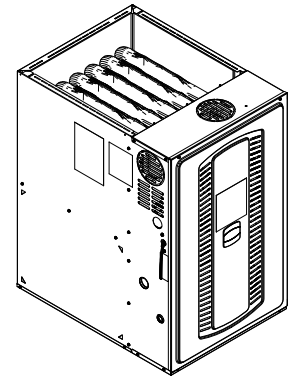


Submittal

Upflow / Downflow / Horizontal Left/Right Single Stage Non-condensing Gas Fired Furnace 40,000 BTUH

S8B1B040M2PSAA



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.

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.

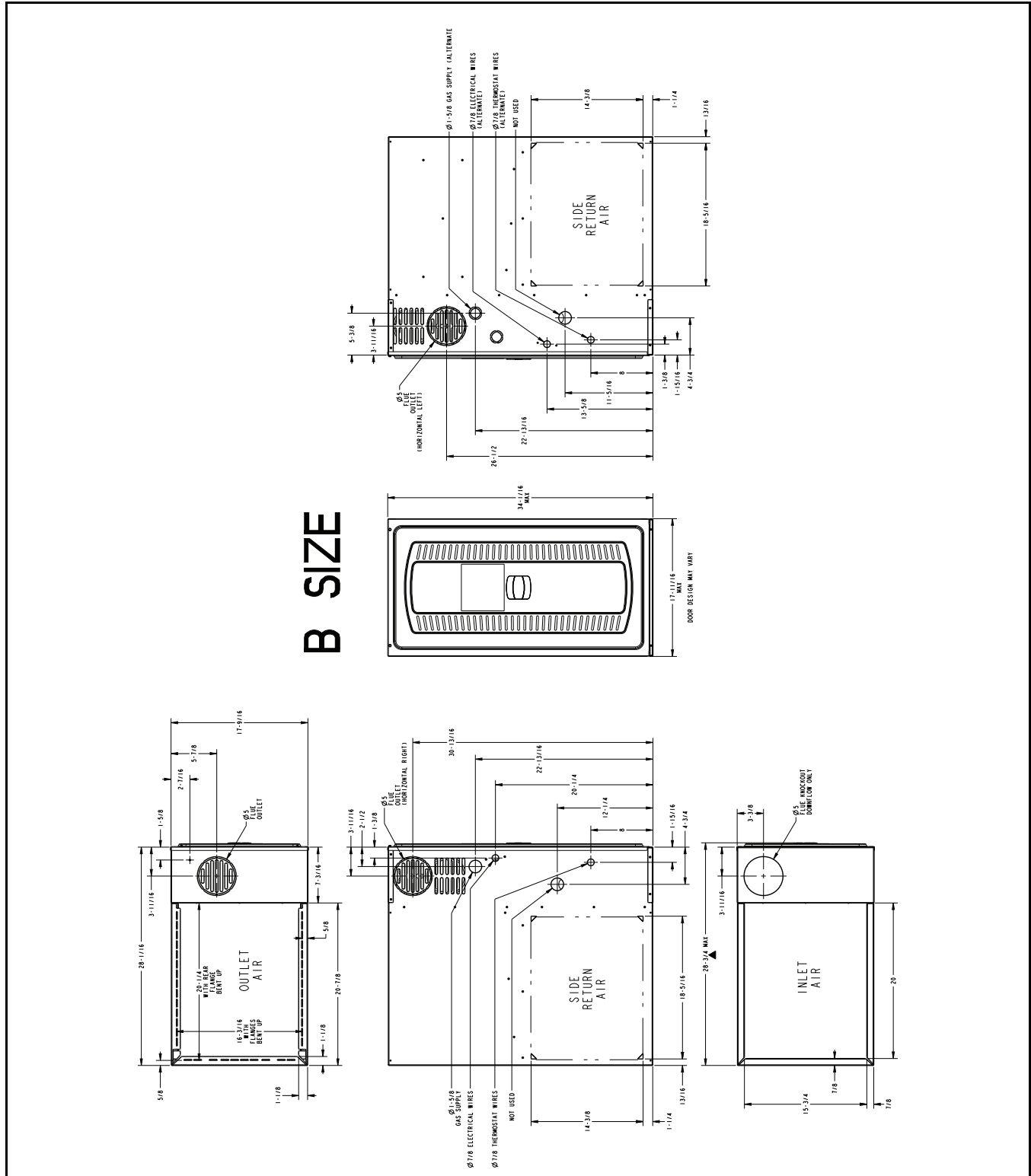
February 2019

S8B1B040M2-SUB-1A-EN

 Ingersoll Rand.

Outline Drawings

Table 1. 17.5" Width Cabinet



Product Specifications

MODEL	S8B1B040M2PSAA
TYPE	Upflow / Horizontal / Downflow
RATINGS ^(a)	
Input BTUH	40,000
Capacity BTUH (ICS) ^{(b) (c)}	32,000
Temp. Rise (Min.-Max.)	30 - 60
AFUE (%)	80
BLOWER DRIVE	DIRECT
Diameter — Width (In.)	11 X 8
No. Used	1
Speeds (No.)	9
CFM vs. in. w.g.	See Fan Performance Table
Motor HP	1/3
RPM	1075
Volts/Ph/Hz	120 / 1 / 60
FLA	4.8
COMBUSTION FAN — Type	Centrifugal
Drive — No. Speeds	Direct - 1
Motor HP — RPM	3300
Volts/Ph/Hz	120 / 1 / 60
FLA	1.39
FILTER — Furnished?	No
Type recommended	High Velocity
High Vel. (No.-Size-Thk.)	1 — 16x25 — 1 in.
VENT PIPE DIAMETER — Min (in.) ^(d)	4 Round

MODEL	S8B1B040M2PSAA
HEAT EXCHANGER	
Type	Aluminized Steel
Gauge (Fired)	20
ORIFICES — Main	
Nat. Gas Qty. — Drill Size	2 - 45
GAS VALVE	Redundant - Single Stage
PILOT SAFETY DEVICE	
Type	120 V SiNi Igniter
BURNERS — QTY	2
POWER CONN. — V/Ph/Hz ^(e)	120 / 1 / 60
Ampacity (Amps)	7.6
Max. Overcurrent Protection (Amps)	15
PIPE CONN. SIZE (in.)	1/2
DIMENSIONS	
Uncrated (In.)	34 x 17.5 x 28.75
Crated (In.)	35.5 x 19.5 x 30.87
WEIGHT	
Shipping (Lbs.) / Net (Lbs.)	128 / 120

- ^(a) 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.
- ^(b) Central Furnace heating designs are certified to ANSI Z21.47 / CSA 2.3 — latest edition.
- ^(c) Based on U.S. government standard tests.
- ^(d) Refer to the Installer's Guide.
- ^(e) 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
S8B1B040M2PSAA	1	582	—	—	—	—
	2	815	546	277	8	—
	3	872	639	406	172	—
	4	1001	809	617	424	232
	5	1022	838	654	470	286
	6	1075	917	759	601	442
	7	1132	988	844	700	557
	8	1186	1055	925	795	664
	9	1325	1211	1097	983	869

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% 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 in the cabinet with baked-on enamel finish for strength and beauty. Every orientation has at least two venting options. There are no knockouts on cabinet.

FEATURES AND GENERAL OPERATION

The S-Series 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 S8B1 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. H₂O external static pressure

REGULATORY

All models are air tight; 1% 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

Dry contact EAC and HUM connections

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

VORTICA II BLOWER, DESIGNED EXCLUSIVELY FOR THE S-SERIES FURNACE

Improved airflow efficiency

Durable, easy to clean, housing

Single piece belly band/ motor arm assembly

Blower deck has full-length rails for easy removal and replacement, regardless of poise

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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