

A962V

PRODUCT SPECIFICATIONS

2-STAGE VARIABLE SPEED GAS FURNACE

FORM NO. A962V-100 (06/2014)



VENTING

- Vent materials for Canadian applications must comply with ULC 5636
- Certified for direct vent (2-pipe) and in-direct (1-pipe) applications.

INSTALLATION FEATURES

- Left and right utility connections
- Removable floor base for bottom return air
- All models comply with California's South Coast Air Quality Management district Low NO_x requirements
- Zero step horizontal conversion

WARRANTY

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



CONFIGURATIONS

- Upflow / Horizontal
- Downflow

HEAT EXCHANGER DESIGN

- 409 Stainless steel primary heat exchanger material
- AL29-4C Stainless steel secondary heat exchanger
- Non-welded crimped S-curve primary heat exchanger design for maximum durability

CABINET DESIGN

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

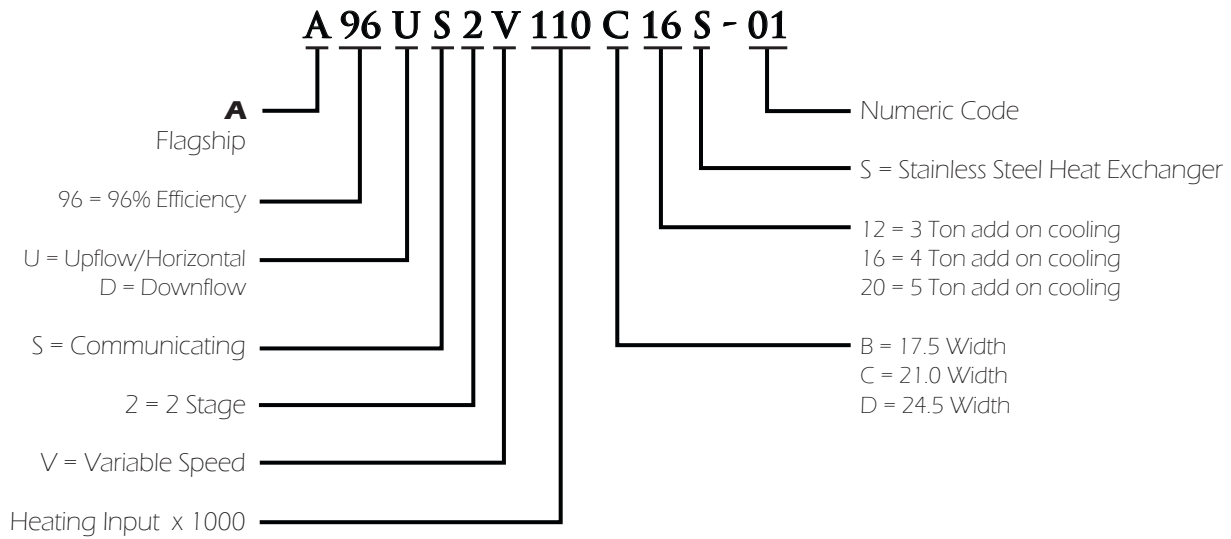
AIR DELIVERY SYSTEM

- ECM™ Variable speed blower motor
- Easily removable slide out blower design

CONTROLS

- Comfort Sync communicating thermostat
- Two stage gas valve
- Self diagnostics saves last 5 fault codes regardless of power interruption

Model Number Guide



Physical and Electrical Data

	Model	1st Stage		2nd Stage		AFUE (ICS)	Nominal Cooling Capacity	Gas Inlet (in.)	Volts/ Hz/ Phase	Max. Time Delay Breaker or Fuse	Nominal F.L.A.	Trans. (V.A.)	Approx. Shipping Weight (lbs.)
		Input (Btuh)	Output* (Btuh)	Input (Btuh)	Output* (Btuh)								
Upflow/Horizontal	A96US2V045B12S	29,000	28,000	44,000	42,000	96.0	3	1/2	120-60-1	15	7.7	40	130
	A96US2V070B12S	43,000	41,000	66,000	62,000	96.0	3	1/2	120-60-1	15	7.7	40	138
	A96US2V090C12S	57,000	55,000	88,000	84,000	96.0	3	1/2	120-60-1	15	7.7	40	154
	A96US2V090C16S	57,000	55,000	88,000	85,000	96.0	4	1/2	120-60-1	15	10.1	40	165
	A96US2V090C20S	57,000	55,000	88,000	85,000	96.0	5	1/2	120-60-1	20	12.8	40	166
	A96US2V110C16S	72,000	70,000	110,000	105,000	96.0	4	1/2	120-60-1	15	10.1	40	173
	A96US2V110C20S	72,000	70,000	110,000	106,000	96.0	5	1/2	120-60-1	20	12.8	40	174
Downflow	A96US2V135D20S	88,000	84,000	135,000	126,000	96.0	5	1/2	120-60-1	20	12.8	40	188
	A96DS2V045B12S	29,000	28,000	44,000	43,000	96.0	3	1/2	120-60-1	15	7.7	40	131
	A96DS2V070B16S	43,000	42,000	66,000	64,000	96.0	4	1/2	120-60-1	15	10.1	40	138
	A96DS2V090C20S	57,000	56,000	88,000	85,000	96.0	5	1/2	120-60-1	20	12.8	40	166
	A96DS2V110C20S	72,000	70,000	110,000	106,000	96.0	5	1/2	120-60-1	20	12.8	40	176

