

Specification Guide

US Air Conditioning Distributors

AX Series Air Handlers – Upflow, Horizontal Left/Right, or Downflow

Cabinet Features

- Two independent front access panels allow for easy access to clean the coil, even after installation.
- Downflow kit available for field installation.
- Only four (4) screws to remove blower panel for easier access.
- Slide-out blower and coil assemblies.
- Cabinet constructed of heavy gauge painted steel for additional corrosion resistance.
- High quality 5/8" foil-faced insulation lines cabinet, with cabinet flanges & retaining rods for better attachment.
- Brackets hold coil assembly in place when installed horizontally.
- Filter rack built into every air handler (filter not included).
- Independent lab tested 2% or less air leakage for better efficiency.



Evaporator Coil Features

- Rifled copper tubing; lanced fin design.
- TXV Bulbs come standard attached to header assembly.
- Coils are air pressure tested at 500 PSI, leak tested with helium, sealed with rubber plugs, then charged with dry air.
- **HYDROTEC™** 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 built into the motor (1 second on, 45 seconds off).
- Line voltage connections can be made on top, right or left side of cabinet.
- Electric heat kits available for field installation.

Note: AX Series air handlers feature a standard 5-year limited warranty; a 10-year limited warranty is available with registration.

Physical Data

Model >>>	AX182	AX240	AX241	AX242	AX300	AX360	AX361	AX362	AX420	AX422	AX480,1	AX482	AX600,1,2
	ATA	BT	BT	BTA	CT	CT	CT	CTA	CT	CTA	CT	CTA	CT
R-410A Metering Device	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV
Maximum Electric Heat Available (kW)	10	10	10	10	15	15	15	15	15	15	20	20	20
Blower Data: 5-Speed High Efficiency ECM Motor (120 V)	Motor H. P.	1/3	1/2	1/3	1/3	1/2	1/2	1/2	1/3	1/2	3/4	3/4	3/4
	F. L. A. @ 120 V	3.9	5.8	3.9	3.2	5.8	5.8	5.8	5.3	5.8	8.7	10.5	10.5
Blower Data: 5-Speed High Efficiency ECM Motor (240 V)	Wheel (dia. x width)	9x6	10x8	9x6	9x6	10x8	10x8	10x8	9x6	10x8	10x10	10x10	10x10
	Motor H. P.	1/3	1/2	1/3	1/2	1/2	1/2	1/2	1/2	1/2	3/4	1	1
F. L. A. @ 240 V	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.2	4.6	4.6
Wheel (dia. x width)	9x6	10 x 8	9 x 6	10 X 8	10 x 8	10 x 8	10 x 8	10 X 8	10 x 8	10 X 8	10 x 10	10 X 10	10 x 10
Nominal CFM	600	800	800	800	1000	1200	1200	1200	1400	1400	1600	2000	2000
Air Filter Size (in)	12x20	16 x 20	12 x 20	16 X 20	18 x 25	18 x 25	16 x 20	18 X 25	18 x 25	18 X 25	18 x 25	18 X 25	18 x 25
Sound Level Min / Max @ 0.3 Static (dBA) ^[1]	50	45 / 51	45 / 51	45 / 51	47 / 53	47 / 53	47 / 53	47 / 53	53 / 54	53 / 54	53 / 54	53 / 54	53 / 54
Refrigerant Conn. (IDS) Suction, Liquid (in)	3/4, 3/8	7/8, 3/8	3/4, 3/8	7/8, 3/8	7/8, 3/8	7/8, 3/8	7/8, 3/8	7/8, 3/8	7/8, 3/8	7/8, 3/8	7/8, 3/8	7/8, 3/8	7/8, 3/8
Approx. Weight (lbs, base unit w/out heat)	80	105	80	105	155	155	105	155	155	155	155	155	155
Available Voltage	120V or 208/240 V, 60 Hz, 1 phase												
Transformer Size and Type	40 VA, Class 2												

[1] Sound level min/max is based on selectable speed tap settings (see blower performance on page 2).



