

A961EK

PRODUCT SPECIFICATIONS

SINGLE STAGE HIGH EFFICIENCY CONSTANT TORQUE GAS FURNACE

FORM NO. A961EK-100 (04/2025)



CONTROLS

- Single stage gas valve
- Durable silicon nitride ignitor
- Self diagnostics saves last 10 fault codes regardless of power interruption
- Control features electronic air cleaner and humidifier terminals

VENTING

- Designed certified for direct (2-pipe) and non direct (1-pipe) applications
- Easily vented with PVC pipe

INSTALLATION FEATURES

- Left or right utility connection
- Zero step horizontal conversion
- Removable floor base (upflow / horizontal units) for bottom return air
- Complies with California's South Coast Air Quality Management district 40 ng/J Low NOx requirements

CONFIGURATIONS

- Upflow / Horizontal
- Downflow

HEAT EXCHANGER DESIGN

- 409 Stainless steel primary heat exchanger with crimped non-welded construction
- AL 29-4C Stainless steel secondary heat exchanger

BURNER

- Aluminized steel inshot burners for smooth ignition

CABINET DESIGN

- Compact 33" height
- Standardized widths for easy coil fit

AIR DELIVERY SYSTEM

- Multi-speed high efficiency (constant torque) blower motor
- Easily removable slide out blower design
- Enhanced cooling SEER ratings when applied with properly matched cooling equipment.

WARRANTY

10 year limited parts warranty / lifetime heat exchanger warranty available. See limited warranty document for details.

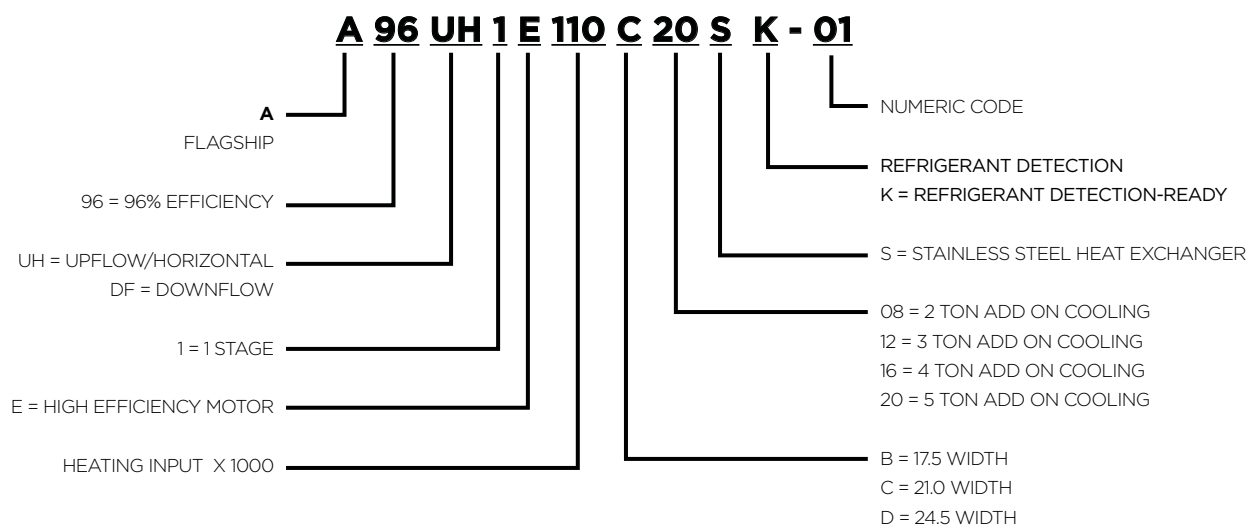
California Only

This product is not certified to be sold or installed in the South Coast Air Quality Management District (SCAQMD). It does not meet the SCAQMD Rule 1111 NOx emission limit of 14 Ng/J.

This product is not certified to be sold or installed in the San Joaquin Valley Air Pollution Control District (SJVAPCD). It does not meet the SJVAPCD Rule 4905 NOx emission limit of 14 Ng/J.



