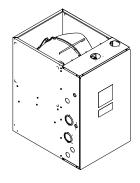
# **Submittal**

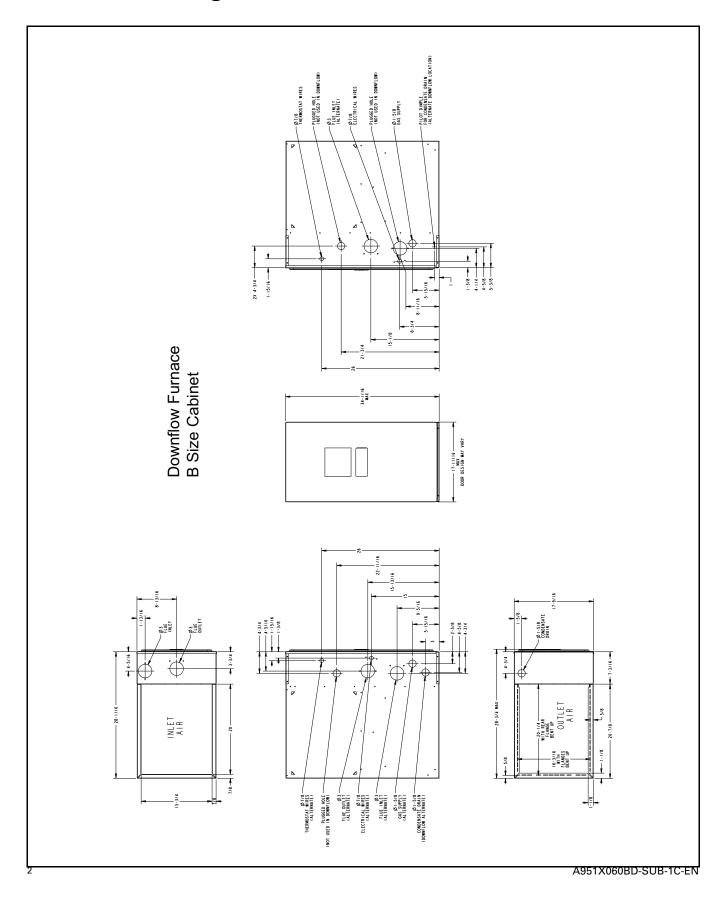
Dedicated Downflow Single Stage Condensing Gas Fired Furnace 60,000 BTUH

Downflow Only A951X060BD3SAB



**Note:** Graphics in this document are for representation only. Actual model may differ in appearance.

# **Outline Drawings**



## **Product Specifications**

MODEL	A951X060BD3SAB (a)					
ТҮРЕ	Downflow					
RATINGS (b)						
Input BTUH	60,000					
Capacity BTUH (ICS) (c) (d)	57,600					
Temp. Rise (MinMax.)	35 - 65					
AFUE (%) <sup>(d)</sup>	96.0					
Return Air Temp. (Min Max.)	45°F - 80°F					
BLOWER DRIVE	DIRECT					
Diameter — Width (In.)	11 X 8					
No. Used	1					
Speeds (No.) (e)	9					
CFM vs. in. w.g.	See Fan Performance Table					
Motor HP	1/2					
RPM	1075					
Volts/Ph/Hz	120 / 1 / 60					
FLA	6.4					
COMBUSTION FAN — Type	Centrifugal					
Drive — No. Speeds	Direct - 1					
Motor HP — RPM	3300					
Volts/Ph/Hz	120 / 1 / 60					
FLA	2.14					
FILTER — Furnished?	No					
Type recommended	High Velocity					
Hi Vel. (NoSize-Thk.)	2 — 14x20 — 1 in.					
VENT PIPE DIAMETER — Min (in.)  (f) (g)	2 Round					
HEAT EXCHANGER						
Type — Fired	409 Stainless Steel					
— Unfired	29-4C Stainless Steel					

MODEL	A951X060BD3SAB (a)				
Gauge (Fired)	20				
ORIFICES — Main					
Nat. Gas Qty. — Drill Size	3 - 45				
LP Gas Qty. — Drill Size	3 - 56				
GAS VALVE	Redundant - One Stage				
PILOT SAFETY DEVICE					
Туре	120 V SiNi Igniter				
BURNERS — Type	Multiport Inshot				
Number	3				
POWER CONN. — V/Ph/Hz (h)	120 / 1 / 60				
Ampacity (In Amps)	10.3				
Max. Overcurrent Protection (Amps)	15				
PIPE CONN. SIZE (in.)	1/2				
DIMENSIONS	HxWxD				
Uncrated (In.)	34 x 17-1/2 x 28-3/4				
Crated (In.)	35-1/2 x 19-1/2 x 30-7/8				
WEIGHT					
Shipping (Lbs.)/Net (Lbs.)	127/119				
(-) M	T				

- (a) Meets Energy Star
- (b) 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.
- (c) Central Furnace heating designs are certified to ANSI Z21.47 / CSA 2.3.
- (d) Based on U.S. government standard tests.
- (e) 9 Speed constant torque ECM blower motor
- (f) Refer to the Vent Length Table in the Installer's Guide.
- (g) All furnace models have a vent outlet diameter that equals 2 in.
- (h) The above wiring specifications are in accordance with National Electrical Code; however, installations must comply with local codes.

