A802VXK
PRODUCT SPECIFICATIONS

TWO STAGE VARIABLE SPEED ULTRA LOX NOX GAS FURNACE

FORM NO. A802VXK-100 (11/2026)



DESCRIPTION

The A802VXK model is an 80% AFUE gas furnace used for upflow or horizontal applications only, manufactured with aluminized steel tubular heat exchangers. A802VXK units are available in heating capacities of 60,000 to 100,000 Btuh and cooling applications up to 5 tons. Units are approved for installations up 7500 feet above sea level and factory equipped for use with natural gas only. The A802VXK is Comfort Sync™ thermostat enabled with two-stage variable speed integrated control. The A802VXK meets the California Ultra Low Nitrogen Oxides (NOx) Standards (14ng/J) and California Seasonal Efficiency requirements. All units use a redundant gas valve to assure safety shut-off as required by C.S.A. All specifications are subject to change without notice.

INSTALLATION FEATURES

- Left and right electrical connections, except where noted
- Removable floor base for bottom return air
- Zero step horizontal conversion
- Compliant with 14NG/J emission requirements

WARRANTY

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

Note: Not for sale in Canada

CONFIGURATIONS

- Upflow / Horizontal

HEAT EXCHANGER DESIGN

- Aluminized steel tubular heat exchanger

CABINET DESIGN

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

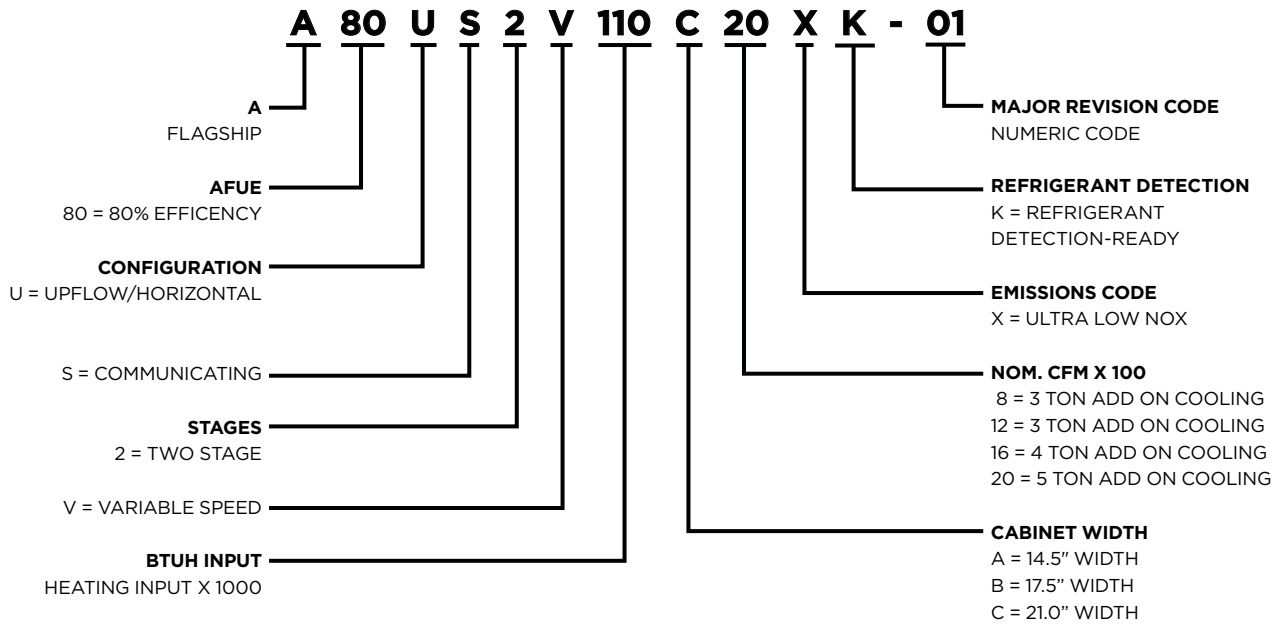
AIR DELIVERY SYSTEM

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

CONTROLS

- Communicating control enabled
- 1:1 air-gas pressure gas valve
- Thermostat flexibility: works with the Comfort Sync™ T-Stat or a conventional 24V T-Stat
- Self diagnostics saves last 10 fault codes regardless of power interruption