MODEL NUMBER GUIDE



PHYSICAL AND ELECTRICAL DATA

	Model	Input (Btuh)	Output (Btuh)	AFUE (ICS)	Nominal Cooling Capacity	Gas Inlet (in.)	Volts/Hz/Phase	Max. Time Delay Breaker or Fuse	Nominal Full Load Amps	Trans (VA)	Approx Shipping Weight (lbs)
Upflow / Horizontal	A96UH1E030B12SK	30,000	29,000	96%	2 Ton	1/2	120-60-1	15	6.8	40	120
	A96UH1E045B12SK	44,000	42,800	96%	3 Ton	1/2	120-60-1	15	6.8	40	124
	A96UH1E070B12SK	66,000	63,900	96%	3 Ton	1/2	120-60-1	15	6.8	40	129
	A96UH1E090C16SK	88,000	85,600	96%	4 Ton	1/2	120-60-1	15	8.4	40	152
	A96UH1E110C20SK	110,000	107,200	96%	5 Ton	1/2	120-60-1	15	10.9	40	164
	A96UH1E135D20SK	132,000	127,000	96%	5 Ton	1/2	120-60-1	15	10.9	40	174
Downflow	A96DF1E045B12SK	44,000	42,000	96%	3 Ton	1/2	120-60-1	15	6.8	40	126
	A96DF1E070B16SK	66,000	64,000	96%	4 Ton	1/2	120-60-1	15	8.4	40	139
	A96DF1E090C16SK	88,000	86,000	96%	4 Ton	1/2	120-60-1	15	8.4	40	154
	A96DF1E110C20SK	110,000	108,000	96%	5 Ton	1/2	120-60-1	15	10.9	40	162

Note: For vent length and clearances to combustibles, please reference installation instructions.

BLOWER PERFORMANCE DATA UPFLOW / HORIZONTAL

A96UH1E030B12SK PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.1	25-55	1374	346	1109	198	940	130	743	75	725	75
0.2		1346	360	1080	206	902	138	684	82	546	56
0.3		1321	370	1047	217	866	149	633	90	465	60
0.4		1295	384	1012	228	834	155	589	96	408	67
0.5		1265	395	985	235	794	165	540	107	351	72
0.6		1224	396	956	247	760	175	500	110	306	79
0.7		1152	379	929	256	730	180	453	120	266	84
0.8		1088	353	894	267	673	192	413	125	224	89
0.9		914	304	855	273	644	200	374	132	N/A	N/A
1.0		755	262	694	243	607	208	N/A	N/A	N/A	N/A

A96UH1E045B12SK PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.1	35-65	1329	310	1191	233	1084	184	887	116	844	105
0.2		1298	320	1160	242	1050	192	846	122	801	111
0.3		1270	328	1129	251	1015	199	804	128	759	117
0.4		1239	337	1098	259	979	206	762	134	717	123
0.5		1209	346	1065	266	943	213	721	140	674	130
0.6		1181	355	1032	274	910	221	678	147	629	136
0.7		1154	364	1001	283	876	228	636	153	587	141
0.8		1124	373	971	292	841	236	598	159	547	147
0.9		1096	382	939	300	805	244	559	165	498	154
1.0		1069	392	907	308	769	251	510	172	444	159

A96UH1E070B12SK PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.1	35-65	1388	292	1244	221	1131	173	925	110	884	100
0.2		1359	302	1212	230	1096	182	886	116	843	107
0.3		1331	313	1182	238	1062	190	846	123	802	114
0.4		1301	323	1151	247	1028	198	805	130	759	120
0.5		1273	333	1121	256	996	206	764	137	717	127
0.6		1245	342	1090	265	961	215	720	145	670	134
0.7		1217	352	1059	274	928	223	671	151	616	140
0.8		1187	362	1026	283	892	231	623	157	566	146
0.9		1158	371	995	292	854	240	578	163	519	151
1.0		1128	381	962	302	814	248	532	169	464	156

