

97G2VK

PRODUCT SPECIFICATIONS

TWO STAGE VARIABLE SPEED GAS FURNACE



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.

California Only

If installed in South Coast Air Quality Management District (SCAQMD) only: This furnace does not meet the SCAQMD Rule 1111 NOx emission limit (14 ng/J). This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com. If installed in San Joaquin Valley Air Pollution Control District (SJVAPCD) only: This furnace does not meet the SJVAPCD Rule 4905 NOx emission limit (14 ng/J).

CONFIGURATIONS

- Upflow / Horizontal
- Downflow

HEAT EXCHANGER DESIGN

- 409 Stainless steel primary heat exchanger with crimped non-welded construction
- AL29-4C Stainless steel secondary heat exchanger

CABINET DESIGN

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

AIR DELIVERY SYSTEM

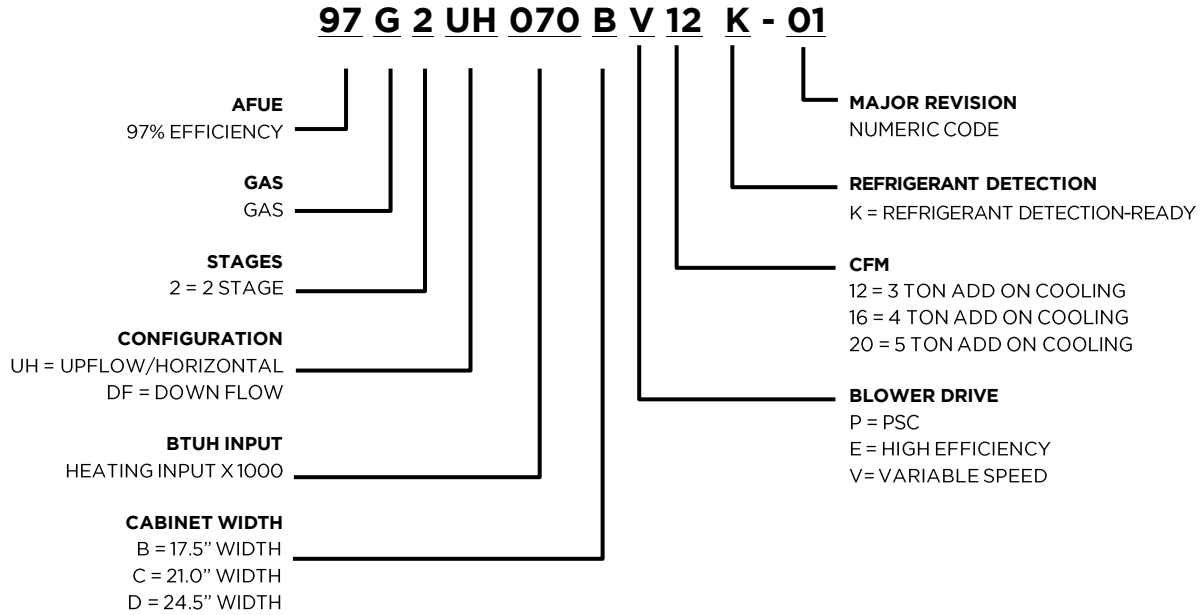
- ECM Variable speed blower motor
- Easily removable slide out blower design