## **Airflow tables**

Furnace Airflow (CFM) Vs. External Static Pressure (in. W.C.)								
Model	Тар		0.1	0.3	0.5	0.7	0.9	
	1	SCFM	624	451	277	104	-	
		Watts	47	57	68	79	-	
	2	SCFM	866	734	602	470	338	
		Watts	89	102	116	129	142	
	3	SCFM	949	833	718	602	486	
		Watts	113	128	142	156	171	
	4	SCFM	1122	1025	928	831	733	
A951X060BD3SAB		Watts	165	182	200	217	235	
	5	SCFM	1178	1087	996	905	814	
		Watts	191	209	227	246	264	
	6	SCFM	1260	1180	1100	1021	941	
		Watts	233	252	271	290	309	
	7	SCFM	1370	1299	1228	1158	1087	
		Watts	296	316	336	355	375	
	8	SCFM	1480	1416	1352	1287	1223	
		Watts	365	387	408	429	450	
	9	SCFM	1504	1440	1376	1312	1249	
		Watts	384	406	427	449	470	

# **CFM Versus Temperature Rise**

Table 1. Heating Table — Downflow

CFM VS. TEMPERATURE RISE												
MODEL												
	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900
A951X060BD3SAB		63	58	52	48	44	41	37				

### **General Features**

#### **NATURAL GAS MODELS**

Central Heating furnace designs are certified by the American Gas Association 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 is a solid state device which continuously monitors 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 **tubular stainless steel primary 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 with LP conversion kit.

#### **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.

#### **ENERGY EFFICIENT OPERATION**

Furnace is certified by the manufacturer to leak 1.4% or less of nominal air conditioning CFM delivered when pressurized to .5" water column with all inlets, outlets, and drains sealed.

#### **AIR DELIVERY**

The 9 speed constant torque blower motor has sufficient airflow for most heating and cooling requirements and will switch from heating to cooling speeds on demand from room thermostat.

#### SECONDARY HEAT EXCHANGER

The furnace has a special type 29-4C<sup>™</sup> stainless steel secondary heat exchanger to reclaim heat from flue gases which would normally be lost.

#### **STYLING**

Heavy gauge steel and "wrap-around" cabinet construction is used for strength. Every orientation has at least two venting options. There are no knockouts on cabinet.

#### FEATURES AND GENERAL OPERATION

The furnace utilizes a 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 switches.

### **Features and Benefits**

Up to 96.0% AFUE

Meets utility rebates

Lowers utility bills

**ELECTRICALLY EFFICIENT** 

Efficient airflow design reduces electrical energy use

34 INCH TALL

Lighter, easier to move and fit into tight spaces like short basements or tight closets

Works great with larger, high-efficiency coils

No knockouts

3-WAY MULTI-POISE / DEDICATED DOWNFLOW

6 SKU's — Upflow / Horizontal Left / Horizontal Right

5 SKU's - Downflow

Added application flexibility and reduction in specification errors

**AIRFLOW** 

At least 400 CFM/ton at 0.5 in. H<sub>2</sub>0 external static pressure; setup airflow options down to 290 CFM/ton

**REGULATORY** 

All models are air tight; 1.4% or less air leakage as per ASHRAE 193

Open vestibule design provides a full 34" high open vestibule

**DIMENSIONS** 

Widths are industry standard: 17.5", 21", and 24.5"

Depth remains approximately 28"

Cabinet will be compatible with industry standard coils, as well as, other accessories

INTEGRATED FURNACE CONTROL

Setup / Status / Diagnostics / Digital Display

No dip switches

Last six errors stored

All Molex connections; no spade terminals

Low voltage labeled above and below

Rain shield over IFC keeps condensate off the control

TUBULAR STAINLESS STEEL PRIMARY HEAT EXCHANGER

29-4C STAINLESS STEEL SECONDARY HEAT EXCHANGER

Stainless steel is a more durable, corrosive-resistant material than aluminumized steel

Integrated rail system for easy access if required

Reduces or eliminates need for baffles

9 SPEED CONSTANT TORQUE BLOWER MOTOR

Greater range of operation

Higher efficiency versus a standard PSC blower motor

Taps are electronically selectable at the IFC

THREE-WAY MULTI-POISE (UPFLOW, HORIZONTAL LEFT AND RIGHT) PLUS DEDICATED DOWNFLOW

Easier to specify

Shipped ready to install (no kits required)

Every model has at least two venting options

When in horizontal, trap extends only about 2"

Barbed fitting on trap at hose connection and on cabinet transition for hose has barbed fitting and clamps at both ends for leak resistance.

Vent table improvements including longer vent lengths; 2" pipe can be used up to 100K

Trane and American Sta	erican Standard Heating ndard create comfortable, e visit www.trane.com or v	energy efficient indoor	environments for residen	tial applications. For

The manufacturer has a policy of continuous data improvement and it reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.