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Blower Performance: 240V 5-Speed High Efficiency ECM Motor

- All data is given while air handler is operating with a dry coil and air filter installed.
- Speeds 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.
- For downflow operation (with field installed kit):
 - If factory-set speed tap 3 is desirable for your application, use speed tap 5 for downflow.
 - If speed tap 2 is desirable for your application, use speed tap 3 in downflow.

Lab Test Data

		Airflow (CFM) vs. External Static Pressure (inches W.C.)							
Model	Tap	0.10	0.20	0.30	0.35	0.40	0.45	0.50	0.60
AX240BT	1	732	627	590	581	571	545	536	525
	2	671	634	594	578	573	546	493	480
AX241BT	*3	892	859	832	828	818	797	790	775
AX242BTA	4	911	866	839	832	825	818	804	760
	5	924	886	846	832	825	818	797	780
AX300CT	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
AX360CT	1	882	887	826	804	766	760	755	695
	2	1082	1037	1025	1002	990	959	921	881
AX361CT	*3	1270	1250	1238	1228	1214	1189	1179	1162
AX362CTA	4	1290	1275	1265	1246	1236	1227	1212	1172
	5	1335	1315	1301	1287	1278	1259	1240	1225
AX420CT	1	1008	907	861	832	803	772	717	671
	2	1292	1243	1202	1192	1171	1149	1127	1070
	*3	1447	1430	1404	1377	1359	1340	1322	1283
	4	1534	1502	1476	1459	1433	1416	1398	1362
	5	1559	1519	1502	1477	1460	1434	1417	1381
AX480CT	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
AX600CT	1	1394	1342	1288	1251	1172	1109	1077	1025
	2	1722	1666	1623	1594	1564	1534	1518	1471
AX601CT	*3	2083	2048	2013	1990	1972	1947	1929	1885
AX482CTA	4	2179	2135	2101	2079	2056	2039	2021	1937
	5	2209	2166	2122	2101	2057	2058	2047	1956

Blower Performance: 120V 5-Speed High Efficiency ECM Motor

- All data is given while air handler is operating with a dry coil.
- Speeds 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.
- For downflow operation (with field installed kit):
 - If factory-set speed tap 3 is desirable for your application, use speed tap 5 for downflow.

Lab Test Data		Airflow (CFM) vs. External Static Pressure (inches W.C.)					
Model	Tap	0.10	0.20	0.30	0.40	0.50	0.60
AX182ATA	1	529	492	429	367	328	289
	2	603	563	526	469	417	380
	*3	757	725	701	668	639	586
	4	806	777	746	720	692	661
	5	849	826	798	768	745	720
AX240BT AX241BT AX242BTA	1	687	633	573	482	424	373
	2	830	794	757	708	636	570
	*3	971	948	913	882	840	802
	4	1012	988	960	922	889	849
	5	1057	1040	1011	979	943	909
AX300CT	1	765	720	667	602	521	474
	2	971	950	913	879	836	797
	*3	1163	1141	1116	1090	1054	1025
	4	1203	1189	1168	1139	1112	1078
	5	1222	1202	1188	1161	1128	1102
AX360CT AX361CT AX362CTA	1	835	798	761	710	629	569
	2	1158	1137	1114	1088	1054	1024
	*3	1354	1327	1310	1290	1270	1239
	4	1418	1389	1369	1351	1327	1304
	5	1429	1412	1395	1379	1358	1330
AX420CT AX422CTA	1	961	914	857	794	744	611
	2	1417	1377	1339	1299	1267	1223
	*3	1613	1574	1543	1508	1482	1447
	4	1669	1634	1600	1564	1530	1504
	5	1694	1665	1637	1603	1570	1537
AX480CT AX481CT	1	1169	1106	1008	930	859	799
	2	1658	1615	1575	1532	1477	1409
	*3	1830	1792	1754	1737	1682	1622
	4	1863	1844	1809	1778	1740	1684
	5	1895	1855	1836	1805	1772	1714
AX600CT AX601CT AX482CTA	1	1317	1298	1239	1162	1049	972
	2	1809	1752	1706	1707	1671	1619
	*3	1905	1851	1822	1784	1795	1756
	4	2013	1956	1908	1867	1890	1867
	5	2230	2171	2119	2072	2038	2048