BLOWER PERFORMANCE DATA UPFLOW / HORIZONTAL

A96UH1E090C16SK PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.1	50-80	1700	387	1489	274	1371	222	1289	193	1170	152
0.2		1664	400	1452	285	1331	233	1245	202	1123	161
0.3		1629	412	1413	296	1289	243	1202	211	1078	170
0.4		1596	424	1374	307	1248	252	1160	220	1031	178
0.5		1561	436	1337	317	1209	262	1117	229	987	186
0.6		1528	448	1300	328	1168	272	1073	237	933	194
0.7		1494	459	1261	338	1126	281	1029	246	885	201
0.8		1459	470	1221	347	1083	290	989	255	842	209
0.9		1425	482	1181	358	1042	299	949	264	798	217
1.0		1388	493	1142	368	1004	308	908	273	748	225

A96UH1E110C20SK PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.1	45-75	2159	658	1905	464	1744	364	1631	306	1451	227
0.2		2122	674	1865	476	1701	376	1585	319	1403	240
0.3		2087	689	1828	492	1657	389	1542	331	1360	252
0.4		2051	705	1793	507	1616	402	1497	342	1310	262
0.5		2016	721	1754	521	1574	415	1456	354	1260	271
0.6		1982	736	1714	534	1534	426	1411	366	1213	282
0.7		1947	751	1676	547	1494	439	1370	377	1167	291
0.8		1913	767	1637	560	1454	450	1331	390	1118	302
0.9		1876	782	1600	573	1415	462	1291	402	1066	312
1.0		1841	795	1564	588	1376	474	1248	414	1012	321

A96UH1E135D20SK PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.1	45-75	2383	865	2200	687	2016	534	1791	385	1597	285
0.2		2349	884	2165	703	1979	549	1750	400	1553	298
0.3		2314	902	2130	720	1939	564	1709	413	1512	313
0.4		2280	921	2096	739	1906	581	1668	427	1469	325
0.5		2246	936	2060	754	1866	592	1629	441	1426	337
0.6		2214	953	2028	771	1831	607	1586	453	1385	349
0.7		2185	971	1996	786	1798	622	1544	465	1342	362
0.8		2151	985	1960	802	1753	634	1506	478	1304	374
0.9		2098	983	1928	819	1722	650	1468	492	1260	384
1.0		2044	979	1898	836	1685	663	1430	504	1220	396

BLOWER PERFORMANCE DATA DOWNFLOW

A96DF1E045B12SK PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.1	30-60	1385	331	1230	242	1125	192	890	113	843	98
0.2		1356	346	1201	255	1089	203	854	119	800	105
0.3		1327	359	1162	259	1058	212	814	127	761	110
0.4		1301	365	1136	267	1023	219	776	133	719	118
0.5		1270	376	1106	278	990	224	735	139	678	124
0.6		1239	377	1075	286	950	234	690	145	628	131
0.7		1179	368	1039	294	927	240	647	152	588	136
0.8		1098	347	1017	305	890	249	609	158	548	142
0.9		1011	326	967	305	862	257	574	164	513	148
1.0		892	296	879	286	817	262	538	171	476	155

