

A802EK

PRODUCT SPECIFICATIONS

80% TWO-STAGE CONSTANT TORQUE GAS FURNACES

FORM NO. A802EK-100 (07/2025)



CONFIGURATIONS

- Upflow / Horizontal

HEAT EXCHANGER DESIGN

- Aluminized steel primary heat exchanger with crimped non-welded construction

BURNERS

- Aluminized steel in shot burners for smooth ignition

CABINET CONSTRUCTION

- Compact 33" height
- Standardized widths for easy coil fit
- Heat exchanger compartment is insulated to increase efficiency and reduce sound levels
- Baked on prepainted steel cabinet finish

CONSTANT TORQUE ECM

- Efficient blower motor
- Easily removable slide-out blower design
- Dynamically balanced blower wheel with resilient motor mounts for smooth and quiet operation

CONTROLS

- Two stage gas valve
- Integrated ignition and fan control
- Self diagnostics saving last 10 fault codes regardless of power interruption
- Hot surface ignition system uses silicon nitride ignitor
- Control features 120 volt electronic air cleaner and humidifier terminals
- Control circuit is fuse protected
- Color coded control wiring
- Compatible with single or two stage thermostats for heating. Two stage thermostat is recommended when installed with two stage cooling unit.

VENTING

- 2-speed induced draft motor with stainless steel shaft, steel ball bearings, and fan cooled for long life

INSTALLATION FEATURES

- Left or right gas and electric entry
- Zero step horizontal conversion
- Removable floor base (upflow/horizontal units) for bottom return air

WARRANTY

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

California Only

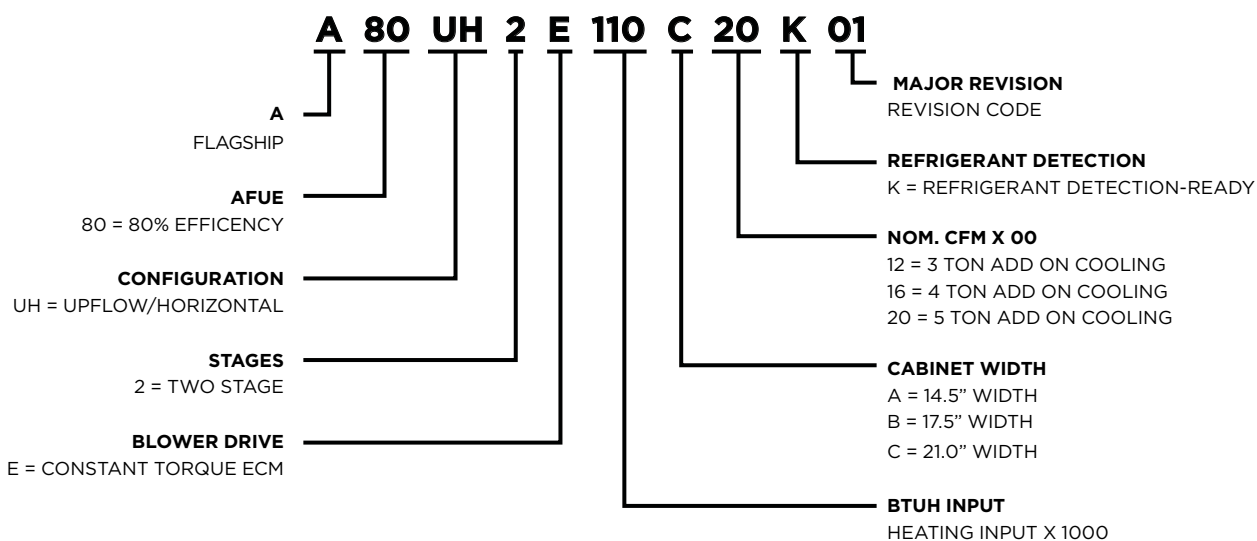
*If installed in South Coast Air Quality Management District (SCAQMD) only:
This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com.*

This furnace does not meet the SCAQMD Rule 1111 NOx emission limit (14 ng/J).

