



Submittal Data Sheet

Indoor Unit Model#: ACiQ-48-AH32
Outdoor Unit Model#: ACiQ-48-HP32

4-Ton Air Handler Heat Pump System

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



EFFICIENCY RATINGS

Cooling		Heating	
SEER2	19.0	HSPF2	10.0
EER2	12.0	COP (W/W)	3.3

COOLING PERFORMANCE

Cooling (Btu/hr)	
Rated Capacity	48000
Cooling Capacity Range (Min/Max)	34000 - 50000
Ambient Temperature Range (Cooling Operation)	
Indoor Unit °F (°C)	64.4°F ~ 89.6°F (18°C ~ 32°C)
Outdoor Unit °F (°C)	5°F ~ 129.2°F (-15°C ~ 54°C)
Rated Cooling Conditions*:	Indoor: 80.1°F DB/66.9°F WB
	Outdoor: 95°F DB/75.0°F WB
*Tested refrigerant piping length: 24.6 ft (7.5 m)	

HEATING PERFORMANCE

Heating (Btu/hr)	
Rated Capacity	48000
Heating Capacity Range (Min/Max)	34000 - 52000
Ambient Temperature Range (Heating Operation)	
Indoor Unit °F (°C)	50°F ~ 80.6°F (10°C ~ 27°C)
Outdoor Unit °F (°C)	-22°F ~ 75.2°F (-30°C ~ 24°C)
Rated Heating Conditions*:	Indoor: 70.0°F DB/60.1°F WB
	Outdoor: 47.0°F DB/43.0°F WB
*Tested refrigerant piping length: 24.6 ft (7.5 m)	

AIR FILTER SPECIFICATIONS (INDOOR UNIT)

Air Filter Material		Metal
Air Filter Size (LxW/no. of Filters)	inch	23 x 20.3/1
	mm	585 x 516/1
Air Filter Size (Thickness)	inch	0.6
	mm	15

INDOOR UNIT SPECIFICATIONS

Evaporator Material		Inner Groove Copper Tube-Aluminum Fin
ESP (inWG)		0.5
Indoor Air Flow Volume (CFM)		1200
Indoor Noise Level (dBA)		62
Throttle Type		Electronic Expansion Valve (EEV)
System Operation Control		Thermostat
Dimension (WxDxH)	inch	24.80 x 21.26 x 51.97
	mm	630 x 540 x 1320
Package (WxDxH)	inch	27.28 x 25.98 x 54.80
	mm	693 x 660 x 1392
Net/Gross Weight	lbs	199.5/218.3
	kg	90.5/99.0
Drainage Connection Size (O.D. x Wall Thickness)	inch	1 x 0.05
	mm	25.4 x 1.2

OUTDOOR UNIT SPECIFICATIONS

Condenser Material		Inner Groove Copper Tube-Aluminum Fin
Compressor Type		Inverter Rotary
Compressor Model		QXAT-F400zN450
Refrigerant Oil Charge (L)		1.5
Refrigerant Oil		FW68DA (FW68L)
Throttle Type		Electronic Expansion Valve (EEV)
Outdoor Air Flow (Max) (CFM)		4000
Outdoor Noise Level (dBA)		72
Dimension (WxDxH)	inch	35.43 x 13.39 x 49.61
	mm	900 x 340 x 1260
Package (WxDxH)	inch	40.67 x 17.44 x 55.32
	mm	1033 x 443 x 1405
Net/Gross Weight	lbs	241.4/263.5
	kg	109.5/119.5

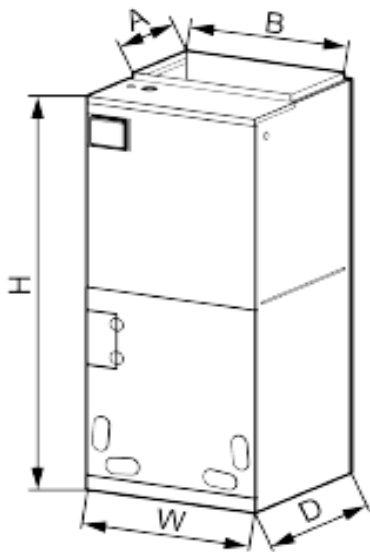
ELECTRICAL SPECIFICATIONS

Power Supply		208/230V, 60 Hz, 1 Ph
Min/Max Voltage		187/253
Indoor Unit MCA		7.1
Indoor Unit MOP		15
Indoor Unit Fuse Current (A)		3.15
Outdoor MCA		39.9
Outdoor MOP		45
Outdoor Unit Fuse Capacity (A)		45
Recommended Power Cable (Core) (N)		3
Compressor RLA		30.1
Outdoor Fan Motor FLA		2x1.1
Outdoor Fan Motor Output (HP)		2x1/6
Outdoor Fan Motor Speed (RPM)		800
Indoor Fan Motor FLA		5.5
Indoor Fan Motor Output (HP)		1
Cooling Power Input (kW)		Indoor Unit: 0.30
		Outdoor Unit: 4.17
Heating Power Input (kW)		Indoor Unit: 0.26
		Outdoor Unit: 4.26
MCA: Min. circuit amps (A)		MOP: Max. over current protection (A)
RLA: Rated load amps (A)		HP: Fan motor rated horsepower (HP)
FLA: Full load amps (A)		RPM: Fan motor speed (revolutions/min)

REFRIGERANT & PIPING SPECIFICATIONS

Refrigerant Type		R32
Liquid Side Size (in/mm)		3/8 (9.52)
Gas Side Size (in/mm)		3/4 (19)
Max. Piping Length (ft/m)		98.4/30
Max. Height Difference (ft/m)		49.2/15
Max. Allowable Pressure (MPa)		5.83
Refrigerant Charge Amount (oz/kg)		162.3/4.6
Additional Charge of Refrigerant ((oz/ft)/(g/m))		0.215/20
Connection Method		Flare Connection

