

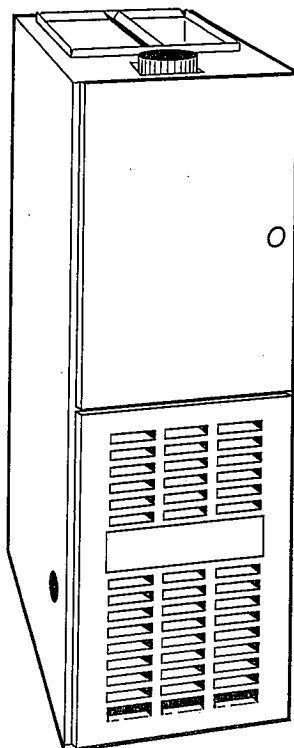


Heating & Cooling

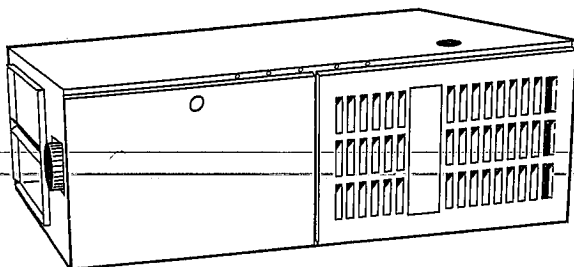
HIGH-EFFICIENCY 2-SPEED DOWNFLOW/HORIZONTAL INDUCED-COMBUSTION FURNACE

331AAV

Sizes 065 thru 125
Series A



DOWNFLOW



HORIZONTAL

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 331AAV Two-Speed Downflow/Horizontal 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 331AAV Two-Speed Gas Furnace has the kind of overall performance needed in today's homes.

FEATURES

EFFICIENCY — The 331AAV 2-Speed Induced-Combustion Gas Furnace provides the efficiency customers want with 80.0% AFUE.

HOT SURFACE IGNITION — This field proven ignition system will save energy and improve reliability.

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 331AAV 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, high and low inducer, hot surface ignitor, and low-, medium-, and high-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 331AAV Induced-Combustion Furnace with a 40-in. cabinet height simplifies installation in attics, closets, and crawlspaces, especially with a high-efficiency cooling coil.

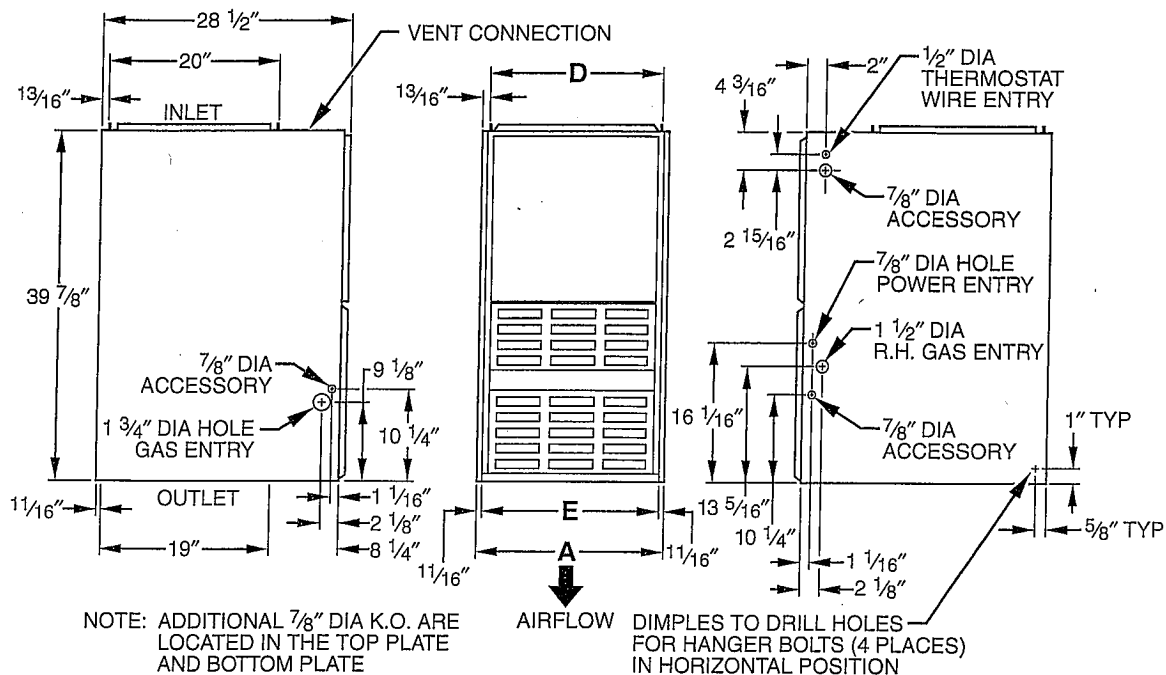
MULTIPOISED DOWNFLOW OR HORIZONTAL — Our furnace can be used in a downflow, horizontal left, or horizontal right configuration.

PREPAINTED CABINET — The 331AAV 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. An exclusive with the 331AAV Furnace.