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

* Outputs shown are High Fire, 100% rate. Low Fire is 67% of shown output.

Filter Requirement Data

1. The Airflow Descriptor is the two digits following the "B", "C", or "D" in the model number; e.g. "20" is the Airflow Descriptor.
2. Areas shown for permanent filters are based on filters rated at 600 feet per minute face velocity.

Airflow Descriptor	Disposable Filters	Cleanable Filters
	Minimum Area (sq. in.)	Minimum Area (sq.in.)
12	576	288
16	768	384
20	960	480

Blower Performance Data

	Model	Motor Size (hp)	Blower Size	Heating Temp. Rise (°F)	Heating CFM @ .10" - .80" w.c.				Cooling Stage	Cooling CFM @ .10" - .80" w.c.				Speed Adj.
					Cooling "D"	Cooling "C"	Cooling "B"	Cooling "A"		Cooling "D"	Cooling "C"	Cooling "B"	Cooling "A"	
Upflow / Horizontal	A96US2V045B1Z5	1/2	10x9	"35-65 High Fire"	745	875	990	1005	2nd Stage	905	1075	1210	1370	+
					685	765	895	910		815	980	1120	1255	Norm
					610	695	785	810		720	885	1020	1135	-
				"20-50 Low Fire"	685	765	895	910	1st Stage	595	760	865	980	+
					620	705	800	820		540	660	785	890	Norm
					545	625	715	725		485	600	695	790	-
	A96US2V070B1Z5	1/2	10x9	"50-80 High Fire"	965	1130	1255	1400	2nd Stage	860	1060	1215	1365	+
					880	990	1140	1295		810	960	1130	1265	Norm
					810	890	1030	1170		705	840	1005	1140	-
				"25-55 Low Fire"	940	1070	1195	1345	1st Stage	600	740	840	970	+
					830	965	1100	1235		555	665	770	855	Norm
					755	840	975	1130		500	600	680	790	-
	A96US2V090C1Z5	1/2	10x9	"60-90 High Fire"	1060	1135	1240	1430	2nd Stage	875	1040	1210	1360	+
					960	1040	1120	1310		800	945	1100	1245	Norm
					830	935	980	1175		720	840	970	1115	-
				"35-65 Low Fire"	960	1040	1120	1310	1st Stage	625	710	830	950	+
					875	945	995	1195		565	670	760	860	Norm
					790	840	920	1080		520	610	685	785	-
	A96US2V090C16S	3/4	11x11	"45-75 High Fire"	1230	1310	1360	1605	2nd Stage	1165	1375	1580	1770	+
					1115	1195	1255	1455		1075	1265	1440	1645	Norm
					1005	1070	1130	1335		935	1145	1320	1465	-
				"30-60 Low Fire"	1165	1250	1315	1520	1st Stage	840	1005	1155	1315	+
					1075	1140	1195	1405		780	915	1045	1190	Norm
					935	1030	1065	1285		690	835	955	1070	-
A96US2V090C20S	1	11x11	"40-70 High Fire"	1450	1565	1725	1865	2nd Stage	1385	1595	1820	2020	+	
				1310	1450	1585	1690		1225	1465	1645	1885	Norm	
				1155	1305	1450	1545		1065	1320	1504	1675	-	
			"30-60 Low Fire"	1120	1265	1420	1520	1st Stage	935	1055	1275	1465	+	
				965	1120	1285	1395		835	980	1120	1335	Norm	
				865	950	1120	1235		740	870	1010	1150	-	
A96US2V110C16S	3/4	11x11	"60-90 High Fire"	1210	1275	1385	1620	2nd Stage	1100	1325	1530	1760	+	
				1100	1160	1255	1455		1025	1205	1405	1565	Norm	
				1015	1055	1135	1335		920	1080	1260	1440	-	
			"35-65 Low Fire"	1210	1275	1385	1620	1st Stage	810	980	1085	1235	+	
				1100	1160	1255	1455		760	875	1010	1135	Norm	
				1015	1055	1135	1335		695	805	905	1040	-	
A96US2V110C20S	1	11x11	"45-75 High Fire"	1560	1760	1905	2080	2nd Stage	1310	1560	1745	1955	+	
				1415	1610	1740	1930		1220	1405	1570	1795	Norm	
				1285	1485	1560	1745		1075	1270	1430	1635	-	
			"35-65 Low Fire"	1155	1325	1420	1565	1st Stage	935	1065	1245	1405	+	
				1055	1200	1310	1480		865	970	1145	1280	Norm	
				935	1075	1170	1315		790	890	1025	1165	-	
A96US2V135D20S	1	11x11	"55-85 High Fire"	1650	1845	2000	2195	2nd Stage	1395	1640	1840	2055	+	
				1495	1660	1880	1985		1290	1480	1660	1905	Norm	
				1360	1500	1670	1850		1170	1330	1500	1705	-	
			"40-70 Low Fire"	1300	1435	1630	1715	1st Stage	1015	1160	1330	1480	+	
				1190	1325	1465	1620		940	1085	1200	1345	Norm	
				1095	1190	1340	1430		870	965	1110	1225	-	

