

# A962V

## PRODUCT SPECIFICATIONS

## 2-STAGE VARIABLE SPEED GAS FURNACE

FORM NO. A962V-100 (10/2015)



### 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 NOx 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

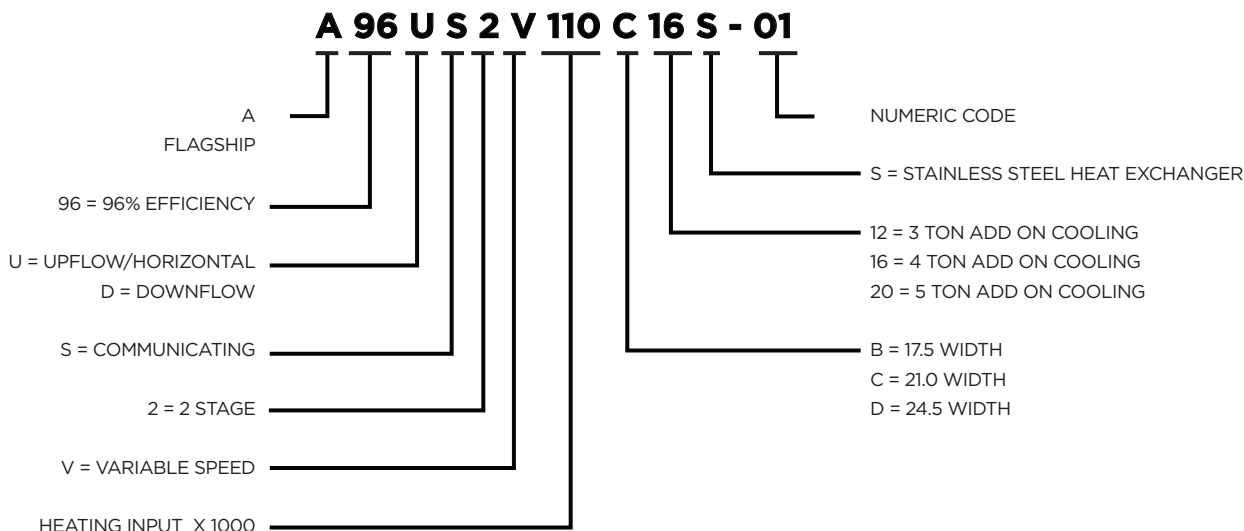
### AIR DELIVERY SYSTEM

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

### CONTROLS

- Comfort Sync communicating thermostat compatible
- 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
	A96US2V135D20S	88,000	84,000	132,000	126,000	96.0	5	1/2	120-60-1	20	12.8	40	188
DOWNFLOW	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	136
	A96DS2V090C20S	57,000	56,000	88,000	85,000	96.0	5	1/2	120-60-1	20	12.8	40	164
	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**

- The Airflow Descriptor is the two digits following the "B", "C", or "D" in the model number; e.g. "20" is the Airflow Descriptor.
- 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 - UPFLOW/HORIZONTAL**

A96US2V045B12S	Adj.	LOW FIRE HEATING - SCFM [TEMP RISE: 20 - 50 F°]								HIGH FIRE HEATING - SCFM [TEMP RISE: 35 - 65 F°]							
		-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%
		595	638	682	725	769	812	856	899	738	792	846	900	954	1008	1062	1116
Motor Size: 1/2 HP Blwr Size: 10 x 9	FIRST STAGE COOLING - SCFM								SECOND STAGE COOLING - SCFM								
	Speed	Low	Med Low		Med High		High		Low	Med Low		Med High		High			
	+10%	605	743		853		963		880	1045		1210		1375			
	Default	550	675		775		875		800	950		1100		1250			
	-10%	495	608		698		788		720	855		990		1125			

