

FEV Vertical Poise Electric Furnace and NAVA Accessory Coil



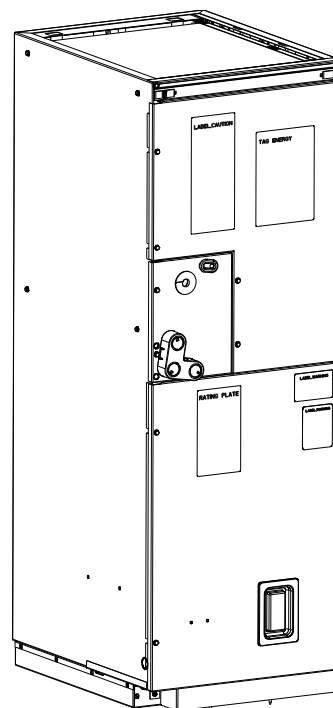
Product Specifications

FEATURES / BENEFITS

- 2 thru 5 tons
- Multiple electrical entry locations
- Factory installed heater packages from 10 kW - 20 kW available separately
- Approved for use in manufactured housing
- 208/230-1-60 supply voltage
- 1 inch thick insulation with R value of 4.2
- Standard filter factory supplied
- ECM 5-speed motor
- Vertical multipoise position
- Low voltage circuit protective fuse (3A) in-line on wire harness

LIMITED WARRANTY

- 1 year limited warranty
For manufactured housing applications only.
See warranty certificate for complete details and restrictions



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Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.



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Model Number	Size (Ton)	Nom. CFM	Operating Dimensions H x W x D (in.)	Shipping Dimensions H x W x D (in.)	Filter Size (in.)	Ship Wt (lb.)
FEVA002410B	2	700	49-5/8 x 17-5/8 x 22-1/16	53-1/4 x 19-1/4 x 24	16 x 20 x 1	92
FEVA003610B	3	1050	49-5/8 x 17-5/8 x 22-1/16	53-1/4 x 19-1/4 x 24	16 x 20 x 1	124
FEVA003612B	3	1050	49-5/8 x 17-5/8 x 22-1/16	53-1/4 x 19-1/4 x 24	16 x 20 x 1	124
FEVA003615B	3	1050	49-5/8 x 17-5/8 x 22-1/16	53-1/4 x 19-1/4 x 24	16 x 20 x 1	124
FEVA004815C	4	1400	53-7/16 x 21-1/8 x 22-1/16	57-1/4 x 22-3/4 x 24	20 x 20 x 1	144
FEVA006020D	5	1750	59-3/16 x 24-11/16 x 22-1/16	62-3/4 x 26-1/2 x 24	20 x 24 x 1	169

Table 1 – FAN COIL MODEL NUMBER IDENTIFICATION GUIDE

Digit Position	1	2	3	4	5, 6	7,8	9,10	11	12
F = Fan Coil	F	E	V	A	00	24	10	B	A (Sales Code)
E = ECM	MOTOR TYPE								
V = Vertical Poise	INSTALLATION TYPE								
A				SERIES					
00 = No Refrigerant Coil				REFRIGERANT					
24 = 24,000 BTUH = 2 tons									
36 = 36,000 BTUH = 3 tons									
48 = 48,000 BTUH = 4 tons									
60 = 60,000 BTUH = 5 tons									
MAX COOLING CAPACITY									
10 = 10 kW									
12 = 12 kW									
15 = 15 kW									
20 = 20 kW									
ELECTRIC HEAT									
B = 17-5/8"									
C = 21-1/8"									
D = 24-11/16"									
CABINET WIDTH									

Table 2 – DIMENSIONAL DATA (refer to drawings)