*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).*



MODEL NUMBER GUIDE



PHYSICAL AND ELECTRICAL DATA

	Model	High Fire		Low Fire		AFUE (ICUS)	Nom. Cooling Capacity (tons)	Gas Inlet (in.)	Volts/ Hz/ Phase	Max. Overcurrent Protection	Nominal F.L.A.	Trans. (V.A.)	Motor Output (hp)	Approx. Weight (lbs.)
		Input (Btuh)	Output (Btuh)	Input (Btuh)	Output (Btuh)									
UPFLOW / HORIZONTAL	A80UH2E045A12K	44,000	35,000	29,000	23,000	80.0	3	1/2	120-60-1	15	6.1	40	1/2	111
	A80UH2E070A12K	66,000	54,000	43,000	35,000	80.0	3	1/2	120-60-1	15	6.1	40	1/2	121
	A80UH2E090B12K	88,000	71,000	57,000	47,000	80.0	3	1/2	120-60-1	15	6.1	40	1/2	136
	A80UH2E090B16K	88,000	72,000	57,000	46,000	80.0	4	1/2	120-60-1	15	8.2	40	3/4	140
	A80UH2E110C16K	110,000	89,000	72,000	58,000	80.0	4	1/2	120-60-1	15	8.2	40	3/4	152
	A80UH2E110C20K	110,000	88,000	72,000	59,000	80.0	5	1/2	120-60-1	15	10.0	40	1	156

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

Note: Filters and provisions for mounting are not furnished and must be field provided.

BLOWER PERFORMANCE DATA - UPFLOW / HORIZONTAL**A80UH2E045A12K**

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds									
	High (Black)		Medium-High (Brown)		Medium (Blue)		Medium-Low (Yellow)		Low (Red)	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	1436	310	1199	175	1022	113	875	79	875	82
0.20	1431	315	1166	183	987	120	747	68	714	62
0.30	1413	324	1138	192	938	129	696	76	514	49
0.40	1378	337	1104	199	905	137	640	81	448	55
0.50	1350	345	1070	206	858	146	588	87	367	60
0.60	1321	357	1031	215	824	152	533	93	311	65
0.70	1292	366	993	226	773	159	488	98	272	69
0.80	1267	378	969	233	737	165	426	104	232	73
0.90	1239	385	926	243	691	173	382	108	N/A	N/A
1.00	1210	394	891	250	649	179	N/A	N/A	N/A	N/A

A80UH2E070A12K

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds									
	High (Black)		Medium-High (Brown)		Medium (Blue)		Medium-Low (Yellow)		Low (Red)	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	1425	314	1300	247	1163	177	922	102	801	75
0.20	1391	326	1275	253	1126	189	877	108	725	71
0.30	1369	336	1245	266	1099	196	840	115	673	77
0.40	1335	348	1217	271	1059	205	796	122	625	85
0.50	1312	355	1183	284	1029	216	761	128	580	87
0.60	1282	366	1156	292	995	223	718	137	530	95
0.70	1255	378	1123	303	959	231	680	144	482	99
0.80	1227	386	1094	309	929	240	638	149	429	107
0.90	1196	397	1065	321	902	247	605	157	371	111
1.00	1170	405	1034	328	865	254	570	165	N/A	N/A

A80UH2E090B12K

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds									
	High (Black)		Medium-High (Brown)		Medium (Blue)		Medium-Low (Yellow)		Low (Red)	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	1524	300	1418	231	1260	167	1012	95	973	86
0.20	1495	311	1374	243	1220	182	965	102	777	67
0.30	1460	322	1323	254	1183	188	908	110	709	73
0.40	1424	334	1297	263	1129	200	853	115	650	82
0.50	1390	343	1259	274	1100	205	802	128	575	87
0.60	1358	357	1227	283	1064	213	736	132	517	96
0.70	1329	364	1185	294	1013	223	684	138	437	100
0.80	1289	376	1144	305	968	232	639	147	380	105
0.90	1246	385	1108	311	929	238	572	152	344	108
1.00	1215	396	1059	323	881	250	510	158	N/A	N/A

