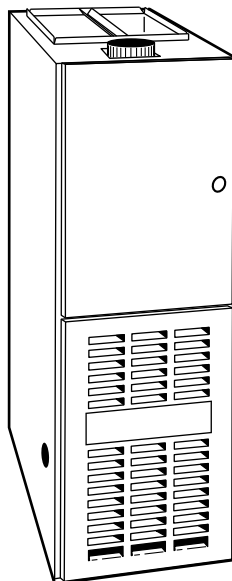




ENERGY-EFFICIENT with Perfect Heat™
DOWNFLOW/HORIZONTAL
INDUCED-COMBUSTION FURNACE

331AAV

Sizes 065 thru 125
Series B



The Plus 80t Downflow/Horizontal Furnace, with Perfect Heat™, 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, and economical initial cost, put it in a class well ahead of the competition. The model Plus 80t Gas Furnace has the kind of overall performance needed in today's homes.

FEATURES

EFFICIENCY — Plus 80t Induced-Combustion Gas Furnace provides the efficiency customers want with 80.0 percent 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 Plus 80t 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 Plus 80t 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.

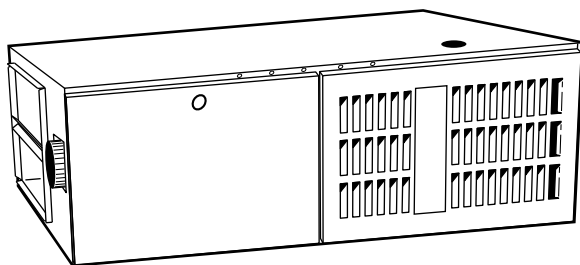
PREPAINTED CABINET — The Plus 80t uses prepainted sheet metal for the cabinet. This is the same high-quality finish found on refrigerators and other appliances today. We ensure its durability by using a galvanized steel substrate to provide superior rust protection.

PATENTED BLOCKED VENT SAFEGUARD — Our induced-combustion furnace has a patented blocked vent safeguard. The safeguard switch will stop furnace operation if the vent system becomes blocked or is not operating properly. An exclusive with the Plus 80t Furnace.

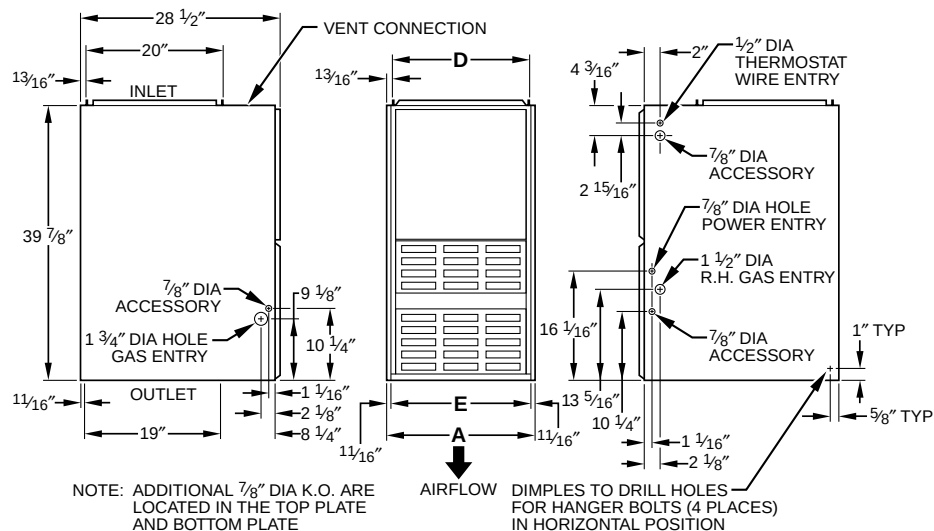
EASY INSTALLATION — The model Plus 80t has many features that make installation easier: left or right gas and electrical connections, heating and cooling blower speed selector, matching coil sizes, accessory low-voltage connections, and many more.

