

R454b Refrigerant

SUBMITTAL DATA SHEET



Series Name: Slim Duct Energy Star Series
Model Number: MDHUU-H12B-2A/MO1ES-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)		419 / 350 / 256 / 216 / 135
Indoor Noise Level (Turbo/H/M/L/Si) (dBA)		34 / 34 / 33 / 31 / 29
Indoor static pressure range		0-0.8
Dimension (W×D×H)	inch	27-1/2 x 29-1/2 x 9-5/8
	mm	700 × 750 × 245
Package (W×D×H)	inch	36-3/8 x 33-1/2 x 11-3/4
	mm	925 × 850 × 298
Net/Gross Weight	lbs	64 / 74
	kg	29.1 / 33.5

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 (W×D×H)	inch	30-1/8 x 11-7/8 x 21-7/8
	mm	765 × 303 × 555
Package (W×D×H)	inch	34-7/8 x 13-1/4 x 24
	mm	887 × 337 × 610
Net/Gross Weight	lbs	63 / 68
	kg	28.2 / 30.7

EFFICIENCY

Cooling		Heating	
SEER2	19.5	HSPF2-4	10.5
EER2	12.0	COP	3.78

PERFORMANCE of Cooling

Cooling (Btu/hr)	
Rated Capacity	12,000
Min/Max Capacity	2,200~12,900
Moisture Removal(L/h)	1.30
Standard Operating Range(°F/°C)	-13~122 (-25 ~ 50)
Conditions:	Indoor: 80°F DB/67°F WB 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	3,700~15,700
2. @ 17°F Rated	9,100
3. @ 5°F Rated: Capacity / COP	8,900/2.44
3. @ 5°F Max: Capacity	8,900
Standard Operating Range(°F/°C)	-13~75 (-25 ~ 24)
1. Conditions:	Indoor: 70°F DB/60°F WB Outdoor: 47°F DB/43°F WB
2. Conditions:	Indoor: 70°F DB/60°F WB Outdoor: 17°F DB/15°F WB
3. Conditions	Indoor: 70°F DB/60°F WB Outdoor: 5°F DB/5°F WB

ELECTRICAL

Power Supply	208/230V,60Hz,1Ph
System MCA	12.0
Connection Wiring	AWG 14/4
System MOC	15.0
Compressor RLA	7.3
Outdoor Fan Motor RLA	0.6
Outdoor Fan Motor W	34
Indoor Fan Motor RLA	1.5
Indoor Fan Motor W	165
System Power Input @ Cooling (W)	999 (220 ~ 1,200)
System Power Input @ Heating (W)	952 (255 ~ 1,380)
MCA: Min. circuit amps (A)	MOC: Max. over current protection (A)
RLA: Rated load amps (A)	W: Fan motor rated output (W)

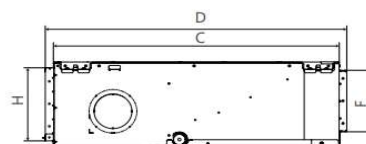
PIPING

Throttle type(Indoor)	N/A
Throttle type(Outdoor)	EXV
Liquid Size	1/4" (6.35mm)
Gas Size	3/8" (9.52mm)
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

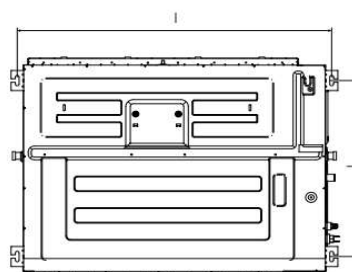
Air outlet dimensions

The diagram shows a side view of a rectangular duct. The total width is labeled 'A', the inner width is labeled 'E', and the height is labeled 'B'. The duct has a flange on the right side with four bolts. A small square symbol is at the bottom left corner of the duct body.



Air inlet dimensions

Technical drawing showing the air inlet dimensions of the container. The drawing illustrates the internal structure of the container, including the air inlet area, and is labeled with the dimension 'G'.

