

| Indoor                            | KEENOWAH09AA | Outdoor       | KEENUMHP09AA |
|-----------------------------------|--------------|---------------|--------------|
| One Way Cassette 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)    |      | 341.4 / 294.3 / 259.0 / 235.4 / 235.4 |
| Indoor Noise Level (Turbo/H/M/L/Si) (dBA) |      | 38 / 38 / 36 / 33 / 24                |
| Dimension (W×D×H)                         | inch | 50.31 x 13.19 x 8.98                  |
|                                           | mm   | 1278.0 x 335.0 x 228.0                |
| Package (W×D×H)                           | inch | 57.60 x 22.48 x 22.64                 |
|                                           | mm   | 1463 x 571 x 575                      |
| Net/Gross Weight                          | lbs  | 45.19 / 82.45                         |
|                                           | kg   | 20.5 / 37.4                           |

| OUTDOOR SPECIFICATION        |      |                       |
|------------------------------|------|-----------------------|
| Compressor Type              |      | ROTARY                |
| Compressor Model             |      | KTN110D42UFZ          |
| Refrigerant                  |      | R454B                 |
| Refrigerant Oil Charge (mL)  |      | 350                   |
| Refrigerant Oil              |      | VG74                  |
| Outdoor Air Flow (Max) (CFM) |      | 1471.5                |
| Outdoor Noise Level (dBA)    |      | 54.5                  |
| 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  | 72.75 / 78.70         |
|                              | kg   | 33 / 35.7             |

| EFFICIENCY |      |         |      |
|------------|------|---------|------|
| Cooling    |      | Heating |      |
| SEER2      | 24.0 | HSPF2-4 | 12.1 |
| EER2       | 14.6 | COP     | 3.71 |

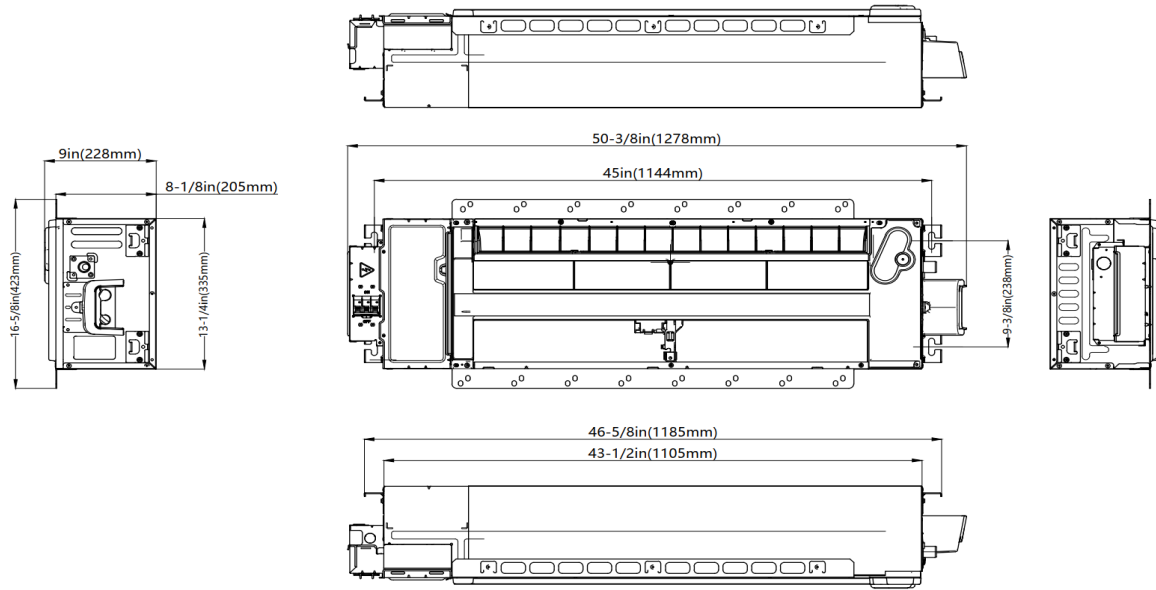
| PERFORMANCE of Cooling           |                                                         |
|----------------------------------|---------------------------------------------------------|
| Cooling (Btu/hr)                 |                                                         |
| Rated Capacity                   | 9000                                                    |
| Min/Max Capacity                 | 4000 ~ 12900                                            |
| Moisture Removal (L/h)           | 0.98                                                    |
| Standard Operating Range (*F/°C) | -22~122 (-30~50)                                        |
| 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                  | 10900                                                   |
| 1. @ 47°F Min/Max Capacity       | 3800 ~ 13900                                            |
| 2. @ 17°F Rated                  | 9000                                                    |
| 3. @ 5°F Rated: Capacity / COP   | 10600 / 1.83                                            |
| 3. @ 5°F Max: Capacity           | 10600                                                   |
| Standard Operating Range (*F/°C) | -22~75 (-30~24)                                         |
| 1. Conditions:                   | Indoor: 70°F DB / 60°F WB<br>Outdoor: 47°F DB / 43°F WB |
| 2. Conditions:                   | Indoor: 70°F DB / 60°F WB<br>Outdoor: 17°F DB / 15°F WB |
| 3. Conditions:                   | Indoor: 70°F DB / 60°F WB<br>Outdoor: 5°F DB / 5°F WB   |