EASY INSTALLATION — The model 331AAV 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 reduces sound level. The 2-speed operation capability minimizes furnace and air noise for total home comfort.

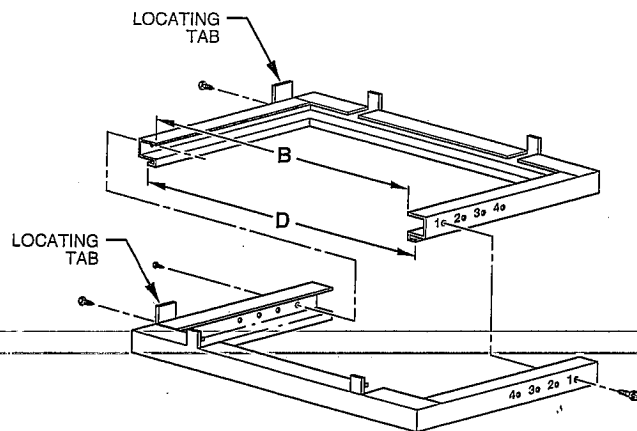


A88324

DIMENSIONS (In.)

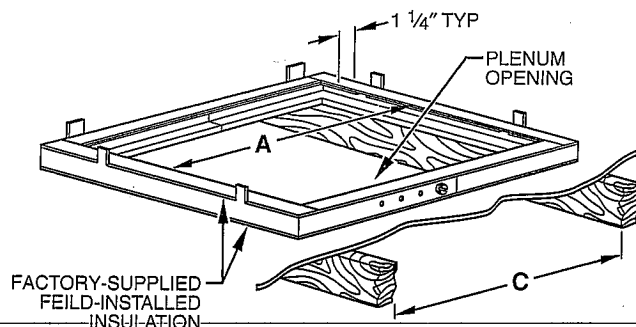
UNIT SIZE	A	D	E	VENT CONN	SHIP. WT
024065	14-3/16	12-9/16	12-11/16	4	141
036065	14-3/16	12-9/16	12-11/16	4	145
036085	17-1/2	15-7/8	16	4	154
048085	17-1/2	15-7/8	16	4	154
060105	21	19-3/8	19-1/2	4	181
060125	24-1/2	22-7/8	23	5	192

ACCESSORY DOWNFLOW SUBBASE



Disassembled

A88207



Assembled

A88206

DIMENSIONAL DATA

FURNACE WIDTH	PLENUM OPENING*		FRAMED FLOOR HOLE		HOLE NO. FOR WIDTH ADJUSTMENT
	A	B	C	D	
14-3/16	11-13/16	19	13-7/16	20-3/8	4
17-1/2	15-1/8	19	16-3/4	20-3/8	3
21	18-5/8	19	20-1/4	20-3/8	2
24-1/2	22-1/8	19	23-3/4	20-3/8	1

* The plenum should be constructed 1/4 in. smaller in width and depth than the plenum dimensions shown above.

SPECIFICATIONS

UNIT SIZE		024065	036065	036085	048085	060105	060125	
RATINGS AND PERFORMANCE								
Gas Input Btuh*	High Fire	63,000	63,000	84,000	84,000	105,000	123,000	
	Low Fire	40,500	40,500	54,000	54,000	67,500	81,000	
Output Capacity (Btuh)†	High Fire	51,000	51,000	68,000	68,000	85,000	99,000	
Nonweatherized ICS	Low Fire	33,000	33,000	44,000	44,000	55,000	65,000	
AFUE‡	Nonweatherized ICS	80.0						
Certified Temperature Rise Range Range (°F)	High Fire	55—85	30—60	40—70	30—60	35—65	45—75	
	Low Fire	30—60	15—45	25—55	15—45	20—50	25—55	
Certified External Static Pressure	Heat/Cool	0.12/0.50	0.10/0.50	0.15/0.50	0.15/0.50	0.20/0.50	0.20/0.50	
Airflow CFM	Heating High/Low	660/585	1200/1020	1165/965	1355/1170	1735/1500	1690/1480	
	Cooling	930	1300	1395	1580	1950	2055	
ELECTRICAL								
Unit Volts—Hertz—Phase		115—60—1						
Operating Voltage Range		Min—Max 104—127						
Maximum Unit Amps		8.0	11.0	12.0	13.2	17.2	18.4	
Maximum Wire Length (Measured 1 Way)		Ft	46	33	30	28	33	31
Minimum 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 (Auto-Reset)						
Heating Blower Control		Solid-State Time Operation						
Inducer		2-Speed						
Burners (Monoport)		3	3	4	4	5	6	
Gas Connection Size		1/2-in. NPT						
GAS CONTROLS								
2-Stage 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	1/3	1/2	3/4	3/4	
Motor Full Load Amps		2.9	5.8	5.8	7.9	11.1	11.1	
RPM (Nominal)—Speeds		1075-4						
Blower Wheel Diameter x Width (In.)		10 x 6		10 x 7	10 x 8	10 x 6	10 x 10	
Filter Size (In.)—Permanent Washable (Supplied)		(2) 14 x 20 x 1				(2) 16 x 20 x 1		
DEALER-INSTALLED ACCESSORIES								
High-Altitude Pressure Switch Kit‡		KGAHA5601PSW						
Gas Conversion Kit—Natural-to-Propane		KGANP24012SP						
Gas Conversion Kit—Propane-to-Natural		KGAPN20012SP						

* 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.

