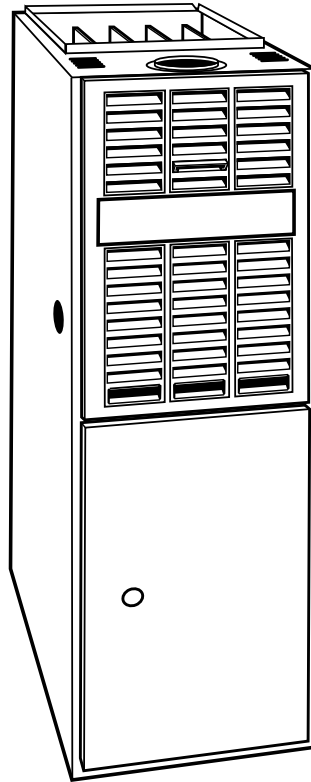




Model GB1AAV Series G

UPFLOW GAS FURNACE

FEATURES

- SIZES AVAILABLE:** 024045 through 060155
- EFFICIENCY:** The GB1AAV Induced-Combustion Gas Furnace provides the efficiency customers want with 80% Annual Fuel Utilization Efficiency (AFUE).
- IGNITION:** The field-proven hot surface ignition system will save energy and improve reliability.
- HEAT EXCHANGER:** The patented 4-pass heat exchanger is made of aluminized steel and backed by a 10-year Limited Warranty.
- CONTROL BOARD:** The GB1AAV Furnace has an intelligent control board that monitors the operation of the furnace. This control board also has a self-test feature that enables the servicing technician to verify operation of the board itself, the inducer, the hot-surface ignitor, both high- and low-speed blower operation, and the humidifier. The board also features a 3-amp fuse that protects the transformer and board.
- CABINET:** The GB1AAV is assembled in a cabinet only 40 in. high.

