

A802V(L)K

PRODUCT SPECIFICATIONS

TWO STAGE VARIABLE SPEED GAS FURNACE

FORM NO. A802V(L)K-100 (07/2025)



VENTING

- Rotatable draft inducer for venting flexibility

INSTALLATION FEATURES

- Left and right utility connections
- Removable floor base for bottom return air
- Zero step horizontal conversion

WARRANTY

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

Note: Not for sale in Canada

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), and thus is subject to a mitigation fee of up to \$450. 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), and thus is subject to a mitigation fee of up to \$450.

CONFIGURATIONS

- Upflow / Horizontal
- Downflow

HEAT EXCHANGER DESIGN

- Aluminized steel crimped non-welded clamshell heat exchanger

CABINET DESIGN

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

AIR DELIVERY SYSTEM

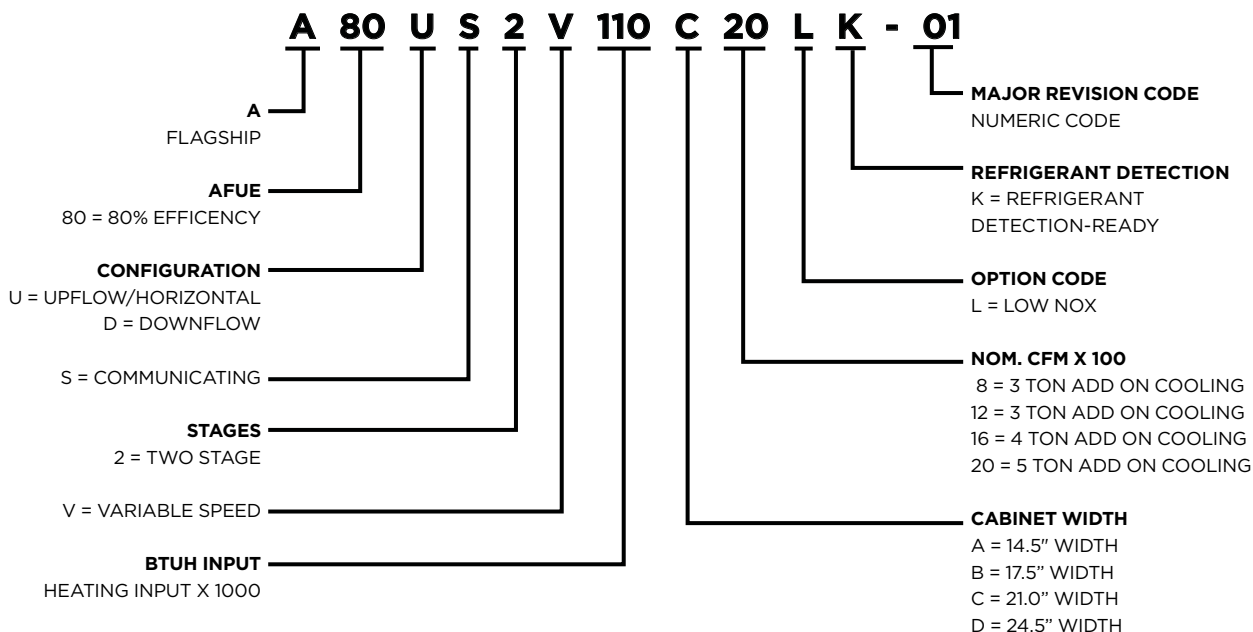
- ECM™ Variable speed blower motor
- Easily removable slide out blower design

CONTROLS

- Communicating control enabled
- Two stage gas valve
- Thermostat flexibility: works with the Comfort Sync® T-Stat or a conventional 24V T-Stat
- Self diagnostics saves last 5 fault codes regardless of power interruption



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 F.L.A.	Trans. (V.A.)	Approx. Shipping Weight (lbs.)
UPFLOW/HORIZONTAL	A80US2V070A12K	66,000	52,000	80.0%	3 tons	1/2	120-60-1	15	7.7	40	128
	A80US2V090B12K	88,000	70,000	80.0%	3 tons	1/2	120-60-1	15	7.7	40	143
	A80US2V090B16K	88,000	70,000	80.0%	4 tons	1/2	120-60-1	20	12.8	40	154
	A80US2V090C20K	88,000	70,000	80.0%	5 tons	1/2	120-60-1	20	12.8	40	173
	A80US2V110C20K	110,000	87,000	80.0%	5 tons	1/2	120-60-1	20	12.8	40	181
	A80US2V135D20K	132,000	105,000	80.0%	5 tons	1/2	120-60-1	20	12.8	40	199
	A80US2V070A12LK	66,000	52,000	80.0%	3 tons	1/2	120-60-1	15	7.7	40	128
	A80US2V090B16LK	88,000	70,000	80.0%	4 tons	1/2	120-60-1	20	12.8	40	154
	A80US2V110C20LK	110,000	87,000	80.0%	5 tons	1/2	120-60-1	20	12.8	40	181
DOWNFLOW	A80DS2V070A12K	66,000	52,000	80.0%	3 tons	1/2	120-60-1	15	7.7	40	130
	A80DS2V090B16K	88,000	69,000	80.0%	4 tons	1/2	120-60-1	20	12.8	40	153
	A80DS2V110C20K	110,000	87,000	80.0%	5 tons	1/2	120-60-1	20	12.8	40	173

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.