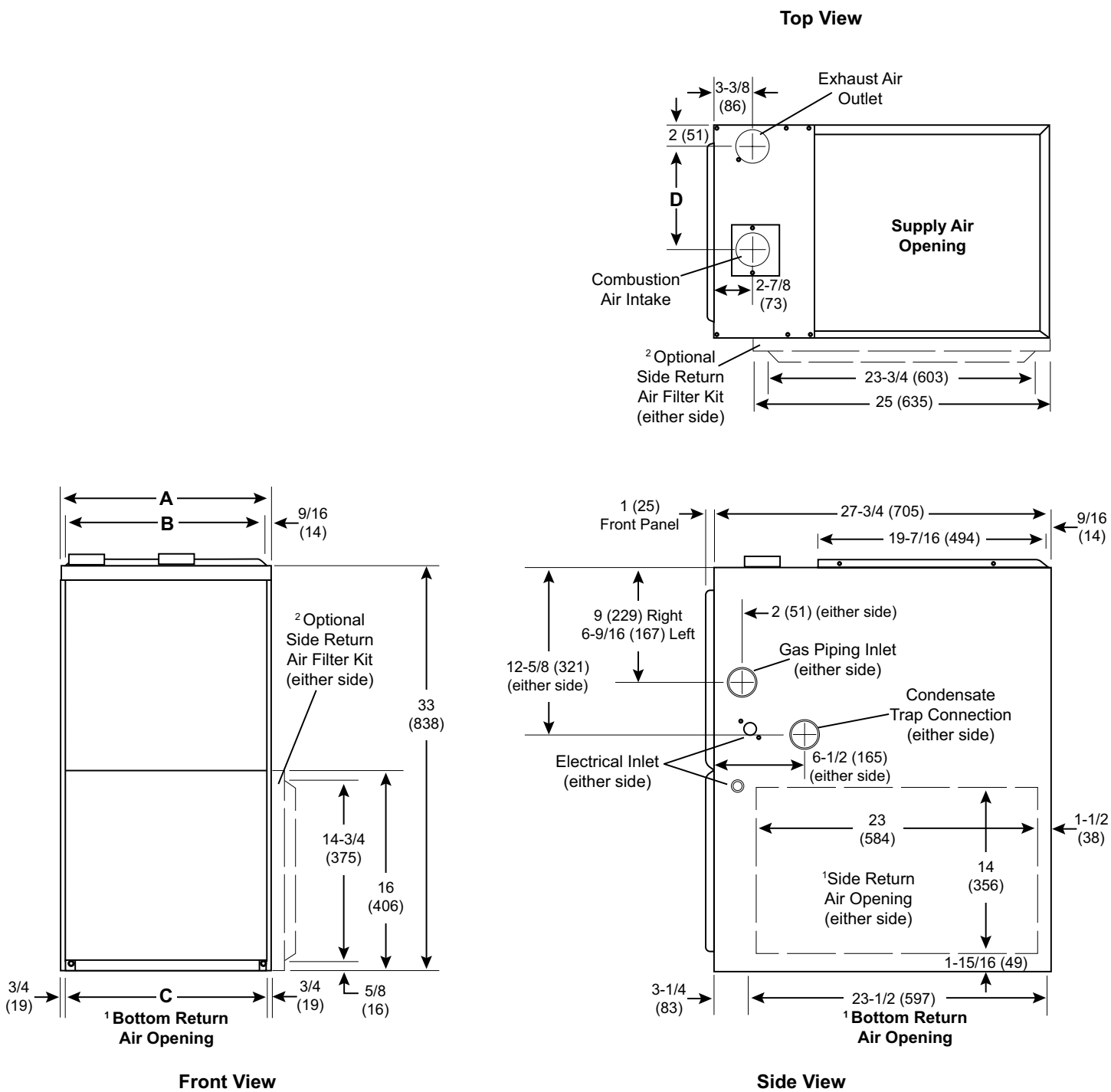
A96DF1E070B16SK PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.1	35-65	1712	502	1493	347	1320	251	1219	208	974	124
0.2		1682	516	1462	362	1282	262	1177	217	926	132
0.3		1650	529	1426	372	1244	273	1135	226	874	140
0.4		1619	541	1392	383	1204	281	1091	235	821	147
0.5		1592	556	1353	393	1161	290	1047	243	771	155
0.6		1542	554	1319	404	1121	299	1002	251	718	161
0.7		1484	546	1281	412	1078	308	959	260	659	168
0.8		1417	532	1245	423	1038	318	915	269	603	176
0.9		1341	514	1207	434	999	328	871	277	551	184
1.0		1232	485	1160	440	959	336	825	286	487	193

