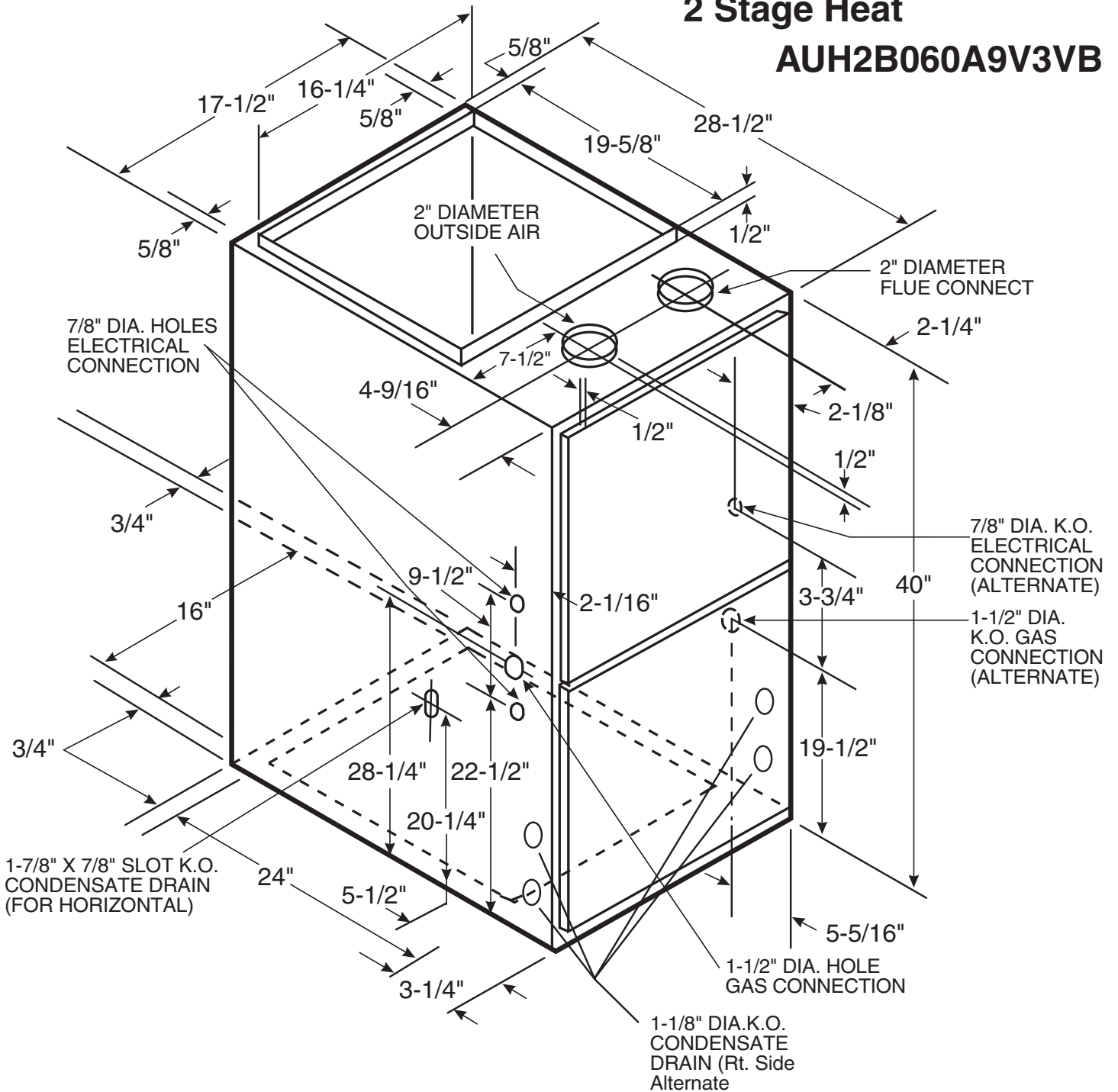


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SPECIFICATION

**Upflow/Horizontal
Direct Vent Gas Furnace
Variable Speed Inducer
2 Stage Heat**

AUH2B060A9V3VB



*UH2B060A9V3V FURNACE HEATING AIRFLOW (CFM) AND POWER (WATTS) VS. EXTERNAL STATIC PRESSURE WITH FILTER									
					37,830				
					58,200				
	AIRFLOW SETTING	DIP SWITCH SETTING			EXTERNAL STATIC PRESSURE				
		SW 7	SW 8		0.1	0.3	0.5	0.7	0.9
HEATING 1ST STAGE	LOW	ON	ON	CFM	600	600	600	600	-
				TEMP. RISE	57	57	57	57	-
				WATTS	85	110	155	190	-
	MEDIUM LOW	OFF	ON	CFM	700	700	700	700	-
				TEMP. RISE	49	49	49	49	-
				WATTS	90	130	175	210	-
NORMAL **	ON	OFF	CFM	775	775	775	775	-	
			TEMP. RISE	44	44	44	44	-	
			WATTS	105	155	195	240	-	
HIGH	OFF	OFF	CFM	870	870	870	870	-	
			TEMP. RISE	39	39	39	39	-	
			WATTS	135	185	235	290	-	
HEATING 2ND STAGE	LOW	ON	ON	CFM	860	920	920	920	670
				TEMP. RISE	61	57	57	57	79
				WATTS	140	200	245	300	245
	MEDIUM LOW	OFF	ON	CFM	1000	1000	1000	1000	700
				TEMP. RISE	53	53	53	53	75
				WATTS	190	255	305	340	255
NORMAL **	ON	OFF	CFM	1125	1125	1125	1025	775	
			TEMP. RISE	47	47	47	51	68	
			WATTS	250	315	370	355	285	
HIGH	OFF	OFF	CFM	1250	1250	1250	1100	1000	
			TEMP. RISE	42	42	42	48	53	
			WATTS	340	405	445	390	355	

NOTES:

* First letter may be "A" or "T"

** Factory setting

*UH2B060A9V3V FURNACE COOLING AIRFLOW (CFM) AND POWER (WATTS) VS. EXTERNAL STATIC PRESSURE WITH FILTER											
OUTDOOR UNIT SIZE (TONS)	AIRFLOW SETTING	DIP SWITCH SETTING					EXTERNAL STATIC PRESSURE				
		SW 1	SW 2	SW 3	SW 4		0.1	0.3	0.5	0.7	0.9
1.5	LOW (350 CFM/TON)	ON	ON	OFF	ON	CFM WATTS	575 65	575 90	575 125	550 155	-
	NORMAL (400 CFM/TON)	ON	ON	OFF	OFF	CFM WATTS	640 70	640 110	640 140	630 175	-
	HIGH (450 CFM/TON)	ON	ON	ON	OFF	CFM WATTS	700 85	700 125	700 160	700 200	-
2.0	LOW (350 CFM/TON)	OFF	ON	OFF	ON	CFM WATTS	700 100	700 130	700 170	700 210	-
	NORMAL (400 CFM/TON)	OFF	ON	OFF	OFF	CFM WATTS	800 115	800 155	800 200	800 250	-
	HIGH (450 CFM/TON)	OFF	ON	ON	OFF	CFM WATTS	900 140	900 195	900 240	900 290	-
2.5	LOW (350 CFM/TON)	ON	OFF	OFF	ON	CFM WATTS	875 130	875 180	875 230	875 270	-
	NORMAL (400 CFM/TON)	ON	OFF	OFF	OFF	CFM WATTS	1000 175	1000 235	1000 285	1000 335	900 310
	HIGH (450 CFM/TON)	ON	OFF	ON	OFF	CFM WATTS	1125 235	1125 295	1125 345	1100 370	925 318
3	LOW (350 CFM/TON)	OFF	OFF	OFF	ON	CFM WATTS	1050 195	1050 260	1050 305	1050 350	920 315
	NORMAL (400 CFM/TON)	OFF	OFF	OFF	OFF	CFM WATTS	1200 275	1200 330	1200 385	1100 385	940 330
	HIGH (450 CFM/TON)	OFF	OFF	ON	OFF	CFM WATTS	1325 360	1325 425	1300 460	1175 425	1000 365