BLOWER PERFORMANCE DATA

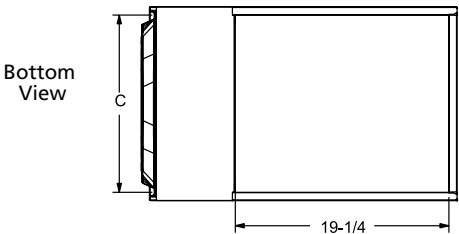
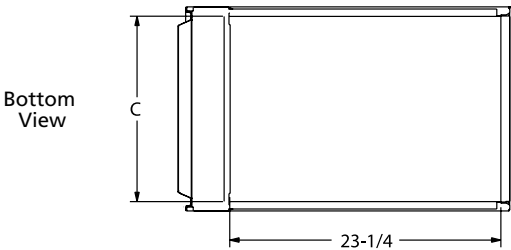
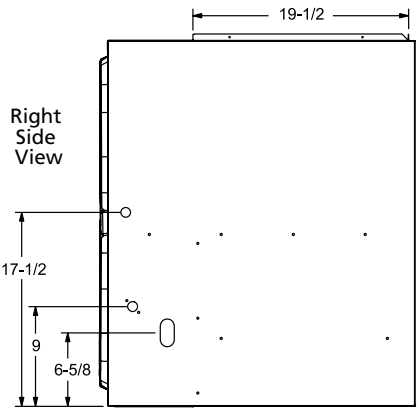
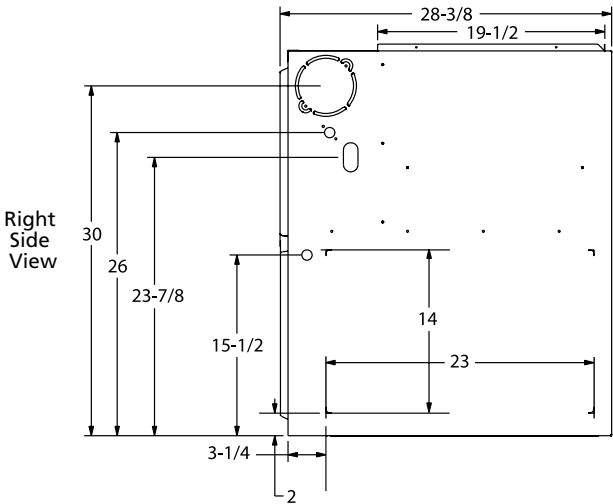
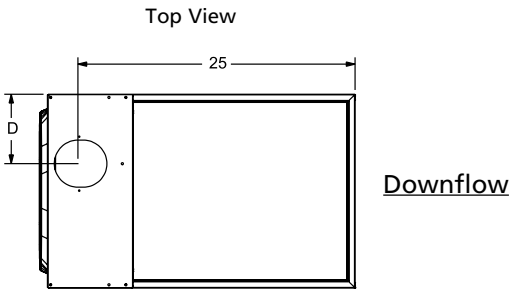
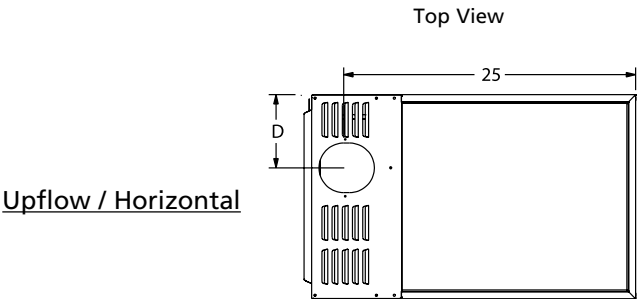
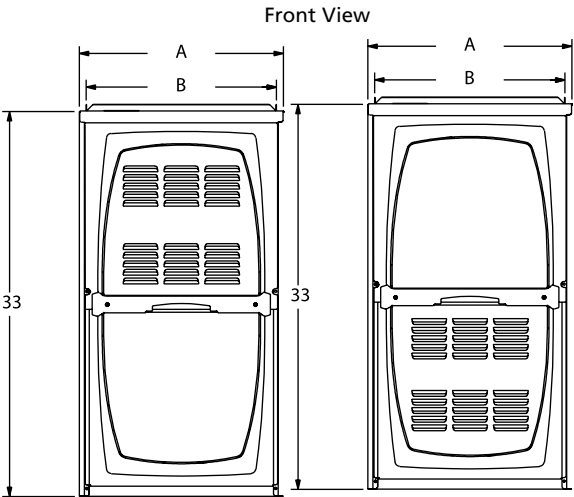
	Model	Motor Size (hp)	Blower Size	Heating						Cooling					
				Low Fire			High Fire			Cooling Stage	Speed Adjustment	CFM @ 0" - 0.8" w.c.			
				Rise Range F°	Speed Adjustment	CFM @ 0" - 0.5" w.c.	Rise Range F°	Speed Adjustment	CFM @ 0" - 0.5" w.c.			Low	Med Low	Med High	High (Default)
UPFLOW/HORIZONTAL	A80US2V070A12(L)K	1/2 HP	10 x 8	25-55	+24%	1073	40 -70	+24%	1178	1st Stage	+10%	748	801	864	970
					+18%	1021		+18%	1121		Default	680	728	785	882
					+12%	969		+12%	1064		-10%	612	655	707	974
					+6%	917		+6%	1007		+10%	1007	1095	1210	1348
					Default	865		Default	950	2nd Stage	Default	915	995	1100	1225
					-6%	813		-6%	893		-10%	824	896	990	1103
					-12%	761		-12%	836		+10%	1007	1095	1210	1348
					-18%	709		-18%	779		Default	915	995	1100	1225
	A80US2V090B12K	1/2 HP	10 x 9	25-55	+24%	1302	40 -70	+24%	1426	1st Stage	+10%	556	699	787	919
					+18%	1239		+18%	1357		Default	505	635	715	835
					+12%	1176		+12%	1288		-10%	455	572	644	752
					+6%	1113		+6%	1219		+10%	930	1100	1210	1320
					Default	1050		Default	1150	2nd Stage	Default	845	1000	1100	1200
					-6%	987		-6%	1081		-10%	761	900	990	1080
					-12%	924		-12%	1012		+10%	930	1100	1210	1320
					-18%	861		-18%	943		Default	845	1000	1100	1200
	A80US2V090B16(L)K	1 HP	11-1/2 x 9	25-55	+24%	1353	40-70	+24%	1488	1st Stage	+10%	743	935	1073	1238
					+18%	1287		+18%	1416		Default	675	850	975	1125
					+12%	1222		+12%	1344		-10%	608	765	878	1013
