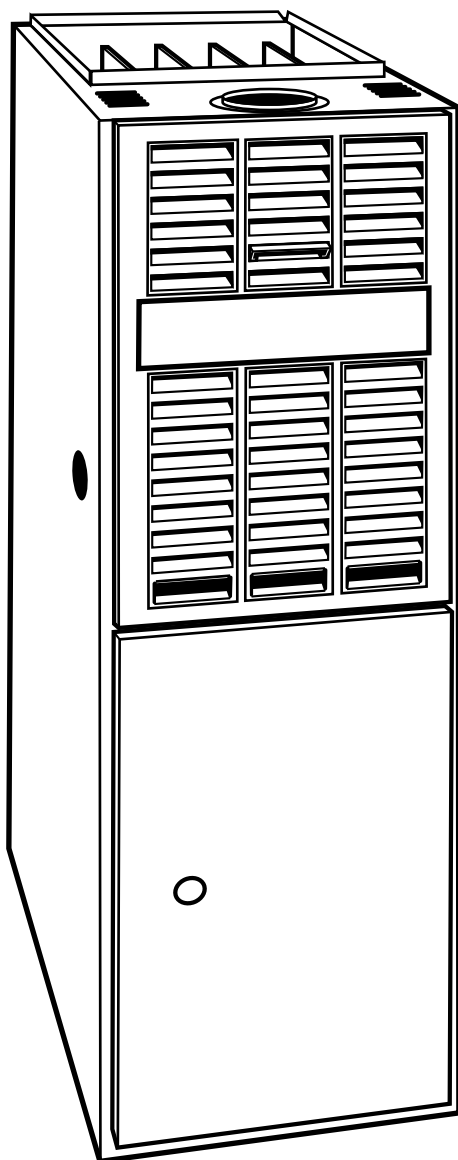




ENERGY-EFFICIENT, 2-SPEED
UPFLOW, INDUCED-
COMBUSTION FURNACE

330AAV

Sizes 040 thru 135
Series B



With a unique approach to induced-combustion design, a 40-in. tall cabinet, a 4-pass heat exchanger, an inshot burner system and its safety features, this furnace is without peer. The model 330AAV Two-Speed Upflow Furnace achieves one of the higher Annual Fuel Utilization Efficiency (AFUE) ratings available in a noncondensing, induced-combustion furnace. Its ease and economy of installation, ease of serviceability, economical initial cost, and short payback time put it in a class well ahead of the competition. The model 330AAV Two-Speed Gas Furnace has the kind of overall performance needed in today's homes.

FEATURES

EFFICIENCY — The 330AAV Two-Speed Induced-Combustion Gas Furnace provides the efficiency customers want with 80.0 percent AFUE.

HOT SURFACE IGNITION — No pilot to waste gas with this field-proven ignition system.

ALUMINIZED HEAT EXCHANGER — The patented 4-pass heat exchanger is made of aluminized steel and backed by a 20-year Limited Warranty.

INTELLIGENT CONTROL — The 330AAV Furnace has an intelligent control that monitors the operation of the furnace. This control also has a component-test feature that enables the servicing technician to verify operation of the control, the high and low inducer, the hot surface ignitor, and high-, medium- and low-speed blower operation. The control features a 3-amp fuse that protects the transformer and control. We guarantee the reliability of the control with a 3-year Limited Warranty.

40-IN. HEIGHT — The 330AAV Furnace cabinet height is only 40 in. This simplifies installation in alcoves, attics, basements (ideal for low basement), closets, and utility rooms, especially with a taller high-efficiency cooling coil.