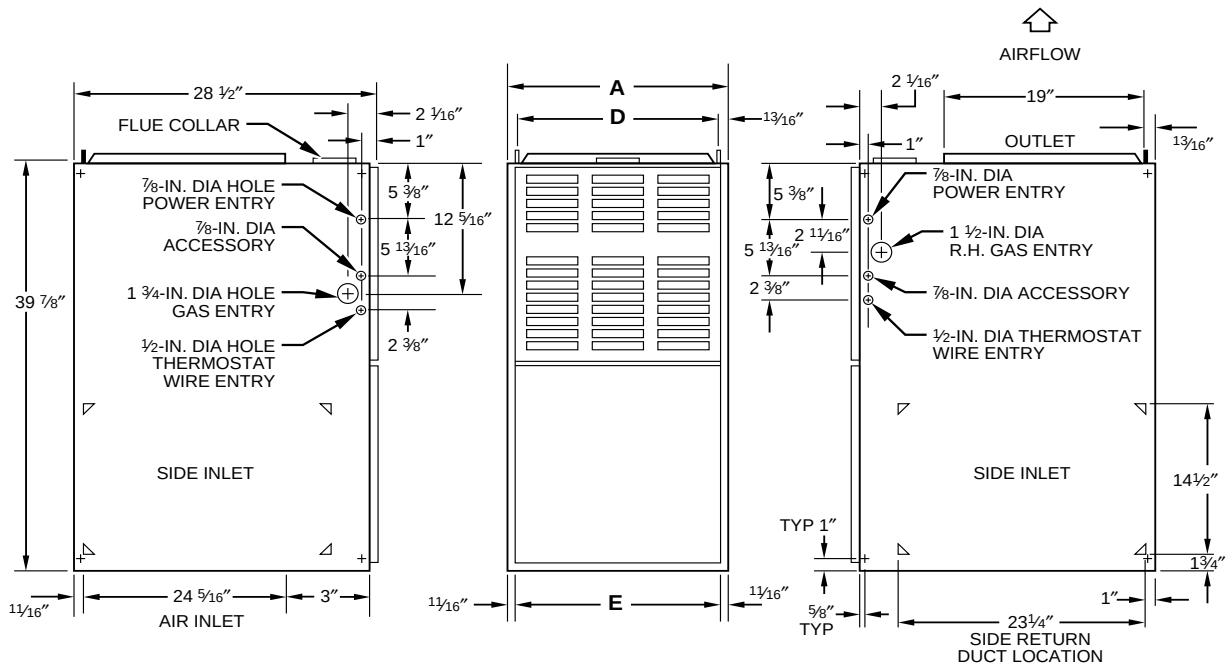
**DRAFT
SAFEGUARD:**

INSTALLATION:

This simplifies installation in alcoves, attics, basements (ideal for short basement), closets, and utility rooms, especially with a high-efficiency cooling coil. The cabinet is constructed from a specially selected galvanized steel. There is also double protection for the cabinet. First, a galvanized steel substrate provides resistance to rusting. Then the cabinet is constructed of pre-painted steel—the same high-quality finish found on refrigerators and dishwashers.

Our induced-combustion furnace has a patented draft safeguard system which stops furnace operation if the vent system becomes blocked or is not operating properly.

The Model GB1AAV has many features that make installation easier: left or right gas and electrical connections, blower speed selector, matching coil sizes, thermostat low-voltage connections, electronic air cleaner terminals, and many more.



- NOTES:**
- Two additional 7/8-in. dia knockouts are located in the top plate.
 - Minimum return-air opening at furnace:
 - For 800 CFM—16-in. round or 14 1/2 x 12-in. rectangle.
 - For 1200 CFM—20-in. round or 14 1/2 x 19 1/2-in. rectangle.
 - For 1600 CFM—22-in. round or 14 1/2 x 23 1/4-in. rectangle.
 - For airflow requirements above 1800 CFM, use both side inlets, a combination of 1 side inlet and the bottom, or the bottom only.

A88367

DIMENSIONS (In.)

UNIT SIZE	A	D	E	VENT CONNECTION*	SHIPPING WEIGHT (Lb)
024045	14-3/16	12-9/16	11-11/16	4	114
036045	14-3/16	12-9/16	11-11/16	4	116
024065	14-3/16	12-9/16	11-11/16	4	124
036065	14-3/16	12-9/16	11-11/16	4	126
042091	17-1/2	15-7/8	16	4	140
048091	21	19-3/8	18-1/2	4	144
036111	17-1/2	15-7/8	16	4	150
048111	21	19-3/8	18-1/2	4	156
060111	24-1/2	22-7/8	22	4	172
048135	21	19-3/8	18-1/2	5	168
060135	24-1/2	22-7/8	22	5	182
060155	24-1/2	22-7/8	22	5	192

* Refer to the furnace Installation Instructions for proper venting procedures.

CLEARANCES (In.)

UNIT SIZE	045 AND 065	091—155
Sides— Single-Wall Vent	1	0
Type B-1 Double-Wall Vent	0	0
Back	0	0
Top of Plenum	1	1
Vent Connector— Single-Wall Vent	6	6
Type B-1 Double-Wall Vent	1	1
Front*— Single-Wall Vent	6	6
Type B-1 Double-Wall Vent	3	3
Service	30	30

* The 3-in. front clearance is needed for combustion-air and ventilation-air entry.

