

# High Wall Essential Cooling Only Series



Indoor Unit : NDCAS21BC-12-I

Indoor Unit : NDCAS21BC-12-O

## High Wall 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)    |      | 347.3 / 329.6 / 253.1 / 211.9 / 211.9 |
| Indoor Noise Level (Turbo/H/M/L/Si) (dBA) |      | 47.0/40.5/36/20.5/19                  |
| Dimension (W×D×H)                         | inch | 31.57 x 7.87 x 11.61                  |
|                                           | mm   | 802.0×200.0×295.0                     |
| Package (W×D×H)                           | inch | 34.45 x 11.22 x 14.96                 |
|                                           | mm   | 875×285×380                           |
| Net/Gross Weight                          | lbs  | 19.62/25.35                           |
|                                           | kg   | 8.9/11.5                              |

## OUTDOOR SPECIFICATION

|                              |      |                       |
|------------------------------|------|-----------------------|
| Compressor Type              |      | ROTARY                |
| Compressor Model             |      | KSK103D33UEZ3         |
| Refrigerant                  |      | R454B                 |
| Refrigerant Oil Charge(mL)   |      | 310                   |
| Refrigerant Oil              |      | VG74                  |
| Outdoor Air Flow (Max) (CFM) |      | 1058.8                |
| Outdoor Noise Level (dBA)    |      | 54.0                  |
| Dimension (W×D×H)            | inch | 28.35 x 10.63 x 19.49 |
|                              | mm   | 720.0×270.0×495.0     |
| Package (W×D×H)              | inch | 32.87 x 11.81 x 21.26 |
|                              | mm   | 835×300×540           |
| Net/Gross Weight             | lbs  | 50.26/54.89           |
|                              | kg   | 22.8/24.9             |

## EFFICIENCY

| Cooling |      | Heating |    |
|---------|------|---------|----|
| SEER2   | 21.5 | HSPF2-4 | NA |
| EER2    | 12.0 | COP     | NA |

## PERFORMANCE of Cooling

### Cooling (Btu/hr)

|                                 |                                                     |
|---------------------------------|-----------------------------------------------------|
| Rated Capacity                  | 11500                                               |
| Min/Max Capacity                | 2600~12100                                          |
| Moisture Removal(L/h)           | 1.1                                                 |
| Standard Operating Range(*F/*C) | 5~122(-15~50)                                       |
| 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                 | NA                                                  |
| 1. @ 47°F Min/Max Capacity      | N/A~N/A                                             |
| 2. @ 17°F Rated                 | NA                                                  |
| 3. @ 5°F Rated: Capacity / COP  | NA/NA                                               |
| 3. @ 5°F Max: Capacity          | NA                                                  |
| Standard Operating Range(*F/*C) | N/A(N/A)                                            |
| 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   |

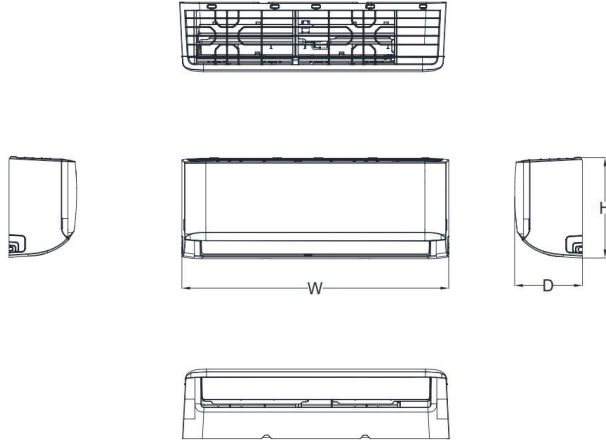
## ELECTRICAL

|                                  |                                        |
|----------------------------------|----------------------------------------|
| Power Supply                     | 115V,60Hz,1Ph                          |
| System MCA                       | 19.0                                   |
| Connection Wiring                | 14#x4                                  |
| System MOCP                      | 20                                     |
| Compressor RLA                   | 14.4                                   |
| Outdoor Fan Motor RLA            | 0.7                                    |
| Outdoor Fan Motor W              | 34                                     |
| Indoor Fan Motor RLA             | 0.4                                    |
| Indoor Fan Motor W               | 20                                     |
| System Power Input @ Cooling (W) | 958(280 ~ 1020)                        |
| System Power Input @ Heating (W) | NA(N/A ~N/A)                           |
| MCA: Min. circuit amps (A)       | MOCP: Max. over current protection (A) |
| RLA: Rated load amps (A)         | W: Fan motor rated output (W)          |