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

DOWNFLOW



HORIZONTAL



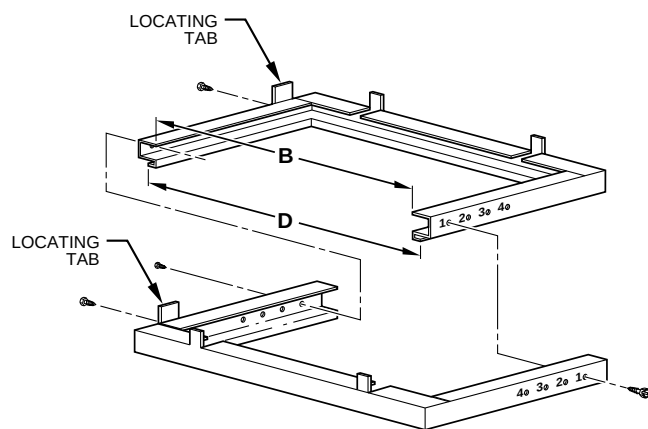
- NOTES:**
- Two additional 7/8-in. dia holes are located in the top plate.
 - Minimum return-air openings at furnace, based on metal duct. If flex duct is used, see flex duct manufacturer's recommendations for equivalent diameters.
 - For 800 CFM—16-in. round or 14½ x 12-in. rectangle.
 - For 1200 CFM—20-in. round or 14½ x 19½-in. rectangle.
 - For 1600 CFM—22-in. round or 14½ x 23¼-in. rectangle.
 - For airflow requirements above 1800 CFM, must use entire return air opening.

A99109

DIMENSIONS (In.)

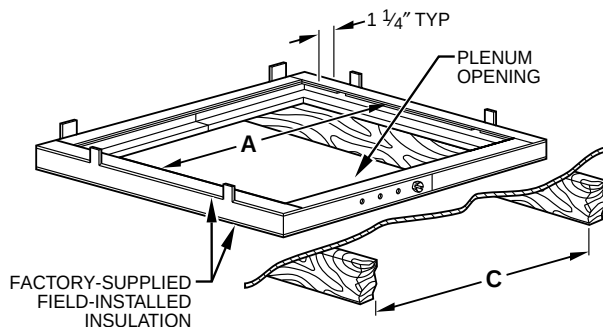
UNIT SIZE	A	D	E	VENT CONN	SHIP. WT (Lb)
024065	14-3/16	12-9/16	12-11/16	4	141
036065	14-3/16	12-9/16	12-11/16	4	145
036085	17-1/2	15-7/8	16	4	154
048085	17-1/2	15-7/8	16	4	154
048105	17-1/2	15-7/8	16	4	171
060105	21	19-3/8	19-1/2	4	181
060125	24-1/2	22-7/8	23	5	192

ACCESSORY DOWNFLOW SUBBASE



A88207

Unassembled



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.

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, shall be used to convert to propane gas use or may be required for some natural gas applications.

This furnace is for indoor installation in a building constructed on site.

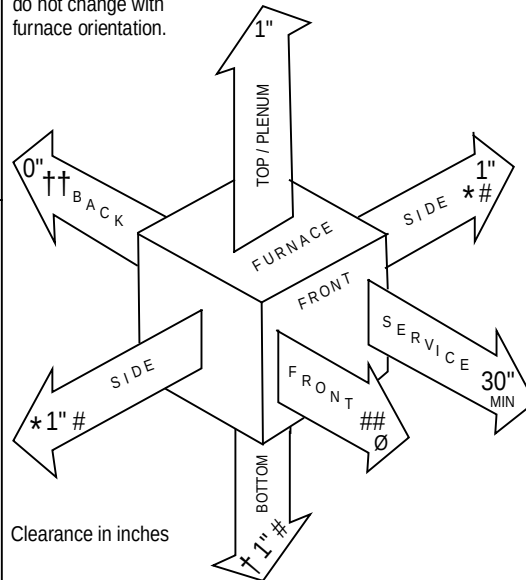
This furnace may be installed on combustible flooring in alcove or closet at minimum clearance from combustible material.