A96US2V070B12S	Adj.	LOW FIRE HEATING - SCFM [TEMP RISE: 25 - 55 F°]								HIGH FIRE HEATING - SCFM [TEMP RISE: 50 - 80 F°]							
		-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%
		718	770	823	875	928	980	1033	1085	800	858	917	975	1034	1092	1151	1209
Motor Size: 1/2 HP Blwr Size: 10 x 9	FIRST STAGE COOLING - SCFM								SECOND STAGE COOLING - SCFM								
	Speed	Low	Med Low		Med High		High		Low	Med Low		Med High		High			
	+10%	605	743		853		963		880	1045		1210		1375			
	Default	550	675		775		875		800	950		1100		1250			
	-10%	495	608		698		788		720	855		990		1125			

A96US2V090C12S	Adj.	LOW FIRE HEATING - SCFM [TEMP RISE: 30 - 60 F°]								HIGH FIRE HEATING - SCFM [TEMP RISE: 60 - 90 F°]							
		-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%
		800	858	917	975	1034	1092	1151	1209	861	924	987	1050	1113	1176	1239	1302
Motor Size: 1/2 HP Blwr Size: 10 x 9	FIRST STAGE COOLING - SCFM								SECOND STAGE COOLING - SCFM								
	Speed	Low	Med Low		Med High		High		Low	Med Low		Med High		High			
	+10%	605	743		853		963		880	1045		1210		1375			
	Default	550	675		775		875		800	950		1100		1250			
	-10%	495	608		698		788		720	855		990		1125			

A96US2V090C16S	Adj.	LOW FIRE HEATING - SCFM [TEMP RISE: 30 - 60 F°]								HIGH FIRE HEATING - SCFM [TEMP RISE: 45 - 75 F°]							
		-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%
		943	1012	1081	1150	1219	1288	1357	1426	1046	1122	1199	1275	1352	1428	1505	1581
Motor Size: 3/4 HP Blwr Size: 11 x 11	FIRST STAGE COOLING - SCFM								SECOND STAGE COOLING - SCFM								
	Speed	Low	Med Low		Med High		High		Low	Med Low		Med High		High			
	+10%	770	935		1073		1238		1100	1320		1540		1760			
	Default	700	850		975		1125		1000	1200		1400		1600			
	-10%	630	765		878		1013		900	1080		1260		1440			

A96US2V090C20S	Adj.	LOW FIRE HEATING - SCFM [TEMP RISE: 30 - 60 F°]								HIGH FIRE HEATING - SCFM [TEMP RISE: 40 - 70 F°]							
		-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%
		943	1012	1081	1150	1219	1288	1357	1426	1271	1364	1457	1550	1643	1736	1829	1922
Motor Size: 1 HP Blwr Size: 11 x 11	FIRST STAGE COOLING - SCFM								SECOND STAGE COOLING - SCFM								
	Speed	Low	Med Low		Med High		High		Low	Med Low		Med High		High			
	+10%	935	1073		1238		1403		1320	1540		1760		2008			
	Default	850	975		1125		1275		1200	1400		1600		1825			
	-10%	765	878		1013		1148		1080	1260		1440		1643			

**BLOWER PERFORMANCE DATA - UPFLOW/HORIZONTAL**

A96US2V110C16S  Motor Size: 3/4 HP Blwr Size: 11 x 11		LOW FIRE HEATING - SCFM [TEMP RISE: 35 - 65 F°]								HIGH FIRE HEATING - SCFM [TEMP RISE: 60 - 90 F°]							
	Adj.	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%
		1005	1078	1152	1225	1299	1372	1446	1519	1066	1144	1222	1300	1378	1456	1534	1612
		FIRST STAGE COOLING - SCFM								SECOND STAGE COOLING - SCFM							
	Speed	Low	Med Low		Med High		High		Low	Med Low		Med High		High			
	+10%	770	935		1073		1238		1100	1320		1540		1760			
	Default	700	850		975		1125		1000	1200		1400		1600			
-10%	630	765		878		1013		900	1080		1260		1440				