SPECIFICATIONS

UNIT SIZE	024045	036045	024065	036065	042091	048091
RATINGS AND PERFORMANCE						
Input Btuh*	44,000	44,000	66,000	66,000	88,000	88,000
Capacity (Btuh)† Nonweatherized ICS**	35,000	35,000	53,000	53,000	71,000	71,000
AFUE† Nonweatherized ICS**	80.0	80.0	80.0	80.0	80.0	80.0
Certified Temperature Rise Range °F	25—55	15—45	40—70	30—60	40—70	30—60
Certified External Static Pressure Heat/Cool	0.10/0.50	0.10/0.50	0.12/0.50	0.12/0.50	0.15/0.50	0.15/0.50
Airflow CFM‡	Heating	855	1070	830	1175	1445
	Cooling	930	1270	950	1300	1740
ELECTRICAL						
Unit Volts—Hertz—Phase	115—60—1					
Operating Voltage Range Min—Max	104—127					
Maximum Unit Amps	6.0	8.3	5.9	8.7	9.0	10.4
Maximum Wire Length (Measured 1 Way) Ft	47	34	47	32	31	27
Minimum Wire Size	14					
Maximum Fuse Size	15					
Transformer (24v)	40va					
External Control Heating	12va					
Power Available Cooling	35va					
Air Conditioning Blower Relay	Standard					
CONTROLS						
Limit Control	SPST					
Heating Blower Control	Solid-State Time Operation					
Burners (Monoport)	2	2	3	3	4	4
Gas Connection Size	1/2-in. NPT					
GAS CONTROLS						
Gas Valve (Redundant)	White-Rodgers					
Min Inlet Pressure (In. wc)	4.5 (Natural Gas)					
Max Inlet Pressure (In. wc)	13.6 (Natural Gas)					
Ignition Device	Hot Surface					
BLOWER DATA						
Direct-Drive Motor HP (PSC)	1/5	1/3	1/5	1/3	1/2	1/2
Motor Full Load Amps	2.9	5.8	2.9	5.8	7.9	7.9
Rpm (Nominal)—Speeds	1075—3	1075—4	1075—3	1075—4	1075—4	1075—4
Blower Wheel Diameter x Width (In.)	10 x 6				10 x 7	10 x 8
Filter Size (In.)—Permanent Washable (Supplied)	(1) 16 x 25 x 1					(1) 20 x 25 x 1
FACTORY-AUTHORIZED DEALER-INSTALLED ACCESSORIES						
Twinning Kit	N/A					KGATW0401HSI
Gas Conversion Kit—Natural-to-Propane	KGANP2001ALL					
Gas Conversion Kit—Propane-to-Natural	KGAPN1601ALL					
Side Filter Rack Accepts 1 Filter (In.)	KGAFR0201ALL (Filter Size 16 x 25 x 1)					
Return-Air Filter Cabinet (With Washable Filters) (In.)	KGARP0201ALL (Filter Size 2—20 x 25 x 1)					

* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 4% for each 1000 ft above sea level. Refer to National Fuel Gas Code Table F4. In Canada, derate the unit 10% for elevations 2000 ft to 4500 ft above sea level.

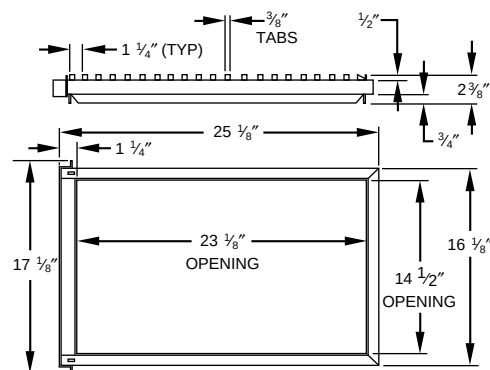
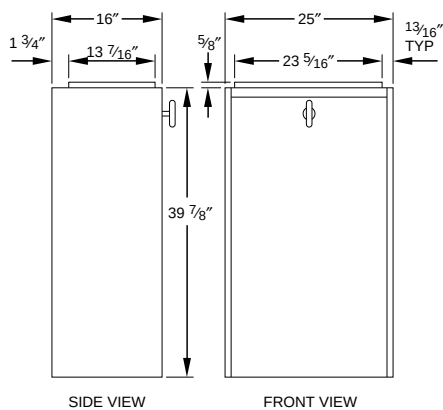
† Capacity and AFUE in accordance with U.S. Government DOE test procedures.

