



Location: \_\_\_\_\_  
 Engineer: \_\_\_\_\_  
 Submitted to: \_\_\_\_\_  
 Submitted by: \_\_\_\_\_  
 Reference: \_\_\_\_\_

Model Number: AO24-12N2-M1 / AL-12N2-M1

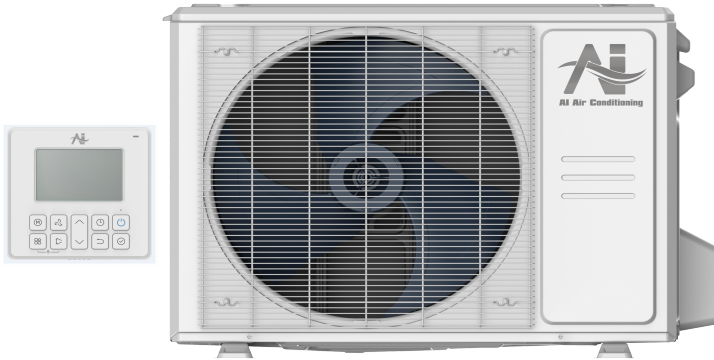
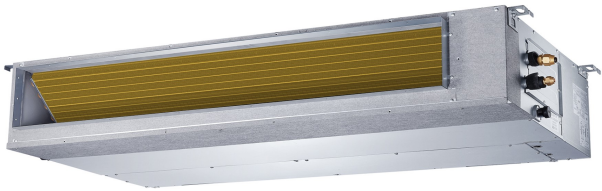
Approval: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Construction: \_\_\_\_\_  
 Unit #: \_\_\_\_\_  
 Drawing #: \_\_\_\_\_

### INDOOR SPECIFICATION

|                                       |                     |                          |
|---------------------------------------|---------------------|--------------------------|
| Indoor Air Flow (Turbo/H/M/L/S) (CFM) | 400/324/265/177/118 |                          |
| Indoor Noise Level (T/H/M/L/S) (dBA)  | 37/37/35/34/26      |                          |
| Indoor static pressure range          | 0-0.4               |                          |
| Dimension (W×D×H)                     | inch                | 27-1/2 x 19-7/8 x 7-7/8  |
|                                       | mm                  | 700 x 506 x 200          |
| Package (W×D×H)                       | inch                | 33-7/8 x 21-1/4 x 11-1/4 |
|                                       | mm                  | 860 x 540 x 285          |
| Net/Gross Weight                      | lbs                 | 40/47                    |
|                                       | kg                  | 17.9/21.2                |

### OUTDOOR SPECIFICATION

|                              |        |                          |
|------------------------------|--------|--------------------------|
| Compressor Type              | ROTARY |                          |
| Refrigerant                  | R454B  |                          |
| Factory Charge               | 310ml  |                          |
| Refrigerant Oil              | VG74   |                          |
| Outdoor Air Flow (Max) (CFM) | 1236.1 |                          |
| Outdoor Noise Level (dBA)    | 55.5   |                          |
| Dimension (W×D×H)            | inch   | 30-1/8 x 11-7/8 x 21-7/8 |
|                              | mm     | 765 x 303 x 555          |
| Package (W×D×H)              | inch   | 34-7/8 x 13-1/4 x 24     |
|                              | mm     | 887 x 337 x 610          |
| Net/Gross Weight             | lbs    | 62/68                    |
|                              | kg     | 28.2/30.7                |



### EFFICIENCY

| Cooling |      | Heating |      |
|---------|------|---------|------|
| SEER2   | 19.0 | HSPF2-4 | 10.2 |
| EER2    | 11.7 | COP     | 3.4  |

### PERFORMANCE of Cooling

| Cooling (Btu/hr)          |   |
|---------------------------|---|
| Rated Capacity            | 11500   |
| Min/Max Capacity          | 3100~13000  |
| Moisture Removal          | 1.0   |
| Standard Operating Range  | -13°F~122°F (-25°C~50°C)                            |
| 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 (Min/Max)                                     | 12000(3700~15600)                                   |
| 2. @ 17°F Rated   | 9500  |
| 3. @ 5°F Max: Capacity / COP                                  | 8800/2.25   |
| Standard Operating Range                                      | -13°F~75°F (-25°C~24°C)                             |
| 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   |

