

US Air Conditioning Distributors AX Series Multi-position Air Handler Engineering & Specification Guide

with 5-Speed High Efficiency ECM Motor



Contents:

Product Features

Physical Data

Blower Performance

Electrical Data

Dimensions

Cabinet Features

- Two independent front access panels allow for easy access to clean the coil, even after installation.
- Only four (4) screws to remove blower panel for easier access.
- Slide-out blower and coil assemblies.
- Cabinet constructed of heavy gauge galvanized steel and lined with high quality 5/8" foil-faced insulation, with cabinet flanges & retaining rods for better attachment.
- Fully-painted cabinets for additional corrosion resistance.
- Brackets hold coil assembly in place when installed in horizontal position.
- Filter rack built into every air handler (filter not included).
- ETL-certified cabinet with 2% or less air leakage and wrap-around flanges that increase stability in horizontal configurations.

Evaporator Coil Features

- Coils are air pressure tested at 500 PSI, pressure tested with Helium, charged with dry air and then sealed.
- Lanced fin design.
- Rifled copper tubing.
- TXV Bulbs come standard attached to header assembly.
- *HYDROTECT™* drain pans hold less water, which reduces the possibility of mold and mildew growing in the pan.
- All drain pans have Microban protection, which inhibits the growth of mold and mildew that cause odors and staining.
- Drain pans are molded of corrosion proof engineered polymer.
- Dual 3/4" FPT condensate drains on left and right sides.

Electrical Features

- Dynamically balanced blowers for quiet, vibration-free operation.
- Fan time delay factory installed (1 second on, 45 seconds off).
- Line voltage connections can be made on top, right or left side of cabinet.
- Electric heat available factory installed or as kit for field installation. Plug in connections simplify kit installation (see Accessories & Replacement Parts list for available kits).

Physical Data

	Air Handler Size					
	AX24	AX30	AX36	AX48	AX60	
Available Voltage*	208/240 V, 60 Hz, 1 phase					
Maximum Elec. Heat Available (KW)	10	15	15	20	20	
Transformer Size and Type	40 VA, Class 2					
Blower Data: 5-Speed High Efficiency ECM Motor	Motor H. P.	1/3	1/2	1/2	3/4	1
	F. L. A. @ 240 V	3.0	3.0	3.0	3.2	4.6
Wheel (diameter x width)	9 x 6	10 x 8	10 x 8	10 x 10	10 x 10	
Nominal CFM	800	1000	1200	1600	2000	
Air Filter Size	16 x 20	20 x 25	20 x 25	20 x 25	20 x 25	
Refrigerant Conn. (IDS) Suction (in)	7/8	7/8	7/8	7/8	7/8	
Refrigerant Conn. (IDS) Liquid (in)	3/8	3/8	3/8	3/8	3/8	
R-410A Metering Device (in)	.053 piston	.059 piston	.067 piston	TXV	TXV	
Approx. Weight lbs (base unit w/out heat)	105	155	155	155	155	

Blower Performance — 5-Speed High Efficiency ECM Motor (CFM vs. ESP inches H2O)

- All data is given while air handler is operating with a dry DX coil and air filter installed.
- Taps marked ***bold with asterisk** are the factory speed settings for both heating and cooling.
- Heating speeds should not be reduced below factory setting.
- Different speeds can be set for cooling mode; see installation instructions for changing cooling speeds.

Lab Test Data

Size	Tap	0.10	0.20	0.30	0.35	0.40	0.45	0.50	0.60
AX24	1	871	830	778	722	671	635	625	586
	2	906	859	809	779	715	689	654	635
	*3	1085	1070	1048	1036	1024	1001	989	975
	4	1125	1103	1087	1059	1047	1024	1012	983
	5	1176	1146	1114	1098	1081	1059	1047	1029
AX30, AX36	1	882	887	826	804	766	760	755	695
	2	1082	1037	1025	1002	990	959	921	881
	*3	1270	1250	1238	1228	1214	1189	1179	1162
	4	1290	1275	1265	1246	1236	1227	1212	1172
	5	1335	1315	1301	1287	1278	1259	1240	1225
AX48	1	1585	1494	1320	1252	1210	1151	1120	1088
	2	1510	1463	1414	1389	1363	1324	1256	1228
	*3	1675	1633	1579	1556	1545	1510	1487	1451
	4	1737	1697	1655	1633	1612	1590	1568	1545
	5	1781	1731	1679	1658	1637	1615	1593	1571
AX60	1	1394	1342	1288	1251	1172	1109	1077	1025
	2	1722	1666	1623	1594	1564	1534	1518	1471
	*3	2083	2048	2013	1990	1972	1947	1929	1885
	4	2179	2135	2101	2079	2056	2039	2021	1937
	5	2209	2166	2122	2101	2057	2058	2047	1956