A80UH2E090B16K

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds									
	High (Black)		Medium-High (Brown)		Medium (Blue)		Medium-Low (Yellow)		Low (Red)	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	1743	383	1538	269	1419	213	1321	187	1213	141
0.20	1718	395	1509	279	1379	228	1292	195	1161	155
0.30	1681	412	1466	293	1344	237	1245	207	1113	164
0.40	1661	423	1434	307	1298	247	1198	217	1059	172
0.50	1619	435	1396	317	1259	258	1155	227	1017	178
0.60	1592	449	1357	328	1210	270	1106	235	968	188
0.70	1554	460	1313	339	1176	279	1056	244	924	198
0.80	1520	472	1274	348	1131	289	1019	254	873	205
0.90	1457	477	1239	357	1097	295	977	263	821	214
1.00	1291	429	1195	369	1055	306	936	271	738	224

A80UH2E110C16K

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds									
	High (Black)		Medium-High (Brown)		Medium (Blue)		Medium-Low (Yellow)		Low (Red)	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	1788	355	1586	250	1450	199	1365	166	1241	134
0.20	1747	371	1543	259	1407	210	1313	182	1188	139
0.30	1714	384	1501	273	1369	219	1280	189	1141	149
0.40	1681	395	1458	286	1323	231	1229	197	1088	162
0.50	1638	409	1421	296	1271	240	1174	209	1032	172
0.60	1604	423	1379	308	1227	251	1131	218	981	178
0.70	1569	432	1328	316	1191	259	1083	229	926	189
0.80	1533	447	1285	326	1138	268	1040	236	871	197
0.90	1489	459	1245	338	1089	283	974	249	828	206
1.00	1455	472	1208	348	1045	294	934	255	763	215

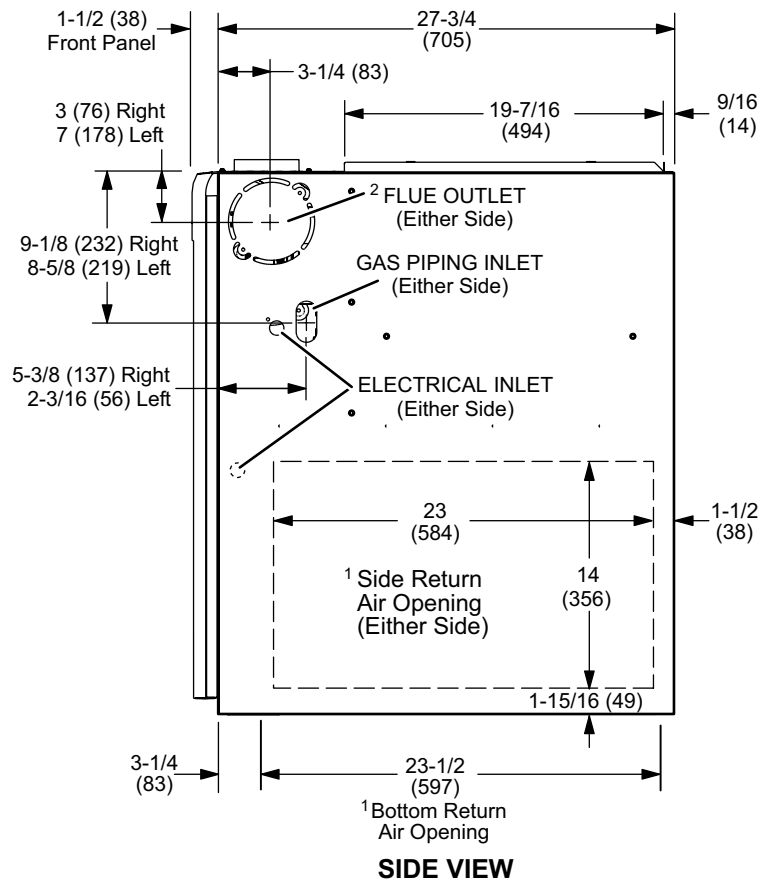
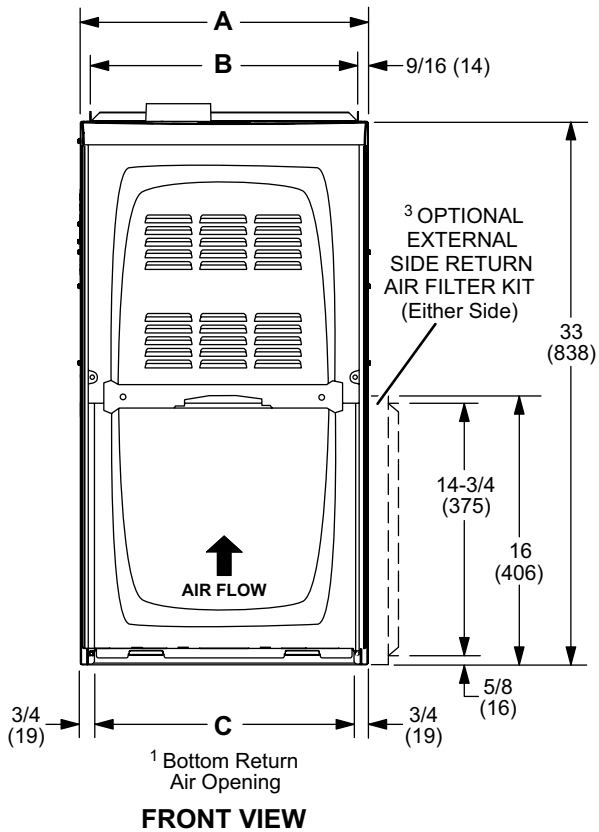
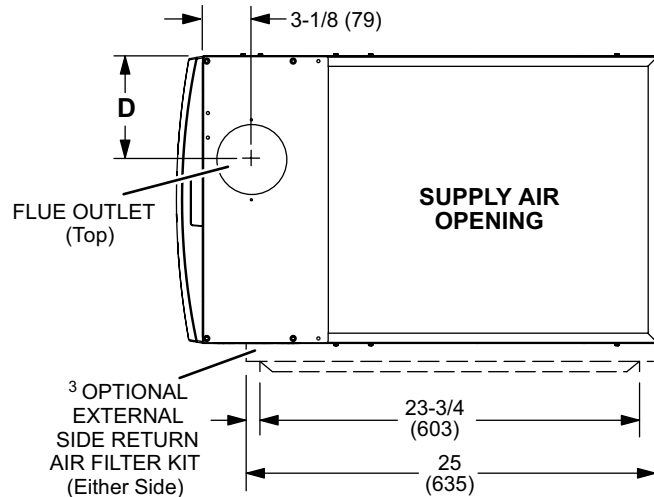
A80UH2E110C20K