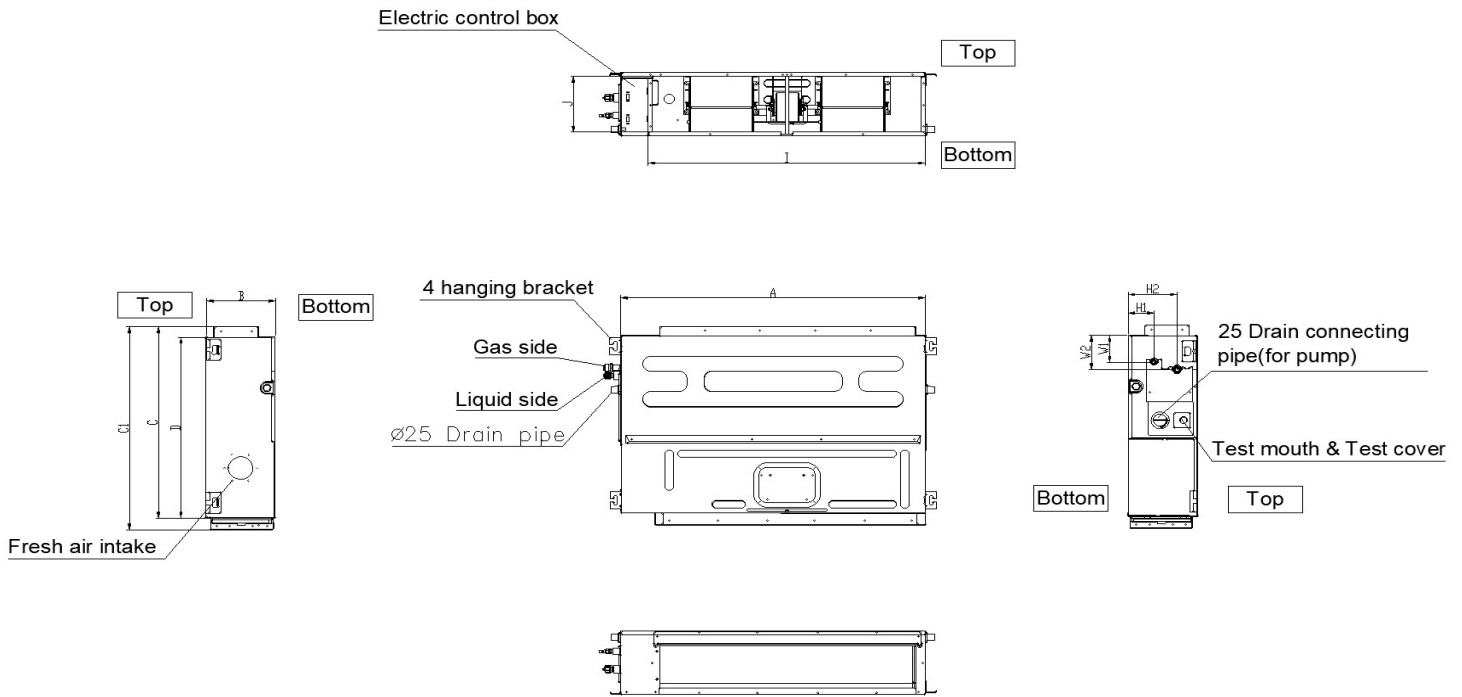
### ELECTRICAL

|                                  |  |
|----------------------------------|--|
| Power Supply                     | 208/230V, 60Hz, 1Ph                    |
| System MCA                       | 12                                     |
| Connection Wiring                | AWG 14-4                               |
| System MOCP                      | 15                                     |
| Compressor RLA                   | 7.3                                    |
| Outdoor Fan Motor RLA            | 0.6                                    |
| Outdoor Fan Motor W              | 34                                     |
| Indoor Fan Motor RLA             | 1.2                                    |
| Indoor Fan Motor W               | 81                                     |
| System Power Input @ Cooling (W) | 983(150 ~ 1210)                        |
| System Power Input @ Heating (W) | 1028(255 ~ 1310)                       |
| MCA: Min. circuit amps (A)       | MOCP: Max. over current protection (A) |
| RLA: Rated load amps (A)         | W: Fan motor rated output (W)          |