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

- † For installation on non-combustible floors only.
For installation on combustible flooring only when installed on special base, Part No. KGASB0201ALL, Coil Assembly, Part No. CD5 or CK5, or Coil Casing, Part No. KCAKC.
- # For furnaces wider than 14.25 inches (362mm) may be 0 inches.
- Ø 18 inches front clearance required for alcove.
- * Indicates supply or return sides when furnace is in the horizontal position. Line contact only permissible between lines formed by intersections of the Top and two Sides of the furnace jacket, and building joists, studs or framing.
- ## For single wall vent type 6 inches.
For Type B-1 vent type 3 inches.
- †† Clearance to Back 0 inches (0 po) in downflow and horizontal (attic/alcove & crawlspace) positions and 3 inches (3 po) in horizontal closet positions.

This furnace is approved for DOWNFLOW and HORIZONTAL installations.

Clearance arrows do not change with furnace orientation.



Clearance in inches

Vent Clearance to combustibles:

For Single Wall vents 6 inches (6 po).

For Type B-1 vent type 1 inch (1 po).

322286-101 REV. E (LIT)

A97617

CONTROLS—THERMOSTATS AND ZONING

THERMOSTAT—NON-PROGRAMMABLE	Auto Changeover, °F/°C, 1-Stage Heat/1-Stage Cool — TSTATBBNAC01-B Auto Changeover, °F/°C, 2-Stage Heat/1-Stage Cool — TSTATBBNHP01-B Auto Changeover, °F/°C, 2-Stage Heat/2-Stage Cool — TSTATBBN2S01-B in AC Mode, 3-Stage Heat/2-Stage Cool in HP Mode Air Conditioner, 1-Stage Heat/1-Stage Cool, Manual Changeover, °F/°C — TSTATBBBAC01 Heat Pump, 2-Stage Heat/1-Stage Cool. Manual Changeover, °F/°C — TSTATBBBHP01*
THERMOSTAT-PROGRAMMABLE	Auto Changeover, 7-Day Programmable, °F/°C, 1-Stage Heat/1-Stage Cool — TSTATBBPAC01-B Auto Changeover, 7-Day Programmable, °F/°C, 2-Stage Heat/1-Stage Cool — TSTATBBPAC01-B Auto Changeover, 7-Day Programmable, °F/°C, — TSTATBBP2S01-B 2-Stage Heat/2-Stage Cool in AC Mode, 3-Stage Heat/2-Stage Cool in HP Mode Dual Fuel Thermostat. Includes Outdoor Air Temperature Sensor — TSTATBBPDF01-B* Thermostat™ Control — Non-Programmable/Programmable — TSTATBBPRH01-B* Thermostat with Humidity Control (For use in Dual Fuel, AC, HP, and 2S applications. Includes Outdoor Air Temperature Sensor.)
ZONING—2-ZONE	ZONEBB2KIT01, ZONEKIT2ZBDP
ZONING—4-ZONE	ZONEBB4KIT01
ZONING—8-ZONE	ZONEBB8KIT01

* Do not use in zoning heat pump applications.