Air Volume / Watts at Different Blower Speeds																
External Static Pressure in. w.g.	Bottom Return Air, Side Return Air from Both Sides or Return Air from Bottom and One Side.															
	High (Black)		Medium-High (Brown)		Medium (Blue)		Medium-Low (Yellow)		Low (Red)		High (Black)		Medium-High (Brown)		Medium (Blue)	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	2196	614	1954	430	1794	337	1674	282	1499	204	2164	611	1911	430	1762	336
0.20	2151	632	1919	446	1768	347	1634	292	1454	214	2126	631	1876	444	1718	350
0.30	2115	645	1879	461	1706	364	1592	303	1402	227	2092	646	1839	458	1673	361
0.40	2084	662	1845	477	1670	377	1555	318	1357	238	2055	662	1800	474	1638	374
0.50	2062	678	1799	491	1624	390	1507	328	1309	249	2016	678	1764	488	1594	388
0.60	2016	693	1763	502	1584	402	1464	342	1255	261	1986	691	1727	501	1556	401
0.70	1991	705	1728	519	1547	413	1428	355	1208	269	1967	705	1684	515	1521	411
0.80	1950	724	1684	531	1492	426	1374	366	1156	281	1916	720	1656	526	1480	425
0.90	1912	733	1651	543	1460	439	1322	376	1105	292	1895	734	1618	538	1440	437
1.00	1876	753	1605	557	1426	450	1291	389	1038	303	1845	752	1577	553	1396	450

Single Side Return Air - Air volumes in **bold** (over 1800 cfm) require Optional Return Air Base and field fabricated transition to accommodate 20 x 25 x 1 in. air filter in order to maintain proper air velocity.

