ComfortStar®

SUBMITTAL DATA SHEET

Model Number: CPH3-18CD(O) (27N) / SEF3-18-SG3

Air Handler Heat Pump System

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

INDOOR SPECIFICATION

ESP(inWG)		0~1.0
Indoor Air Flow (Turbo/H/M/L/Si) (CFM)		618.0 / 576.8 / 529.7 / 488.5 / N\A
Indoor Noise Level (Turbo/H/M/L/Si) (dBA)		N\A/42.5/40.5/37/N\A
Dimension (W×D×H)	**inch**	14.49 x21.50 x 49.72
	mm	368.0×546.0×1263
Package (W×D×H)	**inch**	52.95 x 17.52 x 31.10
	mm	1345×445×790
Net/Gross Weight	**lbs**	123.02/154.76
	kg	55.8/70.2

OUTDOOR SPECIFICATION

Compressor Type		ROTARY
Compressor Model		KTM240D46UKT2
Refrigerant		R454B
Refrigerant Oil Charge(mL)		620
Refrigerant Oil		VG74
Outdoor Air Flow (Max) (CFM)		1765.8
Outdoor Noise Level (dBA)		56.5
Dimension (W×D×H)	**inch**	35.04 x 13.46 x 26.50
	mm	890.0×342.0×673.0
Package (W×D×H)	**inch**	39.17 x 15.67 x 29.13
	mm	995×398×740
Net/Gross Weight	**lbs**	101.41/109.13
	kg	46/49.5

EFFICIENCY

Cooling		Heating	
SEER2	19.0	**HSPF2-4**	10.1
EER2	12.5	**COP**	3.60

PERFORMANCE of Cooling

Cooling (Btu/hr)	
Rated Capacity	18000
Min/Max Capacity	4600~23100
Moisture Removal(L/h)	1.76
Standard Operating Range(°F/°C)	-22~122(-30~50)
Rated Cooling 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	18000
1. @ 47°F Min/Max Capacity	5700~23100
2. @ 17°F Rated	14700
3. @ 5°F Rated: Capacity / COP	18600/2.12
3. @ 5°F Max: Capacity	18600
Standard Operating Range(°F/°C)	-22~75(-30~24)
1. Rated Heating Conditions:	Indoor: 70°F DB/60°F WB
	Outdoor: 47°F DB/43°F WB
2. Rated Heating Conditions:	Indoor: 70°F DB/60°F WB
	Outdoor: 17°F DB/15°F WB
3. Heating Conditions, Compressor	Indoor: 70°F DB/60°F WB
Operating at Max. Frequency	Outdoor: 5°F DB/5°F WB

