

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)	1236.1 / 1147.8 / 1059.5 / 971.2 / N/A
Indoor Noise Level (Turbo/H/M/L/Si) (dBA)	48/46.5/45.0/33/N/A
Dimension (W×D×H)	inch 17.52 x 21.50 x 53.98 mm 445.0×546.0×1371
Package (W×D×H)	inch 57.09 x 20.47 x 31.10 mm 1450×520×790
Net/Gross Weight	lbs 149.25/182.10 kg 67.7/82.6

OUTDOOR SPECIFICATION

Compressor Type	TWIN-ROTARY
Compressor Model	EKPQ420D1UMUA
Refrigerant	R454B
Refrigerant Oil Charge(mL)	1460
Refrigerant Oil	VG75
Outdoor Air Flow (Max) (CFM)	3001.9
Outdoor Noise Level (dBA)	63
Dimension (W×D×H)	inch 38.58 x 16.34 x 38.39 mm 980.0×415.0×975.0
Package (W×D×H)	inch 45.08 x 19.68 x 42.52 mm 1145×500×1080
Net/Gross Weight	lbs 204.15/235.23 kg 92.6/106.7

EFFICIENCY

Cooling		Heating	
SEER2	18.0	HSPF2-4	10.0
EER2	12.0	COP	3.50

PERFORMANCE of Cooling

Cooling (Btu/hr)	
Rated Capacity	36000
Min/Max Capacity	12100~43000
Moisture Removal(L/h)	3.41
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	37000
2. @ 47°F Min/Max Capacity	11400~47000
3. @ 17°F Rated	31000
4. @ 5°F Rated: Capacity / COP	37400/1.9
5. @ 5°F Max: Capacity	37400
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 Operating at Max. Frequency	Indoor: 70°F DB/60°F WB Outdoor: 5°F DB/5°F WB