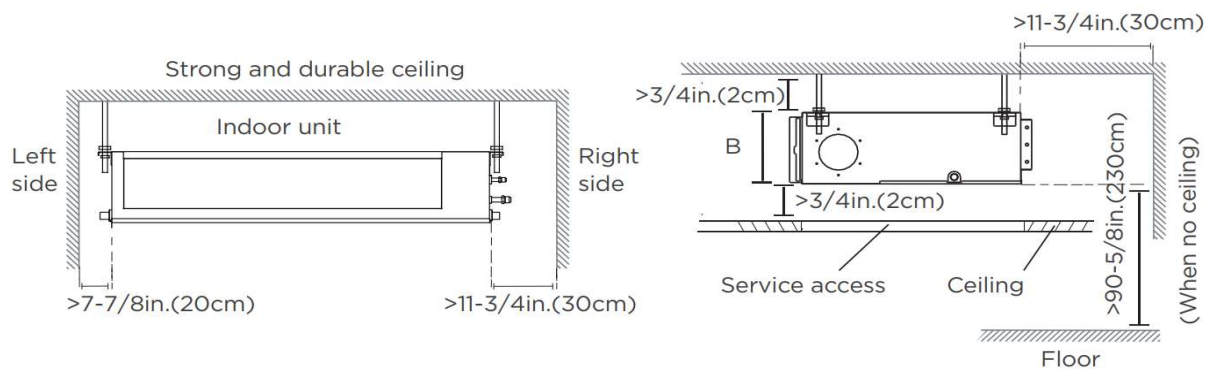


Unit: inch (mm)

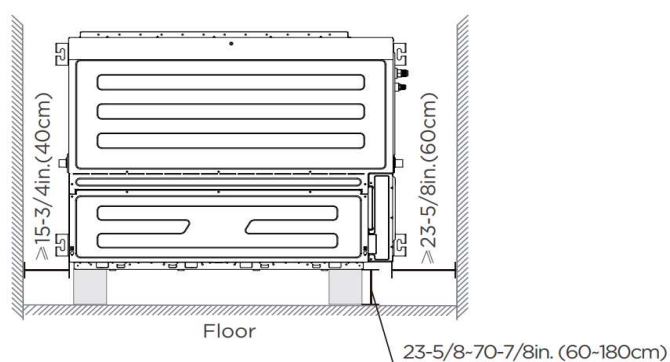
MODEL	OUTLINE DEMENSION				AIR OUTLET OPENING SIZE		AIR RETURN OPENING SIZE		SIZE OF MOUNTED LUG	
	A	B	C	D	E	F	G	H	I	J
9K/12K	27-5/8 (700)	9-5/8 (245)	29-1/2 (750)	31-5/16 (795)	20-3/4 (527)	7 (178)	23-5/16 (592)	8-5/16 (212)	29-3/32 (740)	25-1/4 (640)
18K/24K	39-7/16 (1,000)	9-5/8 (245)	29-1/2 (750)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