DIMENSIONS (IN.) - UPFLOW POSITION

Model	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
A80UH2E045A12K A80UH2E070A12K	14-1/2	368	13-3/8	340	13	330	4-3/4	121
A80UH2E090B12K A80UH2E090B16K	17-1/2	446	16-3/8	416	16	406	6-1/4	159
A80UH2E110C16K A80UH2E110C20K	21	533	19-7/8	504	19-1/2	495	8	203

TOP VIEW

1 NOTE - 60C size units that require air volumes over 1800 cfm must have one of the following:

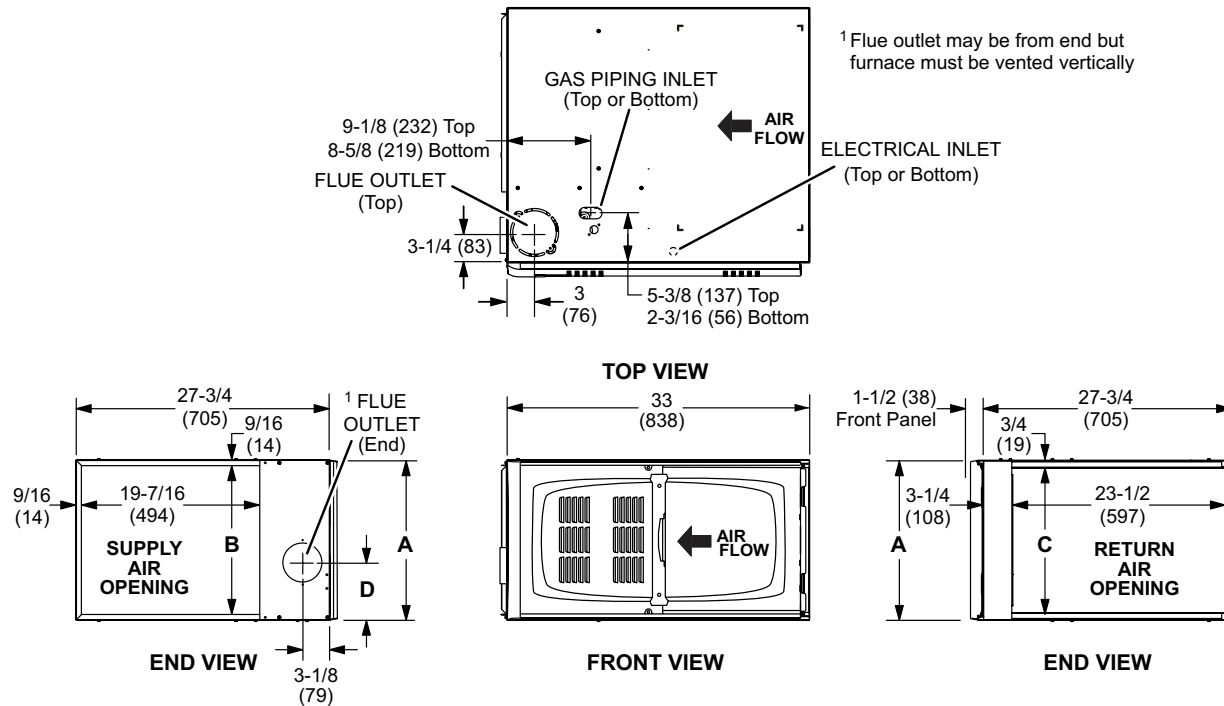
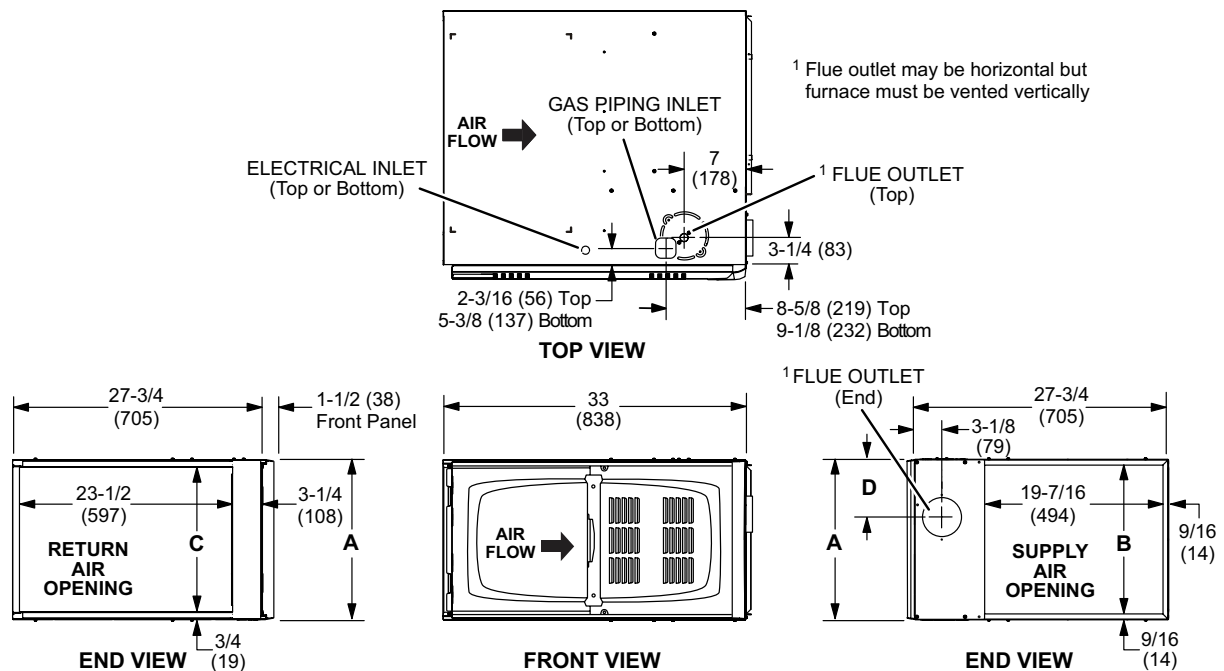
1. Single side return air and Optional Return Air Base with transition that must accommodate required 20 x 25 x 1 inch (508 x 635 x 25 mm) air filter to maintain proper velocity.
2. Bottom return air.
3. Return air from both sides.
4. Bottom and one side return air. See Blower Performance Tables for additional information.

