

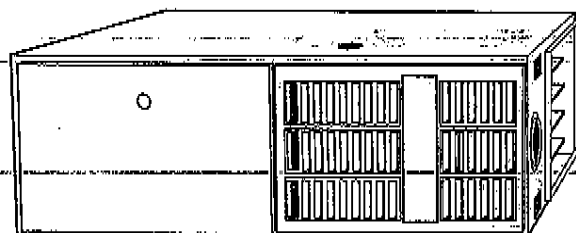
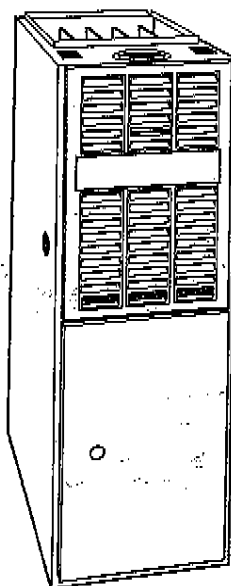


Heating & Cooling Systems

PLUS 80 VARIABLE-SPEED UPFLOW/HORIZONTAL INDUCED COMBUSTION FURNACE

333B.60

333H.60

Size 60 (40 in. H x 20 in. W)
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 Plus 80 Variable-Speed Uplow/Horizontal Furnace achieves an 80% Annual Fuel Utilization Efficiency (AFUE) rating. The benefits of variable-speed operation in reducing sound and improving comfort put it in a class well ahead of the competition. The Plus 80 Variable-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 Variable-Speed Induced-Combustion Gas Furnace provides the efficiency customers want with 80.0% AFUE and improves air conditioner or heat pump performance up to 2 points.

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 Variable-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 Variable-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 Variable-Speed 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 Plus 80 Variable-Speed furnace.

EASY INSTALLATION — The Plus 80 Variable-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-stage heating operation capability minimizes furnace and air noise for total home comfort.

SPECIFICATIONS

UNIT SIZE		036060††	048080	060100	060120
RATINGS AND PERFORMANCE					
Gas Input (Btuh)*	High Stage	60,000	80,000	100,000	117,000
	Low Stage	39,000	52,000	65,000	78,000
Output Capacity (Btuh)†	High Stage	48,000	64,000	81,000	94,000
	Low Stage	31,000	42,000	52,000	63,000
Nonweatherized ICS		80.0	80.0	80.0	80.0
AFUE%†	Nonweatherized ICS	80.0	80.0	80.0	80.0
Certified Temperature Rise Range (°F)	High Stage	25—55	30—60	25—55	40—70
	Low Stage	15—45	15—45	15—45	25—55
Certified External Static Pressure		Heat/Cool 0.12/0.50	0.15/0.50	0.20/0.50	0.20/0.50
Airflow CFM‡	Heating High/Low	1175/1025	1445/1260	1720/1515	1730/1525
	Cooling	1300	1740	2210	1980
ELECTRICAL					
Unit Volts—Hertz—Phase		115—60—1			
Operating Voltage Range		104—127			
Maximum Unit Amps		11.4	13.5	19.0	18.2
Maximum Wire Length (Measured 1 Way) Ft		32	27	30	31
Minimum Wire Size		14		12	12
Maximum Fuse Size		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)		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	1075—4	1075—4	1075—4
Blower Wheel Diameter x Width (In.)		10 x 6	10 x 8	11 x 10	11 x 10
Filter Size (In.)—Permanent Washable (Supplied)		(1) 16 x 25 x 1	(1) 20 x 25 x 1	(2) 16 x 25 x 1	(2) 16 x 25 x 1
FACTORY-AUTHORIZED DEALER-INSTALLED ACCESSORIES					
High-Altitude Pressure Switch Kit**		KGAHA5701PSW			
Gas Conversion Kit—Natural-to-Propane		KGANP24012SP			
Gas Conversion Kit—Propane-to-Natural		KGAPN20012SP			
Side Filter Rack (Accepts 1 Filter)††		KGAPR0201ALL (Filter Size 16 x 25 x 1)			
Return Filter Cabinet (With Washable Filters)		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.

† Tentative 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.

†† Side filter rack must be used for upflow right-side return with 036080 size.

ICS—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.

CLEARANCES FROM COMBUSTIBLE MATERIALS (In.)

UNIT SIZE		060	080-120
UPFLOW			
Furnace Sides	Single-Wall Vent	1	0
	Type B-1 Double-Wall Vent	0	0
Furnace Back		0	0
Plenum Top		1	1
Furnace Front (See Notes)	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 POSITION (IN ALCOVE, ATTIC, AND CRAWLSPACE)			
Sides*†		1	1
Back		0	0
Top	Single-Wall Vent	1	1
	Type B-1 Double-Wall Vent	1	1
Furnace Front† (See Notes)	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 POSITION (IN CLOSET)			
Sides*‡		1	1
Back		3	3
Top	Single-Wall Vent	2	2
	Type B-1 Double-Wall Vent	2	2
Furnace Front (See Notes)	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

* 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.

