

# R454b Refrigerant

# SUBMITTAL DATA SHEET



Series Name: Slim Duct Energy Star Series  
Model Number: MDLHU-H12B-2A/MO1E5-H12B-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)    | 400 / 324 / 265 / 177 / 118   |
| Indoor Noise Level (Turbo/H/M/L/Si) (dBA) | 37 / 37 / 35 / 34 / 26        |
| Indoor static pressure range (in.w.g.)    | 0-0.4                         |
| Dimension (WxDxH)                         | inch 27-1/2 x 20 x 7-7/8      |
|   | mm 700 x 506 x 200            |
| Package (WxDxH)                           | inch 33-7/8 x 21-1/4 x 11-1/4 |
|   | mm 860 x 540 x 285            |
| Net/Gross Weight                          | lbs 39 / 47                   |
|   | kg 17.9 / 21.2                |

## OUTDOOR SPECIFICATION

|                              |                               |
|------------------------------|-------------------------------|
| Compressor Type              | ROTARY                        |
| Compressor Model             | KSK103D33UEZ3                 |
| Refrigerant                  | R454B                         |
| Refrigerant Oil Charge(mL)   | 310                           |
| Refrigerant Oil              | 5.65                          |
| Outdoor Air Flow (Max) (CFM) | 1,236                         |
| Outdoor Noise Level (dBA)    | 55.5                          |
| Dimension (WxDxH)            | inch 30-1/8 x 11-7/8 x 21-7/8 |
|                              | mm 765 x 303 x 555            |
| Package (WxDxH)              | inch 34-7/8 x 13-1/4 x 24     |
|                              | mm 887 x 337 x 610            |
| Net/Gross Weight             | lbs 63 / 68                   |
|                              | kg 28.2 / 30.7                |

## EFFICIENCY

| Cooling |      | Heating |      |
|---------|------|---------|------|
| SEER2   | 19.0 | HSPF2-4 | 10.2 |
| EER2    | 11.7 | COP     | 3.42 |

## PERFORMANCE of Cooling

| Cooling (Btu/hr)                |   |
|---------------------------------|---|
| Rated Capacity                  | 11,500  |
| Min/Max Capacity                | 3,100~13,000  |
| Moisture Removal(L/h)           | 0.99  |
| Standard Operating Range(°F/°C) | -13~122 (-25 ~ 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                 | 12,000  |
| 1. @ 47°F Min/Max Capacity      | 3,700~15,600  |
| 2. @ 17°F Rated                 | 9,500   |
| 3. @ 5°F Rated: Capacity / COP  | 8,800/2.25  |
| 3. @ 5°F Max: Capacity          | 8,800   |
| Standard Operating Range(°F/°C) | -13~75 (-25 ~ 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   |