Installation Instruction

1) Ceiling-mounted

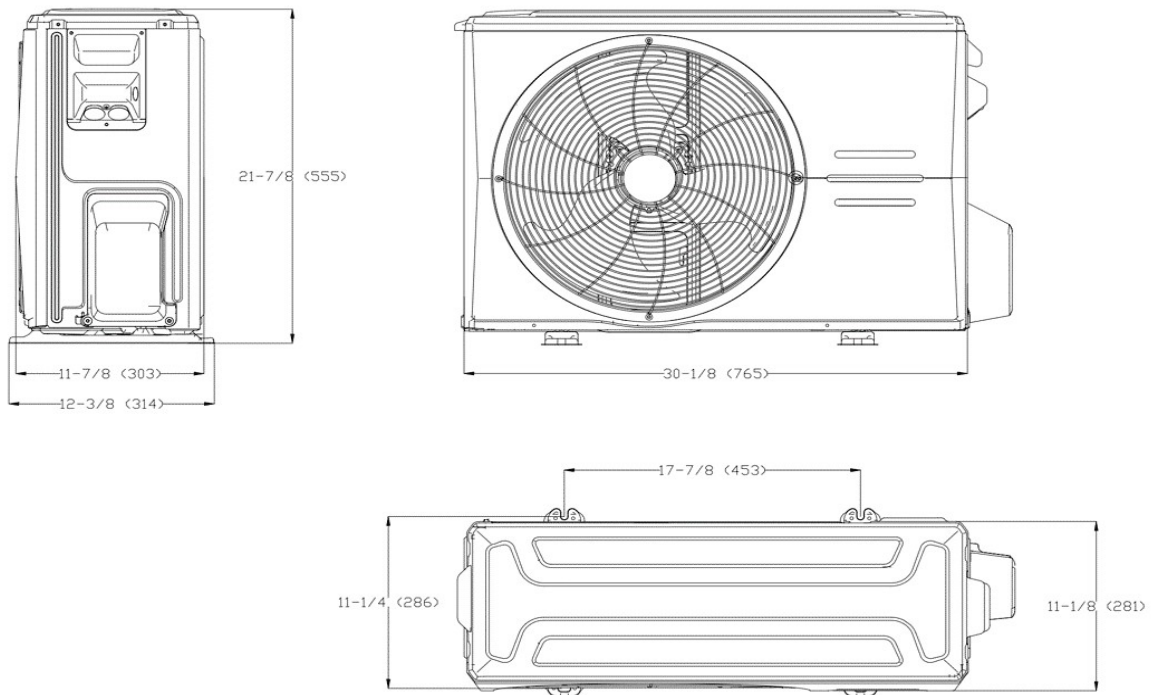


2) Wall-mounted

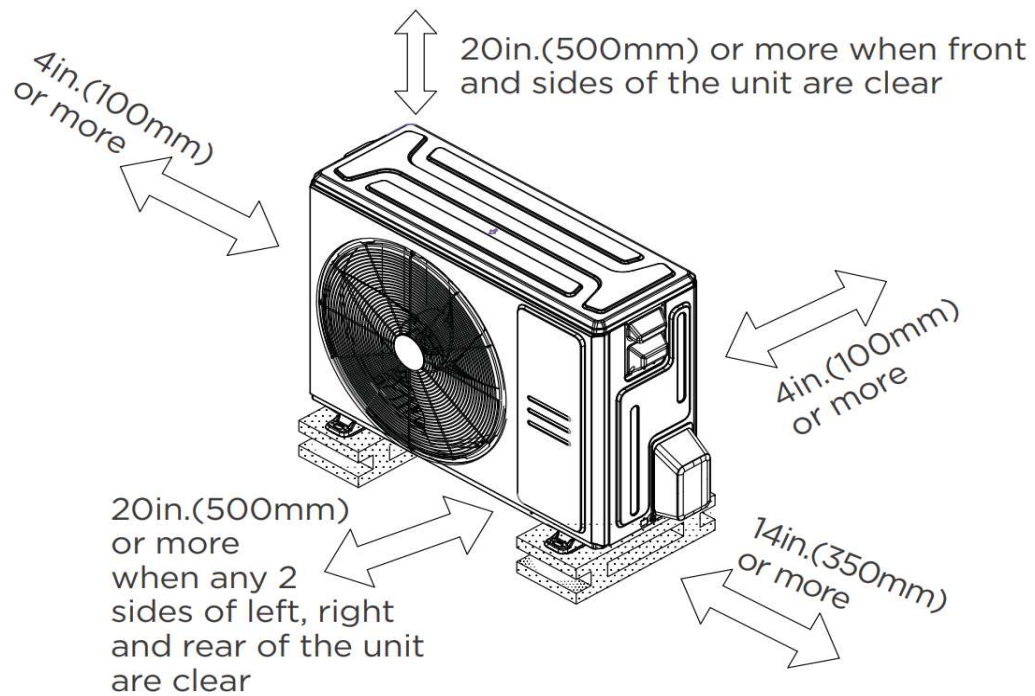


Outdoor Unit Dimension

Unit: inch (mm)