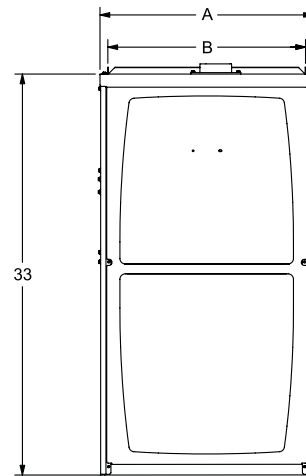
Blower Performance Data

	Model	Motor Size (hp)	Blower Size	Heating Temp. Rise (°F)	Heating CFM @ .10" - .80" w.c.				Cooling Stage	Cooling CFM @ .10" - .80" w.c.				Speed Adj.
					Cooling "D"	Cooling "C"	Cooling "B"	Cooling "A"		Cooling "D"	Cooling "C"	Cooling "B"	Cooling "A"	
Downflow	A96DS2V045B12S	1/2	10x9	"35-65 High Fire"	735	830	1015	1210	2nd Stage	895	1050	1210	1360	+
					680	750	930	1070		805	965	1105	1250	Norm
					625	695	835	1000		735	865	1000	1130	-
				"20-50 Low Fire"	705	780	975	1110	1st Stage	640	755	850	975	+
					655	730	890	1055		580	695	780	880	Norm
					595	670	790	960		545	645	720	795	-
	A96DS2V070B16S	3/4	11x10	"35-65 High Fire"	1110	1305	1430	1700	2nd Stage	1110	1340	1575	1800	+
					995	1175	1315	1520		995	1230	1420	1650	Norm
					880	1055	1170	1365		880	1085	1290	1460	-
				"25-55 Low Fire"	860	1020	1140	1340	1st Stage	740	915	1055	1255	+
					795	910	1030	1230		660	820	940	1120	Norm
					680	825	910	1085		575	735	850	995	-
A96DS2V090C20S	1	11x11	"40-70 High Fire"	1395	1555	1695	1825	2nd Stage	1335	1600	1750	1980	+	
				1275	1395	1585	1670		1225	1450	1630	1830	Norm	
				1145	1265	1405	1525		1120	1270	1450	1660	-	
			"30-60 Low Fire"	1130	1230	1365	1475	1st Stage	955	1115	1265	1450	+	
				1040	1130	1250	1340		855	1005	1150	1285	Norm	
				910	1025	1130	1210		750	890	1060	1170	-	
A96DS2V110C20S	1	11x11	"45-75 High Fire"	1595	1795	1955	2140	2nd Stage	1335	1585	1790	2010	+	
				1450	1615	1795	1975		1220	1440	1630	1865	Norm	
				1290	1460	1610	1795		1100	1275	1475	1680	-	
			"35-65 Low Fire"	1165	1305	1465	1625	1st Stage	920	1095	1265	1440	+	
				1055	1185	1315	1475		830	965	1130	1290	Norm	
				930	1070	1180	1320		735	860	1035	1155	-	