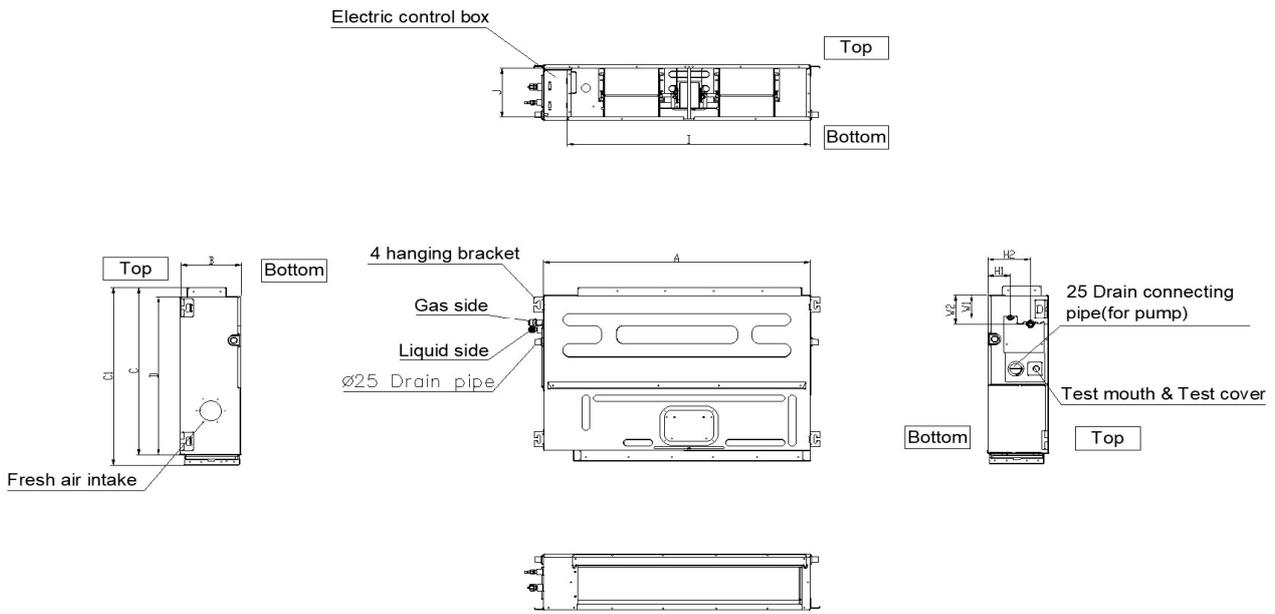
## ELECTRICAL

|                                  |  |
|----------------------------------|--|
| Power Supply                     | 208/230V,60Hz,1Ph                      |
| System MCA                       | 12.0                                   |
| Connection Wiring                | AWG 14/4                               |
| System MOCP                      | 15.0                                   |
| 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 ~ 1,210)                      |
| System Power Input @ Heating (W) | 1,028 (255 ~ 1,310)                    |
| MCA: Min. circuit amps (A)       | MOCP: Max. over current protection (A) |
| RLA: Rated load amps (A)         | W: Fan motor rated output (W)          |

## PIPING

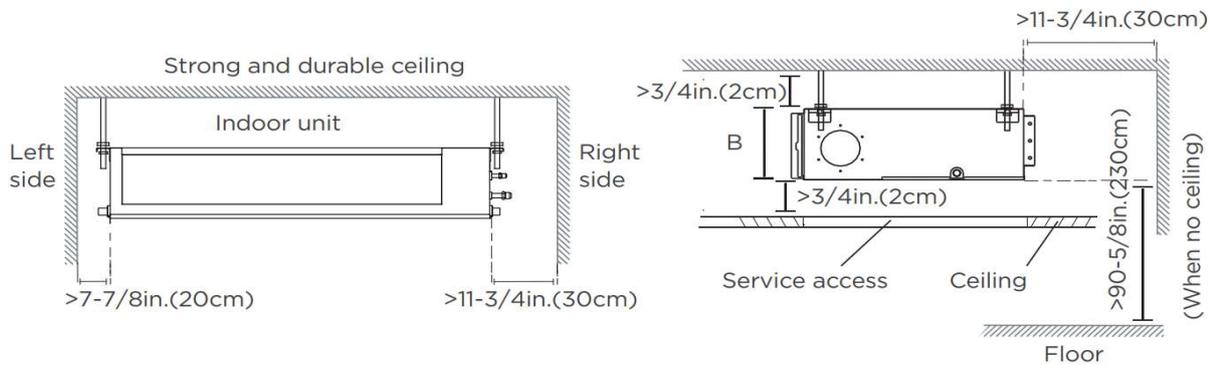
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|--|---------------|
| Throttle type(Indoor)                          | N/A           |
| Throttle type(Outdoor)                         | EXV           |
| Liquid Size                                    | 1/4" (6.35mm) |
| Gas Size                                       | 1/2" (12.7mm) |
| Max. Piping Length(ft/m)                       | 82 (25)       |
| Max. Height Difference(ft/m)                   | 49 (15)       |
| Max. Pre-charged Length(ft/m)                  | 25 (7.5)      |
| Refrigerant Pre-charged Amount(oz/kg)          | 32 (0.92)     |
| Additional Charge of Refrigerant((oz/ft)/(g/m) | 0.16 (15)     |
| Connection Method                              | Flared        |

### Indoor Unit Dimension



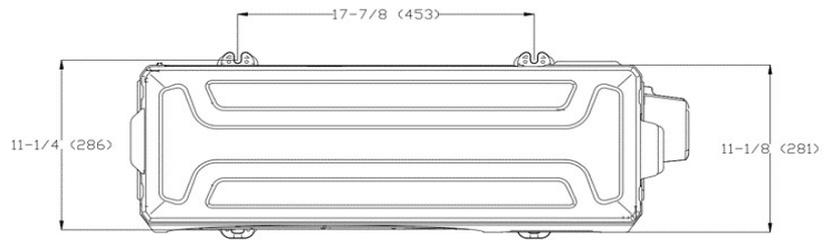
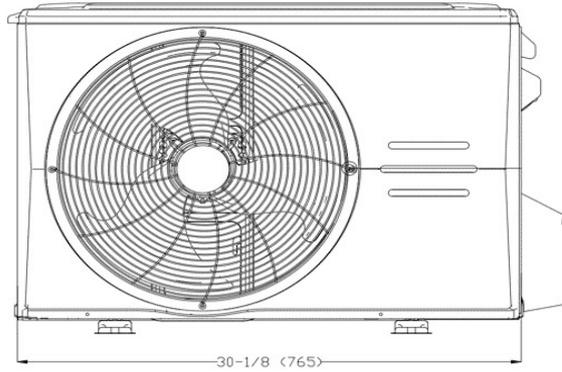
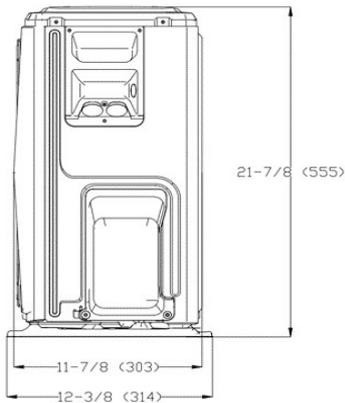
| Model(kBtu/h) | unit  | A      | B     | C      | C1     | D      |
|---------------|-------|--------|-------|--------|--------|--------|
|               | 6 -12 | mm     | 700   | 200    | 470    | 506    |
| in            |       | 27-1/2 | 7-7/8 | 18-1/2 | 20     | 17-3/4 |
| 18            | mm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

