

Using advanced technology and craftsmanship, Bryant has reached its goal of developing a dedicated horizontal induced-combustion gas furnace.

The model 349HAV Gas-Fired Horizontal Induced-Combustion Gas Furnace is the result of an extensive research and development project to build an affordable induced-combustion furnace that achieves a rating of 80% Annual Fuel Utilization Efficiency (AFUE). The 349HAV is designed for reliability, efficiency, and quiet operation. Its unique arrangement of gas controls and its combustion system make this furnace an industry pacesetter.

### FEATURES

**MONOPORT INSHOT BURNERS**—Produce precise air-to-gas mixture which gives a clean burn. The large monoport on the inshot (injection-type) burners seldom, if ever, needs cleaning.

**FOUR-PASS HEAT EXCHANGER**—This design accelerates heat transfer and extracts heat that conventional heat exchangers waste up the flue. The heat exchanger is made of aluminized steel for corrosion resistance.

The heat exchanger is a special version of the serpentine design utilized for years because of its reliability. The heat exchanger is positioned in the furnace to extract additional heat from the combustion products.

**LIMITED WARRANTY**—20-year warranty on the heat exchanger. One-year warranty on solid-state control. Your dealer has details.

**SAFETY**—The 349HAV has 3 select safety control features: (1) a self-checking draft control circuit that must reset before another burner cycle can begin, (2) a blower interlock switch that prevents furnace operation when the blower door is removed, (3) 100% shutoff of main burner gas by solid-state control if established flame is not sensed after an ignition attempt.

**SOLID-STATE BLOWER CONTROL OFF TIMING ADJUSTABLE**—Timed blower operation gives precise, adjustable control of blower operation. The off timing can be adjusted with convenient DIP switches.

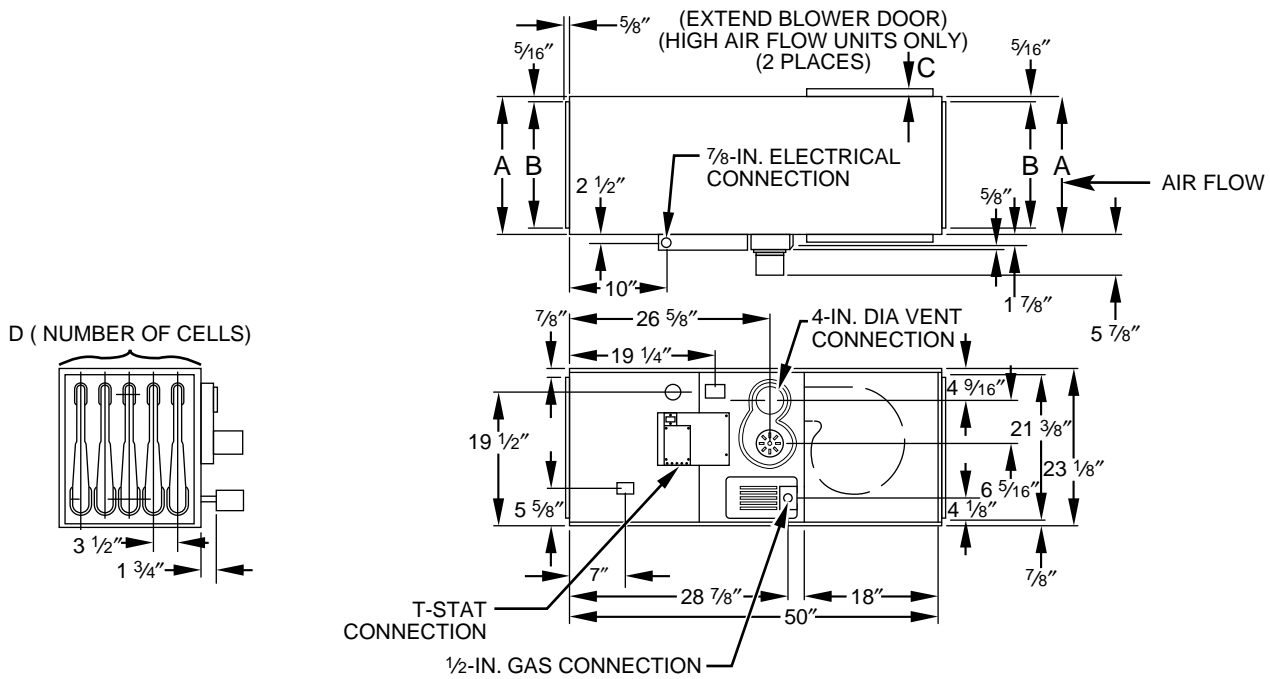
**SOLID-STATE CONTROL CENTER**—The printed-circuit board and all internal wiring are factory installed. Screw terminals permit quick connection of thermostat and air conditioning control circuits.