A96DF1E090C16SK PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.1	50-80	1714	379	1510	269	1378	215	1302	185	1172	148
0.2		1679	389	1469	279	1321	223	1238	194	1109	153
0.3		1639	396	1436	287	1288	235	1201	206	1066	163
0.4		1604	408	1384	300	1232	241	1150	209	1014	171
0.5		1569	419	1343	305	1199	249	1106	225	954	176
0.6		1510	432	1298	315	1150	258	1051	232	917	185
0.7		1487	441	1260	323	1101	267	1003	232	862	191
0.8		1422	437	1218	332	1054	275	952	241	807	199
0.9		1321	416	1175	344	1012	283	904	249	749	207
1.0		1197	383	1124	349	970	291	861	259	694	215

BLOWER PERFORMANCE DATA DOWNFLOW

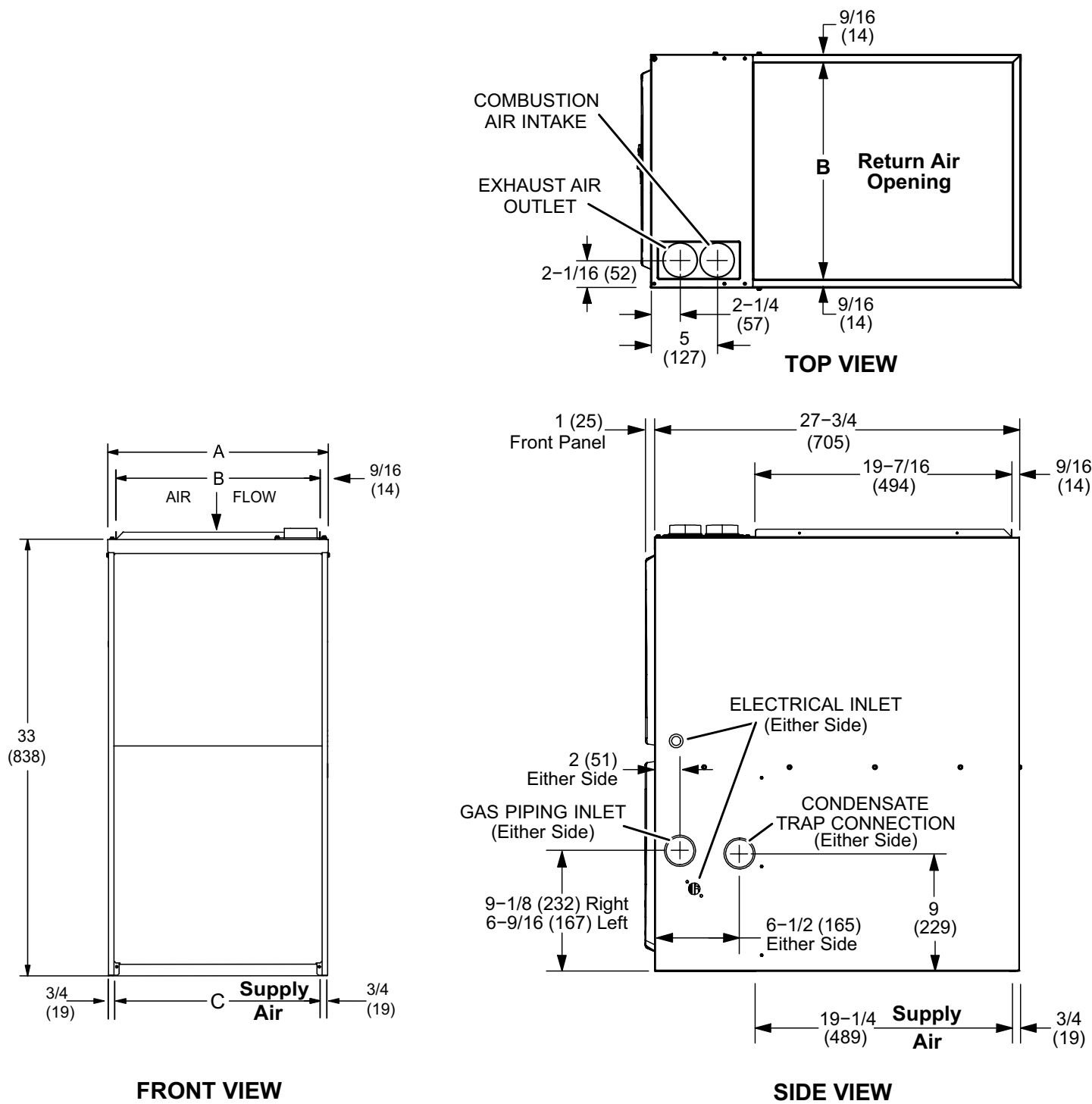
A96DF1E110C20SK PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Mediumw		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.1	40-70	2210	713	1972	521	1771	392	1672	333	1481	246
0.2		2179	723	1939	532	1734	403	1635	343	1440	255
0.3		2147	731	1908	541	1693	414	1592	354	1394	260
0.4		2104	745	1866	551	1664	422	1553	364	1351	269
0.5		2074	755	1826	562	1624	434	1518	372	1302	280
0.6		2039	767	1796	571	1581	445	1465	385	1245	290
0.7		1998	780	1754	583	1536	456	1409	393	1211	295
0.8		1959	794	1708	596	1494	465	1364	404	1162	306
0.9		1936	802	1672	604	1457	474	1333	412	1117	313
1.0		1897	815	1621	617	1422	483	1297	420	1080	319