A96US2V110C20S  Motor Size: 1 HP Blwr Size: 11 x 11		LOW FIRE HEATING - SCFM [TEMP RISE: 35 - 65 F°]								HIGH FIRE HEATING - SCFM [TEMP RISE: 45 - 75 F°]							
	Adj.	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%
		1005	1078	1152	1225	1299	1372	1446	1519	1333	1430	1528	1625	1723	1820	1918	2015
		FIRST STAGE COOLING - SCFM								SECOND STAGE COOLING - SCFM							
	Speed	Low	Med Low		Med High		High		Low	Med Low		Med High		High			
	+10%	935	1073		1238		1403		1320	1540		1760		2008			
	Default	850	975		1125		1275		1200	1400		1600		1825			
-10%	765	878		1013		1148		1080	1260		1440		1643				

A96US2V135D20S  Motor Size: 1 HP Blwr Size: 11 x 11		LOW FIRE HEATING - SCFM [TEMP RISE: 40 - 70 F°]								HIGH FIRE HEATING - SCFM [TEMP RISE: 55 - 85 F°]							
	Adj.	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%
		1128	1210	1293	1375	1458	1540	1623	1705	1374	1474	1575	1675	1776	1876	1977	2077
		FIRST STAGE COOLING - SCFM								SECOND STAGE COOLING - SCFM							
	Speed	Low	Med Low		Med High		High		Low	Med Low		Med High		High			
	+10%	935	1073		1238		1403		1320	1540		1760		2008			
	Default	850	975		1125		1275		1200	1400		1600		1825			
-10%	765	878		1013		1148		1080	1260		1440		1643				

**BLOWER PERFORMANCE DATA - DOWNFLOW**

A96DS2V045B12S		LOW FIRE HEATING - SCFM [TEMP RISE: 20 - 50 F°]								HIGH FIRE HEATING - SCFM [TEMP RISE: 35 - 65 F°]											
	Adj.	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%				
		595	638	682	725	769	812	856	899	738	792	846	900	954	1008	1062	1116				
Motor Size: 1/2 HP Blwr Size: 10 x 9		FIRST STAGE COOLING - SCFM								SECOND STAGE COOLING - SCFM											
	Speed	Low	Med Low			Med High		High			Low	Med Low			Med High		High				
	+10%	605		743			853		963			880		1045			1210		1375		
	Default	550		675			775		875			800		950			1100		1250		
	-10%	495		608			698		788			720		855			990		1125		

A96DS2V070B16S		LOW FIRE HEATING - SCFM [TEMP RISE: 25 - 55 F°]								HIGH FIRE HEATING - SCFM [TEMP RISE: 35 - 65 F°]											
	Adj.	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%				
		718	770	823	875	928	980	1033	1085	1046	1122	1199	1275	1352	1428	1505	1581				
Motor Size: 3/4 HP Blwr Size: 11 x 10		FIRST STAGE COOLING - SCFM								SECOND STAGE COOLING - SCFM											
	Speed	Low	Med Low			Med High		High			Low	Med Low			Med High		High				
	+10%	770		935			1073		1238			1100		1320			1540		1760		
	Default	700		850			975		1125			1000		1200			1400		1600		
	-10%	630		765			878		1013			900		1080			1260		1440		

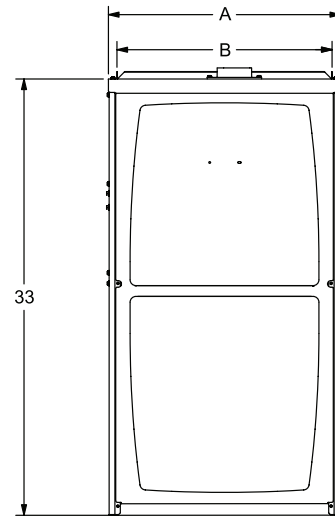
A96DS2V090C20S		LOW FIRE HEATING - SCFM [TEMP RISE: 30 - 60 F°]								HIGH FIRE HEATING - SCFM [TEMP RISE: 40 - 70 F°]											
	Adj.	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%				
		943	1012	1081	1150	1219	1288	1357	1426	1271	1364	1457	1550	1643	1736	1829	1922				
Motor Size: 1 HP Blwr Size: 11 x 11		FIRST STAGE COOLING - SCFM								SECOND STAGE COOLING - SCFM											
	Speed	Low	Med Low			Med High		High			Low	Med Low			Med High		High				
	+10%	935		1073			1238		1403			1320		1540			1760		2008		
	Default	850		975			1125		1275			1200		1400			1600		1825		
	-10%	765		878			1013		1148			1080		1260			1440		1643		

