# **Submittal**

### Upflow / Downflow / Horizontal Left/Right Single Stage Non-condensing Gas Fired Furnace 80,000 BTUH

Upflow, Downflow, Horizontal Right/Left

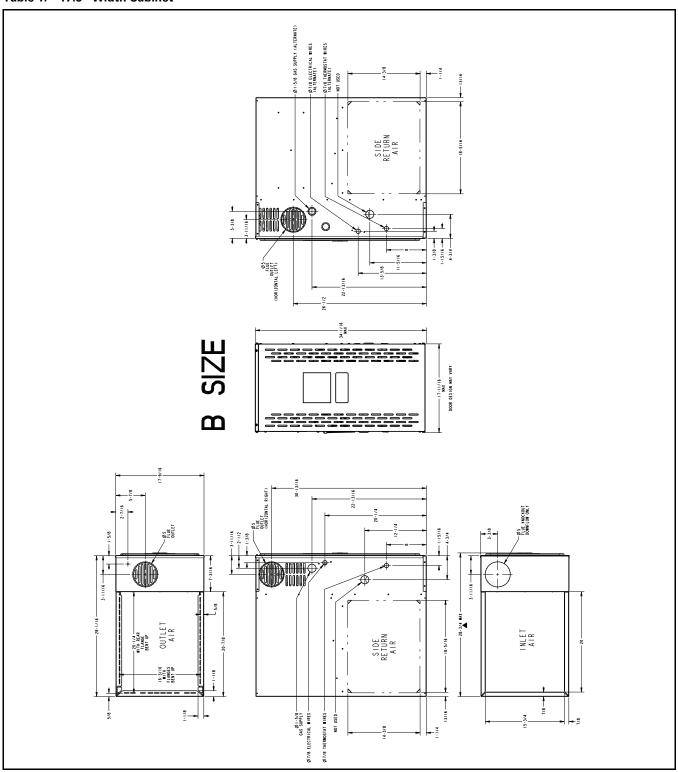
A801X080BM4SC

**Note:** Models may have a "T" in the 12th digit designating they meet California less than 40 ng/J (NOx) emissions requirements.

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

# **Outline Drawing**

Table 1. 17.5" Width Cabinet



# **Product Specifications**

MODEL	A801X080BM4SC (a)
Туре	Upflow / Horizontal / Downflow
RATINGS (b)	
Input BTUH	80,000
Capacity BTUH (ICS) (c)	65,100
Temp. Rise (Min Max.) °F	30 - 60
AFUE - Rating (c)	80
Return Air Temp. (Min Max.) °F	55°F - 80°F
BLOWER DRIVE	DIRECT
Diameter - Width (in.)	11 X 8
No. Used	1
Speeds (No.) (d)	CTM - 9
CFM vs. in. w.g.	See Fan Performance Table
Motor HP	3/4
R.P.M.	1050
Volts / Ph / Hz	120 / 1 / 60
FLA	9.2
COMBUSTION FAN - Type	PSC
Drive - No. Speeds	Direct - 1
Motor RPM	3300
Volts/Ph/Hz	120 / 1 / 60
FLA	0.29
Inducer Orifice	1.75
FILTER - Furnished?	No
Type Recommended	High Velocity
Hi Vel. (NoSize-Thk.)	1 - 16 X 25 - 1 in.

MODEL	A801X080BM4SC (a)							
VENT PIPE DIAMETER - Min. (in.) (e)	4 Round							
HEAT EXCHANGER - Type	Aluminized Steel							
Gauge (Fired)	20 - 19							
ORIFICES - Main								
Nat. Gas Qty Drill Size	4 - 45 4 - 56							
L.P. Gas Qty Drill Size								
GAS VALVE	Redundant - Single Stage							
PILOT SAFETY DEVICE - Type	120 V SiNi Igniter							
BURNERS - QTY	4							
POWER CONN V/Ph/HZ (f)	120 / 1 / 60							
Ampacity (Amps)	12.0							
Max. Overcurrent Protection (Amps)	15							
PIPE CONN. SIZE (IN.)	1/2							
DIMENSIONS	HxWxD							
Uncrated (in.)	34 x 17.5 x 28.75							
Crated (in.)	35.5 x 19.5 x 30.87							
WEIGHT								
Shipping (Lbs.)/Net (Lbs.)	137 / 129							

<sup>(</sup>a) Central Furnace heating designs are certified to ANSI Z21.47 - latest

<sup>(</sup>b) For U.S. applications, above input ratings (BTUH) are up to 2,000 feet, derate 4% per 10,000 feet for elevations above 2,000 feet above sea level.

 $<sup>\</sup>mbox{\scriptsize (c)}\ \ \mbox{\it Based on U.S.}$  government standard tests.

<sup>(</sup>d) 9 Speed constant torque ECM Blower Motor.

<sup>(</sup>e) Refer to the Installer's Guide.

<sup>(</sup>f) The above wiring specifications are in accordance with National Electric Code, however, installations must comply with local codes.

## **Airflow Table**

Furnace Airflow (CFM) Vs. External Static Pressure (in. W.C.)								
Model	Тар	Static	0.1	0.3	0.5	0.7	0.9	
		SCFM	552	160				
	1	Watts	34	34				
	2	SCFM	891	720	549	378	207	
	2	Watts	82	93	105	117	129	
	3	SCFM	1123	996	869	742	615	
	3	Watts	141	157	173	189	205	
	4	SCFM	1344	1240	1136	1033	929	
	4	Watts	224	244	263	283	302	
A801X080BM4SC	-	SCFM	1479	1384	1290	1196	1102	
A801XU8UBM4SC	5	Watts	290	312	333	354	375	
	6	SCFM	1583	1496	1408	1321	1234	
	6	Watts	354	376	398	420	442	
	7	SCFM	1654	1572	1491	1409	1327	
	/	Watts	405	428	451	474	496	
	8	SCFM	1818	1739	1661	1582	1503	
	8	Watts	542	561	581	600	619	
	0	SCFM	1926	1841	1756	1670	1585	
	9	Watts	645	656	667	679	690	

# **CFM Versus Temperature Rise**

### Table 2. A801X

Model		CFM Versus Temperature Rise																			
Model	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
A801X080BM4SC							59	54	49	46	42	40	37	35	33						

### **General Features**

#### **NATURAL GAS MODELS**

Central Heating furnace designs are certified by Intertek 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 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 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**

Air-Tite™ cabinet design is certified to <1.4% air leakage per ASHRAE 193 "Method of Test for Determining the Airtightness of HVAC Equipment."

#### **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.

#### 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**

#### 80% AFUE on A801X FURNACE MODELS

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

#### 4-WAY MULTI-POISE

8 SKU's — Upflow / Downflow / Horizontal Left / Horizontal Right

Added application flexibility and reduction in specification errors

#### **AIRFI OW**

At least 400 CFM/ton at 0.5 in.  $H_20$  external static pressure

#### 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 for ease of installation and service

#### **DIMENSIONS**

Width is industry standard: 17.5" Depth remains approximately 28"

Cabinet is 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 ALUMINIZED STEEL HEAT EXCHANGER 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

## FOUR-WAY MULTI-POISE (UPFLOW, DOWNFLOW, HORIZONTAL LEFT AND RIGHT)

Easier to specify

Shipped ready to install (no conversion kits required)

Every model has at least two venting options

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more information, please visit www.trane.com or www.americanstandardair.com.	
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