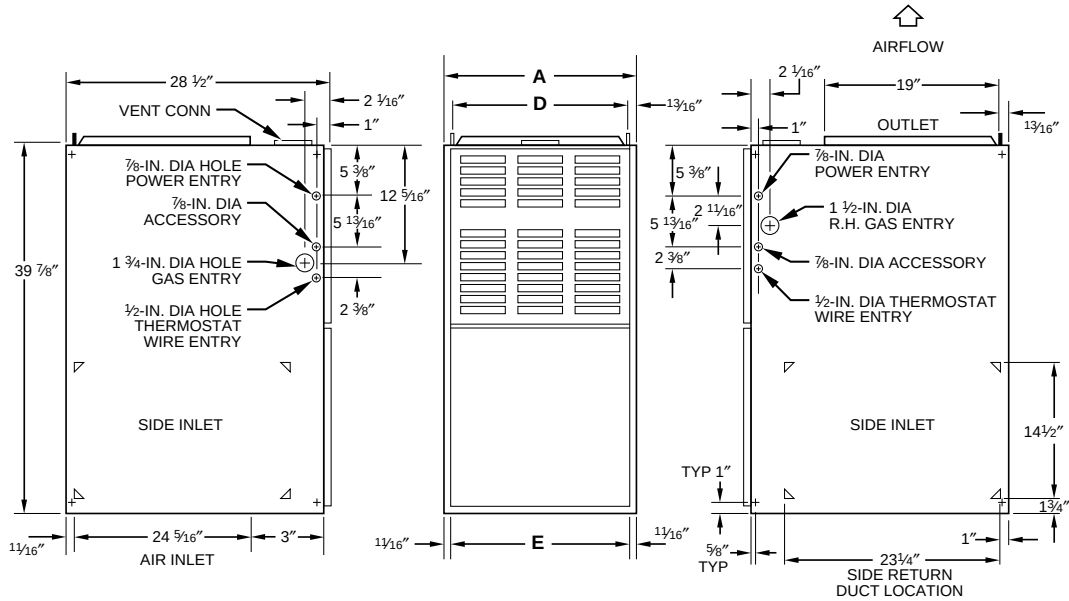
PREPAINTED CABINET — The 330AAV uses prepainted sheet metal for the cabinet. This is the same high-quality finish found on refrigerators and other appliances today. We ensure its durability by using a galvanized steel substrate to provide superior rust protection.

PATENTED BLOCKED VENT (DRAFT SAFEGUARD SWITCH)

— Our induced-combustion furnace has a patented blocked vent (draft safeguard switch). The safeguard switch will stop furnace operation if the vent system becomes blocked or is not operating properly. An exclusive with the 330AAV Furnace.

EASY INSTALLATION — The model 330AAV has many features that make installation easier: left or right gas and electrical connections, heating and cooling blower speed selector, matching coil sizes, accessory low-voltage connections, and many more.

QUIET OPERATION — A soft mount inducer assembly and 2-stage slow-opening gas valve reduce sound level. The 2-speed operation capability minimizes furnace and air noise for total home comfort.



- NOTES:**
- Two additional 7/8-in. dia holes 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 3/4-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.

A98025

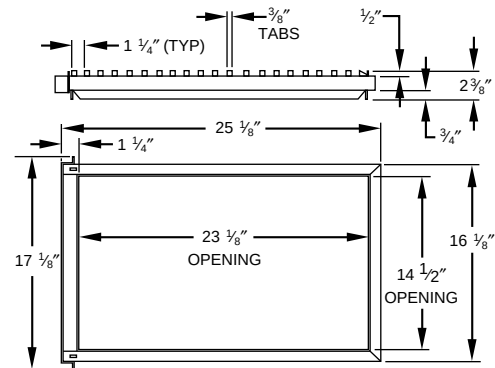
DIMENSIONS (In.)

UNIT SIZE	A	D	E	VENT CONN* (Dia)	SHIP. WT (Lb)
036040	14-3/16	12-9/16	12-11/16	4	124
024060	14-3/16	12-9/16	12-11/16	4	132
036060	14-3/16	12-9/16	12-11/16	4	134
042080	17-1/2	15-7/8	16	4	150
048080	21	19-3/8	19-1/2	4	154
036100	17-1/2	15-7/8	16	4	160
048100	21	19-3/8	19-1/2	4	166
060100	24-1/2	22-7/8	23	4	184
048120	21	19-3/8	19-1/2	5†	178
060120	24-1/2	22-7/8	23	5†	194
060135	24-1/2	22-7/8	23	5†	204

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

† Oval collar

OPTIONAL SIDE FILTER RACK



A80199



MEETS DOE RESIDENTIAL CONSERVATION SERVICES PROGRAM STANDARDS.

