

# SUBMITTAL DATA SHEET

## Air Handler Heat Pump System BNG3A24UCN-24ENB

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



### INDOOR SPECIFICATION

|                   |      |                         |
|-------------------|------|-------------------------|
| Dimension (W×D×H) | inch | 17-1/2 x 21 x 18        |
|                   | mm   | 445 × 533 × 457         |
| Package (W×D×H)   | inch | 20-1/2x 26-1/8 x 20-7/8 |
|                   | mm   | 520 × 665 × 530         |
| Net/Gross Weight  | lbs  | 42 / 50                 |
|                   | kg   | 19 / 22.5               |

### OUTDOOR SPECIFICATION

|                              |               |                          |
|------------------------------|---------------|--------------------------|
| Compressor Type              | ROTARY        |                          |
| Compressor Model             | KTM240D46UKT2 |                          |
| Refrigerant                  | R454B         |                          |
| Refrigerant Oil Charge(mL)   | 620           |                          |
| Refrigerant Oil              | VG74          |                          |
| Outdoor Air Flow (Max) (CFM) | 1,766         |                          |
| Outdoor Noise Level (dBA)    | 60            |                          |
| Dimension (W×D×H)            | inch          | 35 x 13-1/2 x 26-1/2     |
|                              | mm            | 890 × 342 × 673          |
| Package (W×D×H)              | inch          | 39-1/8 x 15-5/8 x 29-1/8 |
|                              | mm            | 995 × 398 × 740          |
| Net/Gross Weight             | lbs           | 102 / 109                |
|                              | kg            | 46.4 / 49.5              |

### EFFICIENCY

| Cooling |    | Heating |     |
|---------|----|---------|-----|
| SEER2   | 16 | HSPF2-4 | 9.5 |
| EER2    | 10 | COP     | 3.2 |

### PERFORMANCE of Cooling

| Cooling (Btu/hr)                |                                                     |
|---------------------------------|-----------------------------------------------------|
| Rated Capacity                  | 24,000                                              |
| Min/Max Capacity                | 7,900~27,600                                        |
| Moisture Removal(L/h)           | 2.89                                                |
| 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                                               | 25,000                                              |
| 2. @ 47°F Min/Max Capacity                                    | 6,500~30,000                                        |
| 3. @ 17°F Rated                                               | 19,700                                              |
| 4. @ 5°F Rated: Capacity / COP                                | 21,000/1.8                                          |
| 5. @ 5°F Max: Capacity                                        | 21,000                                              |
| 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   |