### Installation Instruction

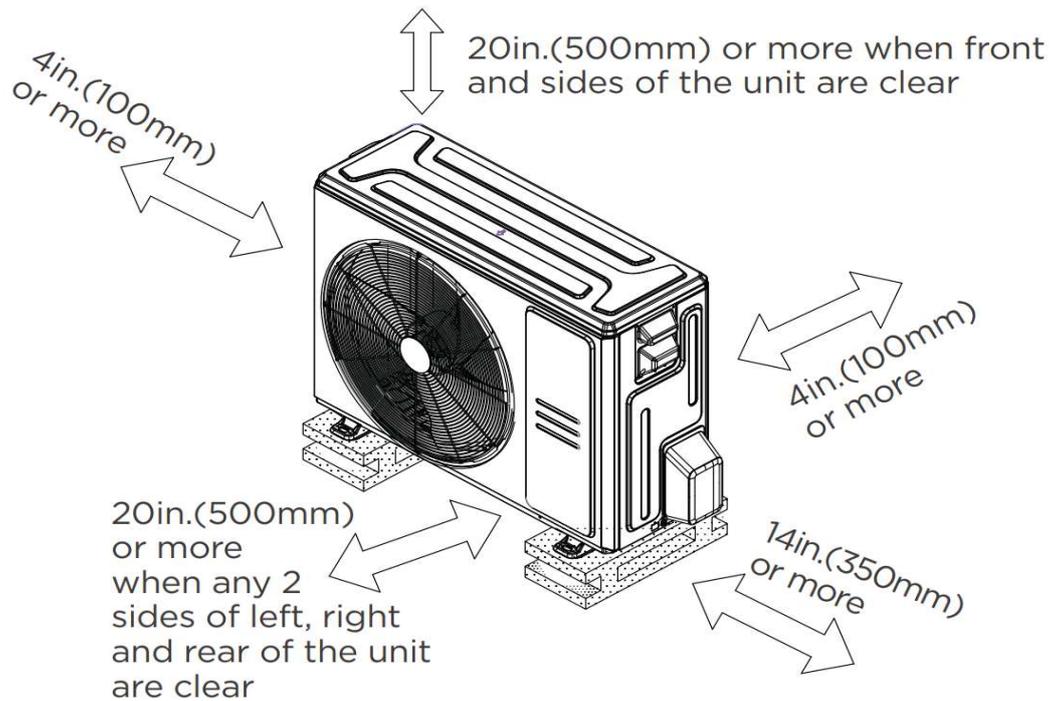


### Outdoor Unit Dimension

Unit: inch (mm)