NOTES: * First letter may be "A" or "T"

1. At continuous fan setting: Heating or Cooling airflows are approximately 50% of selected cooling value.

2. LOW airflow (350 cfm/ton) is COMFORT & HUMID CLIMATE setting;

NORMAL airflow (400 cfm/ton) is typical setting;

HIGH airflow (450 cfm/ton) is DRY CLIMATE setting.

INDOOR BLOWER TIMING

Heating: The ICM Fan Control controls the variable speed indoor blower. The blower "on" time is fixed at 45 seconds after ignition. The FAN-OFF period is field selectable by dip switches #2 and #3 on the Integrated Furnace Control at 60, 100, 140, or 180 seconds. The factory setting is 100 seconds, (See unit wiring diagram).

Cooling: The fan delay-off period is set by dip switches on the ICM Fan Control board connected to the Integrated Furnace Control. The options for cooling delay off is field selectable by dip switches #5 and #6. However, dip switch #1 on the Integrated Furnace Control must be set to "ON" for cooling mode to function properly.

The following table and graph explain the delay-off settings:

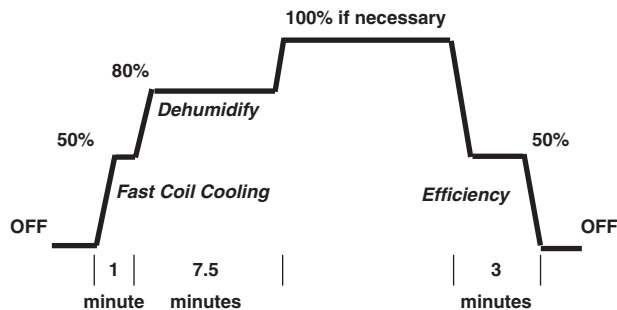
** - This selection provides a ramping up and ramping down of the blower speed to provide improved comfort, quietness, and potential energy savings. The graph below shows the ramping process.

COOLING OFF - DELAY OPTIONS

SWITCH SETTINGS		SELECTION	NOMINAL AIRFLOW
5 - OFF	6 - OFF	NONE	SAME
5 - ON	6 - OFF	1.5 MINUTES	100% *
5 - OFF	6 - ON	3 MINUTES	50%
5 - ON	6 - ON	**	50 - 100%

* - This setting is equivalent to BAY24X045 relay benefit

** - This selection provides **ENHANCED MODE**, which is a ramping up and ramping down of the blower speed to provide improved comfort, quietness, and potential energy savings. See Wiring Diagram notes on the unit or in the Service Facts for complete wiring setup for **ENHANCED MODE**. The graph which follows, shows the ramping process.



GENERAL DATA ^①

MODEL	*UH2B060A9V3VB
TYPE	Upflow/Horizontal
RATINGS ^②	
1st Stage Input BTUH	39,000
1st Stage Capacity BTUH (ICS) ^③	37,830
2nd Stage Input BTUH	60,000
2nd Stage Capacity BTUH (ICS) ^③	58,200
AFUE	97
Temp. rise (Min.-Max.) °F.	35 - 65
BLOWER DRIVE	DIRECT
Diameter - Width (In.)	10 x 8
No. Used	1
Speeds (No.)	Variable
CFM vs. in. w.g.	See Fan Performance Table
Motor HP	1/2
R.P.M.	Variable
Volts/Ph/Hz	115/1/60
FLA	7.7
COMBUSTION FAN - Type	Centrifugal
Drive - No. Speeds	Direct - Variable
Motor HP - RPM	1/50 - 5000
Volts/Ph/Hz	33 - 110/3/60 - 180
FLA	1.0
FILTER — Furnished?	Yes
Type Recommended	High Velocity
Hi Vel. (No.-Size-Thk.)	1 - 17x25 - 1 in.
VENT — Size (in.)	2 Round
HEAT EXCHANGER	
Type -Fired	Aluminized Steel - Type I
-Unfired	
Gauge (Fired)	20
ORIFICES — Main	
Nat. Gas Qty. — Drill Size	3 — 45
L.P. Gas Qty. — Drill Size	3 — 56
GAS VALVE	Redundant - Two Stage
PILOT SAFETY DEVICE	
Type	Hot Surface Igniter
BURNERS — Type	Multipoint Inshot
Number	3
POWER CONN. — V/Ph/Hz ^④	115/1/60
Ampacity (In Amps)	10.8
Max. Overcurrent Protection (Amps)	15
PIPE CONN. SIZE (IN.)	1/2
DIMENSIONS	H x W x D
Crated (In.)	41-3/4 x 19-1/2 x 30-1/2
WEIGHT	
Shipping (Lbs.)/Net (Lbs)	158 / 146