Electrical Data: 5-Speed High Efficiency ECM Motor
240 V, 60 Hz, 1 phase

No Electric Heat

Model	Electric Heating Capacity		Blower Amps			Minimum Circuit Ampacity			Circuit Breaker Amps per Stage	
	kW ^[1]	BTUH	120 V	208 V	240 V	120 V	208 V	240 V	1	2
	240 V ^[2]	240 V ^[2]								
AX242BTA	0	0	5.8	3.2	3.0	7.3	4.0	3.8	15	
AX240BT AX241BT	0	0	-	3.2	3.0	-	4.0	3.8	15	-
AX362CTA	0	0	5.8	3.2	3.0	7.3	4.0	3.8	15	
AX300CT AX360CT AX361CT AX420CT AX422CTA	0	0	-	3.2	3.0	-	4.0	3.8	15	-
AX480CT AX481CT	0	0	-	3.4	3.2	-	4.2	4.0	15	-
AX602CTA AX482CTA	0	0	11.1	4.9	4.6	13.9	6.1	5.8	15	
AX600CT AX601CT AX602CT	0	0	-	4.9	4.6	-	6.1	5.8	15	-

With Electric Heat

Model	Electric Heating Capacity		Blower Amps			Minimum Circuit Ampacity			Circuit Breaker Amps per Stage ^[3]	
	kW ^[1]	BTUH	120 V	208 V	240 V	120 V	208 V	240 V	1	2
	240 V ^[2]	240 V ^[2]								
AX240BT AX241BT AX242BTA	5 7.5 10	17,065 25,598 34,130	- - -	3.2 3.2 3.2	3.0 3.0 3.0	- - -	26.5 37.8 49.1	29.8 42.8 55.8	30 45 60	- - -
AX300CT AX360CT AX361CT AX362CTA AX420CT AX422CTA	5 7.5 10 15	17,065 25,598 34,130 51,195	- - - -	3.2 3.2 3.2 3.2	3.0 3.0 3.0 3.0	- - - -	26.5 37.8 49.1 71.7	29.8 42.8 55.8 81.9	30 45 60 60	- - - 30
AX480CT AX481CT	5 7.5 10 15 20	17,065 25,598 34,130 51,195 68,260	- - - - -	3.4 3.4 3.4 3.4 3.4	3.2 3.2 3.2 3.2 3.2	- - - - -	26.8 38.1 49.4 71.9 94.5	30.0 43.1 56.1 82.1 108.2	30 45 60 60 60	- - - 30 60
AX482CTA AX600CT AX601CT AX602CT	7.5 10 15 20	25,598 34,130 51,195 68,260	- - - -	4.9 4.9 4.9 4.9	4.6 4.6 4.6 4.6	- - - -	39.9 51.2 73.8 96.3	44.8 57.8 83.9 109.9	45 60 60 60	- - 30 60