**INSULATED CASING**—Foil-faced insulation in the heat exchanger section cuts heat loss.

**INSTALLATION FLEXIBILITY**—The furnace is factory-shipped in the horizontal left configuration but can easily be “rolled over” for horizontal right airflow, allowing greater installation and service flexibility.

**OLD FURNACE REPLACEMENT**—The 50-in. casing length makes the model 349HAV Furnace ideal for replacement applications.

**CERTIFICATIONS**—The 349HAV units are A.G.A. and C.G.A. design certified for use with natural and propane gases, as well as GAMA efficiency rating certified. The model 349HAV meets California Air Quality Management District emission requirements.



A96068

### DIMENSIONS (In.)

UNIT SIZE	UNIT DIMENSIONS			DUCT SUPPLY AND RETURN OPENINGS		EXTENDED BLOWER DOOR*	NUMBER OF CELLS	NET WT (LB)
	Length	Width A	Height	Width B	Height	C	D	
036050	50	13-1/2	23-18	11-5/8	21-3/8	Flush	2	112
036075	50	13-1/2	23-1/8	11-5/8	21-3/8	Flush	3	121
048075	50	13-1/2	23-1/8	11-5/8	21-3/8	1	3	125
048100	50	17	23-1/8	15-1/8	21-3/8	Flush	4	141
060100	50	17	23-1/8	15-1/8	21-3/8	1	4	149
060125	50	20-1/2	23-1/8	18-5/8	21-3/8	Flush	5	161

\* High airflow units only.

### CLEARANCES (In.)

UNIT SIZE	036050, 036075, 048075, 048100, 060100, AND 060125
Sides	6
Back	6*
Top	2
Vent Connector	6
Front Casing	6*
Front Service	30

\* Measured from end of inducer motor.



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

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

## SPECIFICATIONS

UNIT SIZE	036050	036075	048075	048100	060100	060125		
<b>RATINGS AND PERFORMANCE</b>								
Input Btuh*	50,000	75,000	75,000	100,000	100,000	125,000		
Output Capacity†	Nonweatherized ICS		40,000	60,000	60,000	80,000	80,000	100,000
AFUE%†	Nonweatherized ICS		80.0	80.0	80.0	80.0	80.0	80.0
Certified Temperature Rise Range °F	40—70	40—70	30—60	40—70	30—60	40—70		
Certified External Static Pressure	Heating	0.10	0.12	0.12	0.15	0.15	0.20	
	Cooling	0.50	0.50	0.50	0.50	0.50	0.50	
Airflow CFM	Heating	955	1210	1445	1620	1935	1965	
	Cooling	1200	1280	1625	1615	1990	2015	
<b>ELECTRICAL</b>								
Units Volts—Hertz—Phase	115—60—1							
Minimum Wire Size	14	14	14	14	12	14		
Maximum Wire Length (Ft)‡	30	28	25	28	34	25		
Maximum Unit Amps	9.3	9.9	11.3	9.9	13.1	11.3		
Operating Voltage Range Min—Max**	104—127							
Maximum Fuse Size or Ckt Bkr Amps††	15	15	15	15	20	15		
Transformer (24v)	40va							
External Control	Heating	12va						
Power Available	Cooling	21va						
Air Conditioning Blower Relay	Standard							
<b>CONTROLS</b>								
Limit Control	SPST							
Heating Blower Control	Solid-State Time Operation							
Burners (Monoport)	2	3	3	4	4	5		
Gas Connection Size	1/2-in. NPT							
<b>GAS CONTROLS</b>								
Gas Valve (Redundant)	Manufacturer	Honeywell						
	Min. Inlet Pressure (In. wc)	4.5 (Natural Gas)						
	Max. Inlet Pressure (In. wc)	13.6 (Natural Gas)						
Ignition Device	Hot Surface Pilot							
<b>BLOWER DATA</b>								
Direct-Drive Motor HP—Type	1/3—PSC	1/3—PSC	1/2—PSC	1/3—PSC	3/4—PSC	1/2—PSC		
Motor Full Load Amps	7.9	8.2	9.6	8.2	11.7	9.6		
RPM (Nominal)—Speeds	1075—3	1075—3	1075—3	1075—3	1075—3	1075—3		
Blower Wheel Diameter X Width (In.)	10 X 8	10 X 8	12 X 8	10 X 9	12 X 9	12 X 12		
Filter Size—Permanent Washable (In.)	13 X 23 X 1/2			16-1/2 X 23 X 1/2		20 X 23 X 1/2		
<b>FACTORY-AUTHORIZED AND LISTED, DEALER-INSTALLED OPTIONS</b>								
Electronic Air Cleaner	AIRA							
Humidifier‡‡	912D, 912E, 913B, 913C, 914A							
Filter Hanger Kit	KGAWF0901DUC			KGAWF1001DUC		KGAWF1101DUC		
Category III Vent Kit	KGASW01012SP							
Gas Conversion Kit—Natural-to-Propane	KGANP1901IID							
Gas Conversion Kit—Propane-to-Natural	KGAPN1401IID							

\* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 4 percent for each 1000 ft above sea level. In Canada, derate the unit 10 percent for elevations 2000 to 4500 ft above sea level.

† Capacity and AFUE in accordance with U.S. Government DOE test procedures.

‡ Length shown is measured 1 way along wire path between unit and service panel for maximum 2 percent voltage drop.

\*\* Permissible voltage limits for proper furnace operation.

†† Time-delay type is recommended.

‡‡ Control Board HUM terminal is 115v. All humidifiers require 24v for control.

ICS—Isolated Combustion System

## AIR DELIVERY—CFM (Without Filter)\*

UNIT SIZE	SPEED	EXTERNAL STATIC PRESSURE (IN. WC)							
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
036050	High	1455	1390	1315	1250	1200	1100	1000	850
	Med	1225	1175	1125	1065	1000	930	830	725
	Low	955	935	910	860	805	735	650	535
036075	High	1565	1490	1425	1355	1280	1195	1095	1000
	Med	1410	1355	1315	1225	1160	1090	1000	895
	Low	1215	1190	1140	1090	1040	980	895	780
048075	High	1845	1785	1735	1670	1625	1560	1505	1435
	Med	1670	1630	1585	1550	1500	1435	1380	1320
	Low	1450	1420	1395	1355	1320	1280	1230	1165
048100	High	1945	1885	1795	1710	1615	1530	1415	1290
	Med	1640	1600	1545	1490	1410	1335	1230	1120
	Low	1340	1320	1295	1265	1220	1140	1050	905
060100	High	2245	2175	2105	2035	1990	1910	1825	1745
	Med	1955	1915	1875	1820	1760	1710	1640	1375
	Low	1470	1430	1410	1375	1330	1285	1235	1180
060125	High	2265	2210	2160	2090	2015	1940	1870	1790
	Med	2015	1965	1920	1870	1800	1735	1660	1565
	Low	1575	1525	1485	1450	1395	1315	1225	1170

\* Airflow values in cubic ft per minute (CFM).

## 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

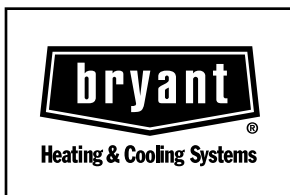
A large selection of product, theory, and skills programs is available, using popular video-based formats and materials. All include video and/or slides, plus companion book.

**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**

[ ] Packaged Service Training      [ ] Classroom Service Training

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SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE WITH INSTALLATION INSTRUCTIONS

Cancels: PDS 349H.50.3B