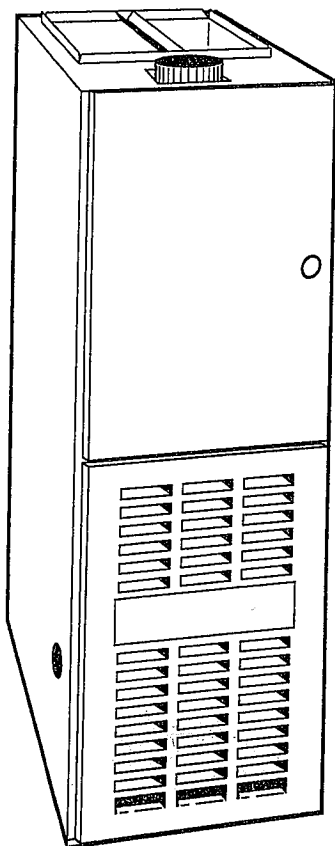




PLUS 80 TWO-SPEED DOWNFLOW INDUCED-COMBUSTION FURNACE

331JAV

Sizes 060 thru 120
Series A



The Plus 80 Two-Speed Downflow Furnace achieves 80% Annual Fuel Utilization Efficiency (AFUE) rating. The benefits of 2-speed operation in reducing sound and improving comfort put it in a class well ahead of the competition. The Plus 80 Two-Speed has the kind of overall performance needed in today's homes. All models are GAMA efficiency rating certified and certified for use in California Air Quality Management Districts.

FEATURES

EFFICIENCY — The Plus 80 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 Plus 80 Two-Speed 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.

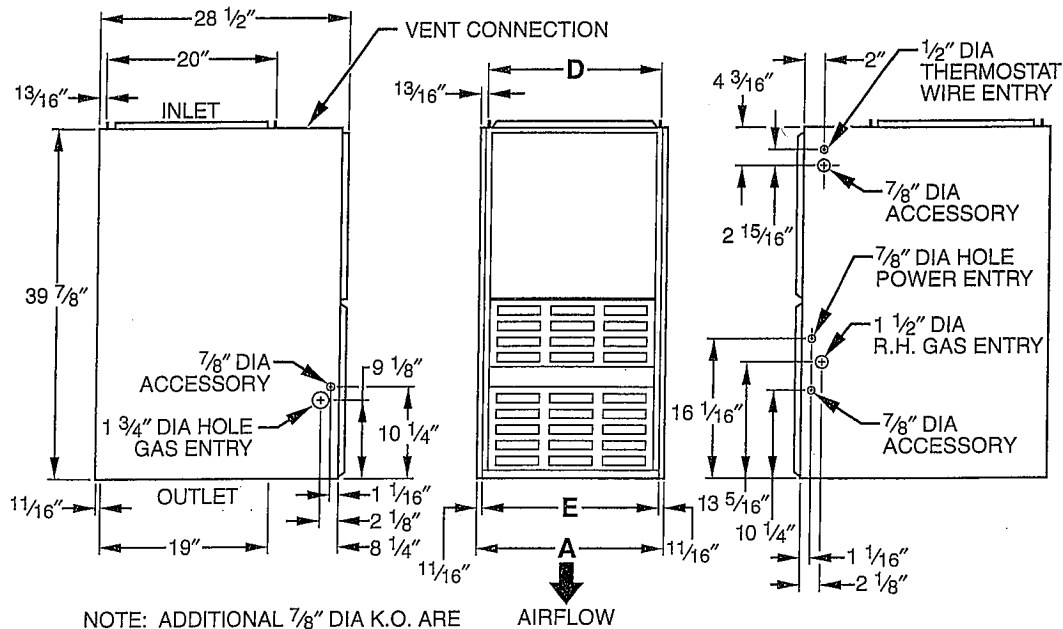
40-IN. HEIGHT — The Plus 80 Two-Speed cabinet height is only 40 in. This simplifies installation in alcoves, attics, basements (ideal for short basement), closets, and utility rooms, especially with a taller high-efficiency cooling coil.

PREPAINTED CABINET — The Plus 80 Two-Speed uses pre-painted 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 Plus 80 Two-Speed furnace.

EASY INSTALLATION — The Plus 80 Two-Speed 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.

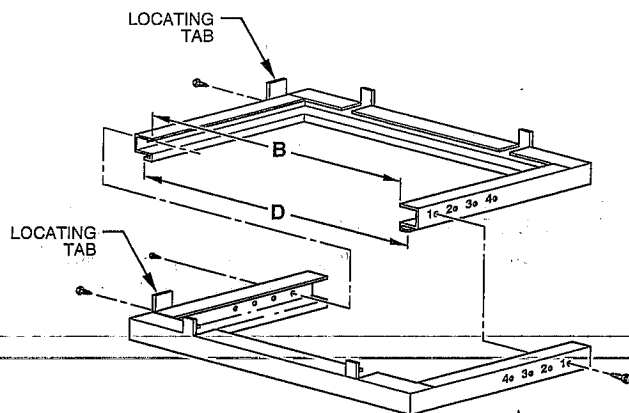


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DIMENSIONS (In.)