### PIPING

|                                  |                   |
|----------------------------------|-------------------|
| Liquid Size                      | 1/4in (6.35mm)    |
| Gas Size                         | 3/8in (9.52mm)    |
| Drain Size                       | 5/8in (15.88mm)   |
| Max. Piping Length               | 82ft (25m)        |
| Max. Height Difference           | 49.2ft (15m)      |
| Max. Pre-charged Length          | 24.6ft (7.5m)     |
| Refrigerant Pre-charged Amount   | 32.45oz (920g)    |
| Additional Charge of Refrigerant | 0.16oz/ft (15g/m) |
| Connection Method                | Flared            |

## Indoor Unit Dimension

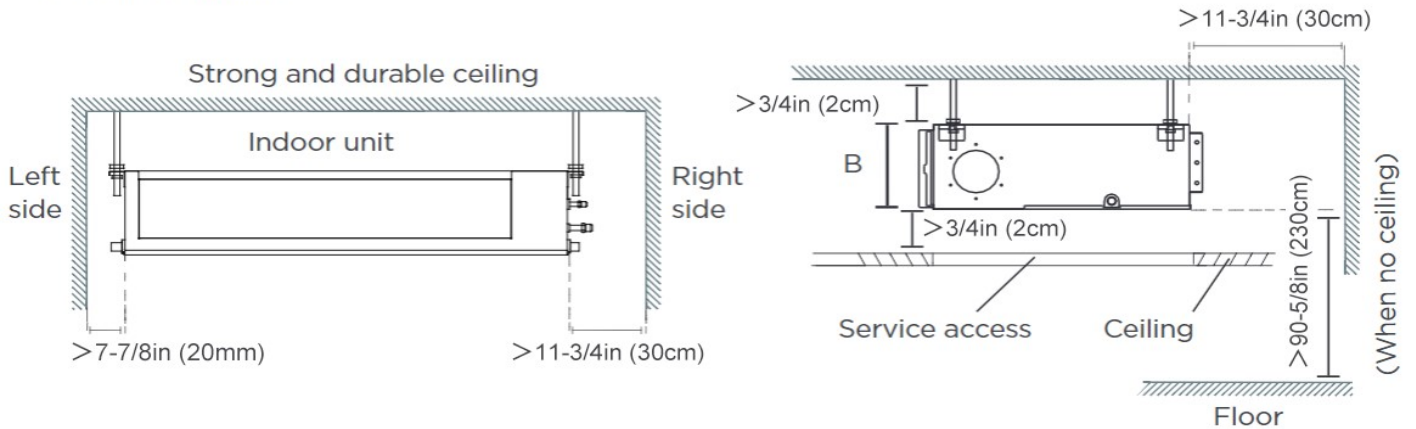


| Model (kBtu/h) | unit  | A      | B     | C      | C1     | D      |
|----------------|-------|--------|-------|--------|--------|--------|
|                | 6 -12 | mm     | 700   | 200    | 470    | 506    |
| in             |       | 27-1/2 | 7-7/8 | 18-1/2 | 20     | 17-3/4 |
| 18             | mm    | 880    | 210   | 634    | 674    | 600    |
|                | in    | 34-5/8 | 8-1/4 | 25     | 26-1/2 | 23-5/8 |

