



Payne
Air Conditioning

Indianapolis, IN

MID-EFFICIENCY TWO-SPEED UPFLOW INDUCED- COMBUSTION FURNACE

MODEL 330AAV

Sizes 040 thru 120
Series A



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 1 of the higher Annual Fuel Utilization Efficiency (AFUE) ratings available in a non-condensing, 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% 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 board itself, the inducer, the hot surface ignitor, high-, medium- and low-speed blower operation. We guarantee the reliability of the control with a 3-year Limited Warranty.

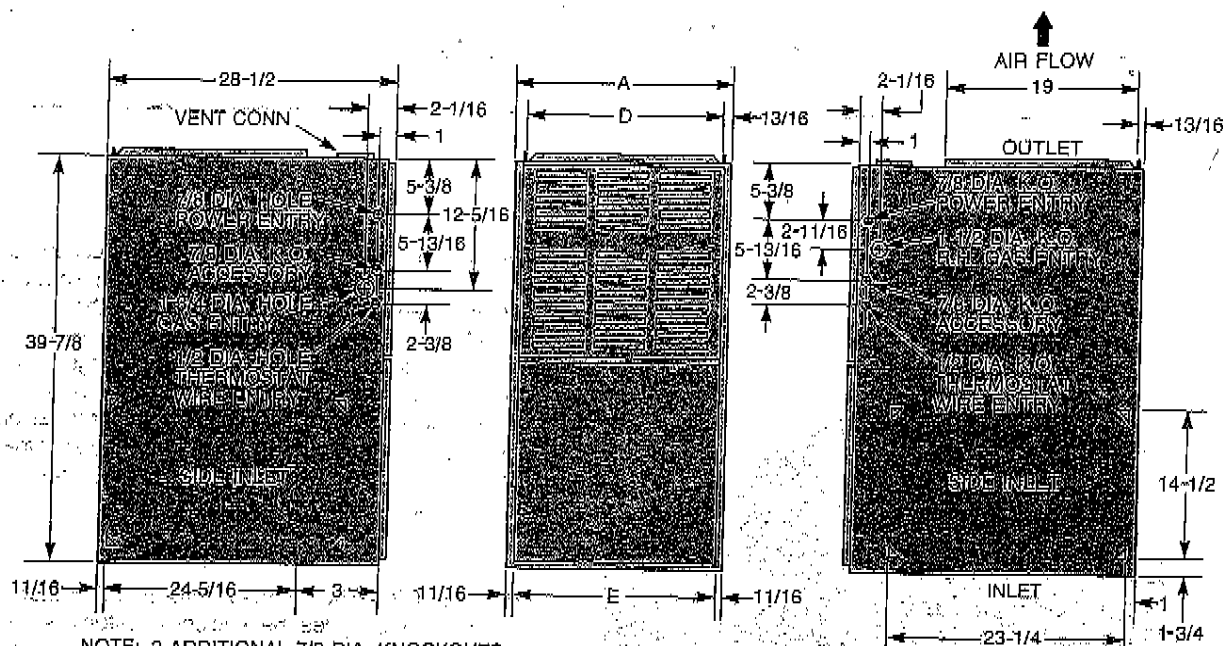
40-IN. HEIGHT—The 330AAV Furnace cabinet height is only 40 in. This simplifies installation in alcoves, attics, basements (ideal for short basement), closets and utility rooms, especially with a taller high-efficiency cooling coil.

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 DRAFT SAFEGUARD—Our induced-combustion furnace has a patented draft safeguard switch. The safeguard switch will stop furnace operation if the vent system becomes blocked or is not operating properly (Category I installations). 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, Molex blower speed selector, matching coil sizes, accessory low-voltage connections, and many more.

VENTING—For installation flexibility, these furnaces can be vented Category I (vertical) or with a minor field modification kit, Category III (horizontal) using high temperature plastic.



NOTE: 2 ADDITIONAL 7/8 DIA. KNOCKOUTS ARE LOCATED IN THE TOP PLATE

NOTE: AIR DELIVERY ABOVE 1800 CFM REQUIRES THAT BOTH SIDES OF FURNACE BE USED, OR A COMBINATION OF 1 SIDE AND BOTTOM, OR BOTTOM ONLY FOR RETURN AIR.

NOTES:

1. A factory-supplied panel covers the back side of the accessory return-air cabinet that extends above the furnace.
2. Refer to the furnace installation instructions for proper venting procedures.

A88367

DIMENSIONS (In.)

Size	A	D	E	Vent Connection	Shipping Weight
036060	14-3/16	12-9/16	11-11/16	4	134
036080	17-1/2	15-7/8	15	4	150
048080	21	19-3/8	18-1/2	4	154
060120	24-1/2	22-7/8	22	5	194

SPECIAL GAS VENTING*

MAXIMUM HORIZONTAL VENT LENGTH†	NO. OF 90° ELBOWS
40 ft	4

* Category III with high-temperature plastic.

† For each additional 90° elbow, reduce the vent length 5 ft. Add 5 ft to the vent length for each 90° elbow less than 4.

CLEARANCES (In.)