					+6%	1156		+6%	1272		+10%	1045	1320	1540	1760
					Default	1091		Default	1200	2nd Stage	Default	950	1200	1400	1600
					-6%	1026		-6%	1128		-10%	855	1080	1260	1440
					-12%	960		-12%	1056		+10%	1045	1320	1540	1760
					-18%	895		-18%	984		Default	950	1200	1400	1600
	A80US2V090C20K	1 HP	11-1/2 x 10	25-55	+24%	1353	35-65	+24%	1488	1st Stage	+10%	897	1045	1177	1353
					+18%	1287		+18%	1416		Default	815	950	1070	1230
					+12%	1222		+12%	1344		-10%	734	855	963	1107
					+6%	1156		+6%	1272		+10%	1276	1491	1683	1931
					Default	1091		Default	1200	2nd Stage	Default	1160	1355	1530	1755
					-6%	1026		-6%	1128		-10%	1044	1220	1377	1580
					-12%	960		-12%	1056		+10%	1276	1491	1683	1931
					-18%	895		-18%	984		Default	1160	1355	1530	1755
	A80US2V110C20(L)K	1 HP	11-1/2 x 10	25-55	+24%	1693	35-65	+24%	1860	1st Stage	+10%	1155	1210	1342	1419
					+18%	1611		+18%	1770		Default	1050	1100	1220	1290
					+12%	1529		+12%	1680		-10%	945	990	1098	1161
					+6%	1447		+6%	1590		+10%	1650	1735	1914	2024
					Default	1365		Default	1500	2nd Stage	Default	1500	1575	1840	1840
					-6%	1283		-6%	1410		-10%	1350	1418	1566	1656
					-12%	1201		-12%	1320		+10%	1650	1735	1914	2024
					-18%	1119		-18%	1230		Default	1500	1575	1840	1840
	A80US2V135D20K	1 HP	11-1/2 x 11	25-55	+24%	1872	40-70	+24%	2058	1st Stage	+10%	1062	1139	1309	1419
					+18%	1782		+18%	1959		Default	965	1035	1190	1290
					+12%	1691		+12%	1859		-10%	869	932	1071	1161
					+6%	1601		+6%	1760		+10%	1513	1623	1870	2024
					Default	1510		Default	1660	2nd Stage	Default	1375	1475	1700	1840
					-6%	1419		-6%	1560		-10%	1238	1328	1530	1656
					-12%	1329		-12%	1461		+10%	1513	1623	1870	2024
					-18%	1238		-18%	1361		Default	1375	1475	1700	1840