2 Flue outlet may be horizontal but furnace must be vented vertically.

3 Optional External Side Return Air Filter Kit is not for use with the optional Return Air Base.

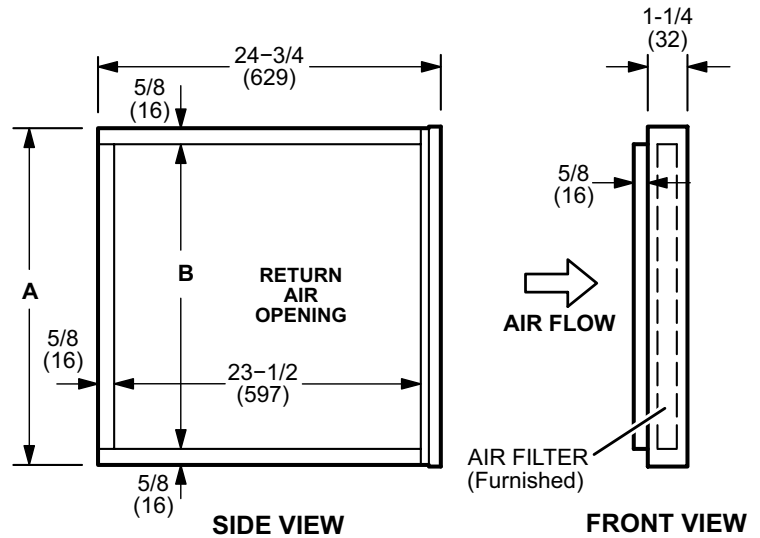
DIMENSIONS (IN.) - HORIZONTAL POSITION

Model	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
A80UH2E045A12K A80UH2E070A12K	14-1/2	368	13-3/8	340	13	330	4-3/4	121
A80UH2E090B12K A80UH2E090B16K	17-1/2	446	16-3/8	416	16	406	6-1/4	159
A80UH2E110C16K A80UH2E110C20K	21	533	19-7/8	504	19-1/2	495	8	203