‡ Air delivery above 1800 CFM requires that both sides, or a combination of 1 side and bottom, or bottom only of the furnace be used for return air. A filter is required for each return-air supply.

** Isolated Combustion System

NA—Not Applicable

DIMENSIONAL DRAWINGS OF OPTIONAL RETURN-AIR FILTER CABINET AND SIDE FILTER RACK



SPECIFICATIONS

UNIT SIZE	036111	048111	060111	048135	060135	060155
RATINGS AND PERFORMANCE						
Input Btuh*	110,000	110,000	110,000	132,000	132,000	154,000
Capacity (Btuh)† Nonweatherized ICS**	89,000	89,000	89,000	107,000	107,000	124,000
AFUE† Nonweatherized ICS**	80.0	80.0	80.0	80.0	80.0	80.0
Certified Temperature Rise Range °F	55—85	45—75	25—55	50—80	40—70	50—80
Certified External Static Pressure Heat/Cool	0.20/0.50	0.20/0.50	0.20/0.50	0.20/0.50	0.20/0.50	0.20/0.50
Airflow CFM‡	Heating	1175	1415	1720	1645	1975
	Cooling	1210	1575	2210	1620	1980
ELECTRICAL						
Unit Volts—Hertz—Phase	115—60—1					
Operating Voltage Range Min—Max	104—127					
Maximum Unit Amps	8.0	10.1	14.4	10.1	13.3	14.0
Maximum Wire Length (Measured 1 Way) Ft	35	28	31	28	33	31
Minimum Wire Size	14		12	14	12	
Maximum Fuse Size	15		20	15	20	
Transformer (24v)	40va					
External Control Heating	12va					
Power Available Cooling	35va					
Air Conditioning Blower Relay	Standard					
CONTROLS						
Limit Control	SPST					
Heating Blower Control	Solid-State Time Operation					
Burners (Monoport)	5	5	5	6	6	7
Gas Connection Size	1/2-in. NPT					
GAS CONTROLS						
Gas Valve (Redundant)	White-Rodgers					
Min Inlet Pressure (In. wc)	4.5 (Natural Gas)					
Max Inlet Pressure (In. wc)	13.6 (Natural Gas)					
Ignition Device	Hot Surface					
BLOWER DATA						
Direct-Drive Motor HP (PSC)	1/3	1/2	3/4	1/2	3/4	
Motor Full Load Amps	5.8	7.9	11.1	7.9	11.1	
Rpm (Nominal)—Speeds	1075—4					
Blower Wheel Diameter x Width (In.)	10 x 7	10 x 8	11 x 10	10 x 8	11 x 10	
Filter Size (In.)—Permanent Washable (Supplied)	(1) 16 x 25 x 1	(1) 20 x 25 x 1	(1) 24 x 25 x 1	(1) 20 x 25 x 1		(1) 24 x 25 x 1
FACTORY-AUTHORIZED DEALER-INSTALLED ACCESSORIES						
Twinning Kit	N/A	KGATW0401HSI				
Gas Conversion Kit—(Natural-to-Propane)	KGANP2001ALL					
Gas Conversion Kit—(Propane-to-Natural)	KGAPN1601ALL					
Side Filter Rack Accepts 1 Filter (In.)	KGAFR0201ALL (Filter Size 16 x 25 x 1)					
Return-Air Filter Cabinet (With Washable Filters) (In.)	KGARP0201ALL (Filter Size 2—20 x 25 x 1)					

* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 4% for each 1000 ft above sea level. Refer to National Fuel Gas Code Table F4. In Canada, derate the unit 10% for elevations 2000 ft to 4500 ft above sea level.

† Capacity and AFUE in accordance with U.S. Government DOE test procedures.

‡ Air delivery above 1800 CFM requires that both sides, or a combination of 1 side and bottom, or bottom only of the furnace be used for return air. A filter is required for each return-air supply.