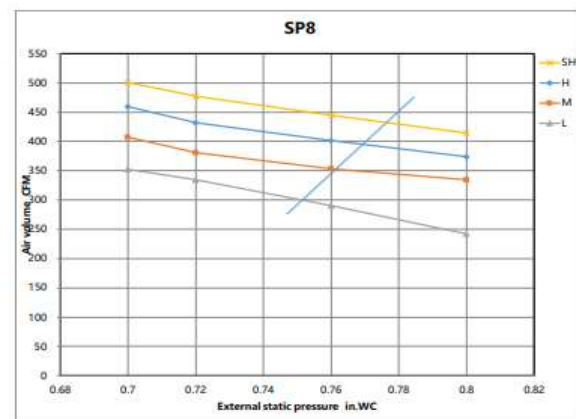
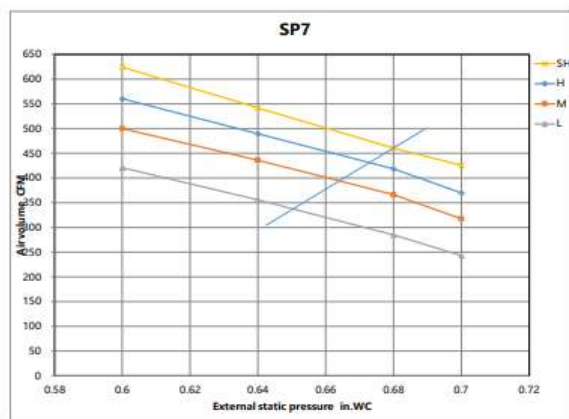
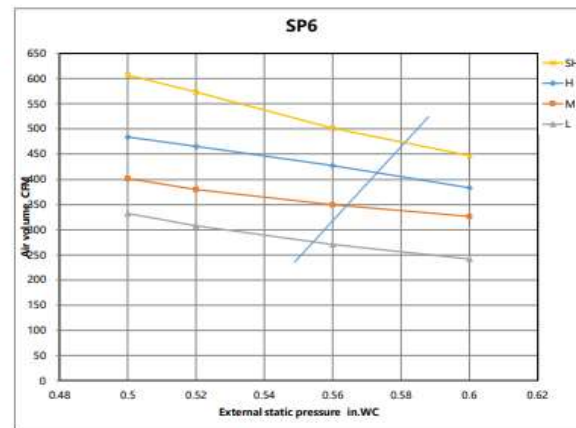
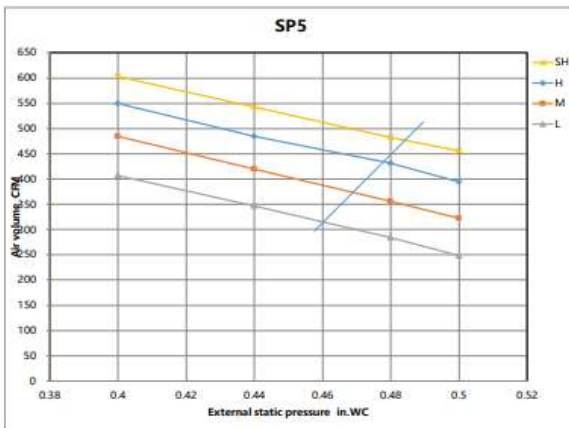
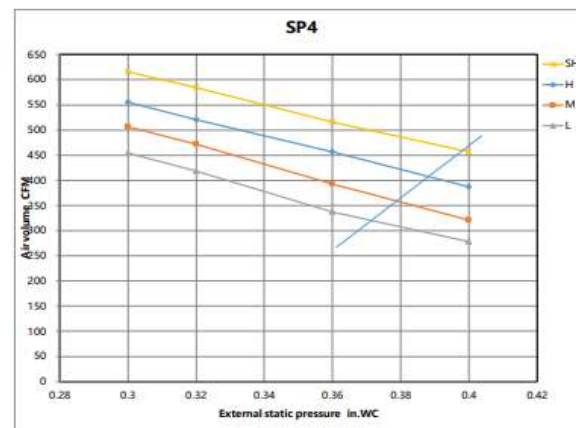
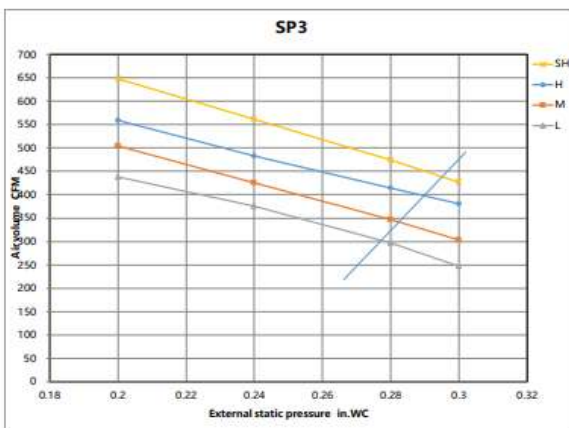
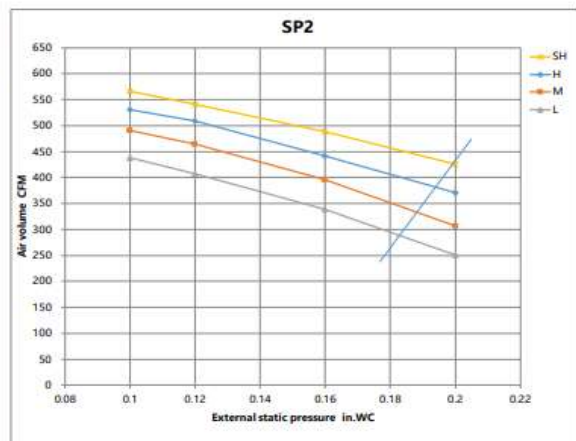
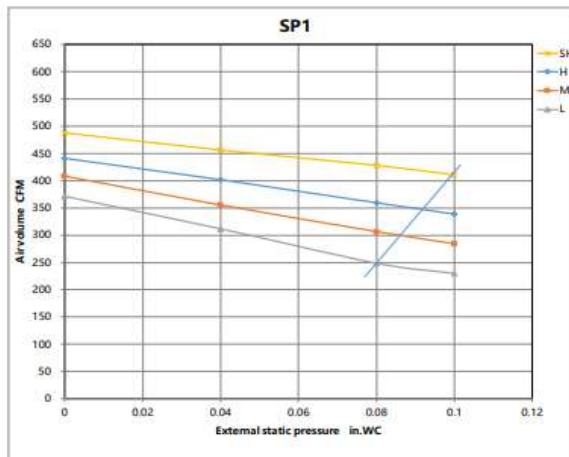


