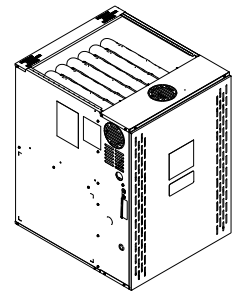


# Submittal

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

Upflow, Downflow, Horizontal Right/Left

A801X080CM5SAB



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

TAG: \_\_\_\_\_

### ▲ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

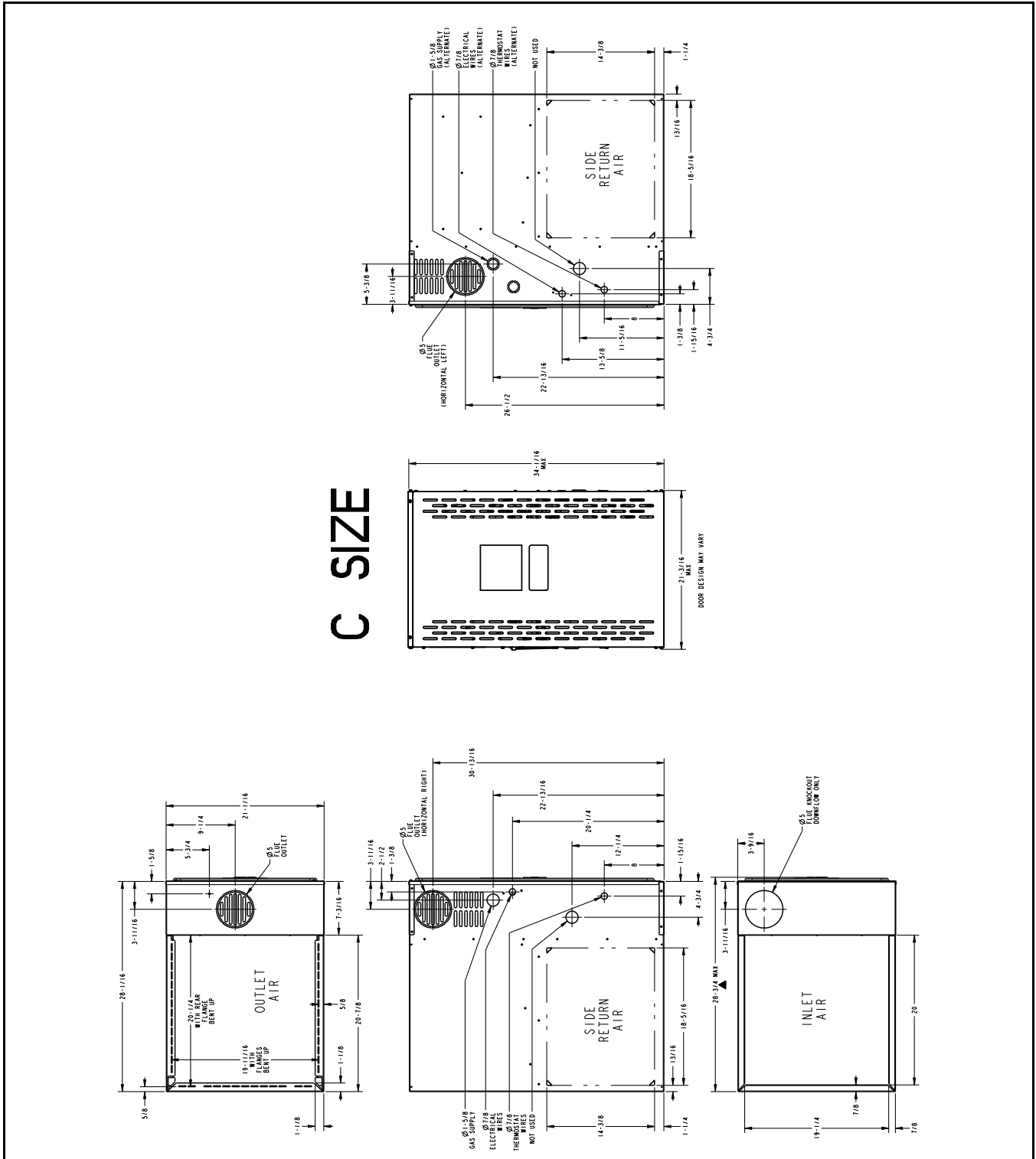
November 2019

**A801X080C-SUB-1B-EN**

**IR** Ingersoll Rand.

# Outline Drawings

Table 1. 21" Width Cabinet



# Product Specifications

MODEL	A801X080CM5SAB
<b>TYPE</b>	Upflow / Horizontal / Downflow
<b>RATINGS</b> <sup>(a)</sup>	
Input BTUH	80,000
Capacity BTUH (ICS) <sup>(b) (c)</sup>	64,000
Temp. Rise (Min.-Max.)	30 - 60
AFUE (%)	80
<b>BLOWER DRIVE</b>	DIRECT
Diameter — Width (In.)	11 X 11
No. Used	1
Speeds (No.) <sup>(d)</sup>	9
CFM vs. in. w.g.	See Fan Performance Table
Motor HP	1
RPM	1075
Volts/Ph/Hz	120 / 1 / 60
FLA	10.9
<b>COMBUSTION FAN — Type</b>	Centrifugal
Drive — No. Speeds	Direct - 1
Motor HP — RPM	3300
Volts/Ph/Hz	120 / 1 / 60
FLA	0.30
<b>FILTER — Furnished?</b>	No
Type recommended	High Velocity
High Vel. (No.-Size-Thk.)	1 — 20x25 — 1 in.
<b>VENT PIPE DIAMETER — Min (in.)</b> <sup>(e)</sup>	4 Round

MODEL	A801X080CM5SAB
<b>HEAT EXCHANGER</b>	
Type	Aluminized Steel
Gauge (Fired)	20
<b>ORIFICES — Main</b>	
Nat. Gas Qty. — Drill Size	4 - 45
<b>GAS VALVE</b>	Redundant - Single Stage
<b>PILOT SAFETY DEVICE</b>	
Type	120 V SiNi Igniter
<b>BURNERS — QTY</b>	4
