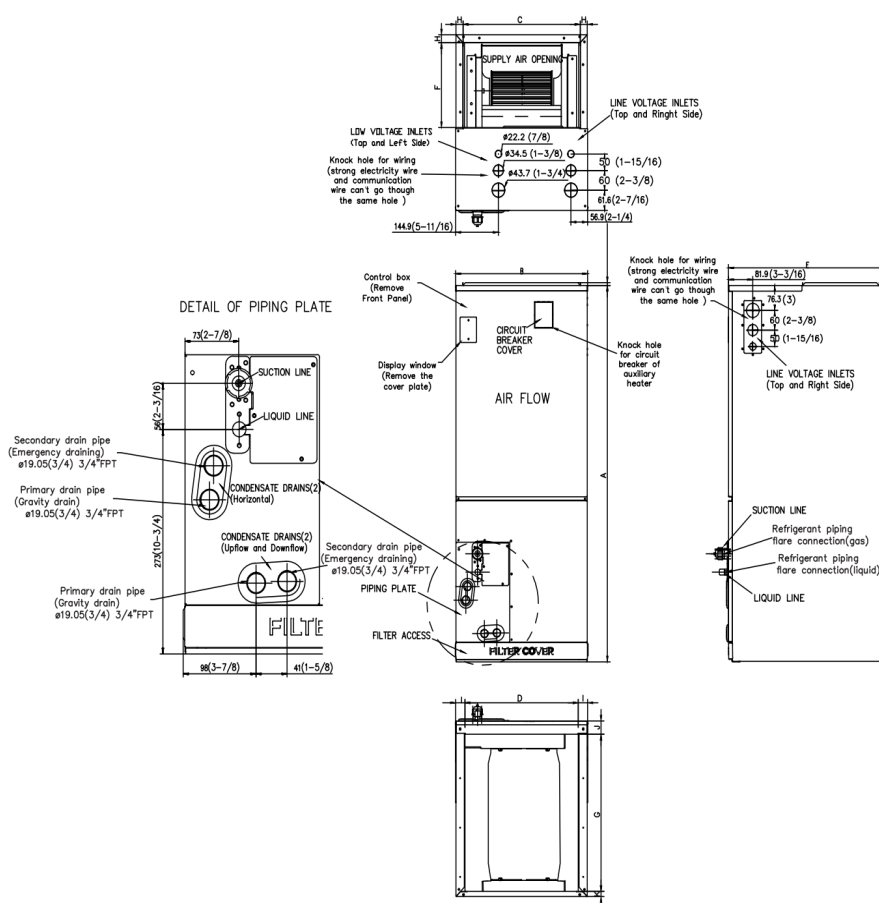
### ELECTRICAL

|                                  |                                        |
|----------------------------------|----------------------------------------|
| Indoor Power Supply              | 115/208/230V,60Hz,1Ph                  |
| Indoor MCA 115V/(208/230V)       | 14.5/11.0                              |
| Indoor MOP                       | 15                                     |
| Outdoor Power Supply             | 208/230V,60Hz,1Ph                      |
| Outdoor MCA                      | 38                                     |
| Outdoor MOP                      | 40                                     |
| Communication Wiring             | AWG 20-2                               |
| Compressor RLA                   | 28                                     |
| Outdoor Fan Motor RLA            | 2                                      |
| Outdoor Fan Motor W              | 250                                    |
| Indoor Fan Motor RLA             | 7.8                                    |
| Indoor Fan Motor W               | 750                                    |
| System Power Input @ Cooling (W) | 4690(1345 ~ 5180)                      |
| System Power Input @ Heating (W) | 4750(1045 ~5200)                       |
| 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)                        | 246(75)       |
| Max. Height Difference(ft/m)                    | 98.4(30)      |
| Max. Pre-charged Length(ft/m)                   | 24.6(7.5)     |
| Refrigerant Pre-charged Amount(oz/kg)           | 134.04(3.8)   |
| Additional Charge of Refrigerant((oz/ft)/(g/m)) | 0.7(65)       |
| Connection Method                               | Flared        |