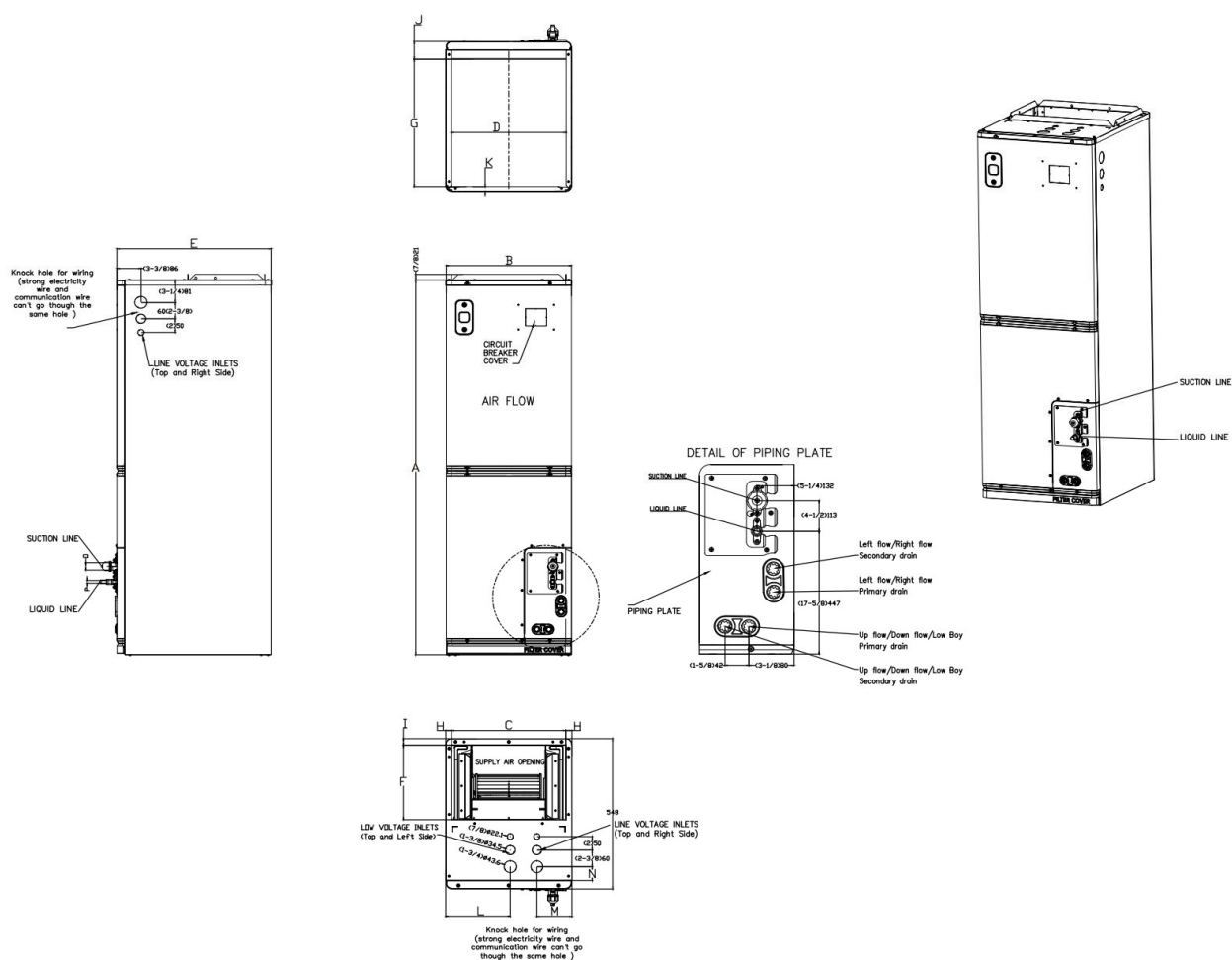
ELECTRICAL

Indoor Power Supply	115/208/230V, 60Hz, 1Ph
Indoor MCA 115V/(208/230V)	8.0/6.0
Indoor MOP	15
Outdoor Power Supply	208/230V, 60Hz, 1Ph
Outdoor MCA	29
Outdoor MOP	30
Communication Wiring	AWG 20-2
Compressor RLA	20.5
Outdoor Fan Motor RLA	2.4
Outdoor Fan Motor W	250
Indoor Fan Motor RLA	4.5
Indoor Fan Motor W	N/A
System Power Input @ Cooling (W)	3000(910 ~ 4370)
System Power Input @ Heating (W)	3098(755 ~ 4210)
MCA: Min. circuit amps (A)	MOC: Max. over current protection (A)
RLA: Rated load amps (A)	W: Fan motor rated output (W)