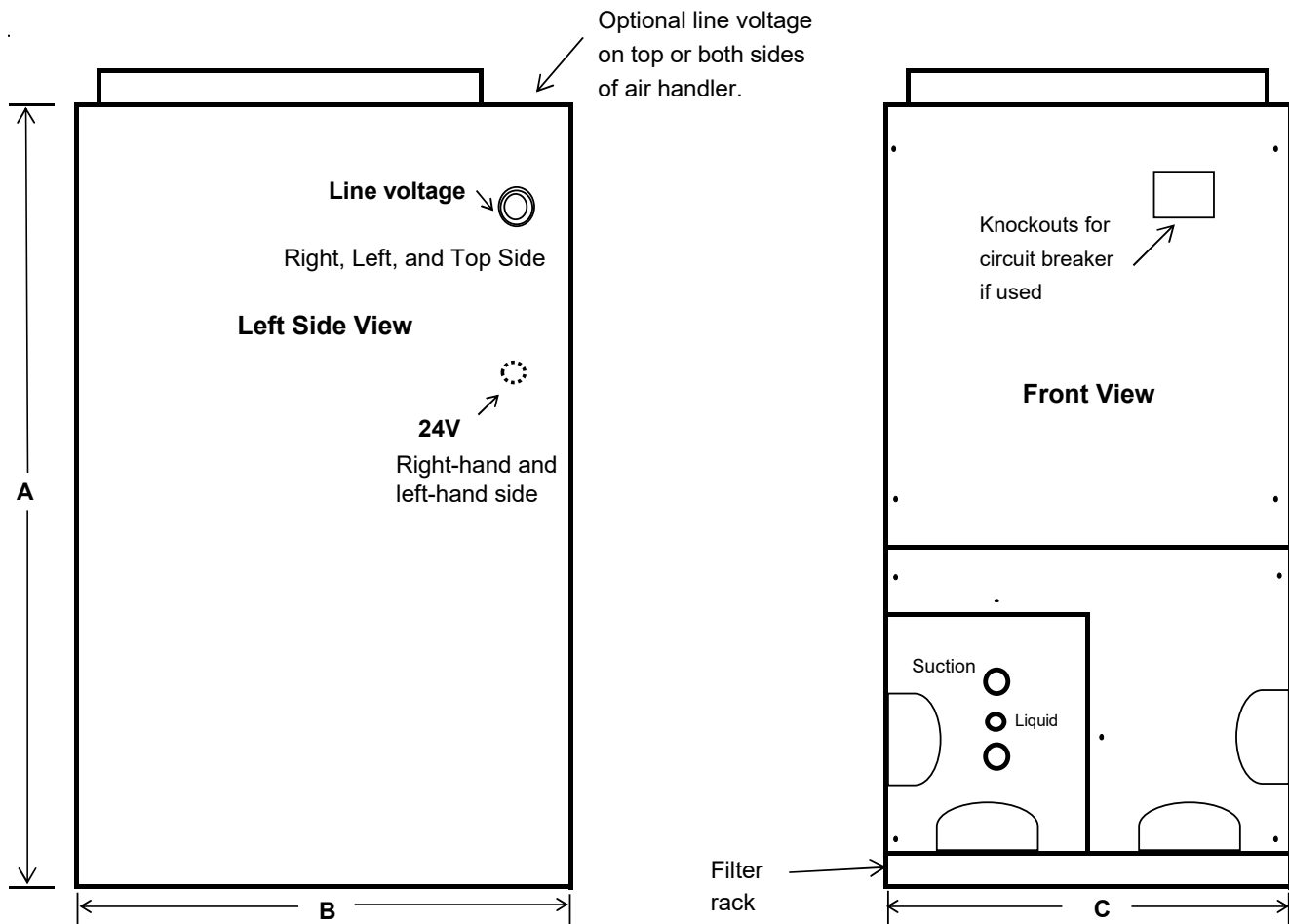
[1] kW packages in **bold italics** require and include circuit breakers; circuit breakers are optional for others.

[2] For 208 volt use 0.751 correction factor for kW & BTUH.

[3] Listed circuit breaker size is for 240V applications. For 208V verify breaker sizing based on min. circuit ampacity.

Dimensions

Air Handler Size	A (in)	B (in)	C (in)	Supply Duct Opening		Return Duct Opening	
				Depth (in)	Width (in)	Depth (in)	Width (in)
AX241BT	36	22	15	17	13	20.35	12.20
AX240BT AX242BTA AX361CT	41	22	18 1/2	17	16.5	20.35	16.20
AX300CT AX360CT AX362CTA AX420CT AX422CTA AX480CT AX481CT AX482CTA AX600CT AX601CT AX602CT	48	26	21 7/8	21	20	24.6	20.08



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