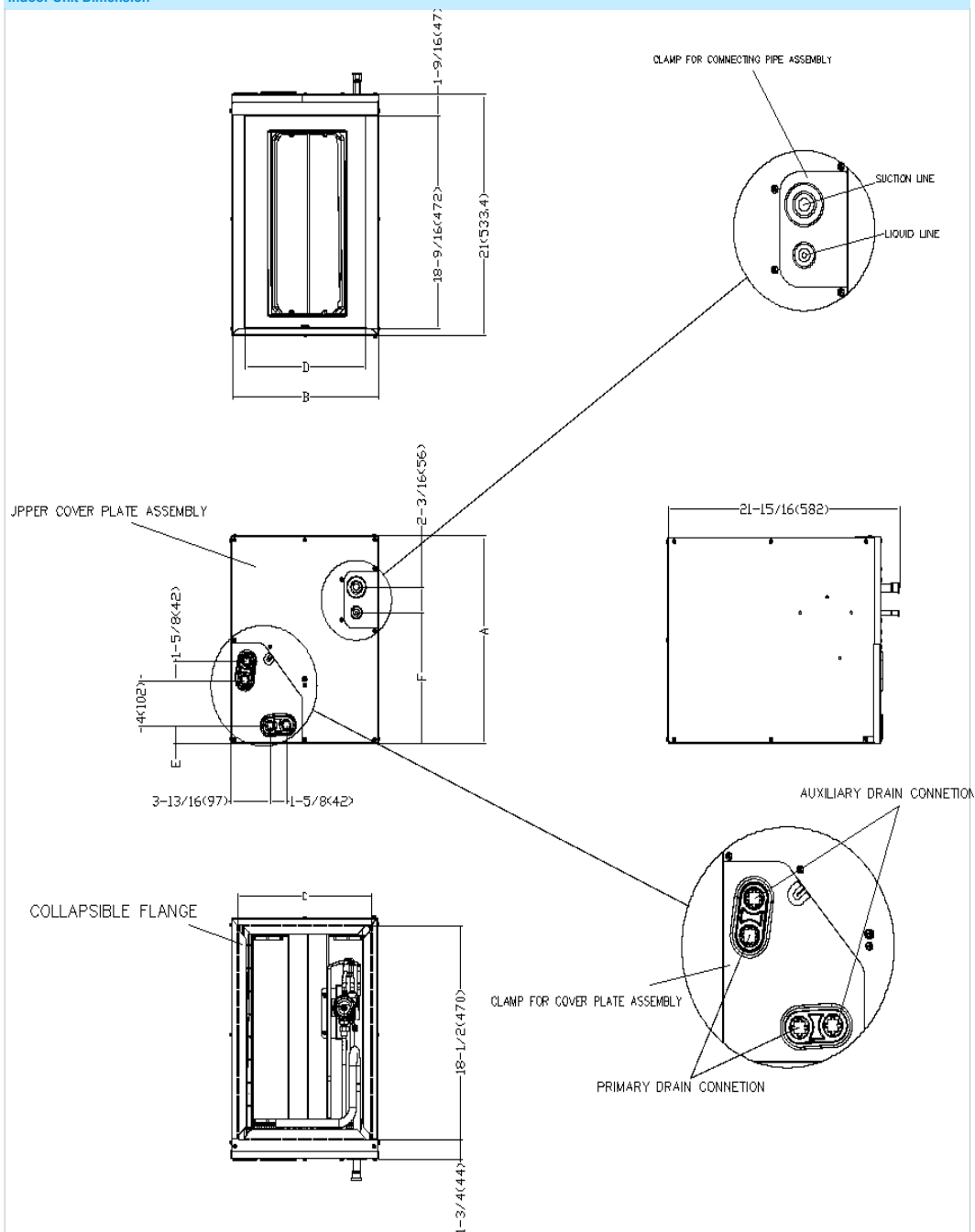
### ELECTRICAL

|                                  |                                        |
|----------------------------------|----------------------------------------|
| Indoor Power Supply              | 24V,60Hz,1Ph                           |
| Indoor MCA 115V/(208/230V)       | /                                      |
| Indoor MOP                       | /                                      |
| Outdoor Power Supply             | 208/230,60Hz,1Ph                       |
| Outdoor MCA                      | 19                                     |
| Outdoor MOP                      | 20                                     |
| Communication Wiring             | AWG 20-2                               |
| Compressor RLA                   | 14                                     |
| Outdoor Fan Motor RLA            | 1                                      |
| Outdoor Fan Motor W              | /                                      |
| Indoor Fan Motor RLA             | /                                      |
| Indoor Fan Motor W               | /                                      |
| System Power Input @ Cooling (W) | 2,400(680 ~ 2,890)                     |
| System Power Input @ Heating (W) | 2,290(330 ~ 2,900)                     |
| MCA: Min. circuit amps (A)       | MOCP: Max. over current protection (A) |
| RLA: Rated load amps (A)         | W: Fan motor rated output (W)          |

### PIPING

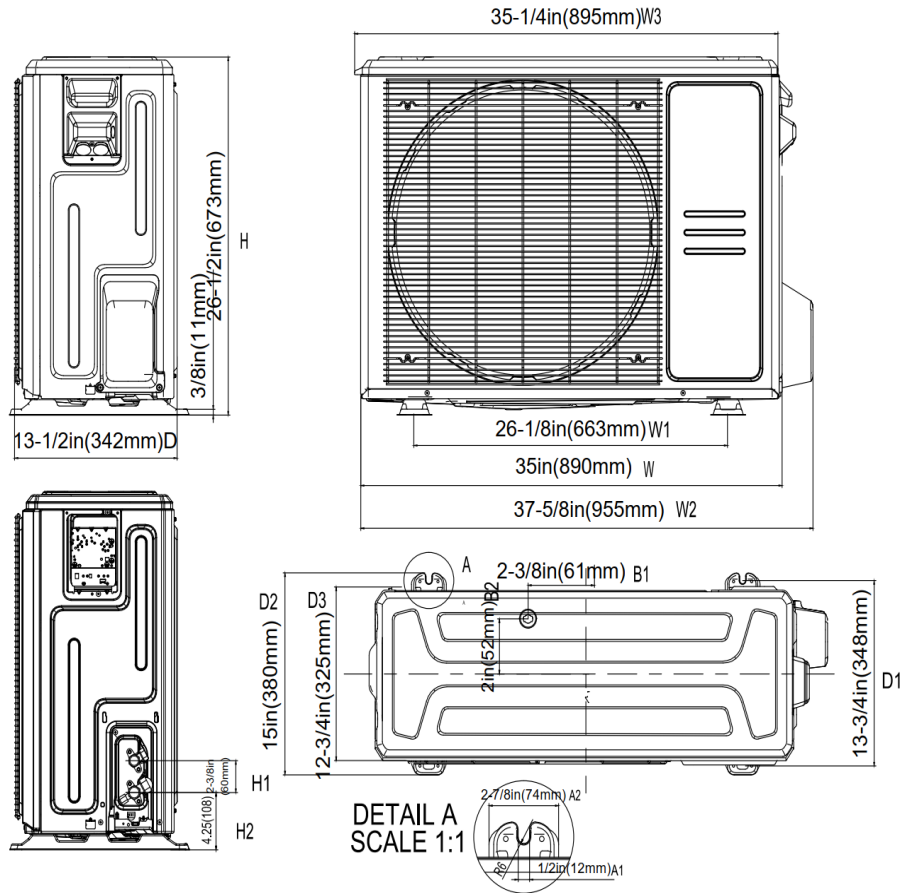
|                                                 |               |
|-------------------------------------------------|---------------|
| Throttle type(Indoor)                           | EXV           |
| Throttle type(Outdoor)                          | EXV           |
| Liquid Size                                     | 9.52mm(3/8in) |
| Gas Size                                        | 19mm(3/4in)   |
| Max. Piping Length(ft/m)                        | 164(50)       |
| Max. Height Difference(ft/m)                    | 82(25)        |
| Max. Pre-charged Length(ft)                     | 25            |
| Refrigerant Pre-charged Amount (oz/ft)(g/r)     | 74.08(2.1)    |
| Additional Charge of Refrigerant((oz/ft)/(g/r)) | 0.7(65)       |
| Connection Method                               | Flared        |