① Central Furnace heating designs are certified to ANSI Z21.47 / CSA 2.3

② For U.S. applications, above input ratings (BTUH) are up to 2,000 feet, derate 4% per 1,000 feet for elevations above 2,000 feet above sea level.

For Canadian applications, above input ratings (BTUH) are up to 4,500 feet, derate 4% per 1,000 feet for elevations above 4,500 feet above sea level.

③ Based on U.S. government standard tests.

④ The above wiring specifications are in accordance with National Electrical Code; however, installations must comply with local codes.

Mechanical Specifications

NATURAL GAS MODELS

Central Heating furnace designs are certified by to ANSI Z21.47 / CSA 2.3 for both natural and L.P. gas. Limit setting and rating data were established and approved under standard rating conditions using American National Standards Institute standards.

SAFE OPERATION

The Integrated System Control has solid state devices, which continuously monitor for presence of flame, when the system is in the heating mode of operation. Dual solenoid combination gas valve and regulator provide additional safety.

QUICK HEATING

Durable, cycle tested, heavy gauge **aluminized steel heat exchanger** quickly transfers heat to provide warm conditioned air to the structure. **Low energy power vent blower**, to increase efficiency and provide a positive discharge of gas fumes to the outside.

BURNERS

Multiport Inshot burners will give years of quiet and efficient service. All models can be converted to **L.P. gas** without changing burners.

INTEGRATED SYSTEM CONTROL

Exclusively designed operational program provides total control of furnace limit sensors, blowers, gas valve, flame control and includes self diagnostics for ease of service. Also contains connection points for E.A.C./Humidifier.

ENERGY EFFICIENT OPERATION

Furnace is certified to leak 2% or less of nominal air conditioning CFM delivered when pressurized to .5" water column with all inlets, outlets, and drains sealed.

AIR DELIVERY

The variable speed blower motor has sufficient airflow for most heating and cooling requirements and will switch from heating to cooling speeds on demand from room thermostat. The blower door safety switch will prevent or terminate furnace operation when the blower door is removed.

SECONDARY HEAT EXCHANGER

The FREEDOM 95 has a special type 29-4C™ stainless steel secondary heat exchanger to reclaim heat from flue gases which would normally be lost instead.

STYLING

Heavy gauge steel and “wrap-around” cabinet construction is used in the cabinet with baked-on enamel finish for strength and beauty. The heat exchanger section of the cabinet is completely lined with foil faced fiberglass insulation. This results in quiet and efficient operation due to the excellent acoustical and insulating qualities of fiberglass. Built-in bottom pan and alternate bottom, left or right side return air connection provision.

FEATURES AND GENERAL OPERATION

The FREEDOM 95 High Efficiency Gas Furnaces utilize an Adaptive Heat Up Silicon Nitride Hot Surface Ignition system, which eliminates the waste of a constant burning pilot. The integrated system control lights the main burners upon a demand for heat from the room thermostat. Complete front service access.

- a. Low energy power venter
- b. Vent proving pressure switch.

The manufacturer has a policy of continuous product and product data improvement and reserves the right to change specifications and design without notice.

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