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

MINIMUM INCHES CLEARANCE TO COMBUSTIBLE CONSTRUCTION

This forced air furnace is equipped for use with natural gas at altitudes 0 - 10,000 ft (0-3,050m). An accessory kit, supplied by the manufacturer, will be used to convert to propane gas use or may be required for some natural gas applications. This furnace is for indoor installation in building constructed on site.

This furnace may be installed on combustible flooring in alcove or closet at minimum clearance from combustible material.

This furnace may be used with a Type B-1 Vent and may be vented in common with other gas-fired appliances.

This furnace is approved for UPFLOW installations only.

Clearance in inches.

320325-101 REV. H

Vent Clearance to combustibles:
For Single Wall vents 6 inches (6 po).
For Type B-1 vent type 1 inch (1 po).

† For furnaces wider than 14.25 inches (362mm) may be 0 inches.

For single wall vent type 6 inches.
For Type B-1 vent type 3 inches.

A98122E

CONTROLS—THERMOSTATS AND ZONING

THERMOSTAT—NON-PROGRAMMABLE	For Use with 1-Speed Air Conditioner—TSTATBHNAC01-A For Use with 2-Speed Air Conditioner—TSTATBHN2S01-A For Use with 2-Speed Heat Pump—TSTATBHN2S01-A
THERMOSTAT—PROGRAMMABLE	For Use with 1-Speed Air Conditioner—TSTATBHPAC01-A For Use with 2-Speed Air Conditioner—TSTATBHP2S01-A For Use with 1-Speed Heat Pump—TSTATBHPDF01-A For Use with 2-Speed Heat Pump—TSTATBHP2S01-A or TSTATBHPDF01-A
THERMIDISTAT—PROGRAMMABLE THERMOSTAT with Humidity Control	TSTATBHPRH01-A
ZONING—2-ZONE	ZONEBB2KIT01, ZONEKIT2ZBDP
ZONING—4-ZONE	ZONEBB4KIT01

SPECIFICATIONS

UNIT SIZE		036040	024060	036060	042080	048080
RATINGS AND PERFORMANCE						
Gas Input (Btuh)*	High Stage	40,000	60,000	60,000	80,000	80,000
	Low Stage	26,000	39,000	39,000	52,000	52,000
Output Capacity (Btuh)†	High Stage	32,000	49,000	48,000	65,000	65,000
	Low Stage	21,000	31,000	31,000	42,000	42,000
Nonweatherized ICS						
AFUE%†		80.0	80.0	80.0	80.0	80.0
Certified Temperature Rise Range (°F)	High Stage	15—45	45—75	25—55	35—65	30—60
	Low Stage	5—35	30—60	15—45	20—50	15—45
Certified External Static Pressure		Heat/Cool	0.10/0.50	0.12/0.50	0.12/0.50	0.15/0.50
Airflow CFM‡	Heating High/Low	1095/875	740/600	1170/1000	1170/1010	1445/1260
	Cooling	1250	880	1195	1280	1740
ELECTRICAL						
Unit Volts—Hertz—Phase		115—60—1				
Operating Voltage Range		104—127				
Maximum Unit Amps		11.4	8.2	10.6	11.7	13.4
Maximum Wire Length (Measured 1 Way)		Ft	32	45	34	31
Minimum Wire Size		14				
Maximum Fuse or Ckt Bkr Size		15				
Transformer (24v)		40va				
External Control		Heating	19va			
Power Available		Cooling	35va			
Air Conditioning Blower Relay		Standard				
CONTROLS						
Limit Control		SPST (Auto-Reset)				
Heating Blower Control		Solid-State Time Operation				
Inducer		2-Speed				
Burners (Monoport)		2	3	4	4	
Gas Connection Size		1/2-in. NPT				
GAS CONTROLS						
2-Stage Redundant Gas Valve		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	1/5	1/3	1/3	1/2
Motor Full Load Amps		5.1	2.9	5.1	5.8	7.4
RPM (Nominal)—Speeds		1075—5	1075—4	1075—5	1075—4	1075—5
Blower Wheel Diameter x Width (In.)		10 x 6	10 x 6	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
High-Altitude Pressure Switch Kit**		KGAHA5501PSW				
Gas Conversion Kit—Natural-to-Propane††		KGANP25012SP				
Gas Conversion Kit—Propane-to-Natural††		KGAPN20012SP				
Side Filter Rack (Accepts 1 Filter)		KGAFR0201ALL (Filter Size 16 x 25 x 1)				
Air Cleaner		Model AIRA or 902B				
Humidifier		Model 912D, 912E, 913B, 913C, or 914A				
Ventilator		Model VA3B, VB5B, VC5B, or VL3A				

