

# R454b Refrigerant

# SUBMITTAL DATA SHEET



Series Name: Slim Duct Xtreme Heat Series  
Model Number: MDHHS-H48B-2A/MO1HU-H48B-2A

## Slim Duct Heat Pump System

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



## INDOOR SPEINDOOR SPECIFICATIONCIFICATION

|                                           |      |                                  |
|-------------------------------------------|------|----------------------------------|
| Indoor Air Flow (Turbo/H/M/L/Si) (CFM)    |      | 1648 / 1472 / 1295 / 1060 / 1060 |
| Indoor Noise Level (Turbo/H/M/L/Si) (dBA) |      | 51 / 51 / 46 / 42 / 40           |
| Indoor static pressure range(in.w.g.)     |      | 0-0.8                            |
| Dimension<br>(W×D×H)                      | inch | 47-1/8 x 29-1/2 x 11-7/8         |
|                                           | mm   | 1200 × 750 × 300                 |
| Package<br>(W×D×H)                        | inch | 56-1/8 x 33-7/8 x 14-1/8         |
|                                           | mm   | 1425 × 860 × 359                 |
| Net/Gross Weight                          | lbs  | 111 / 125                        |
|                                           | kg   | 50.5 / 56.6                      |

## OUTDOOR SPECIFICATION

|                              |      |                          |
|------------------------------|------|--------------------------|
| Compressor Type              |      | TWIN-ROTARY              |
| Compressor Model             |      | EKPQ420D1UMUA            |
| Refrigerant                  |      | R454B                    |
| Refrigerant Oil Charge(mL)   |      | 1460                     |
| Refrigerant Oil              |      | VG75                     |
| Outdoor Air Flow (Max) (CFM) |      | 4,238                    |
| Outdoor Noise Level (dBA)    |      | 65                       |
| Dimension (W×D×H)            | inch | 37-1/2 x 16-3/8 x 52-1/2 |
|                              | mm   | 952 × 416 × 1333         |
| Package (W×D×H)              | inch | 43-1/8 x 19-1/2 x 57-1/2 |
|                              | mm   | 1095 × 495 × 1460        |
| Net/Gross Weight             | lbs  | 209 / 240                |
|                              | kg   | 94.7 / 108.8             |

## EFFICIENCY

| Cooling |      | Heating |      |
|---------|------|---------|------|
| SEER2   | 16.7 | HSPF2-4 | 10.8 |
| EER2    | 10.4 | COP     | 3.60 |

## PERFORMANCE of Cooling

| Cooling (Btu/hr)                |                                                     |
|---------------------------------|-----------------------------------------------------|
| Rated Capacity                  | 48,000                                              |
| Min/Max Capacity                | 11,000~56,500                                       |
| Moisture Removal(L/h)           | 4.22                                                |
| 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                 | 52,000                                              |
| 1. @ 47°F Min/Max Capacity      | 11,200~60,000                                       |
| 2. @ 17°F Rated                 | 45,000                                              |
| 3. @ 5°F Rated: Capacity / COP  | 47,500/2.00                                         |
| 3. @ 5°F Max: Capacity          | 47,500                                              |
| 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

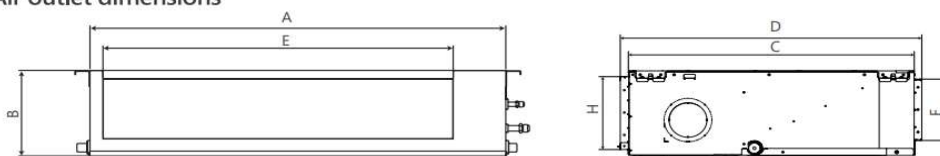
|                                  |                                       |
|----------------------------------|---------------------------------------|
| Power Supply                     | 208/230V,60Hz,1Ph                     |
| System MCA                       | 44.0                                  |
| Connection Wiring                | AWG 14/3                              |
| System MOC                       | 45.0                                  |
| Compressor RLA                   | 27.0                                  |
| Outdoor Fan Motor RLA            | 1.2                                   |
| Outdoor Fan Motor W              | 85                                    |
| Indoor Fan Motor RLA             | 4.0                                   |
| Indoor Fan Motor W               | 560                                   |
| System Power Input @ Cooling (W) | 4,610 (930 ~ 6,050)                   |
| System Power Input @ Heating (W) | 4,230 (770 ~ 5,380)                   |
| MCA: Min. circuit amps (A)       | MOC: Max. over current protection (A) |
| RLA: Rated load amps (A)         | W: Fan motor rated output (W)         |