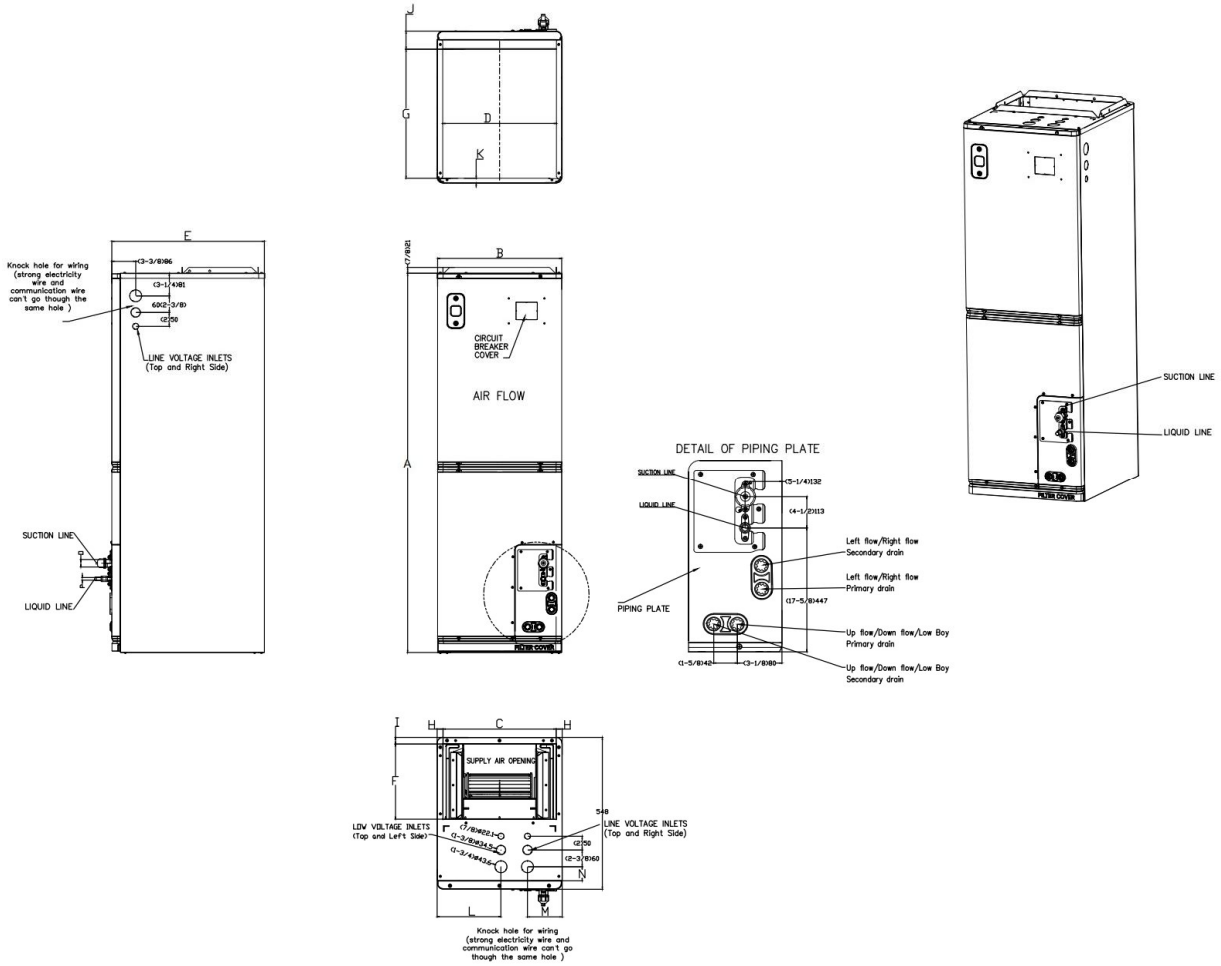
ELECTRICAL

Indoor Power Supply	115/208/230V,60Hz,1Ph
Indoor MCA 115V/(208/230V)	5.5/3.5
Indoor MOP	15
Outdoor Power Supply	208/230V,60Hz,1Ph
Outdoor MCA	16
Outdoor MOP	20
Communication Wiring	AWG 20-2
Compressor RLA	10.5
Outdoor Fan Motor RLA	0.9
Outdoor Fan Motor W	80
Indoor Fan Motor RLA	2
Indoor Fan Motor W	N/A
System Power Input @ Cooling (W)	1440(530 ~ 2020)
System Power Input @ Heating (W)	1465(410 ~1900)
MCA: Min. circuit amps (A)	**MOCP: Max. over current protection (A)**
RLA: Rated load amps (A)	**W: Fan motor rated output (W)**

PIPING

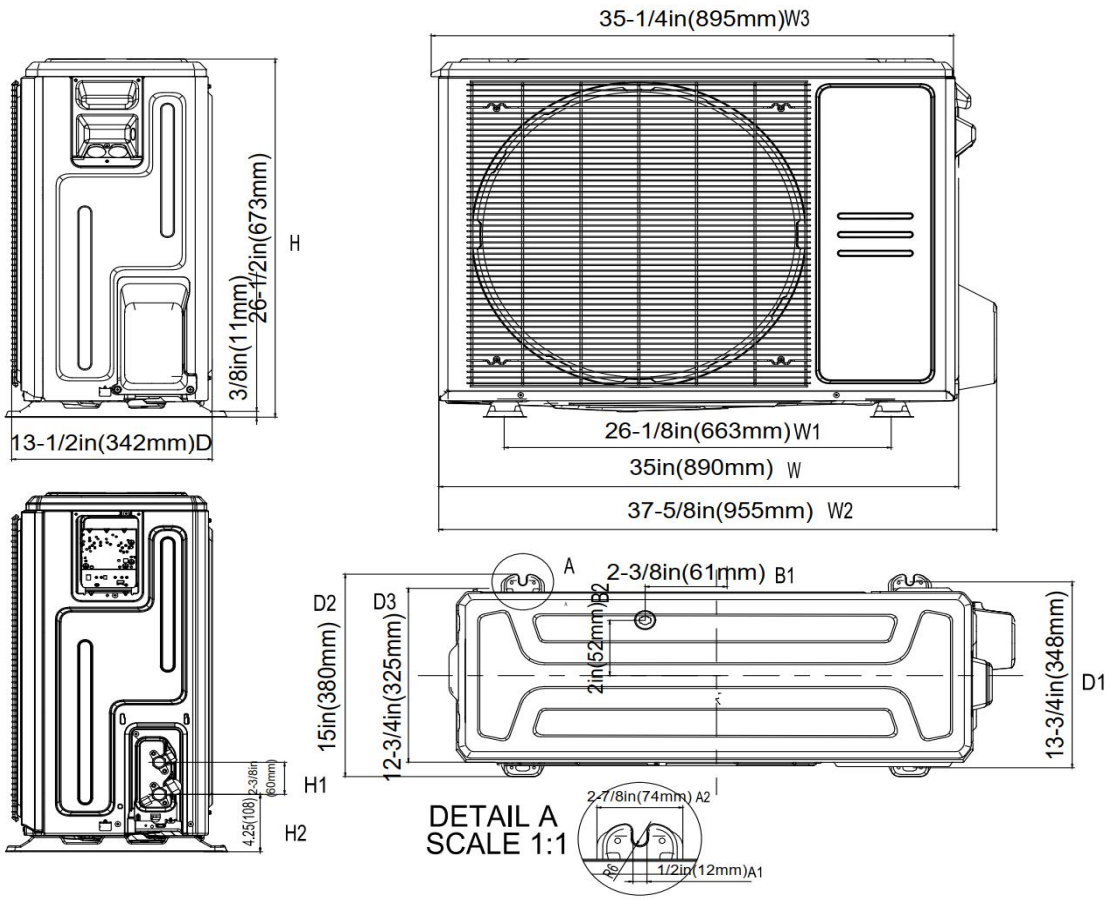
Throttle type(Indoor)	EXV
Throttle type(Outdoor)	EXV
Liquid Size	9.52mm(3/8in)
Gas Size	19mm(3/4in)
Max. Piping Length(ft/m)	164(50)
Max. Height Difference(ft/m)	82(25)
Max. Pre-charged Length(ft/m)	24.6(7.5)
Refrigerant Pre-charged Amount(oz/kg)	74.08(2.1)
Additional Charge of Refrigerant((oz/ft)/(g/m))	0.7(65)
Connection Method	Flared