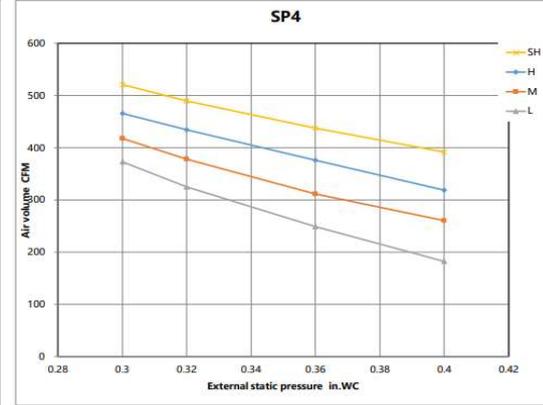
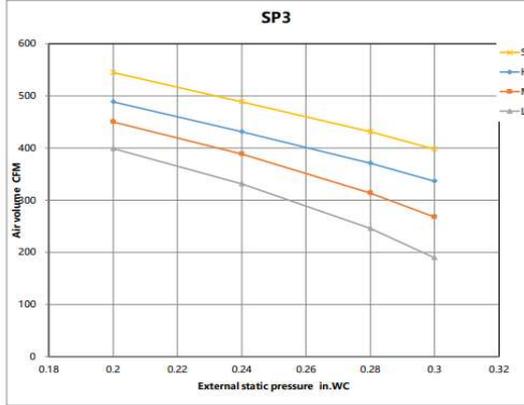
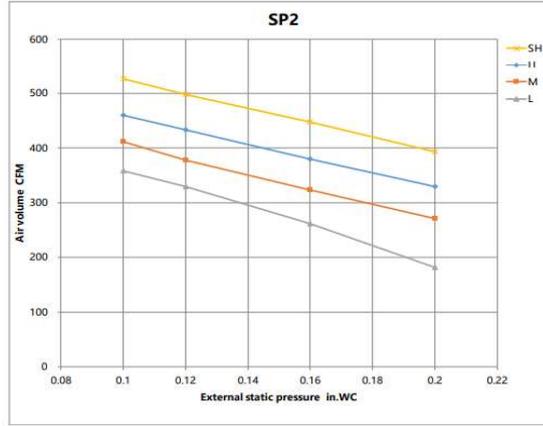
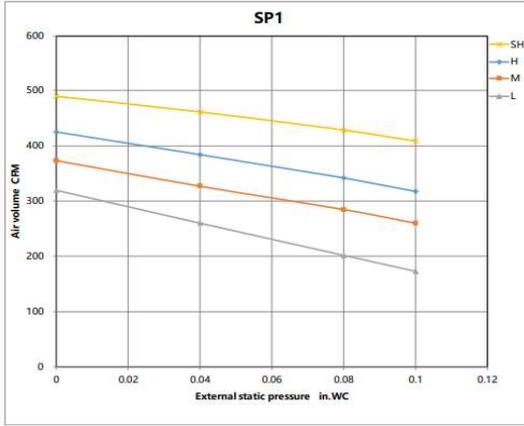


### Installation Instruction

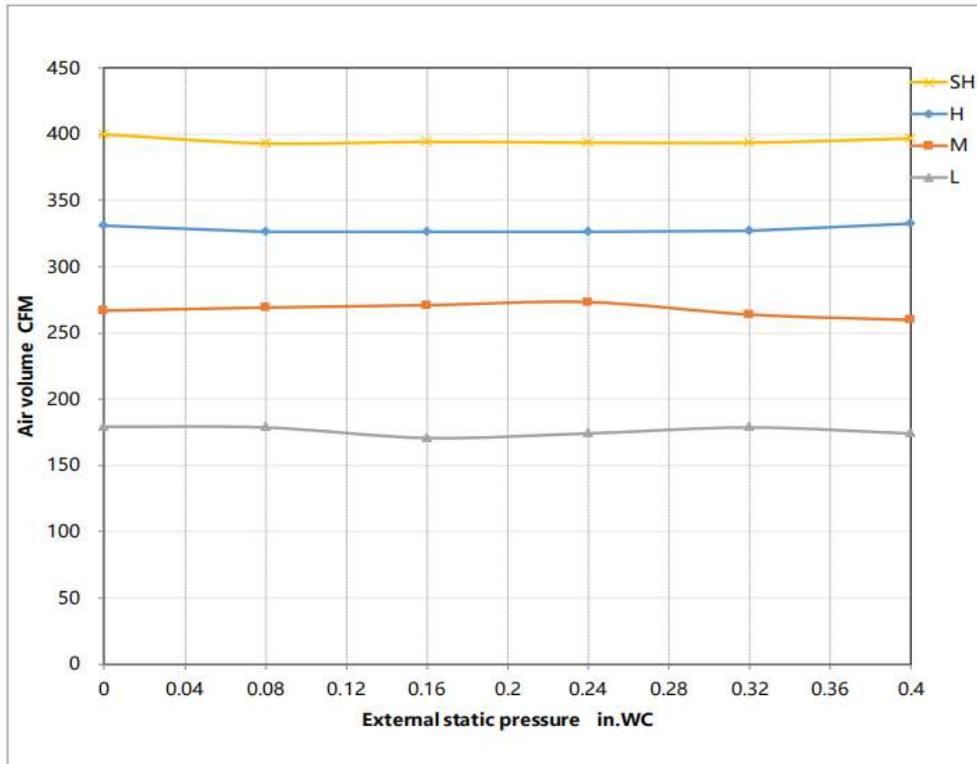


## Fan performance

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



## Constant airflow



## FEATURES

- Compatible with both horizontal and vertical installation(Optional)
- Static pressure setting stages: 4
- Refrigerant leakage detection sensor
- Constant airflow
- Built-in pump
- i-clean
- Fan speed stages: 1~100%
- WiFi capability: 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 with built-in WiFi:120N(X6W)
  - Wireless remote controller
  - Third-Party 24V Thermostat\*

\*24V interface is required.