SUBMITTAL DATA SHEET

ComfortStar®

Model Number: CPR3-18CD(O) /CWM3-18-SG3

Air Handler Heat Pump System

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

INDOOR SPECIFICATION

ESP(inWG)		0~0.8
Indoor Air Flow (Turbo/H/M/L/Si) (CFM)		618.0 / 576.8 / 529.7 / 488.5 / /
Indoor Noise Level (Turbo/H/M/L/Si) (dBA)		48.0/47/45/39/N\A
Dimension (W×D×H)	inch	20.28 x 15.71 x 36.54
	mm	515×399×928
Package (W×D×H)	inch	22.83 x 19.49 x 42.91
	mm	580×495×1090
Net/Gross Weight	lbs	111.33/91.49
	kg	50.5/41.5

OUTDOOR SPECIFICATION

Compressor Type		ROTARY
Compressor Model		KSN140D58UFZ
Refrigerant		R454B
Refrigerant Oil Charge(mL)		440
Refrigerant Oil		VG74
Outdoor Air Flow (Max) (CFM)		1450.9
Outdoor Noise Level (dBA)		55.5
Dimension (W×D×H)	inch	31.69 x 12.99 x 21.81
	mm	805×330×554
Package (W×D×H)	inch	36.02 x 14.57 x 24.21
	mm	915×370×615
Net/Gross Weight	lbs	77.16/83.77
	kg	35/38

EFFICIENCY

Cooling		Heating	
SEER2	18.5	HSPF2-4	9.4
EER2	11.5	COP	3.55

PERFORMANCE of Cooling

Cooling (Btu/hr)	
Rated Capacity	18000
Min/Max Capacity	5900~20600
Moisture Removal(L/h)	1.87
Standard Operating Range(°F/°C)	-25~50(-25~50)
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
2. @ 47°F Min/Max Capacity	3900~19600
3. @ 17°F Rated	12600
4. @ 5°F Rated: Capacity / COP	11400/2.1
5. @ 5°F Max: Capacity	11400
Standard Operating Range(°F/°C)	-25~24(-25~24)
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)	4
Indoor MOP	15
Outdoor Power Supply	208/230V,60Hz,1Ph
Outdoor MCA	16
Outdoor MOP	20
Communication Wiring	AWG 20-2
Compressor RLA	10
Outdoor Fan Motor RLA	0.8
Outdoor Fan Motor W	/
Indoor Fan Motor RLA	3
Indoor Fan Motor W	250
System Power Input @ Cooling (W)	1565(360 ~ 1820)
System Power Input @ Heating (W)	1485(275 ~1610)
MCA: Min. circuit amps (A)	MOCP: Max. over current protection (A)
RLA: Rated load amps (A)	W: Fan motor rated output (W)

PIPING

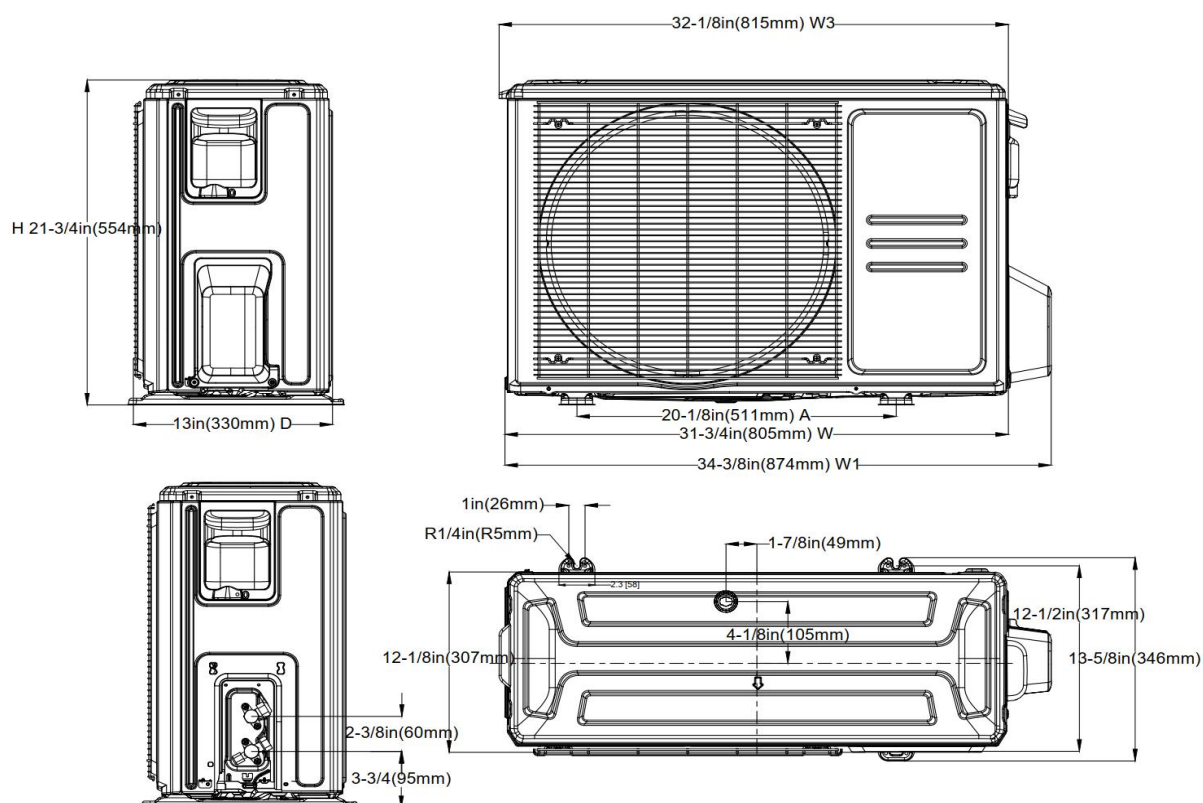| Throttle type(Indoor)	EXV
Throttle type(Outdoor)	EXV
Liquid Size	9.52mm(3/8in)
Gas Size	19mm(3/4in)
Max. Piping Length(ft/m)	98.40(30)
Max. Height Difference(ft/m)	65.60(20)
Max. Pre-charged Length(ft/m)	24.6(7.5)
Refrigerant Pre-charged Amount(oz/kg)	51.15(1.45)
Additional Charge of Refrigerant((oz/ft)/(g/m))	0.7(65)
Connection Method	Flared*