PIPING

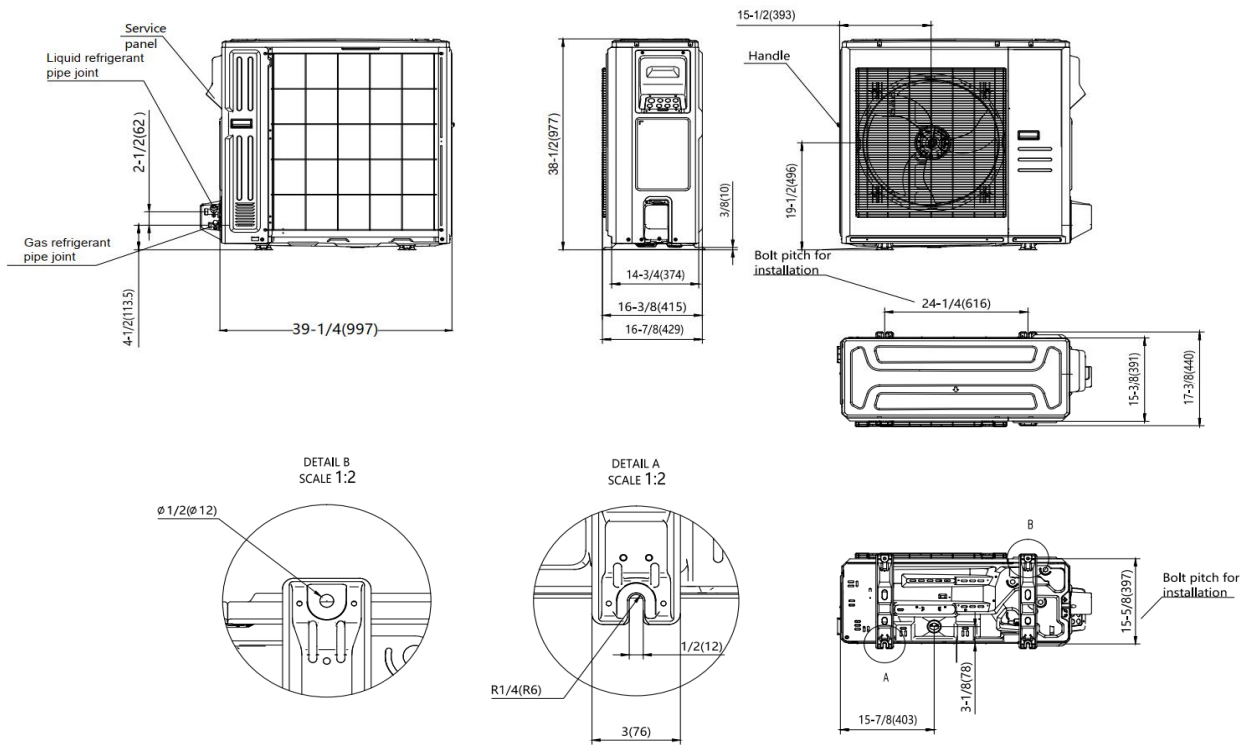
Throttle type(Indoor)	EXV
Throttle type(Outdoor)	EXV
Liquid Size	9.52mm(3/8in)
Gas Size	19mm(3/4in)
Max. Piping Length(ft/m)	246(75)
Max. Height Difference(ft/m)	98.4(30)
Max. Pre-charged Length(ft/m)	24.6(7.5)
Refrigerant Pre-charged Amount(oz/kg)	126.99(3.6)
Additional Charge of Refrigerant((oz/ft)/(g/m))	0.7(65)
Connection Method	Flared

Indoor Unit Dimension

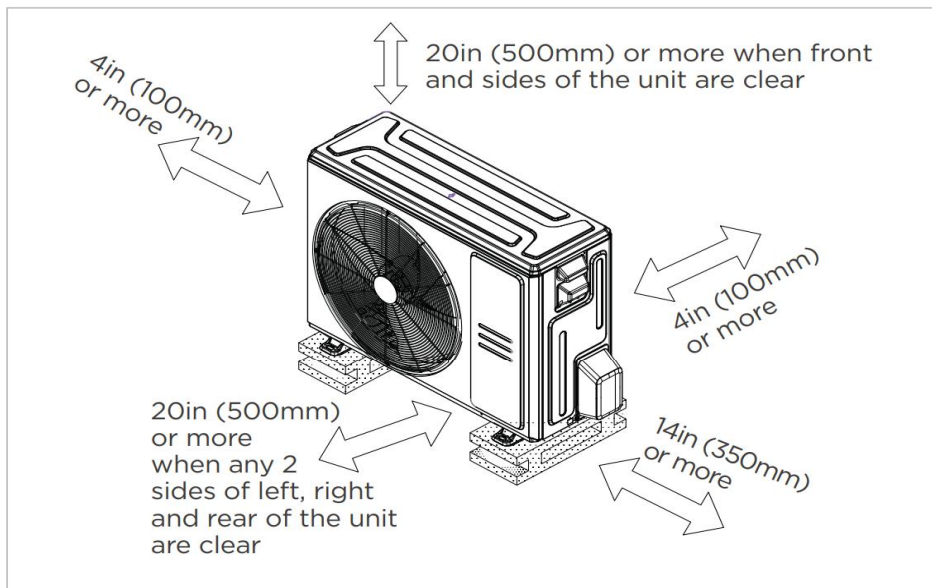


Model(Btu/h)		18K/24K		30K/36K		48K/54K	
Dimensions		inch	mm	inch	mm	inch	mm
A	Model Height	49-3/4	1263	54	1371	56	1421
B	Model Width	14-1/2	368	17-1/2	445	21-1/2	546
C	Supply Air Opening Width	12-7/8	328	16	405	19-7/8	506
D	Return Air Opening Width	13	331	16	407	20	509
E	Model Depth	21-1/2	546	21-1/2	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