Unit Size	Size (ton)	Dimensions, in. (mm)									Coil Type	Ship. Wt, lb (kg)
		A	B	C	D	E	F	G	Suct.	Liquid		
FEVA002410*	2	49-5/8 (1260.5)	17-5/8 (447.7)	15-3/4 (400.0)	15-5/8 (396.9)	15-3/4 (400.6)	23-1/2 (596.4)	23-3/16 (588.2)	3/4	3/8	A	92 (41.7)
FEVA003610*	3	49-5/8 (1260.5)	17-5/8 (447.7)	15-3/4 (400.0)	15-5/8 (396.9)	15-3/4 (400.6)	23-1/2 (596.4)	23-3/16 (588.2)	3/4	3/8	A	124 (56.2)
FEVA003612*	3	49-5/8 (1260.5)	17-5/8 (447.7)	15-3/4 (400.0)	15-5/8 (396.9)	15-3/4 (400.6)	23-1/2 (596.4)	23-3/16 (588.2)	3/4	3/8	A	124 (56.2)
FEVA003615*	3	49-5/8 (1260.5)	17-5/8 (447.7)	15-3/4 (400.0)	15-5/8 (396.9)	15-3/4 (400.6)	23-1/2 (596.4)	23-3/16 (588.2)	3/4	3/8	A	124 (56.2)
FEVA004815*	4	53-7/16 (1357.3)	21-1/8 (536.6)	19-1/4 (489.0)	19-1/8 (485.8)	19-3/4 (201.1)	27-5/16 (693.4)	27 (685.2)	7/8	3/8	A	144 (65.3)
FEVA006020*	5	59-3/16 (1503.4)	24-11/16 (627.1)	22-3/4 (577.8)	22-11/16 (576.3)	25-7/16 (645.9)	33 (838.4)	32-11/16 (830.2)	7/8	3/8	A	169 (76.7)

Table 3 – REQUIRED CLEARANCES - ALL MODELS

Back and Sides	0"
Front	In Closet - 6" to closet door In Alcove - 24" for access
Ducts	0"

Table 4 – PHYSICAL DATA - FEV

	Size					
	FEVA002410*	FEVA003610*	FEVA003612*	FEVA003615*	FEVA004815*	FEVA006020*
Blower Data						
CFM nominal	700	1050			1400	1750
Motor Type	ECM 5-speed					
HP	1/3	1/2			3/4	3/4
Filter Data (in.)						
	16 x 20 x 1				20 x 20 x 1	20 x 24 x 1

- NOTE:
- 1. SERIES DESIGNATION IS THE 12TH AND 13TH POSITION OF UNIT PRODUCT NUMBER.
 - 2. ALL DIMENSIONS ARE IN "INCHES" UNLESS NOTED.

UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	COIL CONFIGURATION		SHIPPING WT (LBS)
													"A"		
FEVA0024-B	1	X	O			49 5/8"	17 5/8"	15 3/4"	15 5/8"	15 3/4"	23 1/2"	23 3/16"	—	X	XXX
FEVA0036-B	1	X	O			49 5/8"	17 5/8"	15 3/4"	15 5/8"	15 3/4"	23 1/2"	23 3/16"	—	X	XXX
FEVA0048-C	1	X	O			53 7/16"	21 1/8"	19 1/4"	19 1/8"	19 3/4"	27 5/16"	27"	—	X	XXX
FEVA0060-D	1	X	O			59 3/16"	24 11/16"	22 3/4"	22 11/16"	25 7/16"	33"	32 11/16"	—	X	XXX
		208/230-1-60	208/230-3-60			X=YES O=NO									