† 18 in. front clearance required for alcove.

‡ 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.

AIR DELIVERY — CFM* (With Filter)

AIR CONDITIONING OR HEAT PUMP—EFFICIENCY

UNIT SIZE	COOLING AIRFLOW SELECTED	AC COOLING HEAT PUMP—EFFICIENCY			2-SPEED HEAT PUMP—EFFICIENCY		
		Maximum	Nominal	Minimum	Maximum High / Low	Nominal High / Low	Minimum High / Low
060	LO	600	525	500*	630 / 500*	550 / 500*	500* / 500*
	M-LO	800	700	630	840 / 520	735 / 500*	660 / 500*
	M-HI	1000	875	790	1050 / 650	920 / 570	825 / 510
080	LO	1000	875	790	1260 / 780	1100 / 680	990 / 615
	M-LO	1200	1050	945	1470 / 910	1285 / 795	1155 / 750
	M-HI	1600	1400	1260	1890 / 1040	1655 / 1025	1510 / 925
100	LO	1200	1050	945	1470 / 910	1285 / 795	1155 / 750*
	M-LO	1400	1225	1100	1680 / 1040	1470 / 910	1325 / 820
	M-HI	1800	1400	1260	2100 / 1300	1840 / 1140	1655 / 1025
120	LO	1200	1050	945	1260 / 780	1100 / 750*	990 / 750*
	M-LO	1400	1225	1100	1470 / 910	1285 / 795	1155 / 750*
	M-HI	1800	1400	1260	1890 / 1040	1655 / 1025	1510 / 925

HEAT PUMP—COMFORT

UNIT SIZE	AIRFLOW SELECTED	HEAT PUMP—COMFORT			2-SPEED HP—COMFORT		
		Maximum	Nominal	Minimum	Maximum High / Low	Nominal High / Low	Minimum High / Low
060	LO	540	500*	500*	567 / 500*	500* / 500*	500* / 500*
	M-LO	720	630	565	755 / 500*	660 / 500*	595 / 500*
	M-HI	900	790	710	945 / 585	830 / 515	740 / 500*
080	LO	900	790	710	1135 / 700	990 / 610	890 / 555
	M-LO	1080	945	850	1325 / 820	1155 / 715	1040 / 675
	M-HI	1260	1105	990	1510 / 935	1325 / 820	1195 / 740
100	LO	1080	945	850	1134 / 750*	990 / 750*	890 / 750*
	M-LO	1260	1105	990	1325 / 820	1155 / 750*	1040 / 750*
	M-HI	1440	1260	1135	1510 / 935	1325 / 820	1195 / 750*
120	LO	1080	945	850	1134 / 750*	990 / 750*	890 / 750*
	M-LO	1260	1105	990	1325 / 820	1155 / 750*	1040 / 750*
	M-HI	1440	1260	1135	1510 / 935	1325 / 820	1195 / 750*

GAS HEAT

UNIT SIZE	GAS HEAT TEMPERATURE RISE SELECTED	GAS HEAT AIRFLOW (HIGH / LOW)
060	HI	875 / 790
	M-HI	1010 / 915
	MID	1110 / 1010
080	HI	1010 / 865
	M-HI	1190 / 1180
	MID	1350 / 1300
100	HI	1380 / 1085
	M-HI	1585 / 1435
	MID	1900 / 1625
120	HI	1270 / 1065
	M-HI	1480 / 1330
	MID	1615 / 1465

* Minimum airflow set for electronic air cleaners

NOTES:

1. A humidistat can be added to further reduce airflow when increased humidity is sensed. This feature reduces the selected cooling airflow by 20% or a minimum of 280 CFM per ton.
2. Continuous fan selections are 50%, 65%, or 100% of selected cooling speeds. 100% is not recommended for 2-speed AC or heat pumps.
3. This data is preliminary and subject to change.

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.

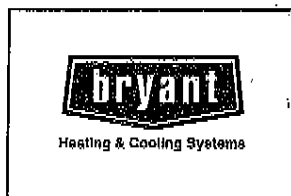
Classroom Service Training plus "hands-on" the products in our labs can mean increased confidence that really pays dividends in faster troubleshooting, fewer callbacks. Course descriptions and schedules are in our catalog.

CALL FOR FREE CATALOG 1-800-962-9212

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☐ Classroom Service Training

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SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE
WITH INSTALLATION INSTRUCTIONS

Cancel: New