<b>POWER CONN. — V/Ph/Hz</b> <sup>(f)</sup>	120 / 1 / 60
Ampacity (Amps)	14.1
Max. Overcurrent Protection (Amps)	15
<b>PIPE CONN. SIZE (in.)</b>	1/2
<b>DIMENSIONS</b>	
Uncrated (In.)	34 x 21 x 28.75
Crated (In.)	35.5 x 23 x 30.87
<b>WEIGHT</b>	
Shipping (Lbs.) / Net (Lbs.)	142 / 134

- <sup>(a)</sup> 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.
- <sup>(b)</sup> Central Furnace heating designs are certified to ANSI Z21.47 / CSA 2.3 — latest edition.
- <sup>(c)</sup> Based on U.S. government standard tests.
- <sup>(d)</sup> 9 Speed constant torque ECM blower motor.
- <sup>(e)</sup> Refer to the Installer's Guide.
- <sup>(f)</sup> 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	Tap	0.1	0.3	0.5	0.7	0.9
<b>A801X080CM5SAB</b>	1	908	346	—	—	—
	2	964	583	202	—	—
	3	1518	1323	1129	934	740
	4	1638	1455	1271	1087	904
	5	1798	1636	1475	1313	1152
	6	1911	1761	1611	1461	1310
	7	1993	1850	1708	1565	1423
	8	2214	2091	1969	1846	1723
	9	2652	2551	2450	2348	2247

# 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**

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

Added application flexibility and reduction in specification errors

## **AIRFLOW**

At least 400 CFM/ton at 0.5 in. H<sub>2</sub>O 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**

Widths are industry standard: 14.5", 17.5", 21", and 24.5"

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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