X=YES
O=NO

NOTE: ALLOW 21" FROM FRONT FOR SERVICE

UNIT CONNECTION SIZES

SUCTION: 24 & 36 - 3/4" I.D. SWEAT
48 & 60 - 7/8" I.D. SWEAT
LIQUID: 3/8" I.D. SWEAT
CONDENSATE: 3/4" FPT

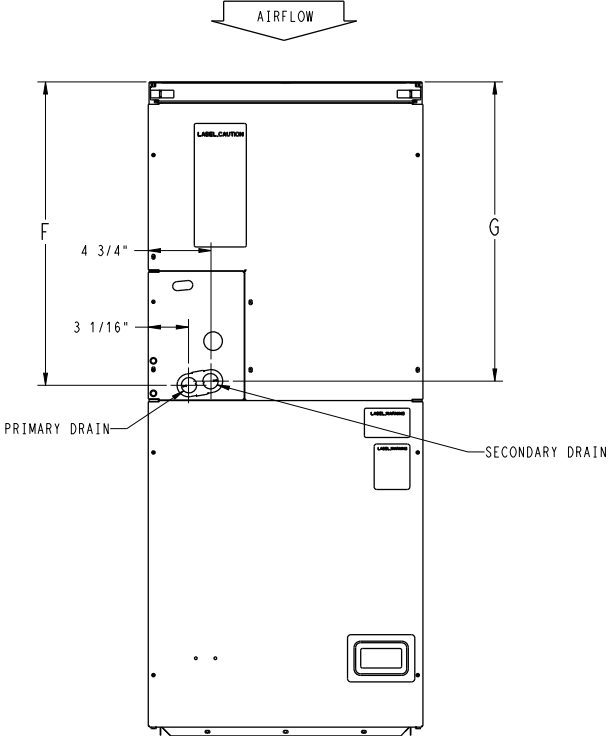
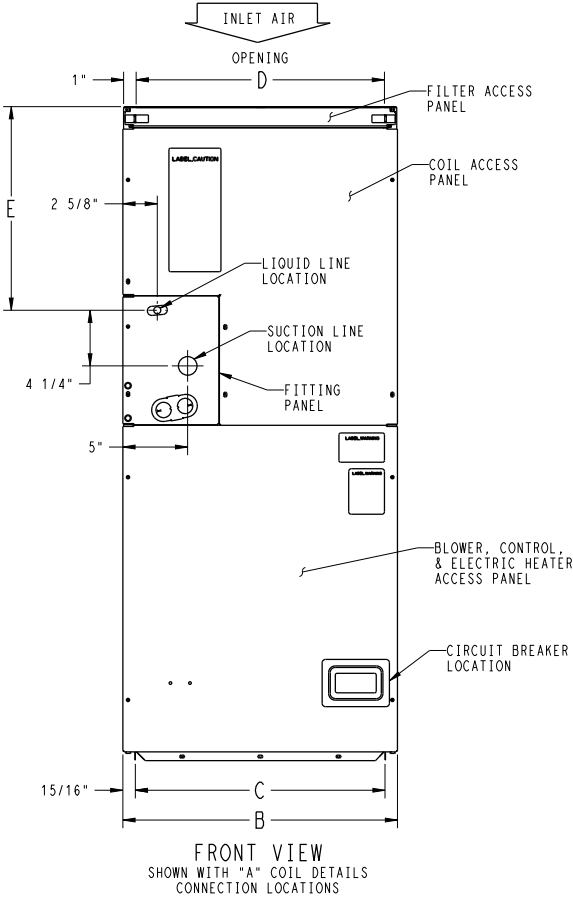
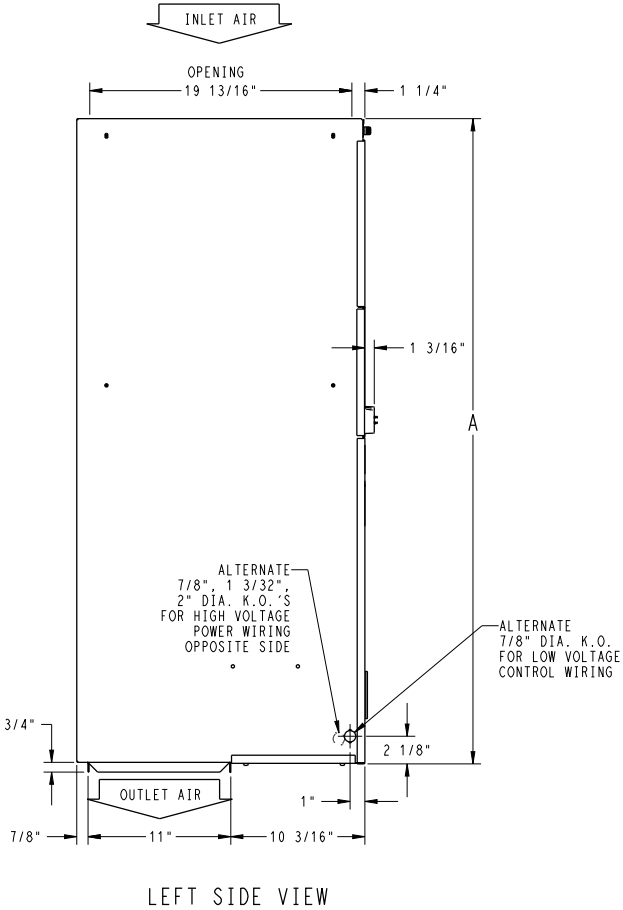


Fig. 1 – FEV (English)

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- NOTE:
- 1. SERIES DESIGNATION IS THE 12TH AND 13TH POSITION OF UNIT PRODUCT NUMBER.
 - 2. ALL DIMENSIONS ARE IN "MM" UNLESS NOTED.

UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	COIL CONFIGURATION	SHIPPING WT (LBS)
													"A"	
FEVA0024-B	1	X	O			1260.5	447.7	400.0	396.9	400.6	596.4	588.2	— X	XXX
FEVA0036-B	1	X	O			1260.5	447.7	400.0	396.9	400.6	596.4	588.2	— X	XXX
FEVA0048-C	1	X	O			1357.3	536.6	489.0	485.8	501.1	693.4	685.2	— X	XXX
FEVA0060-D	1	X	O			1503.4	627.1	577.8	576.3	645.9	838.4	830.2	— X	XXX
		208/230-1-60												
		208/230-3-60												

X=YES
O=NO

NOTE: ALLOW 533.4 FROM FRONT FOR SERVICE

UNIT CONNECTION SIZES

SUCTION: 24 & 36 - 19.05 I.D. SWEAT
48 & 60 - 22.23 I.D. SWEAT
LIQUID: 9.53 I.D. SWEAT
CONDENSATE: 19.0 FPT

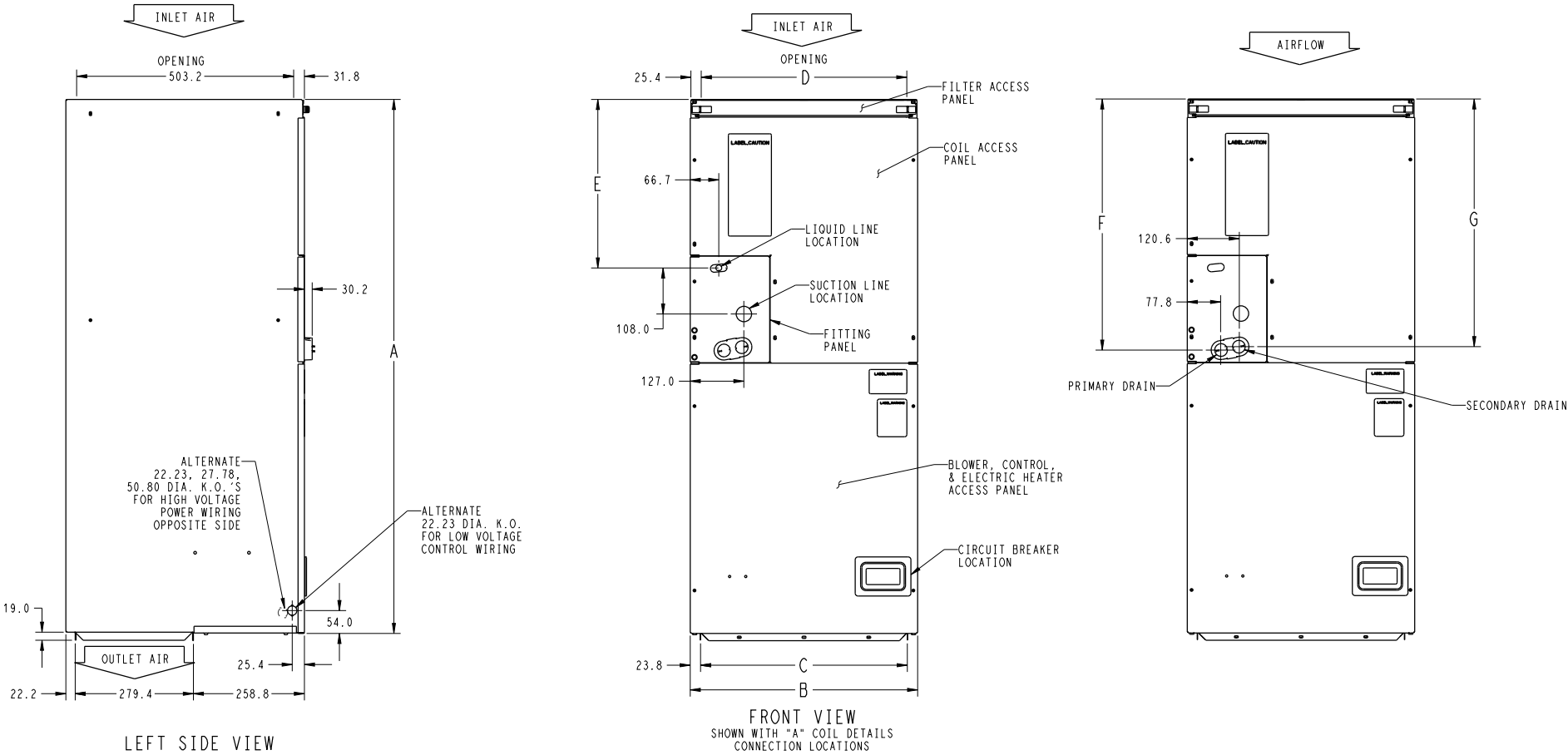


Fig. 2 – FEV (Metric)

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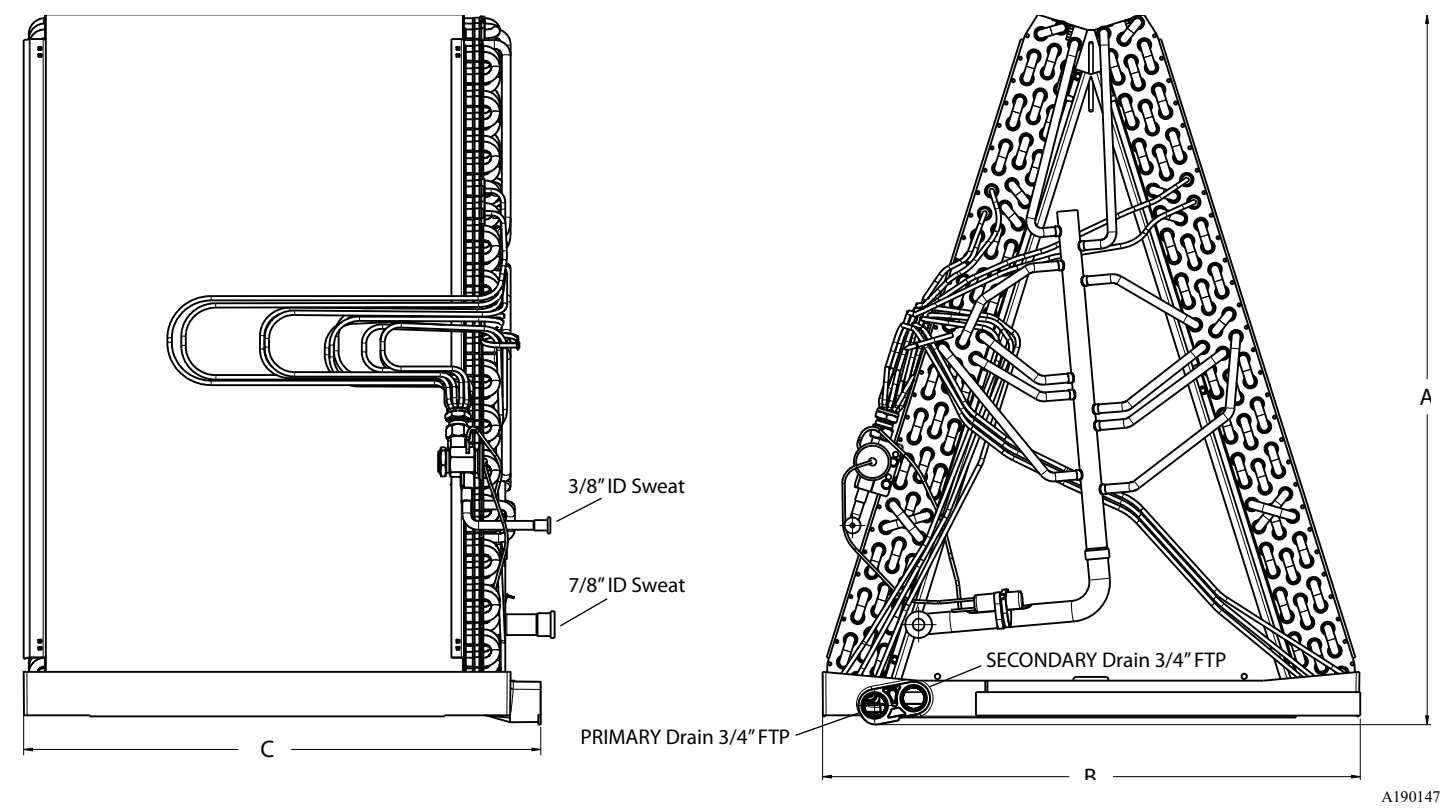