MODEL NUMBER GUIDE



PHYSICAL AND ELECTRICAL DATA

Model	Input (Btuh)	Output (Btuh)	AFUE	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)
A80US2V060A12XK	60,000	47,000	80%	3 Tons	1/2	120-60-1	15	7.7	40	121
A80US2V080B16XK	80,000	63,000	80%	4 Ton	1/2	120-60-1	20	12.8	40	142
A80US2V080C20XK	80,000	62,000	80%	5 Ton	1/2	120-60-1	20	12.8	40	151
A80US2V100C20XK	100,000	79,000	80%	5 Ton	1/2	120-60-1	20	12.8	40	158

BLOWER PERFORMANCE DATA

A80US2V060A12XK Blower Performance (Less Filter)

Bottom Return Air

0 through 0.8 in. w.g. (Heating) and 0 through 1.0 in. w.g. (Cooling) External Static Pressure Range

HEATING								
[1] Heating Speed DIP Switch Settings	First Stage Heating Speed - cfm				Second Stage Heating Speed - cfm			
+24%	1015				1115			
+18%	955				1060			
+12%	895				995			
+6%	845				935			
Factory Default	785				875			
-6%	730				815			
-12%	685				755			
-18%	630				700			
COOLING								
[1] Cooling Speed DIP Switch Settings	First Stage Cooling Speed - cfm				Second Stage Cooling Speed - cfm			
	Low	Medium-Low	Medium-High	[2] High	Low	Medium-Low	Medium-High	[2] High
+	680	740	785	915	935	1025	1150	1295
Factory Default	625	660	720	815	835	930	1040	1185
-	565	580	650	740	745	825	925	1035

A80US2V080B16XK Blower Performance (Less Filter)

Bottom Return Air

0 through 0.8 in. w.g. (Heating) and 0 through 1.0 in. w.g. (Cooling) External Static Pressure Range

HEATING								
[1] Heating Speed DIP Switch Settings	First Stage Heating Speed - cfm				Second Stage Heating Speed - cfm			
+24%	1295				1445			
+18%	1230				1375			
+12%	1155				1290			
+6%	1095				1215			
Factory Default	1015				1145			
-6%	950				1065			
-12%	885				985			
-18%	810				910			
COOLING								
[1] Cooling Speed DIP Switch Settings	First Stage Cooling Speed - cfm				Second Stage Cooling Speed - cfm			
	Low	Medium-Low	Medium-High	[2] High	Low	Medium-Low	Medium-High	[2] High
+	635	880	1020	1190	990	1270	1490	1710
Factory Default	565	775	915	1070	885	1135	1345	1540
-	545	670	820	955	775	1015	1205	1390

1 Cooling and heating speeds are based on a combination of DIP switch settings on the furnace control. Refer to Installation Instructions for specific DIP Switch Settings.
2 Factory default setting.
NOTES - The effect of static pressure is included in air volumes shown.

- *First stage HEAT is approximately 91% of the same second stage HEAT.*
- *First stage COOL (two-stage air conditioning units only) is approximately 70% of the same second stage COOL speed position.*
- *Continuous Fan Only speed is selectable at 28%, 38%, 70% and 100% of the selected second stage cooling speed - minimum 280 for A80US2V060A12XK and 380 cfm for A80US2V080B16XK.*
- *Zoning System Applications - Minimum blower speed is 250 cfm for A80US2V060A12XK and 380 cfm A80US2V080B16XK.*

BLOWER PERFORMANCE DATA

A80US2V080C20XK Blower Performance (Less Filter)

Bottom Return Air, Return Air from Both Sides or Return Air from Bottom and One Side

0 through 0.8 in. w.g. (Heating) and 0 through 1.0 in. w.g. (Cooling) External Static Pressure Range