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	97G2UH045BV12K	29,000	28,000	44,000	43,000	97.0	3	1/2	120-60-1	15	7.7	40	124
	97G2UH070BV12K	43,000	42,000	66,000	64,000	97.0	3	1/2	120-60-1	15	7.7	40	133
	97G2UH090CV12K	57,000	56,000	88,000	85,000	97.0	3	1/2	120-60-1	15	7.7	40	147
	97G2UH090CV16K	57,000	56,000	88,000	86,000	97.0	4	1/2	120-60-1	15	10.1	40	154
	97G2UH090CV20K	57,000	56,000	88,000	86,000	97.0	5	1/2	120-60-1	20	12.8	40	157
	97G2UH110CV16K	72,000	70,000	110,000	106,000	97.0	4	1/2	120-60-1	15	10.1	40	161
	97G2UH110CV20K	72,000	70,000	110,000	107,000	97.0	5	1/2	120-60-1	20	12.8	40	164
	97G2UH135DV20K	86,000	84,000	132,000	127,000	97.0	5	1/2	120-60-1	20	12.8	40	179
DOWNFLOW	97G2DF045BV12K	29,000	28,000	44,000	43,000	97.0	3	1/2	120-60-1	15	7.7	40	126
	97G2DF070BV16K	43,000	42,000	66,000	64,000	97.0	4	1/2	120-60-1	15	10.1	40	140
	97G2DF090CV20K	57,000	56,000	88,000	86,000	97.0	5	1/2	120-60-1	20	12.8	40	159
	97G2DF110CV20K	72,000	70,000	110,000	108,000	97.0	5	1/2	120-60-1	20	12.8	40	167

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

97G2UH045BV12K Motor Size: 1/2 HP Blwr Size: 10 x 9		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
		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								

97G2UH070BV12K Motor Size: 1/2 HP Blwr Size: 10 x 9		LOW FIRE HEATING - SCFM [TEMP RISE: 25 - 55 F°]*								HIGH FIRE HEATING - SCFM [TEMP RISE: 50 - 80 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	800	858	917	975	1034	1092	1151	1209
		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								

97G2UH090CV12K Motor Size: 1/2 HP Blwr Size: 10 x 9		LOW FIRE HEATING - SCFM [TEMP RISE: 30 - 60 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%
		800	858	917	975	1034	1092	1151	1209	861	924	987	1050	1113	1176	1239	1302
		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								

97G2UH090CV16K Motor Size: 3/4 HP Blwr Size: 11 x 11		LOW FIRE HEATING - SCFM [TEMP RISE: 30 - 60 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%
		943	1012	1081	1150	1219	1288	1357	1426	1046	1122	1199	1275	1352	1428	1505	1581
		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								

97G2UH090CV20K Motor Size: 1 HP Blwr Size: 11 x 11		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
		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								

* @ .10" - .80" w.c.

BLOWER PERFORMANCE DATA - UPFLOW/HORIZONTAL

97G2UH110CV16K 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			

97G2UH110CV20K 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			

97G2UH135DV20K 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			

* @ .10" - .80" w.c.

BLOWER PERFORMANCE DATA - DOWNFLOW

97G2DF045BV12K Motor Size: 1/2 HP Blwr Size: 10 x 9		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		
		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	

97G2DF070BV16K Motor Size: 3/4 HP Blwr Size: 11 x 10		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		
		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	

97G2DF090CV20K Motor Size: 1 HP Blwr Size: 11 x 11		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		
		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	

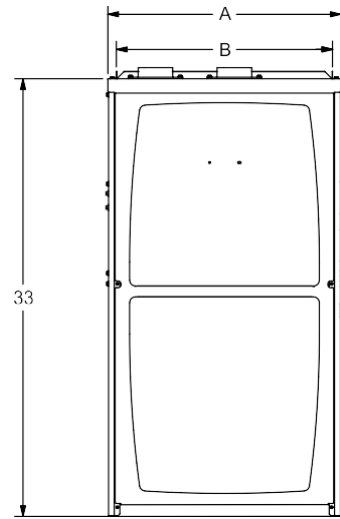
97G2DF110CV20K Motor Size: 1 HP Blwr Size: 11 x 11		LOW FIRE HEATING - SCFM [TEMP RISE: 35 - 65 F°]*								HIGH FIRE HEATING - SCFM [TEMP RISE: 45 - 75 F°]*									
	Adj.	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%	-18%	-12%	-6%	Default	+6%	+12%	+18%	+24%		
		1005	1078	1152	1225	1299	1372	1446	1519	1333	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	

* @ .10" - .80" w.c.