Indoor Unit Dimension

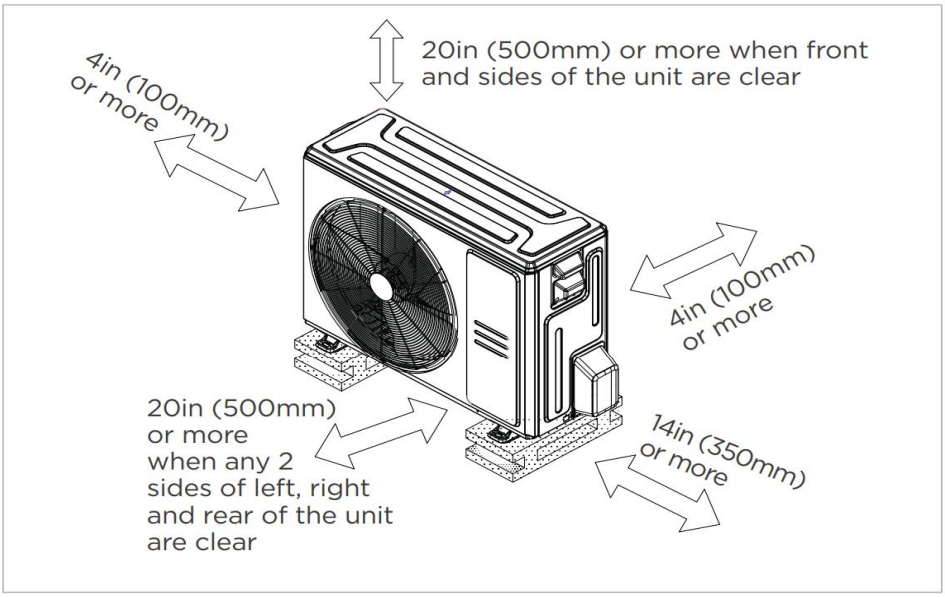


Dimensions	Model(Btu/h)	18K/24K		30K/36K		48K/54K	
		inch	mm	inch	mm	inch	mm
A	Model Height	49-3/4	1263	54	1371	56	1421
B	Model Width	14-1/2	368	17-1/2	445	21-1/2	546
C	Supply Air Opening Width	12-7/8	328	16	405	19-7/8	506
D	Return Air Opening Width	13	331	16	407	20	509
E	Model Depth	21-1/2	546	21-1/2	546	21-1/2	546
F	Supply Air Opening Depth	10-5/8	271	10-5/8	271	10-5/8	271
G	Return Air Opening Depth	18-1/4	465	18-1/4	465	18-1/4	465
H	Supply Air Opening Clearance	7/8	22	7/8	22	7/8	22
I	Supply Air Opening Clearance	1	24	1	24	1	24
J	Return Air Opening Front Clearance	2-1/2	65	2-1/2	65	2-1/2	65
K	Return Air Opening Back Clearance	3/4	18	3/4	18	3/4	18
L	Top cover knock hole	/	/	9	229	10-7/8	275
M	Top cover knock hole	4-1/2	113	4-7/8	124	5-1/8	131
N	Top cover knock hole	2	51	2	51	1-5/8	41
O	Refrigerant piping flareconnection(gas)	3/4	19	3/4	19	3/4	19
P	Refrigerant piping flareconnection(liquid)	3/8	9	3/8	9	3/8	9