** Isolated Combustion System



MEETS DOE RESIDENTIAL CONSERVATION SERVICES PROGRAM STANDARDS.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

AIR DELIVERY—CFM (WITH FILTER)*

UNIT SIZE	BLOWER MOTOR HP	SPEED	EXTERNAL STATIC PRESSURE IN. WC							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
024045	1/5 PSC	High	1030	1005	970	925	880	815	745	615
		Med-High	855	830	800	765	720	670	595	485
		Med-Low	755	725	695	650	605	555	475	400
036045	1/3 PSC	High	—	1485	1410	1350	1270	1180	1080	970
		Med-High	—	1375	1315	1240	1165	1095	1000	905
		Med-Low	1255	1205	1165	1120	1060	985	905	805
		Low	1070	1035	1010	970	930	875	805	720
024065	1/5 PSC	High	1040	1010	975	935	880	810	735	640
		Med-High	855	830	800	765	715	660	600	490
		Med-Low	745	715	690	650	605	550	475	385
036065	1/3 PSC	High	—	1485	1430	1365	1300	1220	1140	1045
		Med-High	—	1355	1305	1260	1200	1135	1055	960
		Med-Low	1175	1170	1140	1110	1055	1005	950	860
		Low	1025	1015	995	965	930	885	825	745
042091	1/3 PSC	High	1585	1540	1470	1410	1335	1220	1110	980
		Med-High	1355	1325	1280	1230	1175	1090	1015	910
		Med-Low	1150	1125	1105	1085	1035	965	895	785
		Low	960	950	935	910	880	815	715	580
048091	1/2 PSC	High	2010	1950	1875	1810	1740	1660	1550	1455
		Med-High	1675	1660	1625	1600	1545	1490	1395	1295
		Med-Low	1445	1430	1415	1400	1370	1325	1265	1170
		Low	1260	1260	1260	1250	1210	1180	1115	1030
036111	1/3 PSC	High	1490	1435	1370	1300	1210	1135	1020	880
		Med-High	1375	1325	1265	1195	1125	1055	945	810
		Med-Low	1205	1175	1130	1075	1025	925	830	675
		Low	1045	1020	1000	960	905	820	700	565
048111	1/2 PSC	High	1880	1815	1745	1690	1575	1500	1400	1265
		Med-High	1660	1615	1570	1505	1435	1355	1260	1170
		Med-Low	1455	1410	1375	1350	1290	1235	1145	985
		Low	1265	1265	1240	1210	1180	1110	995	855
060111	3/4 PSC	High	2475	2405	2330	2265	2210	2130	2040	1945
		Med-High	2055	2025	2000	1965	1930	1865	1795	1720
		Med-Low	1725	1720	1705	1685	1665	1630	1585	1525
		Low	1500	1515	1510	1500	1480	1460	1415	1370
048135	1/2 PSC	High	1900	1845	1780	1705	1620	1530	1445	1320
		Med-High	1695	1645	1580	1520	1460	1385	1280	1155
		Med-Low	1460	1415	1375	1340	1290	1205	1110	—
		Low	1275	1260	1245	1230	1180	1135	—	—
060135	3/4 PSC	High	—	2210	2130	2055	1980	1895	1795	1680
		Med-High	2015	1975	1925	1880	1805	1735	1655	1555
		Med-Low	1730	1710	1670	1635	1590	1535	1470	1385
		Low	1525	1520	1495	1450	1410	1375	1315	1245
060155	3/4 PSC	High	—	2145	2060	1975	1905	1800	1680	1565
		Med-High	—	1950	1885	1815	1710	1645	1545	1435
		Med-Low	1730	1695	1660	1600	1540	1465	1400	1305
		Low	1520	1500	1460	1410	1360	1310	1245	1155

* Air delivery above 1800 CFM requires that both sides, or a combination of 1 side and bottom, or bottom only of the furnace to be used for return air. A filter is required for each return-air supply.

— Indicates unstable operating conditions.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE
WITH INSTALLATION INSTRUCTIONS

Cancels: SS-GB1A-03