## PIPING

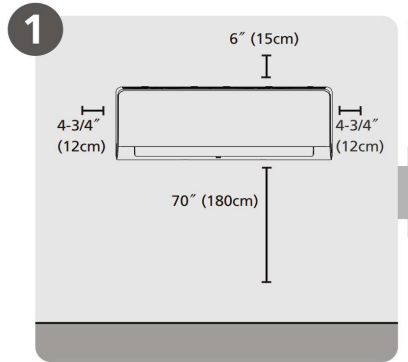
|                                                 |               |
|-------------------------------------------------|---------------|
| Throttle type(Indoor)                           | N/A           |
| Throttle type(Outdoor)                          | Capillary     |
| Liquid Size                                     | 6.35mm(1/4in) |
| Gas Size                                        | 9.52mm(3/8in) |
| Max. Piping Length(ft/m)                        | 82.00(25)     |
| Max. Height Difference(ft/m)                    | 49.20(15)     |
| Max. Pre-charged Length(ft/m)                   | 24.6(7.5)     |
| Refrigerant Pre-charged Amount(oz/g)            | 19.75(0.56)   |
| Additional Charge of Refrigerant((oz/ft)/(g/m)) | 0.16(15)      |
| Connection Method                               | Flared        |

### Indoor Unit Dimension

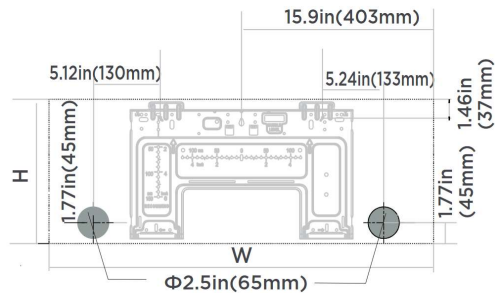


| Capacity | Body Code | W(inch/mm)       | D(mm/inch)     | H(mm/inch)      |
|----------|-----------|------------------|----------------|-----------------|
| 6K~9K    | A         | 28-3/4in /729mm  | 7-7/8in /200mm | 11-1/2in /292mm |
| 9K~12K   | B         | 31-5/8in /802mm  | 7-7/8in /200mm | 11-5/8in /295mm |
| 18K      | C         | 38-1/4in /971mm  | 9in/228mm      | 12-5/8in /321mm |
| 18K~24K  | D         | 42-5/8in /1082mm | 9-1/4in/234mm  | 13-1/4in /337mm |