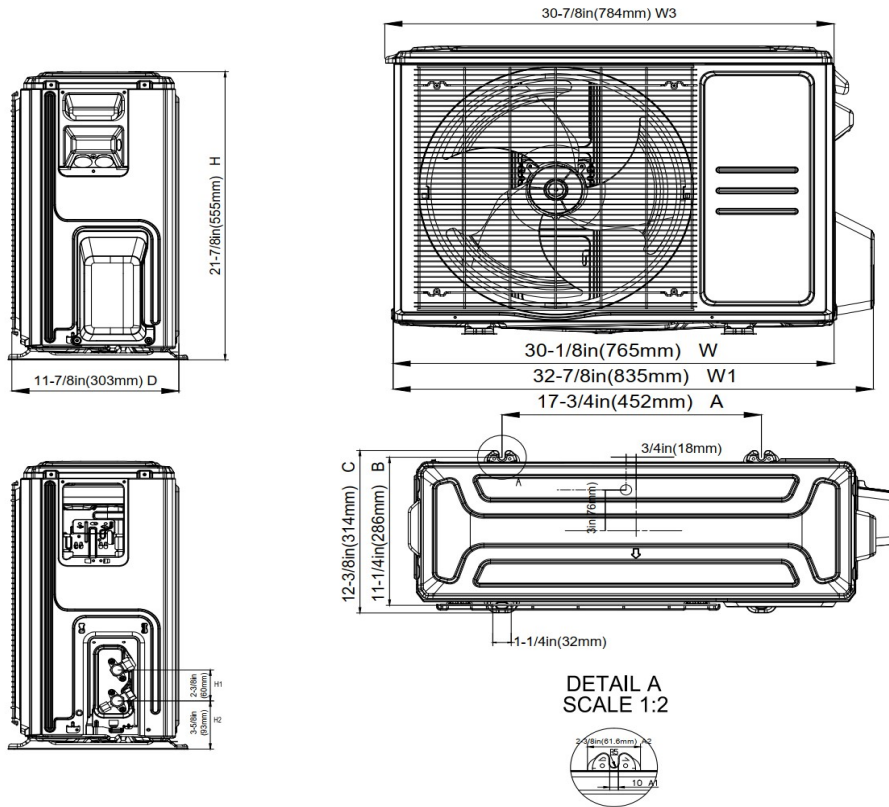
## Installation Instruction

### Installation place

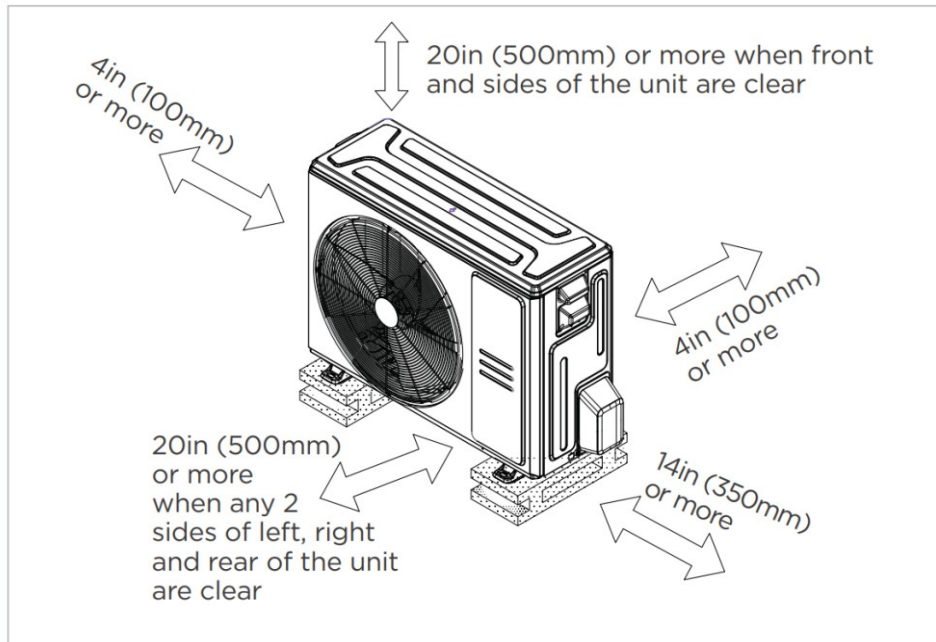
The distance between the mounted indoor unit should meet the specifications illustrated in the following diagram.