## PIPING

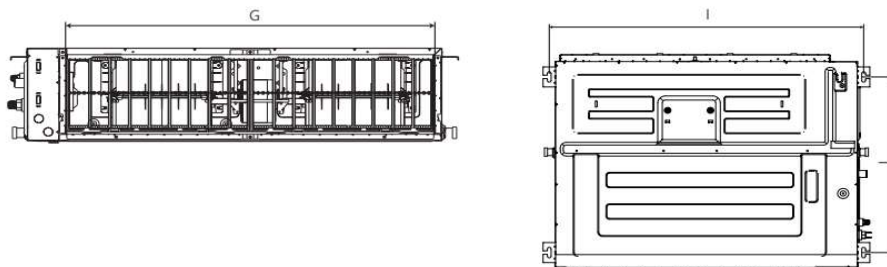
|                                                |                    |
|------------------------------------------------|--------------------|
| Throttle type(Indoor)                          | N/A                |
| Throttle type(Outdoor)                         | EXV+Throttle valve |
| Liquid Size                                    | 3/8" (9.52mm)      |
| Gas Size                                       | 3/4" (19mm)        |
| Max. Piping Length(ft/m)                       | 246 (75)           |
| Max. Height Difference(ft/m)                   | 98 (30)            |
| Max. Pre-charged Length(ft/m)                  | 25 (7.5)           |
| Refrigerant Pre-charged Amount(oz/kg)          | 127 (3.60)         |
| Additional Charge of Refrigerant((oz/ft)/(g/m) | 0.32 (30)          |
| Connection Method                              | Flared             |

## Indoor Unit Dimension

### Air outlet dimensions



### Air inlet dimensions

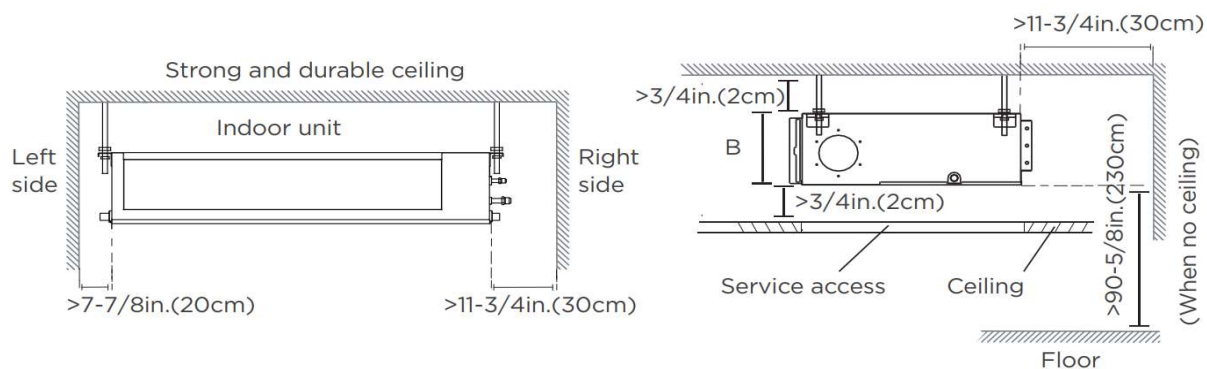


Unit: inch (mm)