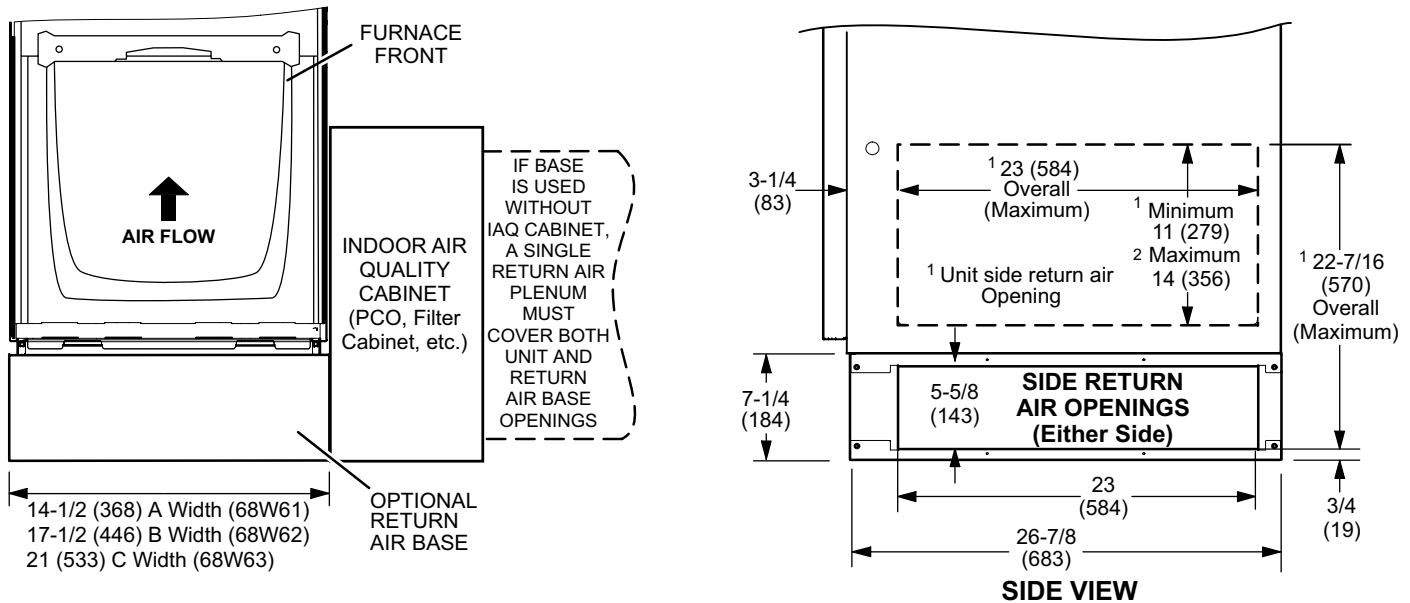
LEFT-HAND AIR DISCHARGE**RIGHT-HAND AIR DISCHARGE**

HORIZONTAL (END) FILTER KIT

Furnace Cabinet Width	Catalog Number	A		B	
		in.	mm	in.	mm
A	87L95	14	356	12-3/4	324
B	87L96	18	457	16-3/4	425
C	87L97	21	533	18-3/4	476

**OPTIONAL RETURN AIR BASE**

(Upflow Applications Only - For use with A, B and C width cabinets)



NOTE - Optional Side Return Air Filter Kits are not for use with Optional Return Air Base.

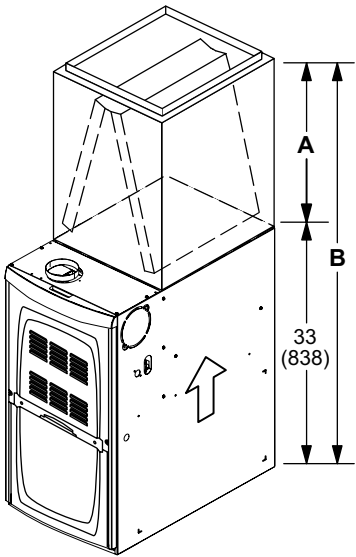
1 Both the unit return air opening and the base return air opening must be covered by a single plenum or IAQ cabinet. Minimum unit side return air opening dimensions for units requiring 1800 cfm or more of air (W x H): 23 x 11 in. (584 x 279 mm). The opening can be cut as needed to accommodate plenum or IAQ cabinet while maintaining dimensions shown. Side return air openings must be cut in the field. There are cutting guides stenciled on the cabinet for the side return air opening. The size of the opening must not extend beyond the markings on the furnace cabinet.