See notes on page 5.

SPECIFICATIONS Continued

UNIT SIZE		036100	048100	060100	048120	060120	060135
RATINGS AND PERFORMANCE							
Gas Input (Btuh)*	High Stage	100,000	100,000	100,000	120,000	120,000	133,000
	Low Stage	65,000	65,000	65,000	78,000	78,000	91,000
Output Capacity (Btuh)†	High Stage	81,000	81,000	81,000	98,000	98,000	108,000
Nonweatherized ICS	Low Stage	52,000	52,000	52,000	63,000	63,000	73,000
AFUE%†	Nonweatherized ICS	80.0	80.0	80.0	80.0	80.0	80.0
Certified Temperature Rise Range (°F)	High Stage	50—80	40—70	25—55	45—75	40—70	45—75
	Low Stage	30—60	20—50	15—45	30—60	25—55	30—60
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 High/Low	1185/1015	1410/1265	1800—1460	1415/1260	1775/1500	1770/1525
	Cooling	1205	1575	2250	1620	2025	2055
ELECTRICAL							
Unit Volts—Hertz—Phase		115—60—1					
Operating Voltage Range		104—127					
Maximum Unit Amps		10.5	13.2	17.7	13.2	18.2	17.4
Maximum Wire Length (Measured 1 Way)	Ft	35	28	32	28	31	33
Minimum Wire Size		14	14	12	14	12	12
Maximum Fuse or Ckt Bkr Size		15	15	20	15	20	20
Transformer (24v)		40va					
External Control	Heating	19va					
Power Available	Cooling	35va					
Air Conditioning Blower Relay		Standard					
CONTROLS							
Limit Control		SPST (Auto-Reset)					
Heating Blower Control		Solid-State Time Operation					
Inducer		2-Speed					
Burners (Monoport)		5			6		7
Gas Connection Size		1/2-in. NPT					
GAS CONTROLS							
2-Stage Redundant Gas Valve		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	3/4
Motor Full Load Amps		5.8	7.9	11.0	7.9	11.1	11.1
RPM (Nominal)— Speeds		1075—4	1075—4	1075—5	1075—4	1075—4	1075—4
Blower Wheel Diameter x Width (In.)		10 x 7	10 x 8	11 x 10	10 x 8	11 x 10	11 x 10
Filter Size (In.)— Permanent Washable (Supplied)		(1) 16 x 25 x 1	(1) 20x 25 x 1	(2) 16 x 25 x 1	(1) 20 x 25 x 1	(2) 16 x 25 x 1	
FACTORY-AUTHORIZED DEALER-INSTALLED ACCESSORIES							
Twinning Kit		N/A	KGATW0401HSI				
High-Altitude Pressure Switch Kit**		KGAHA5501PSW					
Gas Conversion Kit— Natural-to-Propane††		KGANP25012SP					
Gas Conversion Kit— Propane-to-Natural††		KGAPN20012SP					
Side Filter Rack (Accepts 1 Filter)		KGAFR0201ALL (Filter Size 16 x 25 x 1)					
Air Cleaner		Model AIRA or 902B					
Humidifier		Model 912D, 912E, 913B, 913C, or 914A					
Ventilator		Model VA3B, VB5B, VC5B, or VL3A					

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

† Capacity 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.