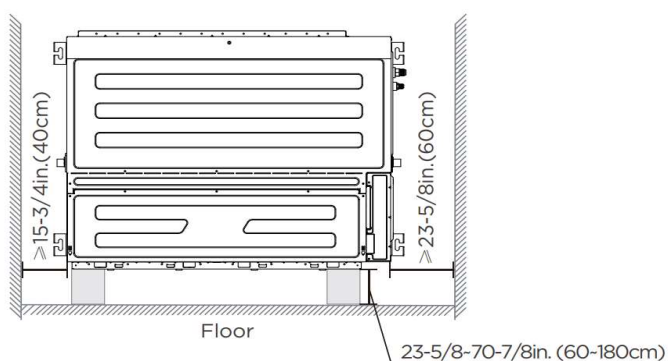
| MODEL   | OUTLINE DEMENSION  |                   |                 |                  | AIR OUTLET OPENING SIZE |                 | AIR RETURN OPENING SIZE |                 | SIZE OF MOUNTED LUG |                  |
|---------|--------------------|-------------------|-----------------|------------------|-------------------------|-----------------|-------------------------|-----------------|---------------------|------------------|
|         | A                  | B                 | C               | D                | E                       | F               | G                       | H               | I                   | J                |
| 9K/12K  | 27-5/8<br>(700)    | 9-5/8<br>(245)    | 29-1/2<br>(750) | 31-5/16<br>(795) | 20-3/4<br>(527)         | 7<br>(178)      | 23-5/16<br>(592)        | 8-5/16<br>(212) | 29-3/32<br>(740)    | 25-1/4<br>(640)  |
| 18K/24K | 39-7/16<br>(1,000) | 9-5/8<br>(245)    | 29-1/2<br>(750) | 31-5/16<br>(795) | 32-5/8<br>(827)         | 7<br>(178)      | 35-3/32<br>(892)        | 8-5/16<br>(212) | 40-7/8<br>(1,040)   | 25-1/4<br>(640)  |
| 36K/48K | 47-1/4<br>(1,200)  | 11-13/16<br>(300) | 29-1/2<br>(750) | 31-5/16<br>(795) | 40-7/16<br>(1,027)      | 9-1/4<br>(233)  | 43<br>(1,092)           | 10-1/2<br>(267) | 48-13/16<br>(1,240) | 25-1/4<br>(640)  |
| 55K/60K | 55-3/32<br>(1,400) | 14-7/8<br>(380)   | 29-1/2<br>(750) | 31-5/16<br>(795) | 48-3/32<br>(1,223)      | 12-5/8<br>(320) | 50-3/32<br>(1,272)      | 13<br>(330)     | 56-13/16<br>(1,440) | 26-5/16<br>(668) |

