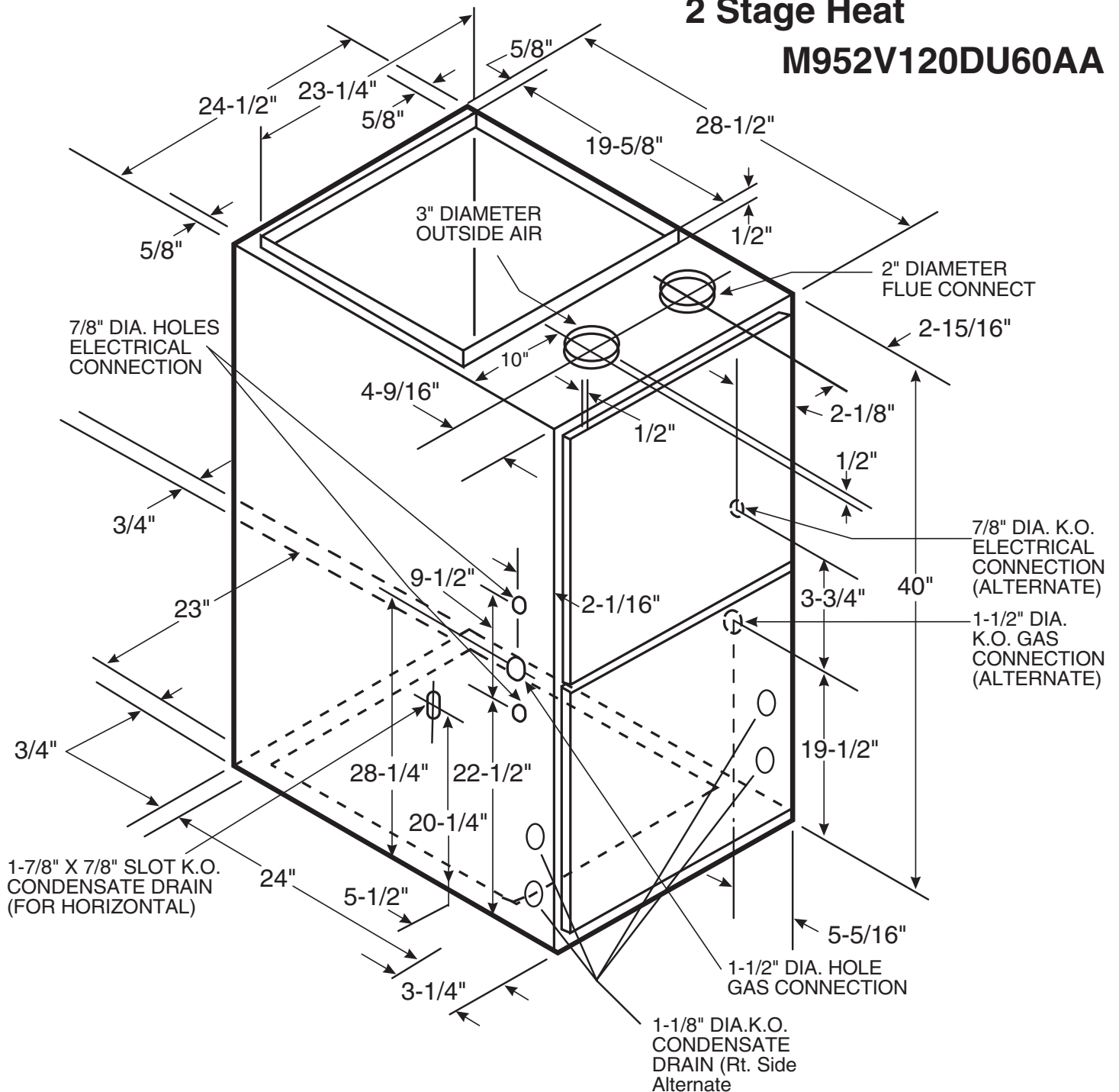


TAG: _____

SUBMITTAL

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

M952V120DU60AA



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:

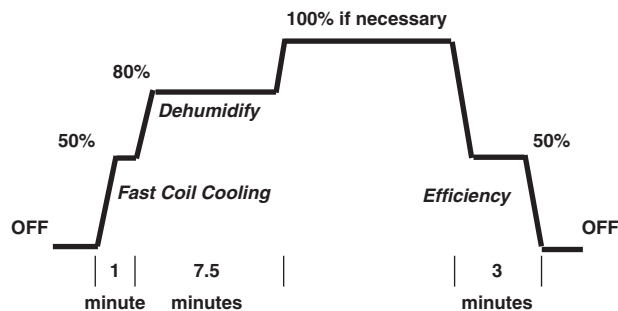
** - This selection provides a ramping up and ramping down of the blower speed to provide improved comfort, quietness, and potential energy savings. The graph below shows the ramping process.

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	M952V120DU60AA
TYPE	Upflow/Horizontal
RATINGS ^②	
1st Stage Input BTUH	78,000
1st Stage Capacity BTUH (ICS) ^③	74,100
2nd Stage Input BTUH	120,000
2nd Stage Capacity BTUH (ICS) ^③	114,000
AFUE	95.0
Temp. rise (Min.-Max.) °F.	40 - 70
BLOWER DRIVE	DIRECT
Diameter - Width (In.)	10 x 10
No. Used	1
Speeds (No.)	Variable
CFM vs. in. w.g.	See Fan Performance Table
Motor HP	1
R.P.M.	Variable
Volts/Ph/Hz	115/1/60
FLA	12.8
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 - 24x25 - 1 in.
VENT — Size (in.)	3 Round
HEAT EXCHANGER	
Type -Fired	Aluminized Steel - Type I
-Unfired	
Gauge (Fired)	20
ORIFICES — Main	
Nat. Gas Qty. — Drill Size	6 — 45
L.P. Gas Qty. — Drill Size	6 — 56
GAS VALVE	Redundant - Two Stage
PILOT SAFETY DEVICE	
Type	Hot Surface Igniter
BURNERS — Type	Multiport Inshot
Number	6
POWER CONN. — V/Ph/Hz ^④	115/1/60
Ampacity (In Amps)	17.2
Max. Overcurrent Protection (Amps)	20
PIPE CONN. SIZE (IN.)	1/2
DIMENSIONS	H x W x D
Crated (In.)	41-3/4 x 26-1/2 x 30-1/2
WEIGHT	
Shipping (Lbs.)/Net (Lbs)	206 / 193

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 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 furnace 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 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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Library	Ameristar
Product Section	Furnaces
Product	Furnace
Model	M952V
Literature Type	Submittal
Sequence	-
Date	04/14
File No.	M952V120-SUB-1
Supersedes	New