HEATING								
[1] Heating Speed DIP Switch Settings	First Stage Heating Speed - cfm				Second Stage Heating Speed - cfm			
+24%	1330				1455			
+18%	1260				1385			
+12%	1210				1320			
+6%	1135				1250			
Factory Default	1070				1165			
-6%	1005				1100			
-12%	930				1025			
-18%	865				955			
COOLING								
[1] Cooling Speed DIP Switch Settings	First Stage Cooling Speed - cfm				Second Stage Cooling Speed - cfm			
	Low	Medium-Low	Medium-High	[2] High	Low	Medium-Low	Medium-High	[2] High
+	1040	1170	1335	1590	1470	1640	1870	2205
Factory Default	945	1065	1230	1440	1340	1495	1715	1985
-	830	955	1105	1300	1205	1340	1545	1790

A80US2V100C20XK Blower Performance (Less Filter)

Bottom Return Air, Return Air from Both Sides or Return Air from Bottom and One Side

0 through 0.8 in. w.g. (Heating) and 0 through 1.0 in. w.g. (Cooling) External Static Pressure Range

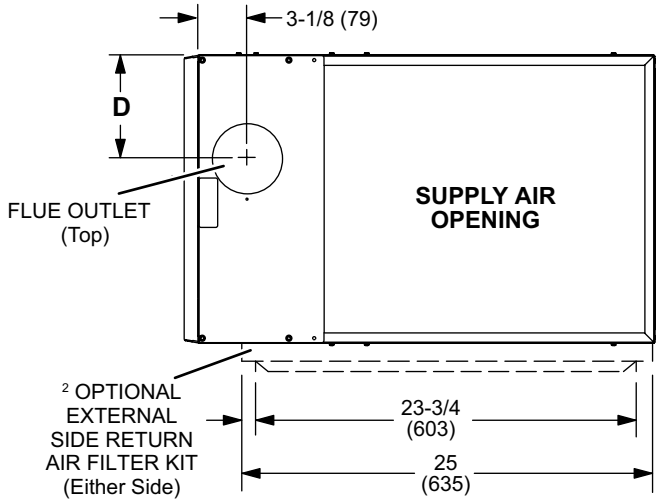
HEATING								
[1] Heating Speed DIP Switch Settings	First Stage Heating Speed - cfm				Second Stage Heating Speed - cfm			
+24%	1600				1770			
+18%	1510				1670			
+12%	1435				1585			
+6%	1355				1505			
Factory Default	1275				1415			
-6%	1185				1335			
-12%	1120				1245			
-18%	1035				1155			
COOLING								
[1] Cooling Speed DIP Switch Settings	First Stage Cooling Speed - cfm				Second Stage Cooling Speed - cfm			
	Low	Medium-Low	Medium-High	[2] High	Low	Medium-Low	Medium-High	[2] High
+	1095	1160	1285	1485	1570	1645	1830	2125
Factory Default	1005	1075	1175	1355	1425	1485	1660	1910
-	925	960	1070	1215	1275	1330	1490	1720

1 Cooling and heating speeds are based on a combination of DIP switch settings on the furnace control. Refer to Installation Instructions for specific DIP Switch Settings.
2 Factory default setting.
NOTES - The effect of static pressure is included in air volumes shown.