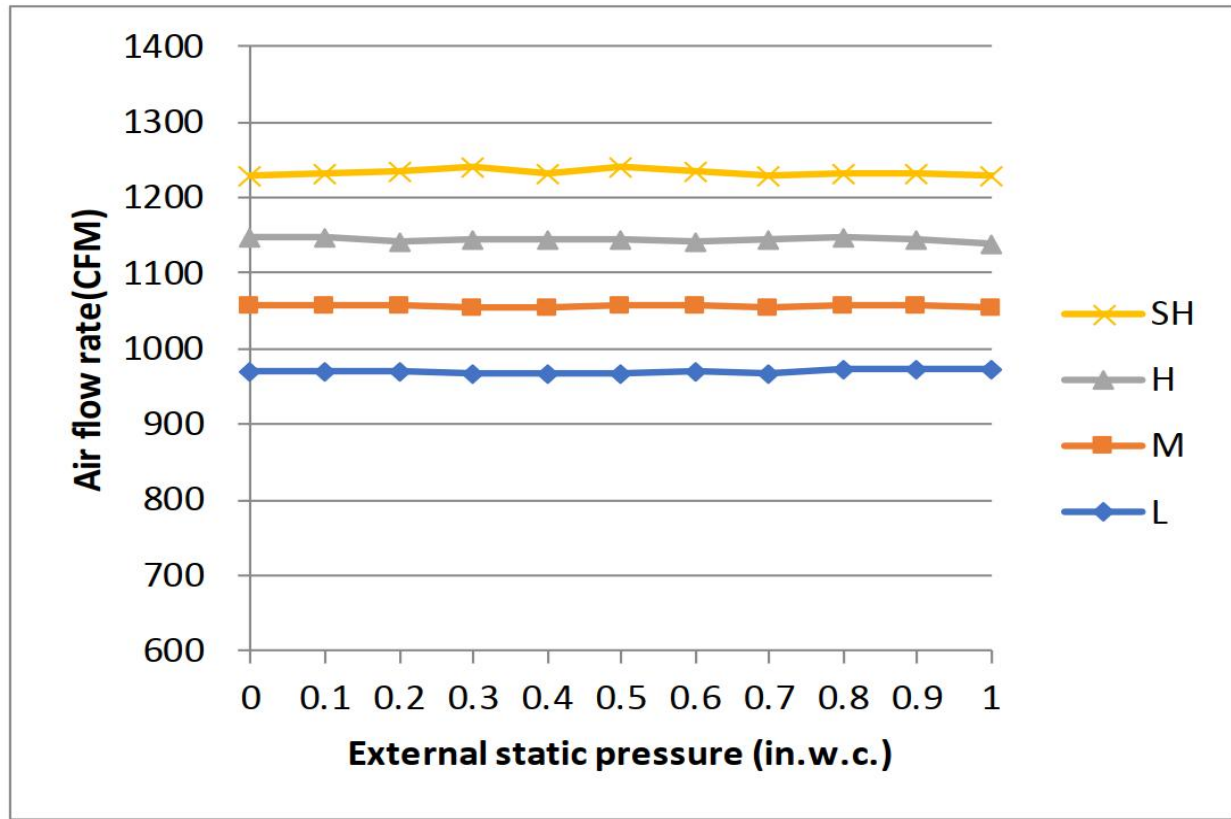


Installation Instruction For Outdoor Unit



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