Size	060	080	120
Sides*—Single-Wall Vent	1	0	0
Type B-1 Double-Wall Vent	0	0	0
Special Gas Vents†—Diameter	3	4	4
Clearance	0	0	0
Back	0	0	0
Top of Plenum	1	1	1
Vent Connector—Single-Wall	6	6	6
Type B-1 Double-Wall Vent	1	1	1
Special Gas Vents†—Diameter	3	4	4
Clearance	5	9	9
Front*†—Single-Wall	6	6	6
Type B-1 Double-Wall Vent	3	3	3
Special Gas Vents†—Diameter	3	4	4
Clearance	5	9	9
Service	30	30	30

* Category I metal single-wall vertical vent.

† Listed for Category III appliances (high temperature plastic).

‡ A minimum 3-in. front clearance is needed for combustion-air and ventilation-air entry.

SPECIFICATIONS

SIZE		036060	036080	048080	060120
RATINGS AND PERFORMANCE					
Input (Btuh)*	High Fire	60,000	80,000	80,000	120,000
	Low Fire	39,000	52,000	52,000	78,000
Output Capacity (Btuh)†	High Fire	48,000	64,000	64,000	96,000
	Low Fire	31,000	42,000	42,000	63,000
Nonweatherized ICS**					
AFUE†	High Fire	80.0	80.0	80.0	80.0
	Low Fire	80.0	80.0	80.0	80.0
Certified Temperature Rise Range (°F)	High Fire	25—55	40—70	30—60	40—70
	Low Fire	15—45	20—50	15—45	25—55
Certified External Static Pressure		Heat/Cool	0.12/0.50	0.15/0.50	0.20/0.50
Airflow CFM‡	Heating High/Low	1175/1025	1150/960	1445/1260	1730/1525
	Cooling	1300	1335	1740	1980
ELECTRICAL					
Unit Volts—Hertz—Phase		115—60—1			
Operating Voltage Range		104—127			
Maximum Unit Ampacity		8.7	9.0	10.4	13.3
Maximum Wire Length (Measured One Way) Ft		41	40	35	43
Maximum Wire Size			14		12
Maximum Fuse Size			15		20
Transformer (24v)		40VA			
External Control		Heating	19VA		
Power Available		Cooling	35VA		
Air Conditioning Blower Relay		Standard			
CONTROLS					
Limit Control		SPST			
Heating Blower Control		Solid-State Time Operation			
Burners (Monoport)		3	4	4	6
Gas Connection Size		1/2-in. NPT			
GAS CONTROLS					
2-Stage Redundant Gas Valve		White-Rodgers			
Min Inlet Pressure (in. wc)		4.5			
Max Inlet Pressure (in. wc)		18.6			
Ignition Device		Hot-Surface			
BLOWER DATA					
Direct-Drive Motor HP—Type		1/3—PSC	1/3—PSC	1/2—PSC	3/4—PSC
Motor Full Load Amps		5.8	5.8	7.9	11.1
RPM (Nominal) —Speeds		1075-4	1075-4	1075-4	1075-4
Blower Wheel Dia x Width		10 x 6	10 x 7	10 x 8	11 x 10
Filter Size—Permanent Washable (Supplied)		(1) 16 x 25 x 1		(1) 20 x 25 x 1	(2) 16 x 25 x 1
DEALER-INSTALLED ACCESSORIES					
Twinning Kit		N/A		Part No. not available at printing	
Category III Vent Conversion Kit		KGASW01012SP			KGASW02012SP
High Altitude Pressure Switch Kit (5,500 ft and above)		KGAAH5501PSW			
Gas Conversion Kit—Natural-to-Propane		KGANP24012SP			
Gas Conversion Kit—Propane-to-Natural		KGAPN20012SP			
Side Filter Rack (with washable filter)		KGAFR0101ALL (Filter Size 16 x 25 x 1)			
Return Filter Cabinet (with washable filters)		KGARP0101ALL (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.

† Tentative capacity in accordance with U.S. Government DOE test procedures. California Seasonal Efficiencies based on California-specified 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.

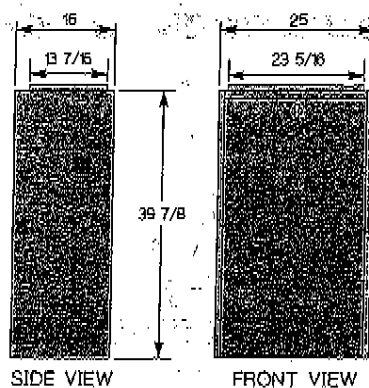
** Isolated Combustion System (ICS)



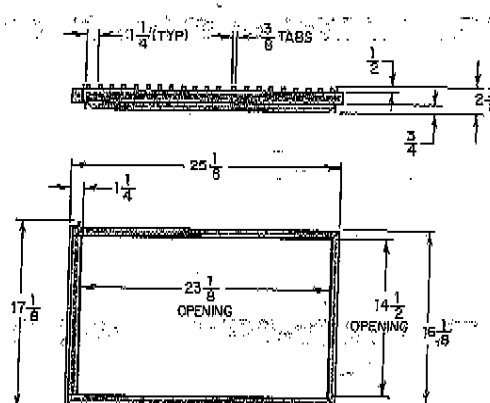
**MEETS DOE RESIDENTIAL
CONSERVATION SERVICES
PROGRAM STANDARDS.**

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

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



A93078



A80199

AIR DELIVERY—CFM* (With Filter)*

Furnace 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
036060	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	960	880
		Low	1025	1015	995	985	930	885	825	745
036080	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	985	895	785
		Low	960	950	935	910	880	815	715	580
048080	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
060120	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

*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.



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE
WITH INSTALLATION INSTRUCTIONS