# Indoor Unit Dimension

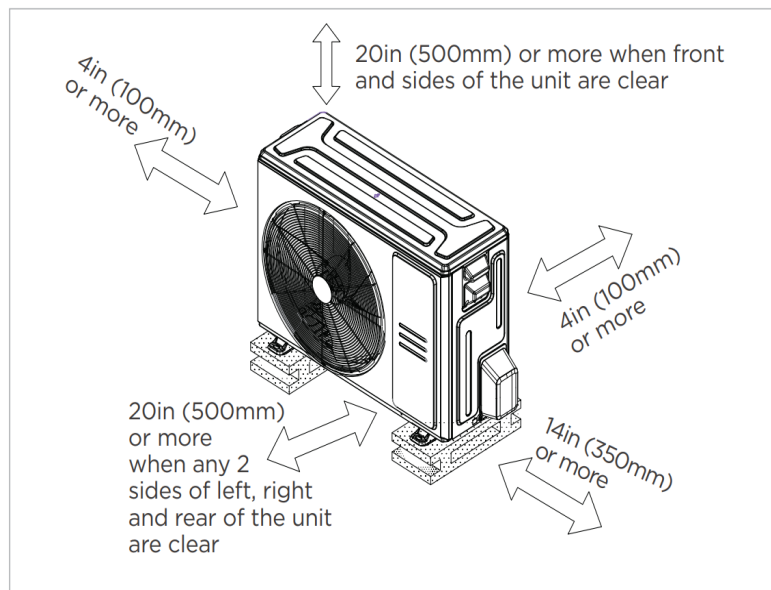


| Dimensions | Model                    | MVBM-24B18T3N10 |      | MVBM-24A18T3N10 |     | MVBM-36A24T4N10 |     | MVBM-36B24T4N10 |     | MVBM-36C24T4N10 |     | MVBM-60D28T6N10 |     |
|------------|--------------------------|-----------------|------|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|
|            |                          | inch            | mm   | inch            | mm  | inch            | mm  | inch            | mm  | inch            | mm  | inch            | mm  |
| A          | Model Height             | 18              | 457  | 18              | 457 | 23-5/16         | 592 | 23-9/16         | 599 | 24              | 611 | 28              | 711 |
| B          | Model Width              | 17-1/2          | 445  | 14-1/2          | 368 | 14-1/2          | 368 | 17-1/2          | 445 | 21              | 534 | 24-1/2          | 622 |
| C          | Supply Air Opening Width | 16-3/16         | 411  | 13-1/4          | 336 | 13-1/4          | 336 | 16-3/16         | 411 | 19-3/4          | 502 | 23-1/4          | 591 |
| D          | Return Air Opening Width | 14-15/16        | 380  | 11-15/16        | 303 | 11-15/16        | 303 | 14-15/16        | 380 | 19-1/2          | 498 | 23-1/8          | 587 |
| E          | Condensate Drains Height | 1-7/16          | 41.9 | 1-7/16          | 38  | 1-7/16          | 38  | 1-7/16          | 38  | 2-3/16          | 55  | 2-3/16          | 55  |
| F          | Liquid Line Height       | 11-3/8          | 290  | 11-3/8          | 290 | 17-15/16        | 455 | 16-3/8          | 417 | 17-1/2          | 445 | 21-7/16         | 545 |

## Outdoor Unit Dimension



## Installation Instruction 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
- R454B refrigerant sensor
- Easy Maintenance
- Multiple control options available:
  - Two way communication wired controller with built-in WiFi:120N(X6W)
  - Third-Party 24V Thermostat