Electrical Data — 5-Speed High Efficiency ECM Motor

240 V, 60 Hz, 1 phase

No Electric Heat

Air Handler Size	Elec. Heating Cap.		Blower Amps	Minimum Circuit Ampacity	Circuit Breaker Amps per Stage	
	kW	BTUH			1	2
	(1) 240 V	(1) 240 V	240 V	240 V		
AX24	0	0	3.0	3.8	15	-
AX30, AX36	0	0	3.0	3.8	15	-
AX48	0	0	3.2	4.0	15	-
AX60	0	0	4.6	5.8	15	-

With Electric Heat

Air Handler Size	Elec. Heating Cap.		Blower Amps	Minimum Circuit Ampacity	Circuit Breaker Amps per Stage	
	kW	BTUH			1	2
	(1) 240 V	(1) 240 V	240 V	240 V		
AX24	5	17,065	3.0	29.8	30	-
	7.5	25,598	3.0	42.8	45	-
	10	34,130	3.0	55.8	60	-
AX30, AX36	5	17,065	3.0	29.8	45	-
	7.5	25,598	3.0	42.8	45	-
	10	34,130	3.0	55.8	60	-
	*15	51,195	3.0	81.9	60	30
AX48	5	17,065	3.2	30.0	30	-
	7.5	25,598	3.2	43.1	45	-
	10	34,130	3.2	56.1	60	-
	*15	51,195	3.2	82.1	60	30
	*20	68,260	3.2	108.2	60	60
AX60	7.5	25,598	4.6	44.8	45	-
	10	34,130	4.6	57.8	60	-
	*15	51,195	4.6	83.9	60	30
	*20	68,260	4.6	109.9	60	60

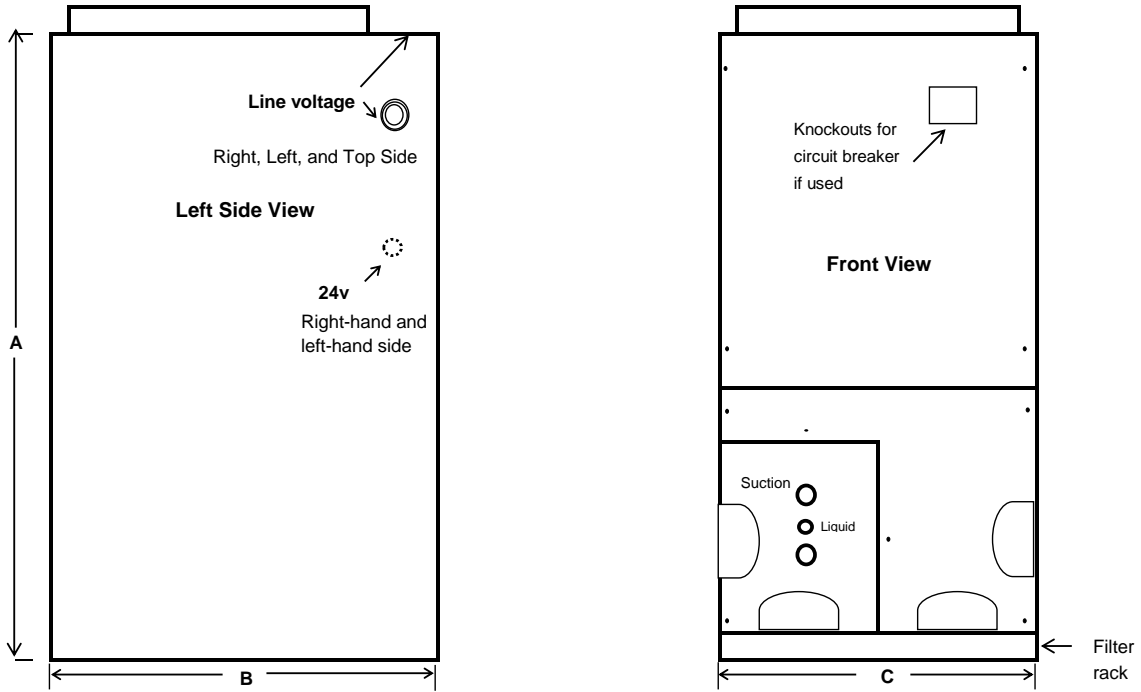
(1) For 208 volt use 0.751 correction factor for kW & BTUH.

* kW packages ***bold with asterisk** require and include circuit breakers; circuit breakers are optional for others.

Dimensions

Air Handler Size	A (in)	B (in)	C (in)	Supply Duct Opening		Return Duct Opening	
				Depth (in)	Width (in)	Depth (in)	Width (in)
AX24	41	22	18 1/2	17	16.5	20.35	16.20
AX30, AX36 AX48, AX60	48	26	21 7/8	21	20	24.60	20.08

Size AX24



Sizes AX30, AX36, AX48, AX60