## Installation Instruction

### 1) Ceiling-mounted

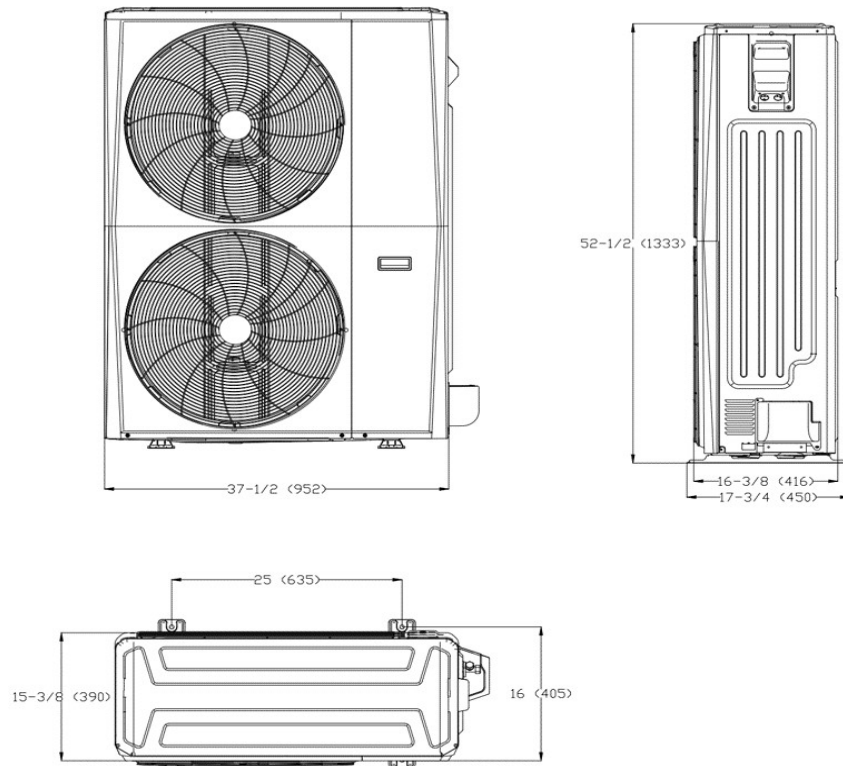


### 2) Wall-mounted

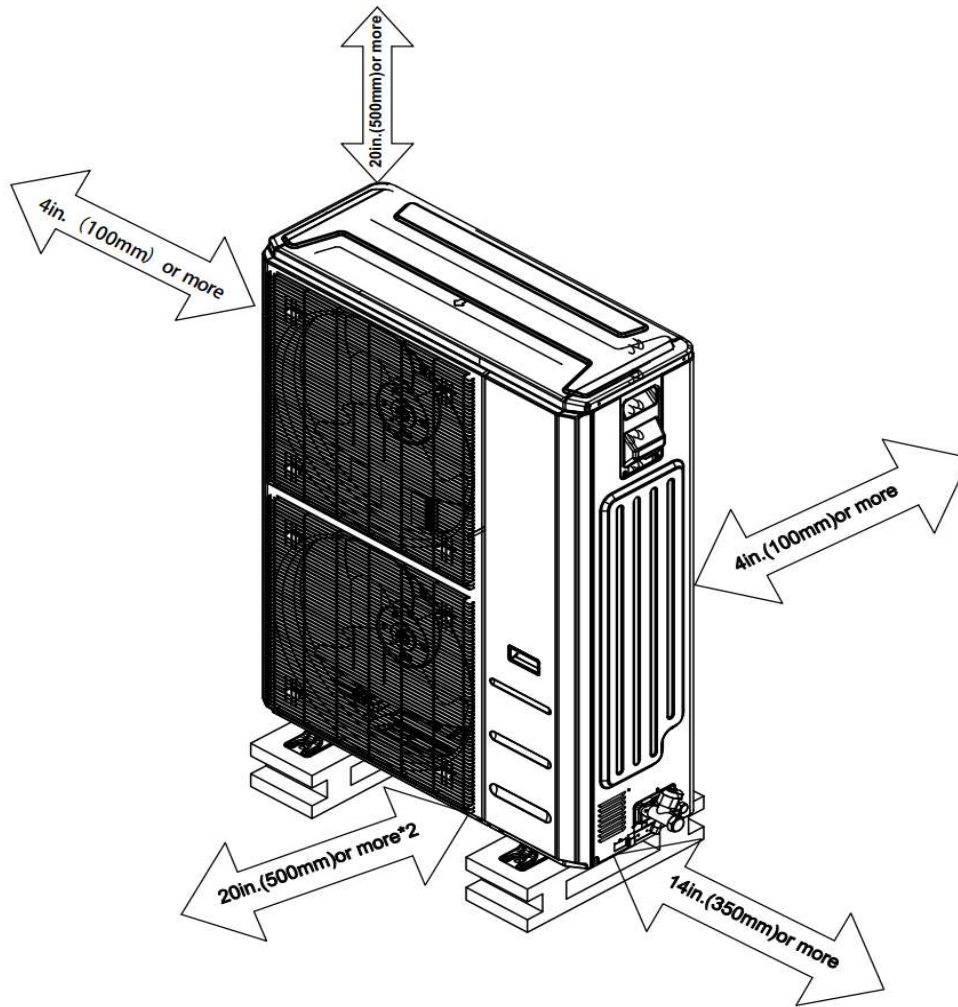


## Outdoor Unit Dimension

Unit: inch (mm)