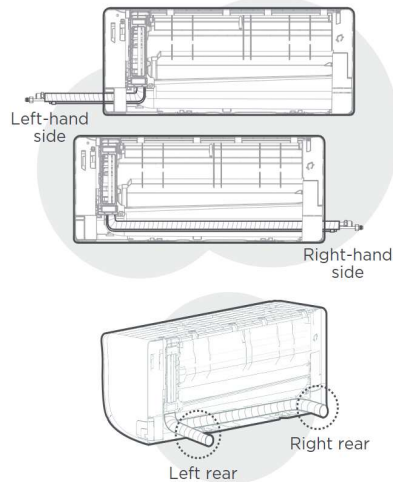
### Installation Instruction



**Select Installation Location**



**Indoor unit dimensions(WxH):**  
31.7in(806mm)x11.65in(296mm)



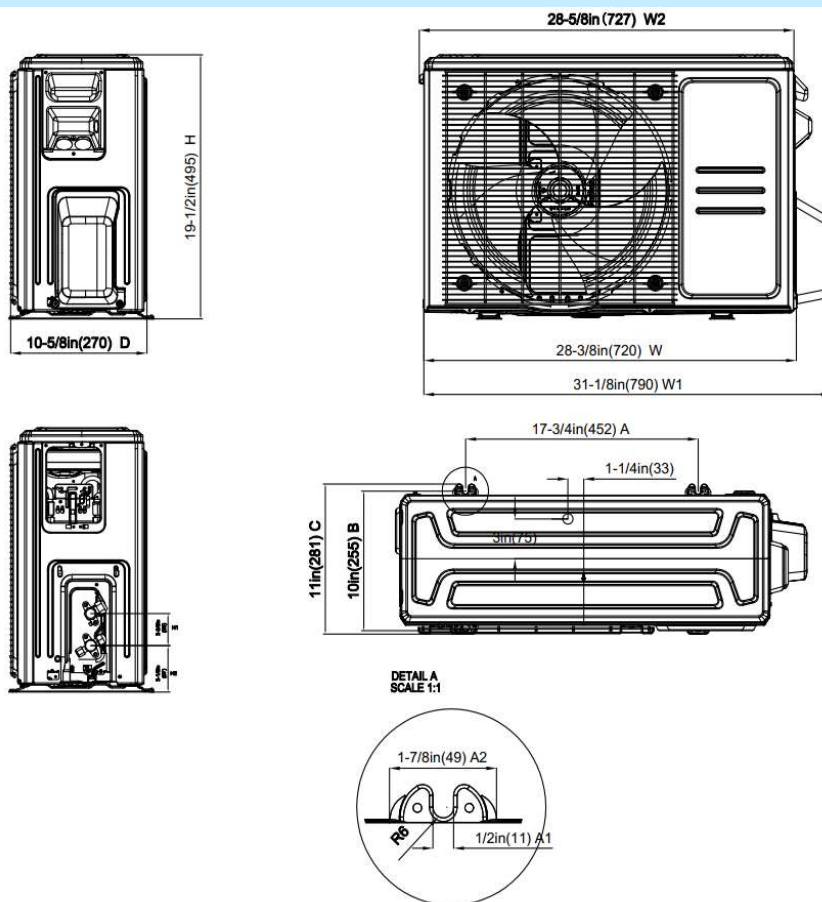
#### NOTE:

Based on the position of the wall hole relative to the mounting plate, choose the side from which the piping will exit the unit. You have four options for the exit direction of the piping.

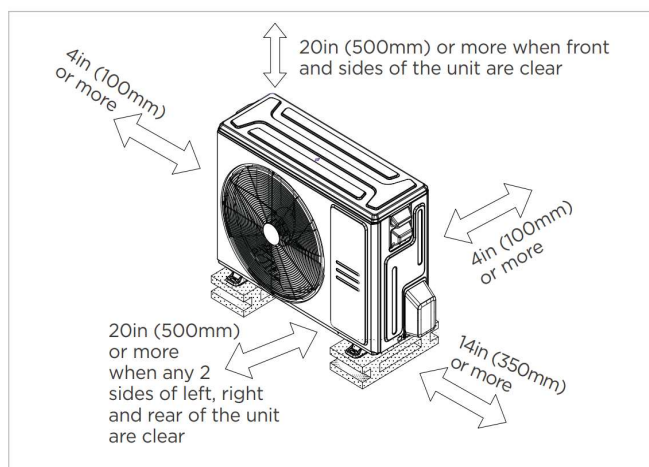
#### NOTE:

When the gas side connective pipe is  $\Phi$  (5/8in)16mm or more, the wall hole should be (3-1/2in)90mm.

### Outdoor Unit Dimension



### Installation Instruction



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

## FEATURES

- Indoor unit TU1 copper coil
- 1~100% fan speed setting
- WiFi capability: through WiFi dongle or wired controller with built-in WiFi
- OTA(by using WiFi dongle)
- Multiple control options available:
  - Two way communication wired controller:120N(X6)
  - Two way communication wired controller with built-in WiFi:120N(X6W)
  - Infrared wired controller: 120L
  - Wireless remote controller
  - Third-Party 24V Thermostat\*

\*24V interface is required.