Fig. 3 – A-Coil

Table 5 – PHYSICAL DATA - NAVA ACCESSORY COIL

	NAVA43601CK	NAVA44801CK	NAVA46001CK
Dimensions (in.)			
A	22.05	24.57	30.20
B	16.51	19.40	22.86
C	22.34	22.07	22.00

Table 6 – COIL MATCHUP CHART

Cooling and Heat Pump Coil Kit Part Number	Indoor Unit	Outdoor Unit Tonnage	
		Air Conditioner	Heat Pump
NAVA43601CK	FEVA002410*	1.5 - 2	2
NAVA43601CK	FEVA003610* FEVA003612* FEVA003615*	2.5 - 3	2.5 - 3
NAVA44801CK	FEVA004815*	3 - 4	3.5 - 4
NAVA46001CK	FEVA006020*	4 - 5	4 - 5

NOTE: Reference the AHRI Directory for specific equipment combinations and performance.

Table 7 – MINIMUM CFM WHEN USING ELECTRIC HEAT

Unit Size	HEATER kW			
	10	12	15	20
FEVA002410*	625	—	—	—
FEVA003610*	625	—	—	—
FEVA003612*	—	850	—	—
FEVA003615*	—	—	850	—
FEVA004815*	—	—	850	—
FEVA006020*	—	—	—	1050

Note: Speed Tap 4 (white wire) is used for electric heat only. White wire must remain on tap 4.

Table 8 – Estimated Sound Power Level (dBA)*

SIZE	CONDITIONS		OCTAVE BAND CENTER FREQUENCY						
	CFM	Ext Static Pressure	63	125	250	500	1000	2000	4000
24	700	0.50	72.0	68.0	64.0	61.0	59.0	57.0	53.0
36	1050	0.50	73.8	69.8	65.8	62.8	60.8	58.8	54.8
48	1400	0.50	75.0	71.0	67.0	64.0	62.0	60.0	56.0
60	1750	0.50	76.0	72.0	68.0	65.0	63.0	61.0	57.0

*. Estimated sound power levels have been derived using the method described in the 1987 ASHRAE HVAC Systems & Applications Handbook, Chapter 52, p. 52.7.

Table 9 – Airflow Performance - without Cooling Coil (CFM)

Model & Size	Blower Speed	Total Static (inches of water column)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
FEVA 024	Tap 5	1099	1079	1058	1040	1007	970	924	844	757	702
	Tap 4	1016	995	975	949	903	853	768	684	639	588
	Tap 3	1016	995	975	949	903	853	768	684	639	588
	Tap 2	934	913	893	852	796	713	622	577	531	486
	Tap 1	801	783	739	670	557	507	454	408	363	315
FEVA 036 10KW	Tap 5	1559	1535	1514	1486	1459	1430	1404	1378	1346	1311
	Tap 4	1476	1451	1424	1390	1360	1333	1304	1273	1241	1210
	Tap 3	1476	1451	1424	1390	1360	1333	1304	1273	1241	1210
	Tap 2	1318	1284	1250	1220	1190	1157	1120	1085	1050	987
	Tap 1	1132	1097	1058	1018	979.2	940	896.5	819.7	761.1	701.6
FEVA 036 12/15KW	Tap 5	1549	1525	1495	1464	1436	1411	1385	1360	1331	1303
	Tap 4	1458	1428	1399	1372	1347	1321	1293	1262	1230	1201
	Tap 3	1458	1428	1399	1372	1347	1321	1293	1262	1230	1201
	Tap 2	1303	1267	1237	1208	1179	1148	1113	1080	1036	969.9
	Tap 1	1120	1082	1046	1009	971.4	933.5	879.3	804.9	748.4	696.1
FEVA 048	Tap 5	2088	2054	2013	1974	1931	1891	1849	1806	1764	1717
	Tap 4	1887	1842	1799	1757	1712	1667	1620	1569	1516	1465
	Tap 3	1887	1842	1799	1757	1712	1667	1620	1569	1516	1465
	Tap 2	1685	1635	1587	1539	1487	1433	1377	1317	1262	1200
	Tap 1	1518	1464	1409	1354	1295	1230	1173	1109	1032	968.9
FEVA 060	Tap 5	2212	2175	2137	2100	2059	2021	1983	1942	1901	1863
	Tap 4	2212	2175	2137	2100	2059	2021	1983	1942	1901	1863
	Tap 3	2212	2175	2137	2100	2059	2021	1983	1942	1901	1863
	Tap 2	1982	1938	1895	1853	1810	1767	1723	1681	1635	1592
	Tap 1	1656	1609	1560	1511	1459	1408	1356	1304	1249	1191