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

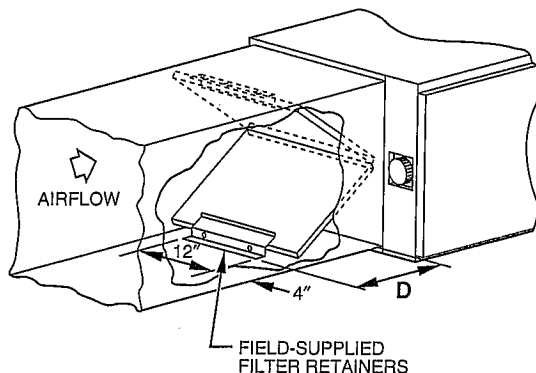
‡ 5500 ft and higher above sea level.

ICS—Isolated Combustion System

AIR DELIVERY—CFM (With Filter)

UNIT SIZE	BLOWER MOTOR HP	EXTERNAL STATIC PRESSURE (IN. WC)								
		SPEED	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
024065	1/5 PSC	High	—	—	1010	975	930	885	825	745
		Med-High	—	815	800	765	725	685	620	550
		Med-Low	—	660	645	620	590	545	480	415
		Low	590	570	545	510	470	405	360	295
036065	1/3 PSC	High	—	1490	1425	1365	1300	1240	1175	1100
		Med-High	—	1345	1300	1255	1200	1140	1075	1000
		Med-Low	1200	1180	1140	1100	1060	1015	960	895
		Low	1020	1000	985	950	915	880	835	780
036085	1/3 PSC	High	—	1575	1515	1455	1395	1325	1230	1120
		Med-High	—	1380	1340	1285	1230	1165	1095	1005
		Med-Low	1165	1145	1130	1090	1055	1005	940	870
		Low	965	955	940	910	885	840	785	705
048085	1/2 PSC	High	1855	1765	1710	1665	1580	1570	1410	1310
		Med-High	1595	1570	1530	1485	1410	1355	1280	1200
		Med-Low	1355	1345	1305	1270	1220	1170	1110	1025
		Low	1170	1170	1140	1110	1075	1025	965	890
060105	3/4 PSC	High	2235	2185	2110	2030	1950	1835	1700	1540
		Med-High	1995	1970	1915	1845	1765	1680	1545	1415
		Med-Low	1735	1735	1675	1625	1565	1480	1370	1265
		Low	1510	1500	1485	1455	1400	1320	1230	1130
060125	3/4 PSC	High	—	2250	2190	2130	2055	1960	1875	1760
		Med-High	—	2000	1960	1910	1850	1785	1710	1615
		Med-Low	1700	1690	1670	1650	1610	1560	1490	1435
		Low	1480	1480	1480	1460	1430	1380	1320	1255

—Indicates unstable operating conditions.



A82173

CLEARANCES FROM COMBUSTIBLE MATERIALS (In.)

UNIT SIZE	065 and 085	105 and 125
DOWNFLOW (In Alcove or Closet)		
Sides—Single-Wall Vent	1*	0
Type B-1 Double-Wall Vent	0	0
Back	0	0
Top	1	1
Front†—Single-Wall Vent	6	6
Type B-1 Double-Wall Vent	3	3
Vent—Single-Wall Vent	6	6
Type B-1 Double-Wall Vent	1	1

* For casing widths larger than 14-1/4 in., 0 clearance may be used.

† 18-in. front clearance required for alcove.

‡ Clearance shown is for the outlet end. The inlet end must maintain 6-in. clearance from flue to combustible materials when using single-wall vent.

** Indicates supply or return sides when furnace is in the horizontal position.

NOTES:

1. Provide 30-in. front clearance for servicing. An open door in front of the furnace can meet this requirement.
2. A minimum clearance of 3 in. must be provided in front of the furnace for combustion air and proper operation.

UNIT SIZE	065 and 085	105 and 125
HORIZONTAL (In Alcove, Attic, or Crawlspace)		
Sides‡**	1	1
Back	0	0
Top—Single-Wall Vent	1	1
Type B-1 Double-Wall Vent	1	1
Front†—Single-Wall Vent	6	6
Type B-1 Double-Wall Vent	3	3
Vent—Single-Wall Vent	6	6
Type B-1 Double-Wall Vent	1	1
HORIZONTAL (In Closet)		
Sides‡**	1	1
Back	3	3
Top—Single-Wall Vent	2	2
Type B-1 Double-Wall Vent	2	2
Front—Single-Wall Vent	6	6
Type B-1 Double-Wall Vent	3	3
Vent—Single-Wall Vent	6	6
Type B-1 Double-Wall Vent	1	1



MEETS DOE RESIDENTIAL CONSERVATION SERVICES PROGRAM STANDARDS.

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



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE WITH INSTALLATION INSTRUCTIONS

Cancels: PDS 331AAV.40.3P