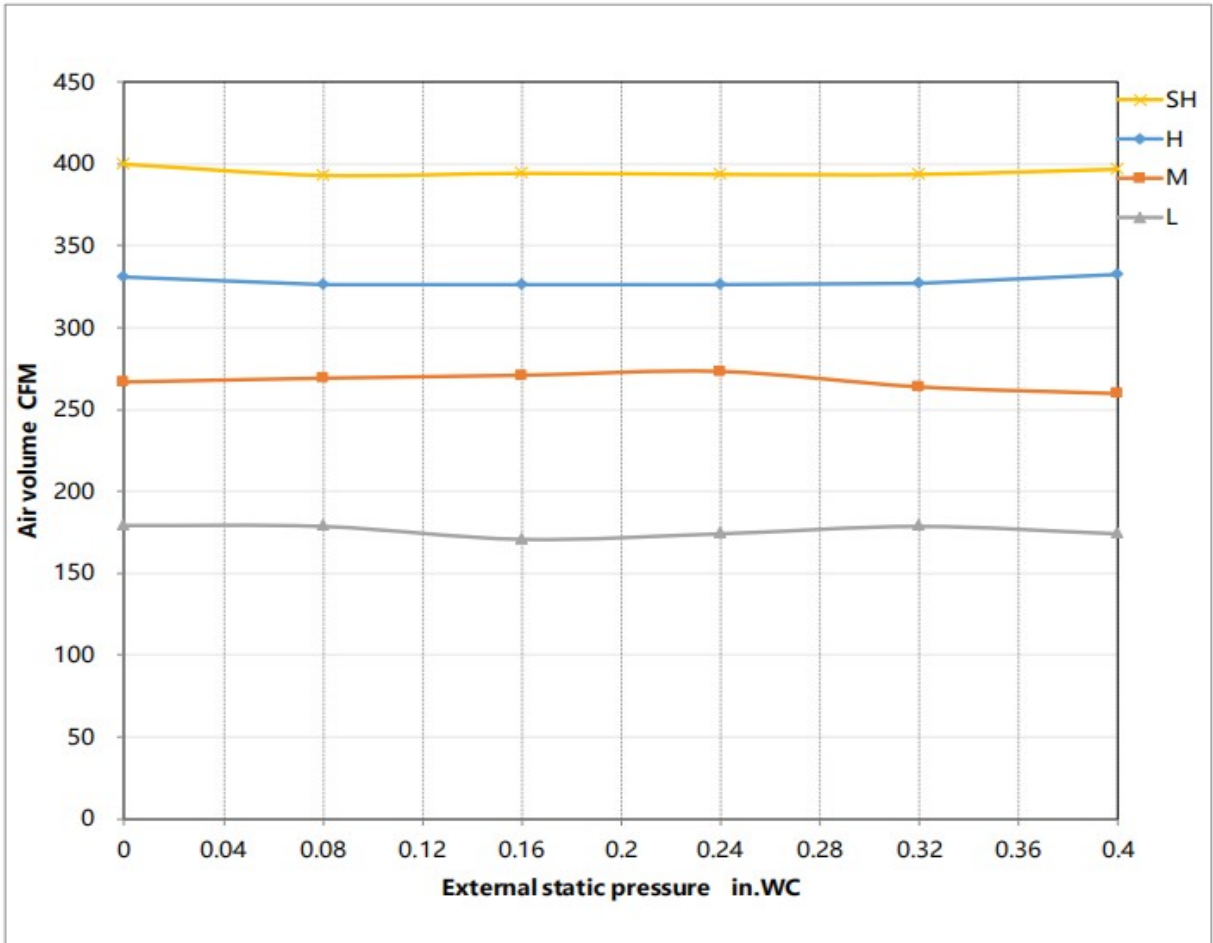
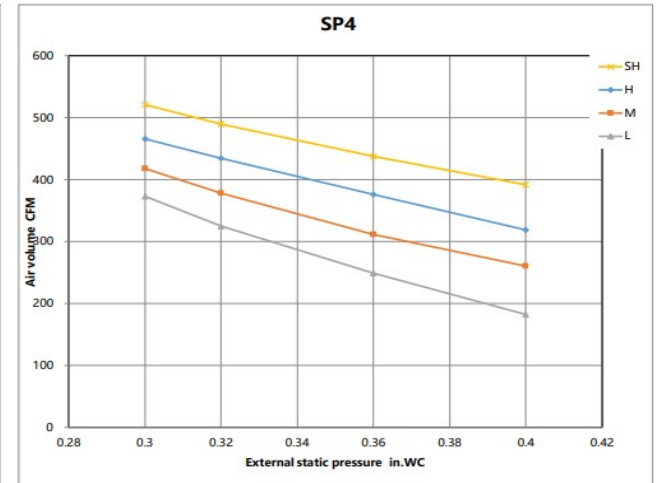
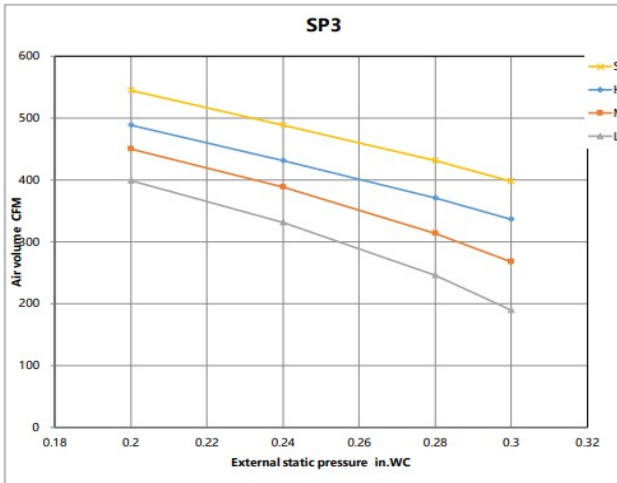
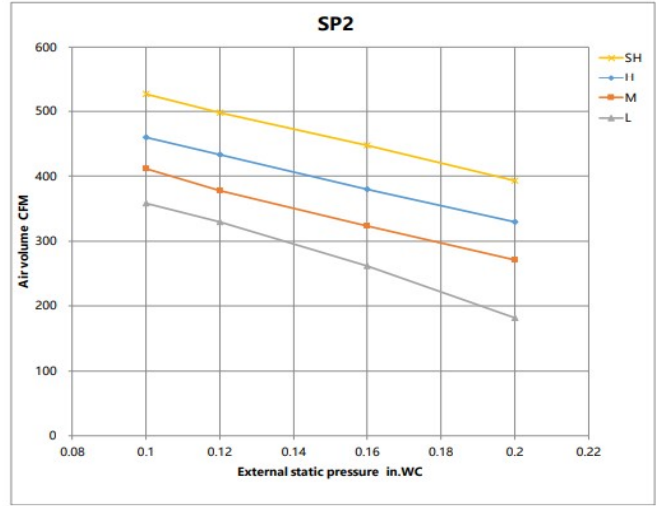
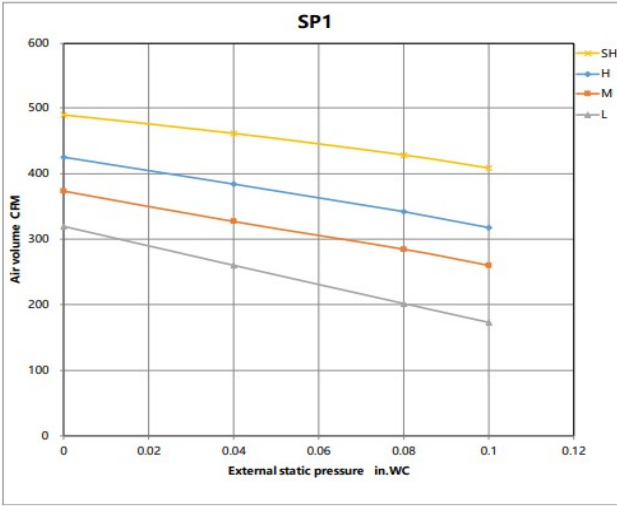
## Outdoor Unit Dimension



## Installation Instruction



Meets all special requirements shown in Installation Clearance Requirements above.



## Features

- Static pressure with 4 levels to select
- Refrigerant leakage detector
- Constant airflow
- Built-in water pump
- i-clean function (AI self cleaning)
- 1~100% stepless adjustable fan speed setting
- WiFi capability: through WiFi module or wired controller with WiFi function
- OTA function: can upgrade the program version via wired controller 120N(X6W)
- 2-pin connector(HA/HB) for programmable wired controller
- Multiple controller options available:
  - Optional two way communication wired controller, programmable:120N(X6)
  - Optional two way communication wired controller, programmable, with built-in WiFi, :120N(X6W)
  - Optional Infrared wired controller: 120L
  - Optional Wireless remote controller
  - Optional 24V interface kit, can connect with Third-Party 24V Thermostat