Installation Instruction

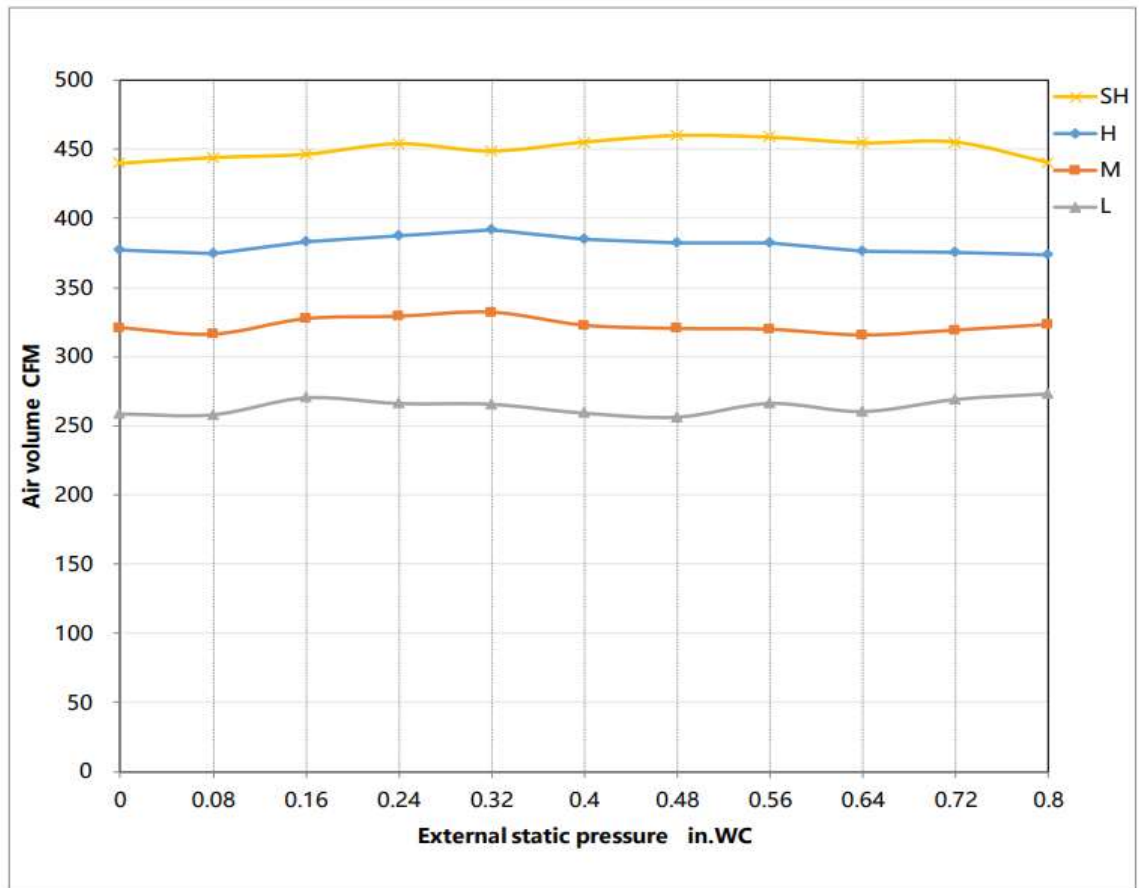


Fan performance

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.