*The gas valve of the outdoor unit is 5/8", 5/8" to 3/4" flare to flare connector is required for the installation.
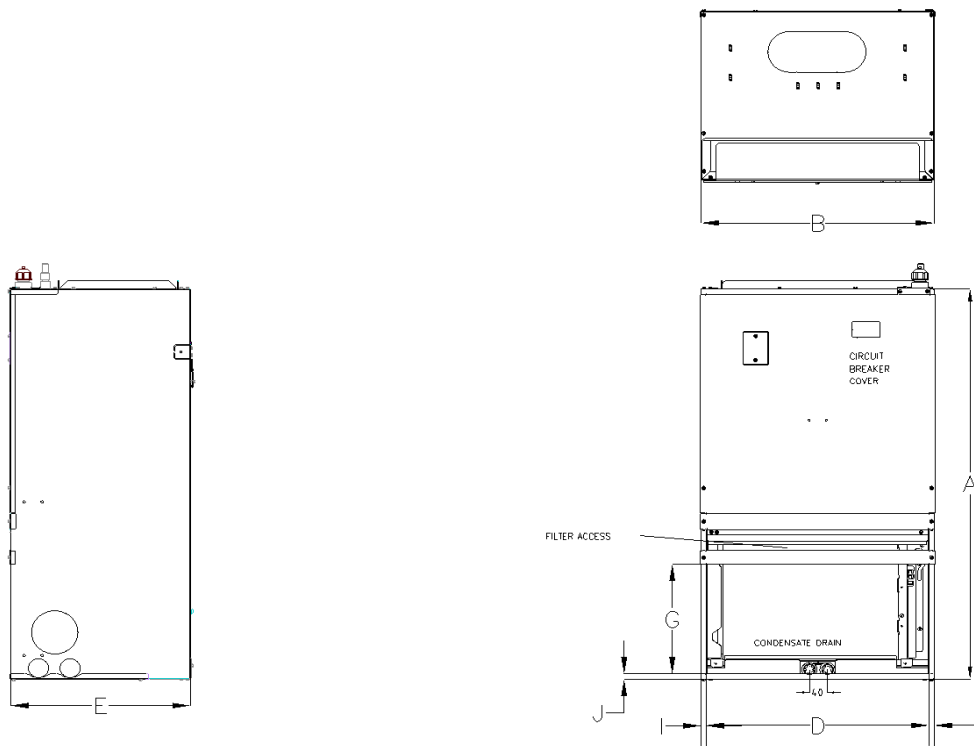
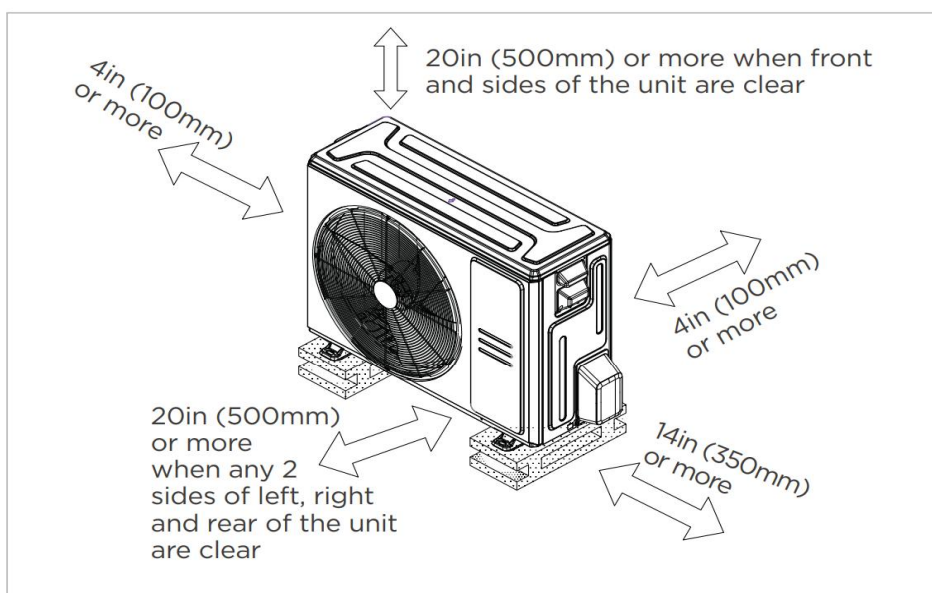| Model(Btu/h) Dimensions		18K/24K		30K/36K	
		inch	mm	inch	mm
A	Model Height	36.5	928	49	1017
B	Model Width	20.3	515	21	559
C	Supply Air Opening Width	17.4	442	18.8	478.6
D	Return Air Opening Width	19.4	493.8	21.2	537.8
E	Model Depth	15.7	399	21	483
F	Supply Air Opening Depth	10.4	265.2	9.3	235.4
G	Return Air Opening Depth	10.3	261	13.1	332.5
H	Supply Air Opening Clearance	1.1	29.1	1.6	41
I	Return Air Opening Side Clearance	0.42	10.6	0.42	10.6
J	Return Air Opening Front Clearance	0.47	12	0.63	16