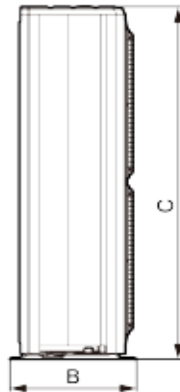
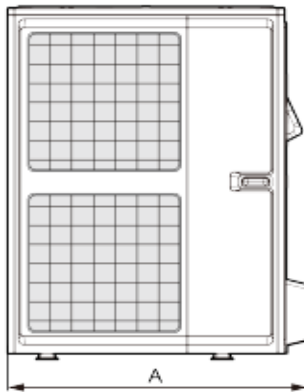
Indoor Unit Dimensions



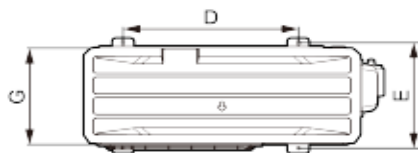
Unit: inch(mm)

Model	Dimension				
	W	D	H	A	B
ACIQ-24-AH32	18-1/8 (460)	21-1/4 (540)	43-1/2 (1105)	11-5/8 (295)	16-3/4 (426)
ACIQ-36-AH32	21-1/4 (540)	21-1/4 (540)	48-3/16 (1224)	11-5/8 (295)	20 (508)
ACIQ-48-AH32	24-13/16 (630)	21-1/4 (540)	52 (1320)	11-5/8 (295)	20 (508)
ACIQ-60-AH32					

Outdoor Unit Dimensions

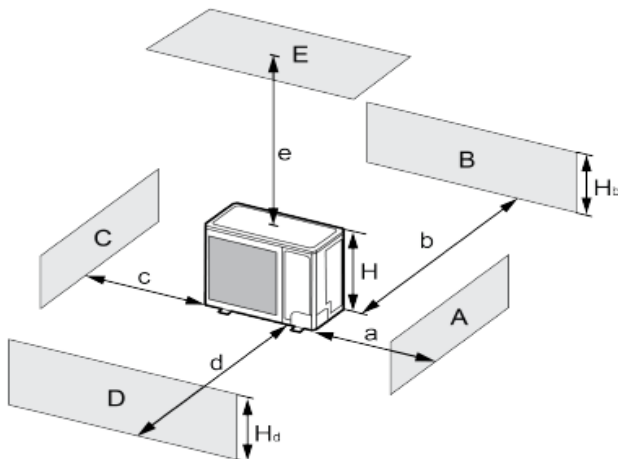


Unit: inch(mm)



Dimensions	A	B	C	D	E	G
Model						
ACIQ-48-HP32	35-7/16 (900)	16-1/4 (412)	49-5/8 (1260)	22-7/16 (570)	14-7/8 (378)	13-3/8 (340)
ACIQ-60-HP32						

Outdoor Unit Clearance Requirements



A-E	H _b	H _d	H	(mm)				
				a	b	c	d	e
B	—	—	—	—	≥100	—	—	—
A,B,C,	—	—	—	≥300	≥100	≥100	—	—
B,E	—	—	—	—	≥100	—	—	≥1000
A,B,C,E	—	—	—	≥300	≥150	≥150	—	≥1000
D	—	—	—	—	—	—	≥1000	—
D,E	—	—	—	—	—	—	≥1000	≥1000
B,D	H _b < H _d	H _d > H	—	≥100	—	—	≥1000	—
	H _b > H _d	H _d < H	—	≥100	—	—	≥1000	—
B,D,E	H _b < H _d	H _d ≤ 1/2H	—	≥250	—	—	≥2000	≥1000
		1/2H < H _d ≤ H	—	≥250	—	—	≥2000	≥1000
	H _b > H _d	H _d > H	Prohibited					
		H _d ≤ 1/2H	—	≥100	—	—	≥2000	≥1000
		1/2H < H _d ≤ H	—	≥200	—	—	≥2000	≥1000
		H _d > H	Prohibited					

Cooling Performance Table

Outdoor Temperature	Indoor temperature °F								
	60			70			80		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
°F	(Btu/h)	(Btu/h)	(W)	(Btu/h)	(Btu/h)	(W)	(Btu/h)	(Btu/h)	(W)
50	37600	19420	3785	42000	23950	3220	46000	27650	3450
65	38200	20090	3528	43000	23560	3450	47000	27980	3620
75	38600	20020	3226	44000	25480	3670	48000	29760	3760
85	39500	19860	2746	45000	24600	3850	49000	28950	3950
95	38600	21020	2546	44000	25480	4020	48000	28460	4170
105	38600	20090	2895	44000	24120	4210	48000	28660	4390
115	38000	19500	3106	43000	24560	4390	47500	28660	4620

Heating Performance Table

Outdoor Temperature	Indoor Temperature °F					
	60		70		80	
	TC	PI	TC	PI	TC	PI
°F	(Btu/h)	(W)	(Btu/h)	(W)	(Btu/h)	(W)
-22	26000	5860	25500	6060	24600	6230
-15	35400	6150	35000	6380	34200	6590
-5	41000	6680	40500	6990	39000	7220
5	45300	7160	45000	7320	43600	7560
17	34000	3640	33000	3870	32000	4120
32	48400	4450	48000	4570	46500	4680
47	49200	4080	48000	4260	47200	4420
60	53200	4460	51600	4760	49520	4950

Indoor Unit Fan Performance Chart