** 5500 ft and higher above sea level.

†† Factory-authorized and field installed. Gas conversion kits are A.G.A. and C.G.A. approved.

ICS— Isolated Combustion System

N/A— Not Applicable

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
036040	1/3 PSC	High	1490	1430	1385	1325	1250	1175	1085	975
		Med-High	1095	1055	1050	1035	1000	950	895	820
		Med	875	895	900	885	860	825	770	700
		Med-Low	770	765	760	745	725	695	640	580
		Low	600	590	575	565	540	510	470	420
024060	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
		Low	610	590	565	535	485	425	375	310
036060	1/3 PSC	High	1430	1380	1325	1265	1195	1125	1045	945
		Med-High	1170	1150	1135	1105	1055	995	925	845
		Med	1000	1000	990	970	935	885	835	750
		Med-Low	865	870	855	840	815	780	720	655
		Low	685	690	680	665	645	610	570	500
042080	1/3 PSC	High	1570	1535	1480	1415	1360	1280	1185	1070
		Med-High	1370	1355	1330	1290	1240	1170	1080	955
		Med-Low	1170	1165	1150	1115	1085	1035	970	880
		Low	1010	1005	990	965	950	905	845	745
048080	1/2 PSC	High	2010	1950	1875	1810	1740	1660	1550	1455
		Med-High	1675	1660	1625	1600	1545	1490	1395	1295
		Med	1445	1430	1415	1400	1370	1325	1265	1170
		Med-Low	1260	1260	1260	1250	1210	1180	1115	1030
		Low	950	985	985	970	950	915	845	740
036100	1/3 PSC	High	1470	1415	1340	1270	1205	1115	985	845
		Med-High	1340	1305	1245	1185	1130	1045	915	780
		Med-Low	1185	1175	1140	1075	1030	950	835	705
		Low	1015	1010	980	955	910	840	725	600
048100	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
060100	3/4 PSC	High	2485	2480	2405	2330	2250	2155	2025	1905
		Med-High	2165	2135	2105	2055	1995	1915	1830	1735
		Med	1785	1800	1785	1760	1725	1665	1600	1490
		Med-Low	1465	1460	1470	1460	1425	1385	1330	1255
		Low	1220	1215	1210	1195	1180	1150	1095	1020
048120	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	—	—
060120	3/4 PSC	High	—	2260	2185	2085	2025	1935	1835	1730
		Med-High	2110	2070	2015	1960	1885	1810	1715	1620
		Med-Low	1790	1775	1755	1720	1670	1610	1535	1455
		Low	1495	1500	1515	1485	1450	1400	1345	1270
060135	3/4 PSC	High	—	2300	2235	2155	2055	1980	1870	1775
		Med-High	—	2050	2005	1945	1880	1805	1720	1640
		Med-Low	1790	1770	1740	1710	1635	1580	1520	1440
		Low	1520	1525	1505	1485	1450	1410	1350	1290

* 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 opening.

— Indicates unstable operating conditions.

SERVICE TRAINING

Packaged Service Training programs are an excellent way to increase your knowledge of the equipment discussed in this manual, including:

- Unit Familiarization
- Maintenance
- Installation Overview
- Operating Sequence

A large selection of product, theory, and skills programs is available, using popular video-based formats and materials. All include video and/or slides, plus companion book.

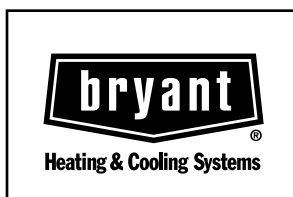
Classroom Service Training plus "hands-on" the products in our labs can mean increased confidence that really pays dividends in faster troubleshooting, fewer callbacks. Course descriptions and schedules are in our catalog.

CALL FOR FREE CATALOG 1-800-962-9212

☐ Packaged Service Training

☐ Classroom Service Training

A94328



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE
WITH INSTALLATION INSTRUCTIONS

Cancels: PDS 330A.40.7