| ELECTRICAL                       |                                        |
|----------------------------------|----------------------------------------|
| Power Supply                     | 208/230V, 60Hz, 1Ph                    |
| System MCA                       | 15.00                                  |
| Connection Wiring                | 14#x4                                  |
| System MOCP                      | 15                                     |
| Compressor RLA                   | 10.4                                   |
| Outdoor Fan Motor RLA            | 0.6                                    |
| Outdoor Fan Motor W              | 34                                     |
| Indoor Fan Motor RLA             | 0.8                                    |
| Indoor Fan Motor W               | 30                                     |
| System Power Input @ Cooling (W) | 610 (147 ~ 1150)                       |
| System Power Input @ Heating (W) | 860 (300 ~ 1350)                       |
| 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)                             | N/A            |
| Throttle type (Outdoor)                            | EXV            |
| Liquid Size                                        | 6.35mm (1/4in) |
| Gas Size                                           | 9.52mm (3/8in) |
| Max. Piping Length (ft/m)                          | 82.02 (25)     |
| Max. Height Difference (ft/m)                      | 49.21 (15)     |
| Max. Pre-charged Length (ft/m)                     | 24.6 (7.5)     |
| Refrigerant Pre-charged Amount (oz/kg)             | 35.27 (1.00)   |
| Additional Charge of Refrigerant ((oz/ft) / (g/m)) | 0.16 (15)      |
| Connection Method                                  | Flared         |

## Indoor Unit Dimension

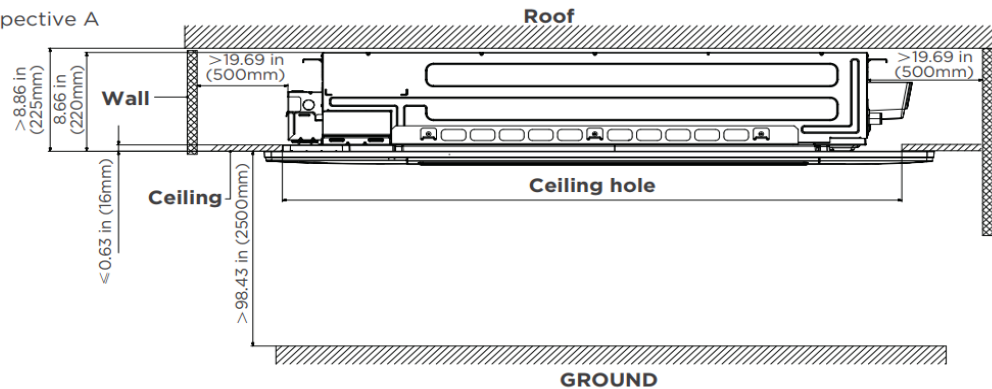


## Installation Instruction

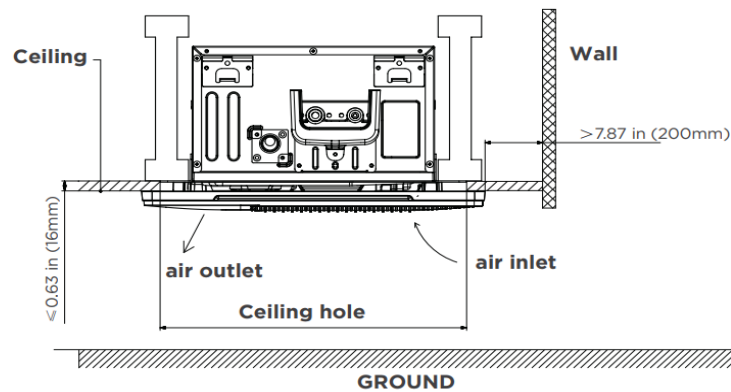
### Installation place

(unit: inch/mm)