DIMENSIONS (IN.)



	Model	A	B	C	D
Upflow / Horizontal	A96UH1E030B12SK	17-1/2	16-3/8	16	7-5/8
	A96UH1E045B12SK	17-1/2	16-3/8	16	7-5/8
	A96UH1E070B12SK	17-1/2	16-3/8	16	7-5/8
	A96UH1E090C16SK	21	19-7/8	19-1/2	9-3/8
	A96UH1E110C20SK	21	19-7/8	19-1/2	9-3/8
	A96UH1E135D20SK	24-1/2	23-3/8	23	11-1/8

DIMENSIONS (IN.)



	Model	A	B	C
Downflow	A96DFIE045B12SK	17-1/2	16-3/8	16
	A96DFIE070B16SK	17-1/2	16-3/8	16
	A96DFIE090C16SK	21	19-7/8	19-1/2
	A96DFIE110C20SK	21	19-7/8	19-1/2

ACCESSORY LIST

Catalog Number	Description
External Filter Rack kits	
1.841018	1 pack (16 x 25)
1.841039	10 pack (16 x 25)
Natural to LP kits	
11K50	1-Stage
11K45	High Altitude 1-Stage
17H62	30K BTUH
High Altitude Pressure Switch Kits	
11U66	4,501 - 7,500 ft [030, 045]
11U70	4,501 - 7,500 ft [070, 090, 110]
11U69	7,501 - 10,000 ft [030, 045]
11U68	7,501 - 10,000 ft [070]
11U64	7,501 - 10,000 ft [090, 110]
Return Air Base	
68W62	17.5" B Width
68W63	21.0" C Width
68W64	24.5" D Width
Downflow Combustible Flooring Base	
11M60	17.5" B Width
11M61	21.0" C Width
Horizontal Suspension Kit	
51W10	80% & 90% Kit
Flush Mount Termination (90% Furnaces only) US Only	
51W11	2" & 3" Vent Version
Concentric Vent Kit (90% Furnaces only) US Only	
71M80	1-1/2" Vent Version
69M29	2" Vent Version
60L46	3" Vent Version
Concentric Vent Kit (90% Furnaces only) Canada Only	
44W92	1-1/2" and 2" Vent Version
44W93	3" Vent Version
Transformer (75VA)	
27J32	Recommended when furnace is used with zoning or defrost thermostats and other 24V accessories requiring a higher VA rating
	Circuit breaker (furnished) is wired in series
	Replaces the standard 40VA transformer

For vent length and clearances to combustibles, please reference installation instructions.



1-800-448-5872

All specifications and illustrations subject to change without notice and without incurring obligations.