A96DS2V110C20S		LOW FIRE HEATING - SCFM [TEMP RISE: 35 - 65 F°]								HIGH FIRE HEATING - SCFM [TEMP RISE: 45 - 75 F°]											
	Adj.	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%				
		1005	1078	1152	1225	1299	1372	1446	1519	1333	1430	1528	1625	1723	1820	1918	2015				
Motor Size: 1 HP Blwr Size: 11 x 11		FIRST STAGE COOLING - SCFM								SECOND STAGE COOLING - SCFM											
	Speed	Low	Med Low			Med High		High			Low	Med Low			Med High		High				
	+10%	935		1073			1238		1403			1320		1540			1760		2008		
	Default	850		975			1125		1275			1200		1400			1600		1825		
	-10%	765		878			1013		1148			1080		1260			1440		1643		

**DIMENSIONS**

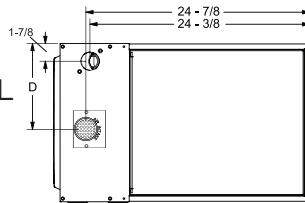
	Model	A	B	C	D
UPFLOW/HORIZONTAL	A96US2V045B12S	17-1/2	16-3/8	16	7-5/8
	A96US2V070B12S	17-1/2	16-3/8	16	7-5/8
	A96US2V090C12S	21	19-7/8	19-1/2	9-3/8
	A96US2V090C16S	21	19-7/8	19-1/2	9-3/8
	A96US2V090C20S	21	19-7/8	19-1/2	9-3/8
	A96US2V110C16S	21	19-7/8	19-1/2	9-3/8
	A96US2V110C20S	21	19-7/8	19-1/2	9-3/8
	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**



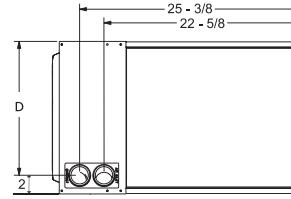
**TOP VIEW**

UPFLOW / HORIZONTAL

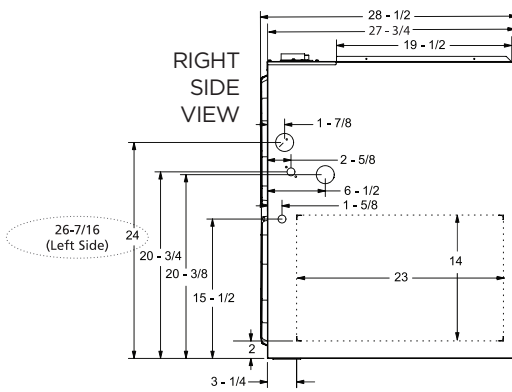


**TOP VIEW**

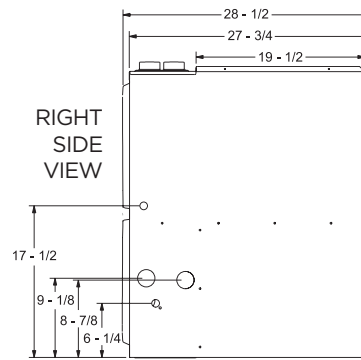
DOWNFLOW



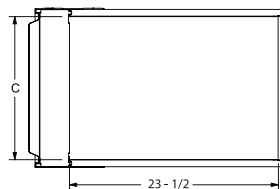
**RIGHT SIDE VIEW**



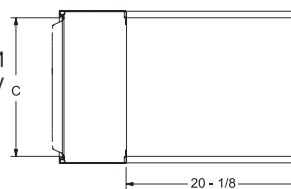
**RIGHT SIDE VIEW**



**BOTTOM VIEW**



**BOTTOM VIEW**



**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.