DIMENSIONS

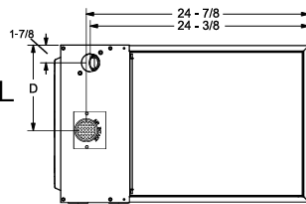
	Model	A	B	C	D
UPFLOW/HORIZONTAL	97G2UH045BV12K	17-1/2	16-3/8	16	7-5/8
	97G2UH070BV12K	17-1/2	16-3/8	16	7-5/8
	97G2UH090CV12K	21	19-7/8	19-1/2	9-3/8
	97G2UH090CV16K	21	19-7/8	19-1/2	9-3/8
	97G2UH090CV20K	21	19-7/8	19-1/2	9-3/8
	97G2UH110CV16K	21	19-7/8	19-1/2	9-3/8
	97G2UH110CV20K	21	19-7/8	19-1/2	9-3/8
97G2UH135DV20K	24-1/2	23-3/8	23	11-1/8	
DOWNFLOW	97G2DF045BV12K	17-1/2	16-3/8	16	15-1/2
	97G2DF070BV16K	17-1/2	16-3/8	16	15-1/2
	97G2DF090CV20K	21	19-7/8	19-1/2	19
	97G2DF110CV20K	21	19-7/8	19-1/2	19

FRONT VIEW



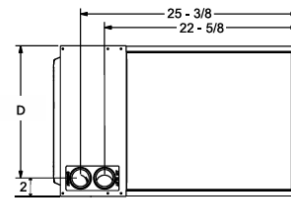
TOP VIEW

UPFLOW / HORIZONTAL

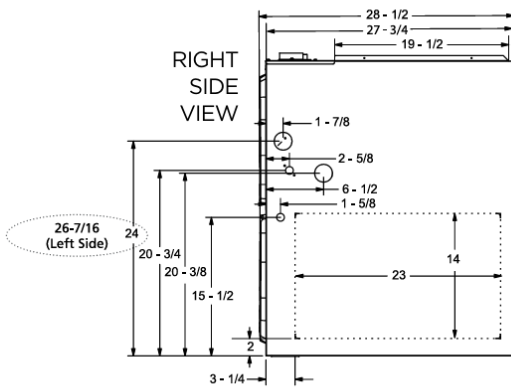


TOP VIEW

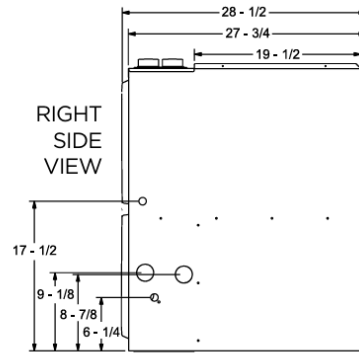
DOWNFLOW



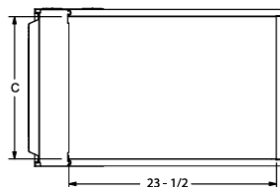
RIGHT SIDE VIEW



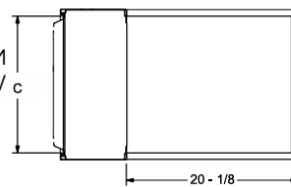
RIGHT SIDE VIEW



BOTTOM VIEW



BOTTOM VIEW



ACCESSORY LIST

Description	Catalog Number
Return Air Base	
Return Air Base 17.5 Inch	68W62
Return Air Base 21.0 Inch	68W63
Return Air Base 24.5 Inch	68W64
Natural to LP Kits	
2-Stage - 90	11K48
High Altitude (> 7500')	11K47
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
Comfort Sync® Controls	
Comfort Sync® A3 Thermostat	1.841226
Comfort Sync® Zoning Controller	1.851399
Comfort Sync® Zone Sensor	1.851422
Transformer (75VA)	
Recommended when furnace is used with zoning or defrost thermostats and other 24V accessories requiring a higher VA rating	27J32
Circuit breaker (furnished) is wired in series	
Replaces the standard 40VA transformer	

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

REFRIGERANT DETECTION SYSTEM (RDS) COMPONENTS

Description	Order No.
Refrigerant Detection System (RDS) Coil Sensor Kit	27V53