



Submittal Data Sheet

Indoor Unit Model#: ACiQ-60-AH32

Outdoor Unit Model#: ACiQ-60-HP32

5-Ton Air Handler Heat Pump System

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

System Product Code: 810175552392
Indoor Unit Product Code: 810175552316
Outdoor Unit Product Code: 810175552354



EFFICIENCY RATINGS

Cooling		Heating	
SEER2	18.0	HSPF2	10.5
EER	11.7	COP (W/W)	3.3

COOLING PERFORMANCE

Cooling (Btu/hr)	
Rated Capacity	54000
Cooling Capacity Range (Min/Max)	35000 - 55000
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	54000
Heating Capacity Range (Min/Max)	35000 - 60000
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)		1500
Indoor Noise Level (dBA)		63
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

Compressor Type		Inverter Rotary
Compressor Model		QXAT-F400zN450
Refrigerant Type		R32
Refrigerant Oil Charge (L)		1.5
Refrigerant Oil		FW68DA (FW68L)
Condenser Material		Inner Groove Copper Tube-Aluminum Fin
Outdoor Air Flow (Max) (CFM)		4000
Outdoor Noise Level (dBA)		73
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

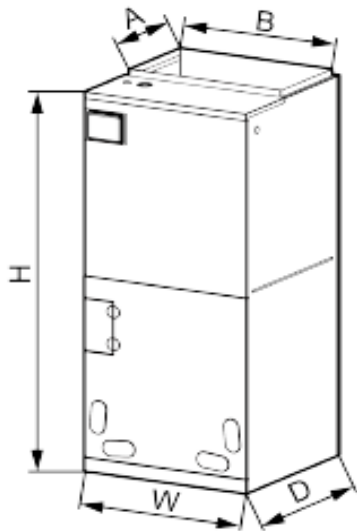
ELECTRICAL SPECIFICATIONS

Power Supply		208/230V, 60 Hz, 1 Ph
Min/Max Voltage		187/253
Indoor Unit MCA		7.7
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		2 x 1.1
Outdoor Fan Motor Output (HP)		2 x 1/6
Outdoor Fan Motor Speed (RPM)		800
Indoor Fan Motor FLA		6.0
Indoor Fan Motor Output (HP)		1
Cooling Power Input (kW)		Indoor Unit: 0.42
		Outdoor Unit: 4.91
Heating Power Input (kW)		Indoor Unit: 0.37
		Outdoor Unit: 4.80
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

Throttle type (Indoor)	Electronic Expansion Valve (EEV)
Throttle type (Outdoor)	Electronic Expansion Valve (EEV)
Liquid Size (in/mm)	3/8 (9.52)
Gas 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

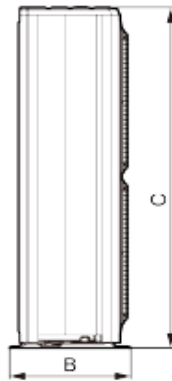
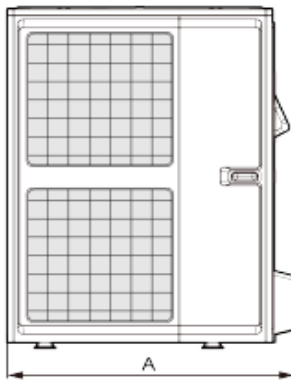
Indoor Unit Dimensions



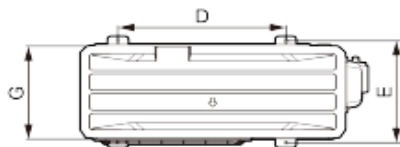
Unit: inch(mm)

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

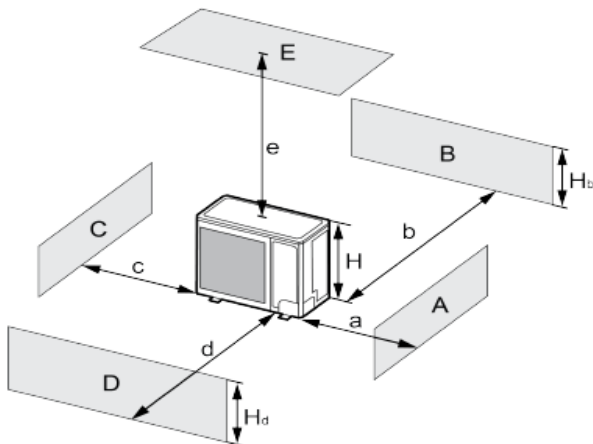


Unit: inch(mm)



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 _b ≤ 1/2H	—	≥250	—	—	≥2000	≥1000
		1/2H < H _b ≤ H	—	≥250	—	—	≥2000	≥1000
		H _b > H	Prohibited					
	H _b > H _d	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	44300	22720	3560	48500	27650	3790	52500	31800	3950
65	45000	24160	3780	49000	27980	4070	53000	32120	4120
75	46600	24850	3940	50000	29760	4240	54000	33820	4380
85	46600	23280	4130	51000	28950	4450	55000	34180	4650
95	46000	22000	4350	50000	28460	4670	54000	34050	4910
105	46000	21230	4520	50000	28660	4850	54000	34650	5120
115	45500	22120	4780	49400	28660	5060	53300	34050	5380

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	28500	5980	27000	6240	25500	6420
-15	38400	5530	36400	6490	35400	6030
-5	43600	5820	42500	6020	40400	6480
5	45600	7060	45000	7320	43200	7650
17	40200	4160	38000	4460	36400	4750
32	54800	4850	53800	5110	51900	5320
47	56600	4520	54000	4800	53200	4960
60	59400	4980	57400	5240	55200	5460

Indoor Unit Fan Performance Chart