SPECIFICATIONS

UNIT SIZE		024065	036065	036085	048085	048105	060105	060125
RATINGS AND PERFORMANCE								
Gas Input Btuh*	High Stage	63,000	63,000	84,000	84,000	105,000	105,000	123,000
	Low Stage	40,500	40,500	54,000	54,000	67,500	67,500	81,000
Output Capacity (Btuh)†	High Stage	51,000	51,000	69,000	69,000	86,000	86,000	101,000
Nonweatherized ICS	Low Stage	33,000	33,000	44,000	44,000	55,000	55,000	66,000
AFUE‡	Nonweatherized ICS	80.0						
Certified Temperature Rise Range Range (°F)	High Stage	55—85	30—60	40—70	30—60	45—75	35—65	45—75
	Low Stage	30—60	15—45	25—55	15—45	25—55	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	0.20/0.50
Airflow CFM	Heating High/Low	660/585	1195/1030	1060/900	1355/1170	1405/1220	1735/1500	1690/1480
	Cooling	930	1195	1255	1580	1645	1950	2055
ELECTRICAL								
Unit Volts—Hertz—Phase		115—60—1						
Operating Voltage Range		Min—Max 104—127						
Maximum Unit Amps		8.0	10.5	12.0	14.2	13.2	17.9	18.4
Maximum Wire Length (Measured 1 Way)		Ft 46	35	30	26	28	32	31
Minimum Wire Size		14					12	
Maximum Fuse Size or CKT BKR (Amps)‡‡		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	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	1/2	3/4	3/4
Motor Full Load Amps		2.9	5.1	5.8	7.4	7.4	11.0	11.1
RPM (Nominal)—Speeds		1075-4	1075-5	1075-4	1075-5	1075-5	1075-5	1075-4
Blower Wheel Diameter x Width (In.)		10 x 6		10 x 7	10 x 8	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								
Accessory Downflow Subbase**		KGASB0201ALL						
High-Altitude Pressure Switch Kit‡		KGAHA5601PSW						
Gas Conversion Kit—Natural-to-Propane		KGANP26012SP						
Gas Conversion Kit—Propane-to-Natural		KGAPN21012SP						

* 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.

† Capacity in accordance with U.S. Government DOE test 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 Bryant cased coil is used.

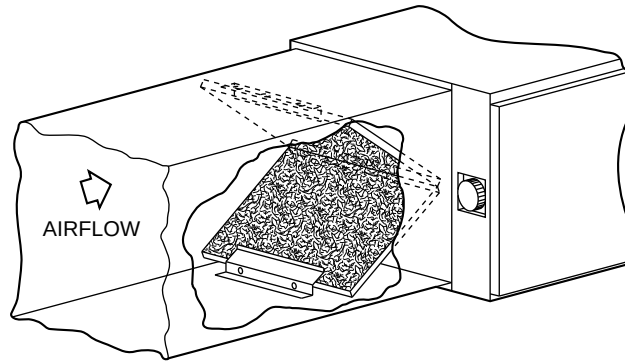
ICS—Isolated Combustion System

‡‡ Time-delay type is recommended

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	1435	1385	1320	1265	1195	1145	1080	1000
		Med-High	1195	1165	1145	1105	1070	1015	955	885
		Med	1030	1020	1010	985	955	915	860	790
		Med-Low	900	890	875	855	835	795	755	690
036085	1/3 PSC	Low	705	700	690	675	655	625	580	525
		High	1445	1420	1380	1320	1255	1180	1075	940
		Med-High	1255	1250	1220	1180	1140	1065	975	830
		Med-Low	1060	1055	1045	1025	975	915	820	680
048085	1/2 PSC	Low	900	895	890	870	830	760	665	545
		High	1855	1765	1710	1665	1580	1570	1410	1310
		Med-High	1595	1570	1530	1485	1410	1355	1280	1200
		Med	1355	1345	1305	1270	1220	1170	1110	1025
048105	1/2 PSC	Med-Low	1170	1170	1140	1110	1075	1025	965	890
		Low	880	865	855	830	805	755	720	655
		High	1895	1855	1780	1725	1645	1565	1460	1355
		Med-High	1620	1595	1560	1530	1470	1390	1310	1215
060105	3/4 PSC	Med	1400	1405	1385	1345	1310	1260	1180	1080
		Med-Low	1200	1220	1210	1185	1155	1115	1045	965
		Low	950	960	965	950	930	890	840	765
		High	2235	2185	2110	2030	1950	1835	1700	1540
060125	3/4 PSC	Med-High	1995	1970	1915	1845	1765	1680	1545	1415
		Med	1735	1735	1675	1625	1565	1480	1370	1265
		Med-Low	1510	1500	1485	1455	1400	1320	1230	1130
		Low	1145	1140	1125	1115	1100	1085	1045	990
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.



**Filter Retainers
(Field Supplied)**

A94307



**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.40.7