Notes:

1. Airflow based upon dry coil at 230V with factory-approved filter and electric heater; airflow at 208V is approximately the same as 230V because the ECM motor is a constant torque motor. The torque doesn't drop off at the speeds the motor operates.
2. To avoid potential for condensate blowing out of drain pan prior to making drain trap, return static pressure must be less than 0.40 in. wc.
3. Airflow above 400 cfm/ton on 4800 - 6000 size could result in condensate blowing off coil or splashing out of drain pan.

Table 10 – Airflow Performance - with Accessory Cooling Coil (CFM)

Model & Size	Blower Speed	Total Static (inches of water column)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
FEVA 024	Tap 5	1075	1042	1001	956	911	850	786	748	705	672
	Tap 4	991	954	904	859	801	728	686	648	609	588
	Tap 3	991	954	904	859	801	728	686	648	609	588
	Tap 2	909	864	811	748	680	634	588	545	507	466
	Tap 1	772	722	648	572	519	478	432	385	340	311
FEVA 036 10KW	Tap 5	1457	1431	1404	1376	1345	N/A	N/A	N/A	N/A	N/A
	Tap 4	1377	1349	1320	1291	1261	1226	1186	1142	1099	1048
	Tap 3	1377	1349	1320	1291	1261	1226	1186	1142	1099	1048
	Tap 2	1221	1189	1157	1123	1084	1033	987	933.7	886	848.7
	Tap 1	1044	1008	969.4	916.7	858.2	804.8	755.2	713.6	671.5	634.9
FEVA 036 12 / 15KW	Tap 5	1385	1364	1341	1314	1291	1255	N/A	N/A	N/A	N/A
	Tap 4	1310	1281	1258	1231	1205	1179	1153	1132	1112	1073
	Tap 3	1310	1281	1258	1231	1205	1179	1153	1132	1112	1073
	Tap 2	1160	1133	1104	1075	1050	1023	999	964	899	851
	Tap 1	999	970	936	905	875	831	755	704	672	631
FEVA 048	Tap 5	1876	1839	1804	1765	1726	1688	1645	1602	1547	1467
	Tap 4	1691	1653	1612	1569	1523	1478	1428	1379	1318	1262
	Tap 3	1691	1653	1612	1569	1523	1478	1428	1379	1318	1262
	Tap 2	1509	1465	1416	1367	1313	1260	1199	1142	1082	1035
	Tap 1	1361	1310	1254	1195	1133	1066	999	955	908	856
FEVA 060	Tap 5	2141	2102	2063	2017	1967	1953	1902	1855	1824	1766
	Tap 4	2141	2102	2063	2017	1967	1953	1902	1855	1824	1766
	Tap 3	2141	2102	2063	2017	1967	1953	1902	1855	1824	1766
	Tap 2	1901	1868	1825	1785	1737	1710	1662	1620	1584	1521
	Tap 1	1583	1557	1499	1451	1392	1358	1313	1259	1194	1138

Notes:

1. Airflow based upon dry coil at 230V with factory-approved filter and electric heater; airflow at 208V is approximately the same as 230V because the ECM motor is a constant torque motor. The torque doesn't drop off at the speeds the motor operates.
2. To avoid potential for condensate blowing out of drain pan prior to making drain trap, return static pressure must be less than 0.40 in. wc.
3. Airflow above 400 cfm/ton on 4800 - 6000 size could result in condensate blowing off coil or splashing out of drain pan.