2 To minimize pressure drop, the largest opening height possible, up to 14 in. (356 mm), is preferred.

FURNACE / COIL COMBINED DIMENSIONS

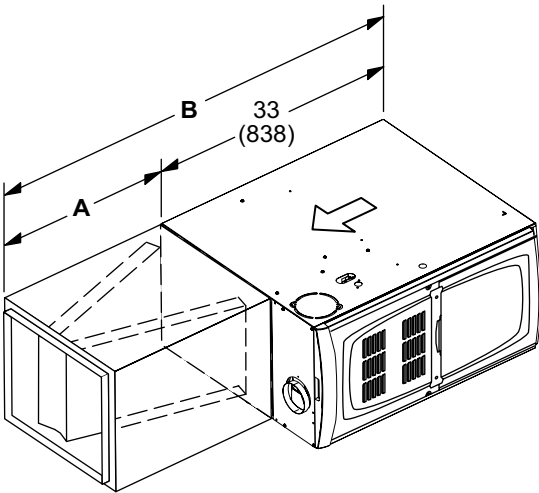
UPFLOW POSITION

Model	EAC1P/EAC4X Cased				EAU1P Uncased			
	A		B		A		B	
	in.	mm	in.	mm	in.	mm	in.	mm
EA*1P/EAC4X18/24A EA*1P/EAC4X18/24B	16-1/2	419	49-1/2	1257	14-1/8	359	47-1/8	1197
EA*1P/EAC4X24A EA*1P/EAC4X24B	18-1/2	470	51-1/2	1308	16-3/8	416	49-3/8	1254
EA*1P/EAC4X30A EA*1P/EAC4X30B	22-1/2	572	55-1/2	1410	20-3/4	527	53-3/4	1365
EA*1P/EAC4X30A/36A EA*1P/EAC4X30B/36B EA*1P/EAC4X30A/36C	24-1/2	622	57-1/2	1461	22-1/4	565	55-1/4	1403
EA*1P/EAC4X36A EA*1P/EAC4X36B	24-1/2	622	57-1/2	1461	22-3/8	568	55-3/8	1407
EA*1P/EAC4X48B EA*1P/EAC4X48C	27-1/2	699	60-1/2	1537	26-1/4	667	59-1/4	1505
EA*1P/EAC4X49C	29-1/2	749	62-1/2	1588	28-1/2	724	61-1/2	1562
EA*1P/EAC4X50/60C	27-1/2	699	60-1/2	1537	25-7/8	657	58-7/8	1495
EAC4X60C	31-1/2	800	64-1/2	1638	30-5/8	778	63-5/8	1616



HORIZONTAL POSITION

Model		A		B	
		in.	mm	in.	mm
EAH1P18A EAH1P24A EAH1P24B EAH1P30B	EAH1P36A EAH1P36B EAH1P36C EAH1P42C EAH1P48C	26-1/2	673	59-1/2	1511
EAH1P30A EAH1P42B EAH1P48B	EAH1P51C EAH1P60D	31-1/2	880	64-1/2	1638



ACCESSORIES

ACCESSORY	CATALOG NUMBER
RETURN AIR BASE	
Return Air Base 14.5"	68W61
Return Air Base 17.5"	68W62
Return Air Base 21.0"	68W62
HIGH ALTITUDE PRESSURE SWITCHES	
2-Stage 80% UH/DF (4501 - 7500 ft) [045, 070, 090 110]	91W53
2-Stage 80% UH/DF (7501 - 10,000 ft) [045, 070, 090 110]	73W35
HIGH ALTITUDE ORIFICE KITS (7500 ft+)	
2-Stage 80% UH/DF - Natural Gas	51W01
2-Stage 80% UH/DF - Propane Gas	11K47
NATURAL TO LP KITS	
2-Stage 80% UH/DF (0 - 7500 ft)	11K48
2-Stage 80% UH/DF (7501 - 10,000 ft)	11K47
LP TO NATURAL KITS	
2-Stage 80% UH/DF	77W10
NIGHT SERVICE KITS	
2-Stage	22J94
HORIZONTAL SUSPENSION KIT	
80% & 90%	51W10
EXTERNAL FILTER RACK KITS	
1 pack (16 x 25)	1.841018
10 pack (16 x 25)	1.841039
TWINNING KIT	
Constant Torque Gas Furnace Twinning Kit	16W72
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.