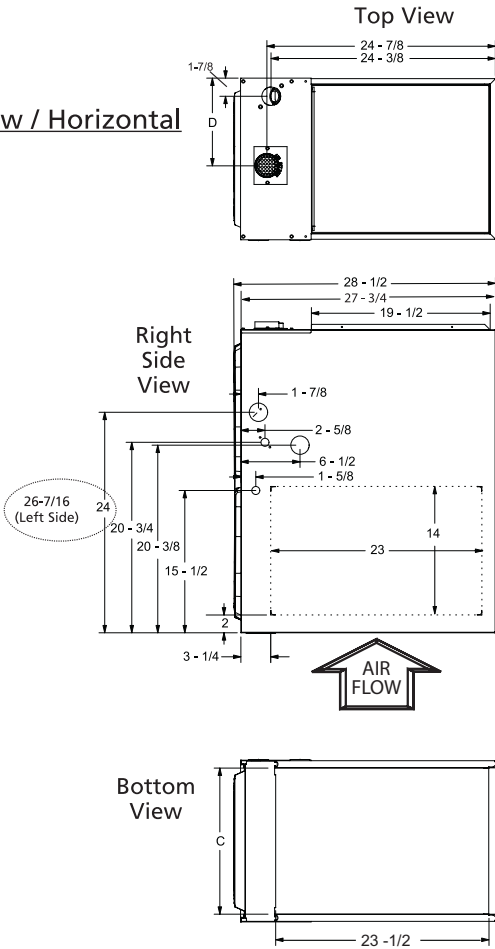
Dimensions

	Model	A	B	C	D
Upflow/Horizontal	A96US2V045B12S	17-1/2	16-3/8	16	7-5/8
	A96US2V070B12S	17-1/2	16-3/8	16	7-5/8
	A96US2V090C12S	21	19-7/8	19-1/2	9-3/8
	A96US2V090C16S	21	19-7/8	19-1/2	9-3/8
	A96US2V090C20S	21	19-7/8	19-1/2	9-3/8
	A96US2V110C16S	21	19-7/8	19-1/2	9-3/8
	A96US2V110C20S	21	19-7/8	19-1/2	9-3/8
	A96US2V135D20S	24-1/2	23-3/8	23	11-1/8
Downflow	A96DS2V045B12S	17-1/2	16-3/8	16	15-1/2
	A96DS2V070B16S	17-1/2	16-3/8	16	15-1/2
	A96DS2V090C20S	21	19-7/8	19-1/2	19
	A96DS2V110C20S	21	19-7/8	19-1/2	19

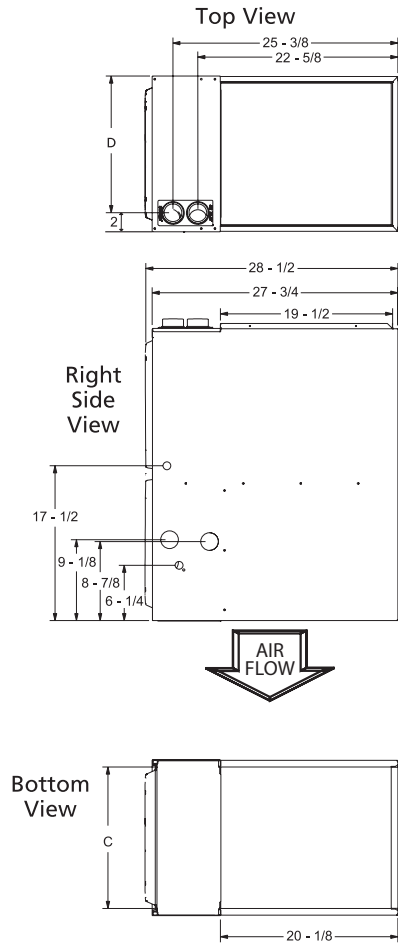
Front View



Upflow / Horizontal



Downflow



Accessory List

Accessory	Allied Catalog #
Return Air Base	
Return Air Base 17.5 Inch	68W62
Return Air Base 21.0 Inch	68W63
Return Air Base 24.5 Inch	68W64
Comfort Sync Wi-Fi Thermostat	
Comfort Sync Wi-Fi Thermostat	1.841197
Natural to LP Kits	
2-Stage – 90	78W94
Downflow Specific Air Filters	
17.5"	51W07
21.0"	51W08
Downflow Combustible Flooring Base	
17.5" B Width	11M60
21.0" C Width	11M61
Night Service Kits	
Two-stage	89W53
Horizontal Suspension Kit	
80% & 90% Kit	51W10
Flush Mount Termination (90% Furnaces only)	
2" & 3.0" Vent – US Version	51W11
2" & 3.0" Vent – ULC S636 Compliant (Canada)	51W12
Concentric Vent Kit (90% Furnaces only)	
1-1/2" Vent Version (United States)	71M80
1-1/2" and 2" Vent Version (Canada)	44W92
2" Vent Version (United States)	69M29
3" Vent Version (United States)	60L46
3" Vent Version (Canada)	44W93
External Filter Rack Kits	
1 pack (16 x 25)	1.841018
10 pack (16 x 25)	1.841039

Note: 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.