BLOWER PERFORMANCE DATA

	Model	Motor Size (hp)	Blower Size	Heating						Cooling					
				Low Fire			High Fire			Cooling Stage	Speed Adjustment	CFM @ 0" - 0.8" w.c.			
				Rise Range F°	Speed Adjustment	CFM @ 0" - 0.5" w.c.	Rise Range F°	Speed Adjustment	CFM @ 0" - 0.5" w.c.			Low	Med Low	Med High	High (Default)
DOWNFLOW	A80DS2V070A12K	1/2 HP	10 x 8	25-55	+24%	1042	35-65	+24%	1147	1st Stage	+10%	693	755	855	986
					+18%	991		+18%	1092		Default	630	686	777	896
					+12%	941		+12%	1036		-10%	567	617	699	806
					+6%	980		+6%	981		+10%	990	1078	1221	1408
					Default	840		Default	925	2nd Stage	Default	900	980	1110	1280
					-6%	790		-6%	870		-10%	810	882	999	1152
					-12%	739		-12%	814		+10%	770	935	1073	1238
					-18%	689		-18%	759		Default	700	850	975	1125
	A80DS2V090B16K	1 HP	11-1/2 x 9	25-55	+24%	1353	35-65	+24%	1488	1st Stage	+10%	770	935	1073	1238
					+18%	1287		+18%	1416		Default	700	850	975	1125
					+12%	1222		+12%	1344		-10%	630	765	878	1013
					+6%	1156		+6%	1272		+10%	1100	1320	1540	1760
					Default	1091		Default	1200	2nd Stage	Default	1000	1200	1400	1600
					-6%	1026		-6%	1128		-10%	900	1080	1260	1440
					-12%	960		-12%	1056		+10%	895	1139	1293	1331
					-18%	895		-18%	984		Default	895	1035	1175	1210
	A80DS2V110C20K	1 HP	11-1/2 x10	25-55	+24%	1581	35-65	+24%	1742	1st Stage	+10%	985	1139	1293	1331
					+18%	1505		+18%	1658		Default	895	1035	1175	1210
					+12%	1428		+12%	1574		-10%	806	932	1058	1089
					+6%	1352		+6%	1489		+10%	1403	1625	1843	1898
					Default	1275		Default	1405	2nd Stage	Default	1275	1475	1675	1725
					-6%	1199		-6%	1321		-10%	1148	1328	1508	1553
					-12%	1122		-12%	1236		+10%	895	1035	1175	1210
					-18%	1046		-18%	1152		Default	806	932	1058	1089

DIMENSIONS (IN.)

	Model	A	B	C	D
UPFLOW/HORIZONTAL	A80US2V070A12(L)K	14-1/2	13-3/8	13	4-3/4
	A80US2V090B12K	17-1/2	16-3/8	16	6-1/4
	A80US2V090B16(L)K	17-1/2	16-3/8	16	6-1/4
	A80US2V090C20K	21	19-7/8	19-1/2	8
	A80US2V110C20(L)K	21	19-7/8	19-1/2	8
	A80US2V135D20K	24-1/2	23-3/8	23	11-1/8
DOWNFLOW	A80DS2V070A12K	14-1/2	13-3/8	13	4-3/4
	A80DS2V090B16K	17-1/2	16-3/8	16	6-1/4
	A80DS2V110C20K	21	19-7/8	19-1/2	8



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	
11K48	Two-Stage (0 - 7500 ft.)
11K47	Two-Stage (>7500 ft.)
Return Air Base	
68W61	Return Air Base 14.5 Inch, A Width
68W62	Return Air Base 17.5 Inch, B Width
68W63	Return Air Base 21.0 Inch, C Width
Night Service Kit	
89W54	Two-Stage
Horizontal Suspension Kit	
51W10	80% & 90% Kit
Combustible Floor Base	
11M59	14.5 Inch, A Width
11M60	17.5 Inch, B Width
11M61	21.0 Inch, C Width
Comfort Sync® Controls	
1.841226	Comfort Sync® A3 Thermostat
1.851399	Comfort Sync® Zoning Controller
1.851422	Comfort Sync® Zone Sensor
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	

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



1-800-448-5872

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