Outdoor Unit Dimension

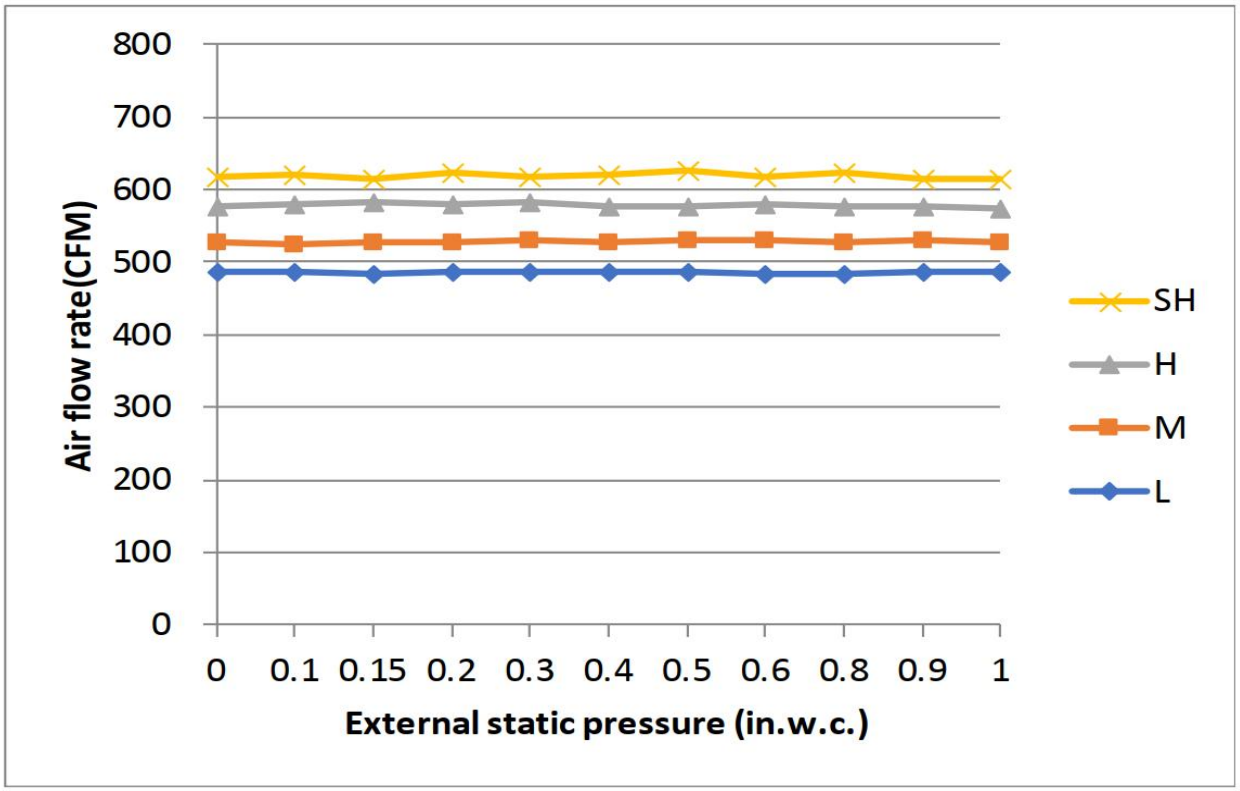


Installation Instruction For Outdoor Unit



☑ Meets all spatial requirements shown in Installation Clearance Requirements above.

Fan Performance For Indoor Unit



Features

- Multi-position installation: horizontal(left or right), vertical(up or down)
- 115/230V voltage compatible for IDU
- Aluminum Coil
- Constantly Air Flow system up to 1.0 In.W.G
- Optional Auxiliary heat kit up to 25kW
- Easy Maintenance
- Multiple control options available:
  - Two way communication wired controller:AWC-4
  - Two way communication wired controller with built-in WiFi:AWC-8P-LC-WIFI
  - Wireless remote controller
  - Third-Party 24V Thermostat
- Adaptive Control System
- High efficiency up to 19 SEER2, 12.5 EER2, 10.8 HSPF2
- 100% heat output at -13F*
- Chassis heater and crankcase heater equipped as standard