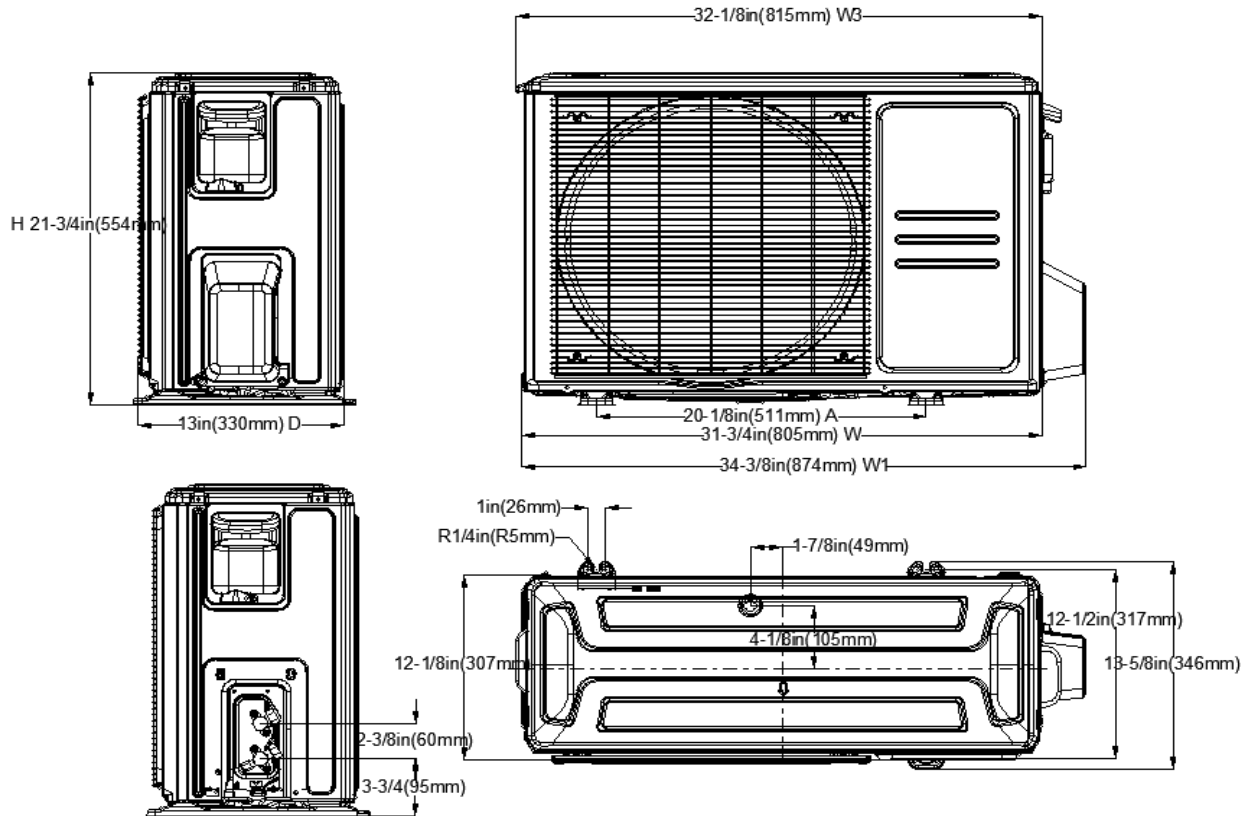
Perspective A



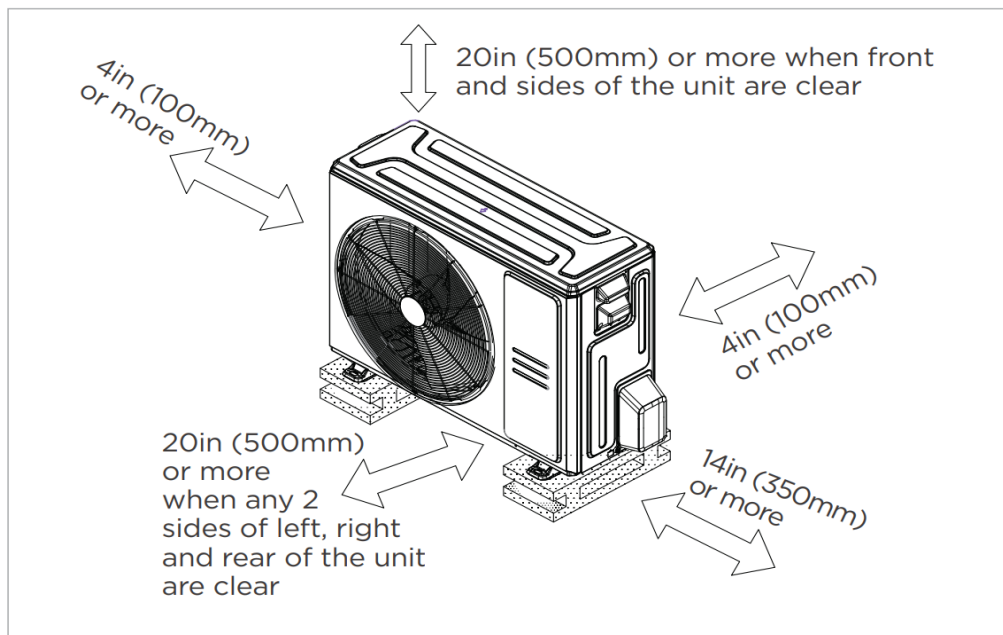
Perspective B



## Outdoor Unit Dimension



## Installation Instruction



Meets all spatial requirements shown in Installation Clearance Requirements above.