Outdoor Unit Dimension

32-1/8in(815mm) W3

H 21-3/4in(554mm)

13in(330mm) D

20-1/8in(511mm) A
31-3/4in(805mm) W
34-3/8in(874mm) W1

1in(26mm)
R1/4in(R5mm)
2.3 [58]
1-7/8in(49mm)
4-1/8in(105mm)
12-1/8in(307mm)
12-1/2in(317mm)
13-5/8in(346mm)
2-3/8in(60mm)
3-3/4(95mm)

Installation Instruction For Outdoor Unit

4in (100mm) or more

20in (500mm) or more when front and sides of the unit are clear

4in (100mm) or more

20in (500mm) or more when any 2 sides of left, right and rear of the unit are clear

14in (350mm) or more

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

Fan Performance For Indoor Unit

18K
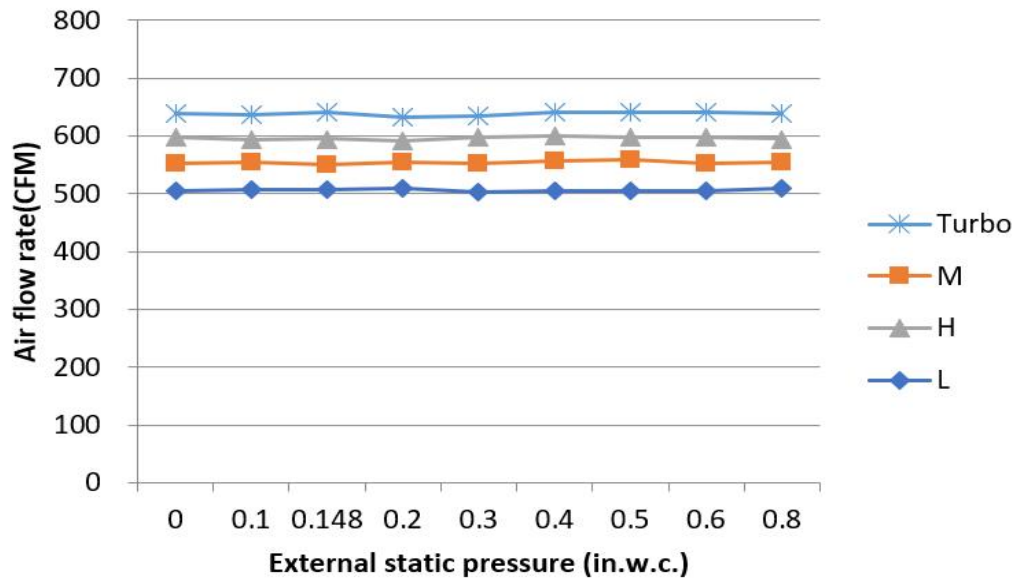
Features

● Multi-position of return air: front(factory standard) or bottom
● Aluminum Coil
● Constantly Air Flow system up to 0.80 In.W.G
● Optional Auxiliary heat kit up to 10kW
● 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
● High efficiency up to 18.5 SEER2, 11.5 EER2, 9.4 HSPF2
● Chassis heater and crankcase heater equipped as standard