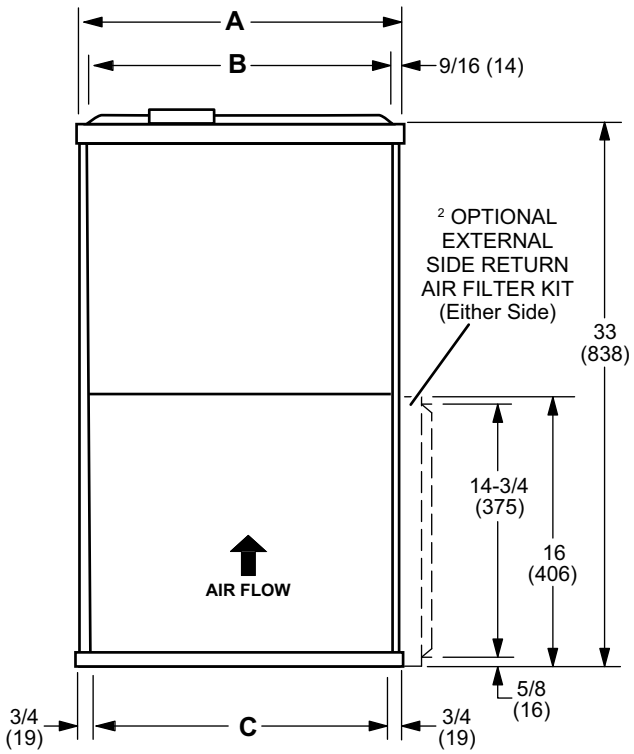
- *First stage HEAT is approximately 91% of the same second stage HEAT.*
- *First stage COOL (two-stage air conditioning units only) is approximately 70% of the same second stage COOL speed position.*
- *Continuous Fan Only speed is selectable at 28%, 38%, 70% and 100% of the selected second stage cooling speed - minimum 450 cfm.*
- *Zoning System Applications - Minimum blower speed is 450 cfm.*

DIMENSIONS

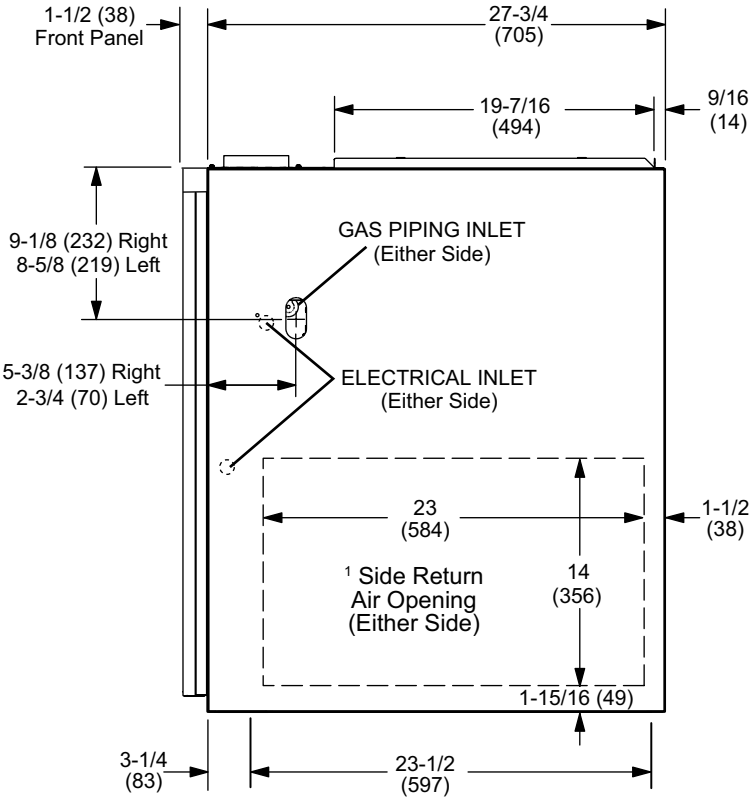
Model	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
A80US2V060A12XK	14-1/2	368	13-3/8	340	13	330	4-3/4	121
A80US2V080B16XK	17-1/2	446	16-3/8	416	16	406	6-1/4	159
A80US2V080C20XK	21	533	19-7/8	504	19-1/2	495	8	203
A80US2V100C20XK								



TOP VIEW



FRONT VIEW



SIDE VIEW

ACCESSORIES

Catalog Number	Description
External Filter Rack Kits	
1.841018	1 pack (16 x 25)
1.841039	10 pack (16 x 25)
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
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
High Altitude Pressure Switches (4501 - 7500 ft.)	
20K91	-060
Low Profile Combustion Air Intake Assembly	
25B23	Air Intake Kit for Narrow Closets
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	
Gas Entry Kit	
80% Right hand Gas entry Kit	27U30

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

ALLIED™ Air Enterprises

1-800-448-5872

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

FORM NO. A802VXK-100 (11/2026)

© 2026 Allied Air Enterprises LLC, a Lennox International Inc. Company

Printed in the U.S.A.