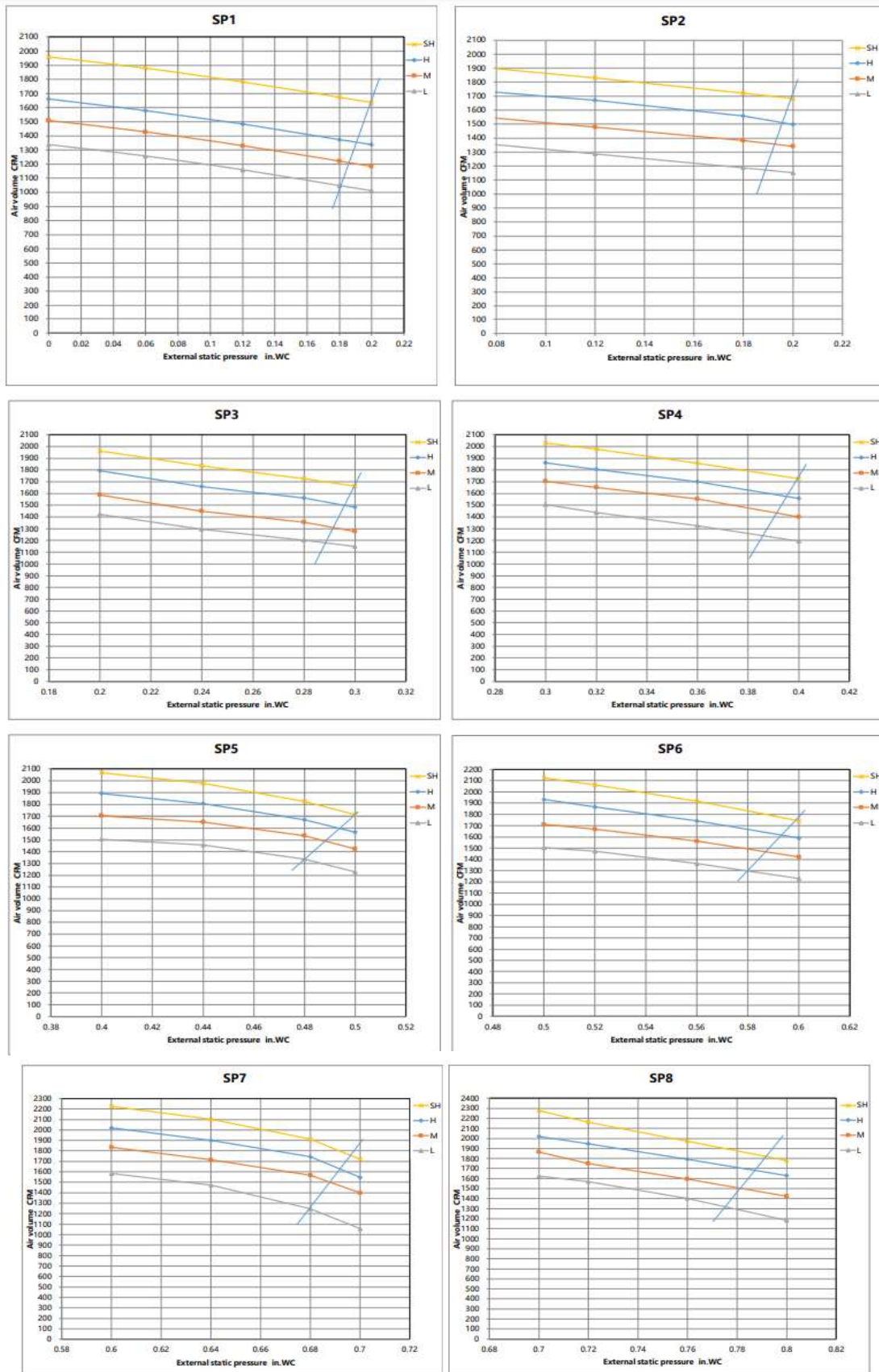


# Installation Instruction

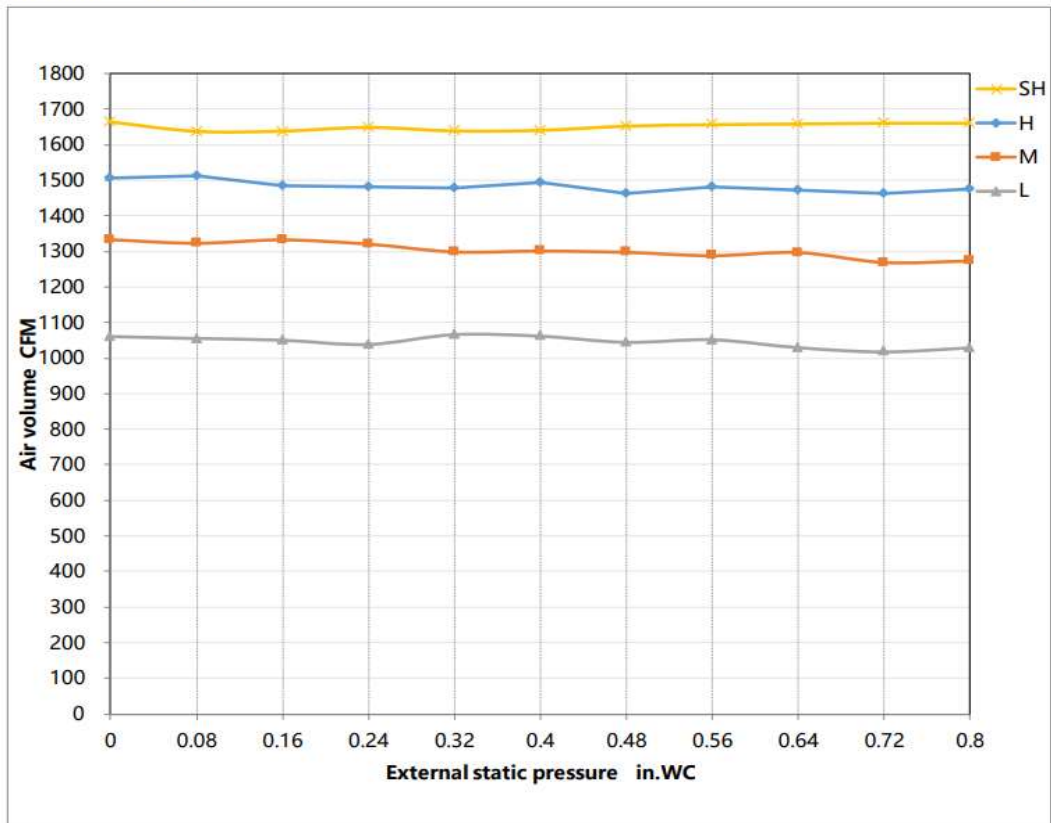


## Fan performance

The default setting is SP1, which can be changed to SP2,3,4,5,6,7,8 using the wired controller.



### Constant air volume



## FEATURES

- Compatible with both horizontal and vertical installation
- Static pressure up to 0.8 in.w.g(for all models)
- Static pressure setting stages: 8
- Refrigerant leakage detection sensor
- Constant airflow
- Built-in pump
- i-clean
- Fan speed stages: 1~100%
- WiFi capability: through wired controller with built-in WiFi
- OTA(by using wired controller 120N(X6W))
- 2-pin connector(HA/HB) for programmable wired controller
- 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.