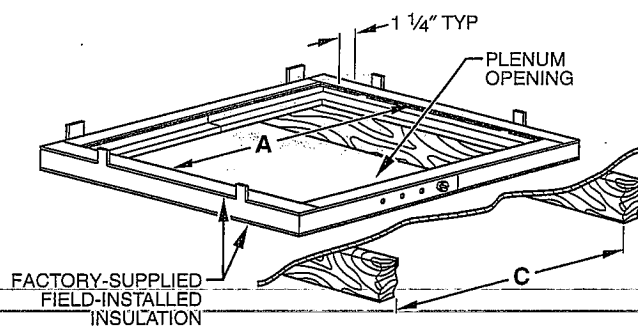
UNIT SIZE	A	D	E	VENT CONNECTION	SHIPPING WEIGHT LB
036060	14-3/16	12-9/16	12-11/16	4	145
048080	17-1/2	15-7/8	16	4	154
060100	21	19-3/8	19-1/2	4	181
060120	24-1/2	22-7/8	23	5	192

ACCESSORY DOWNFLOW SUBBASE



A88207

Disassembled



A88206

Assembled

DIMENSIONAL DATA (In.)

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		036060	048080	060100	060120
RATINGS AND PERFORMANCE					
Gas Input (Btuh)*	High Stage	63,000	84,000	105,000	123,000
	Low Stage	40,500	54,000	67,500	81,000
Output Capacity (Btuh)†	High Stage	51,000	68,000	85,000	99,000
Nonweatherized ICS	Low Stage	33,000	44,000	55,000	65,000
AFUE†	Nonweatherized ICS	80.0	80.0	80.0	80.0
Certified Temperature Rise Range (°F)	High Stage	30—60	30—60	35—65	45—75
	Low Stage	15—45	15—45	20—50	25—55
Certified External Static Pressure	Heat/Cool	0.10/0.50	0.15/0.50	0.20/0.50	0.20/0.50
Airflow CFM	Heating High/Low	1165/985	1355/1170	1735/1500	1690/1480
	Cooling	1195	1580	1950	2055
ELECTRICAL					
Unit Volts— Hertz— Phase		115—60—1			
Operating Voltage Range Min—Max		104—127			
Maximum Unit Amps		11.0	13.2	17.2	18.4
Maximum Wire Length (Measured 1 Way) Ft		33	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	4	5	6
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	3/4
Motor Full Load Amps		5.8	7.9	11.1	11.1
RPM (Nominal)—Speeds		1075—4			
Blower Wheel Diameter x Width (In.)		10 x 6	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					
Downflow Subbase**		KGASB0201ALL			
High-Altitude Pressure Switch Kit‡		KGAH5601PSW			
Gas Conversion Kit—Natural-to-Propane		KGANP24012SP			
Gas Conversion Kit—Propane-to-Natural		KGAPN20012SP			
Air Cleaner		Model AIRA, KEACA, 902B, or MECH			
Humidifier		Model 912D, 912E, 913B, 913C, or 914A			
Ventilator		Model VA3B, VB5B, VC5B, or VL3A			
Thermostat—Programmable††		For Use With Air Conditioner—TSTATXXPAC01-A For Use With Heat Pump—TSTATXXPHP01-A			
Thermostat—Non-Programmable††		For Use With Air Conditioner—TSTATXXNAC01-A For Use With Heat Pump—TSTATXXNHP01-A			

* 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.

** Required for installation on combustible floors when no coil box is used, or when any coil box other than a BDP cased coil is used.

†† Where XX appears, insert BB for Bryant brand, DD for Day & Night brand, or PP for Payne brand.

ICS—Isolated Combustion System

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
036060	1/3 PSC	High	1435	1385	1320	1265	1195	1145	1080	1000
		Med-High	1300	1265	1230	1185	1135	1070	1010	940
		Med-Low	1165	1140	1100	1055	1005	975	920	850
		Low	985	950	945	920	890	850	810	745
048080	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
060100	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
060120	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.

CLEARANCES FROM COMBUSTIBLE MATERIALS (In.)

UNIT SIZE	060 and 080	100 and 120
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 14-3/16 in. 0 clearance may be used.

† 18-in. front clearance required for alcove.

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.



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 331J.60.1B

bryant

Heating & Cooling Systems