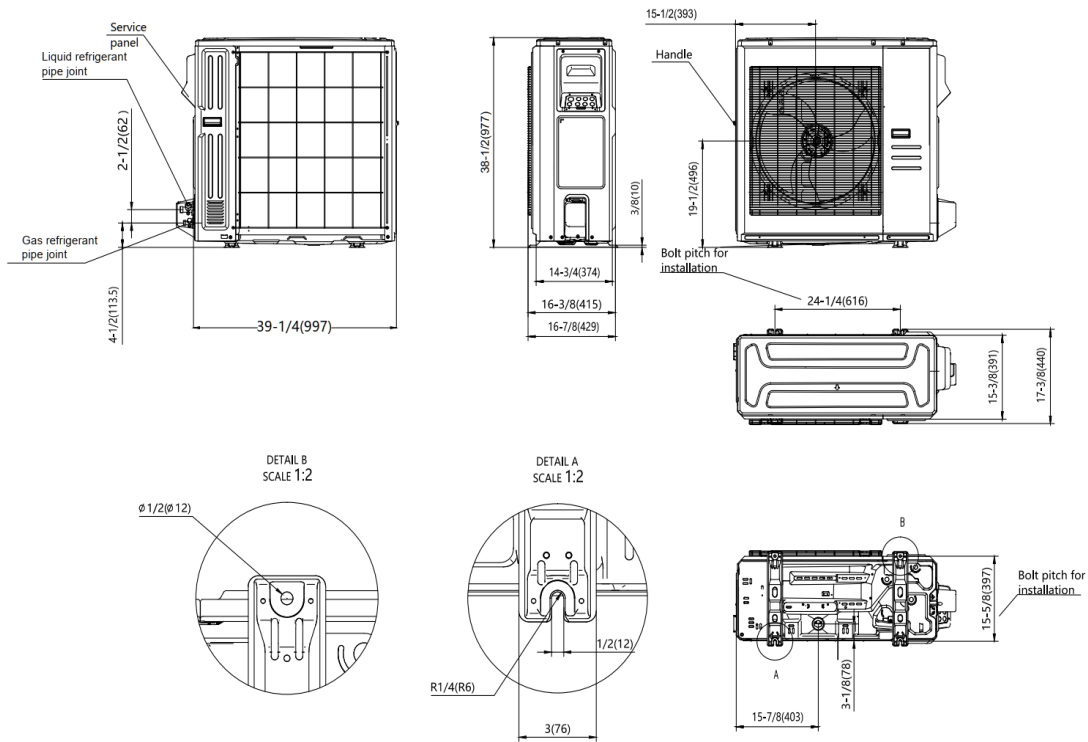
# Indoor Unit Dimension



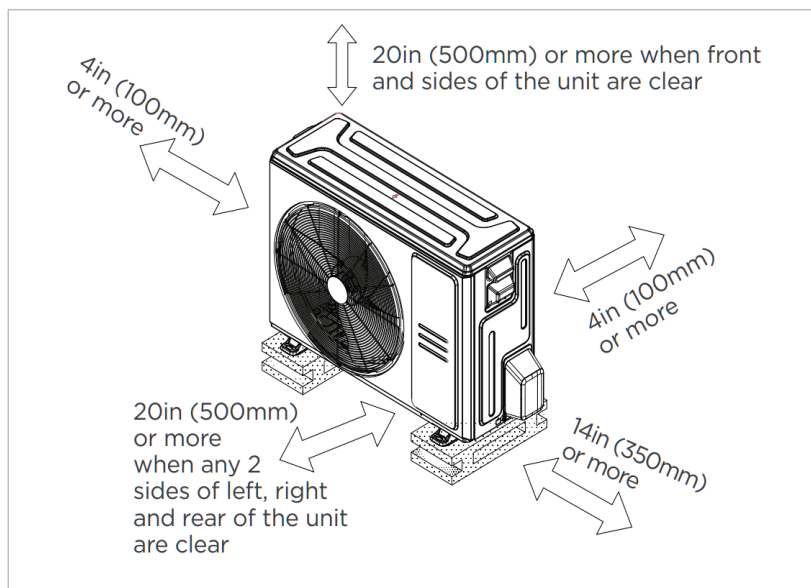
| Dimensions | Model                              | 18k/24k |      | 30k/36k |      | 48k/60k |      |
|------------|------------------------------------|---------|------|---------|------|---------|------|
|            |                                    | inch    | mm   | inch    | mm   | inch    |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

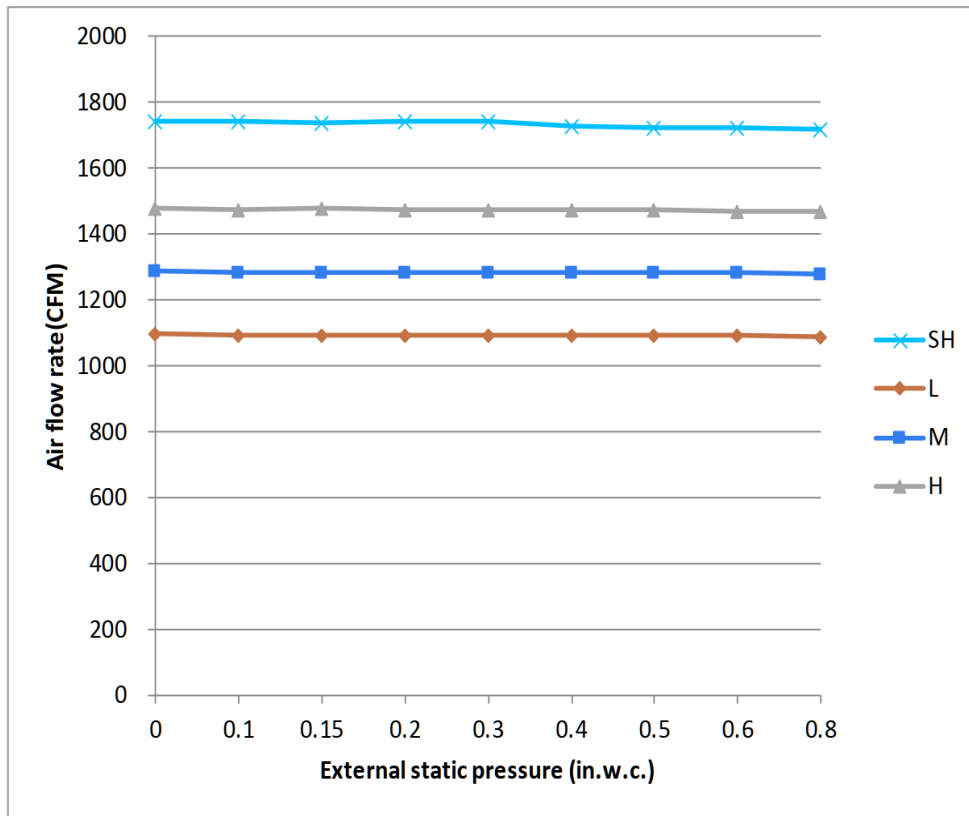


## Installation Instruction For Outdoor Unit



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: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 19 SEER2, 12.5 EER2, 10.3 HSPF2
- 100% heat output at -4F\*
- Chassis heater and crankcase heater equipped as standard

\* For 36K model, rated cooling capacity/heating capacity at -4F=100%