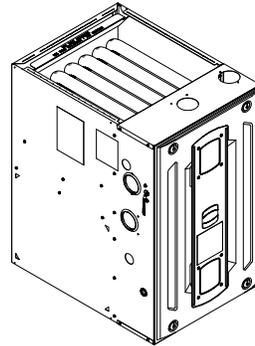


Submittal

Upflow/ Horizontal Left/Right Two Stage Condensing Gas Fired Furnace 60,000 BTUH

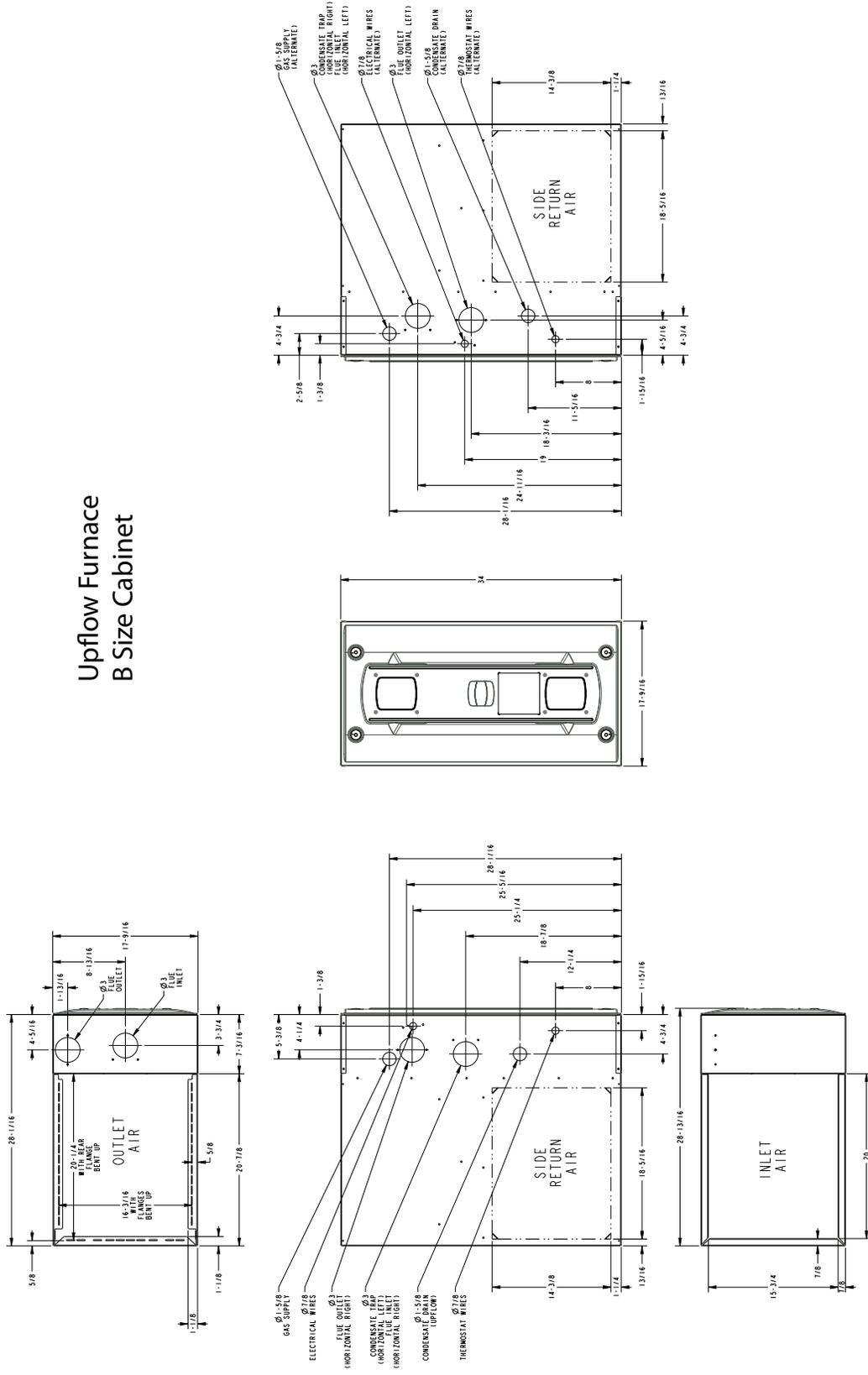
Upflow, Convertible to
Horizontal Right or
Horizontal Left
S9V2B060U3VSAB



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

Outline Drawings

Upflow Furnace B Size Cabinet



Product Specification

MODEL	S9V2B060U3VSAB (a)
TYPE	Upflow/Horizontal
RATINGS (b)	
1st Stage Input BTUH (ICS)	39,000
1st Stage Capacity BTUH	38,271
2nd Stage Input BTUH	60,000
2nd Stage Capacity BTUH (ICS) (c) (d)	57,838
1st Stage Temp. Rise (Min.-Max.)	25 - 55
2nd Stage Temp. Rise (Min.-Max.)	35 - 65
AFUE (%)	97.0
BLOWER DRIVE	DIRECT
Diameter — Width (In.)	11 X 8
No. Used	1
Speeds (No.)	Variable
CFM vs. in. w.g.	See Fan Performance Table
Motor HP	1/2
RPM	Variable
Volts/Ph/Hz	120 / 1 / 60
FLA	5.7
COMBUSTION FAN — Type	Centrifugal
Drive — No. Speeds	Direct - VS
Motor HP — RPM	1/50 - 5000
Volts/Ph/Hz	33-110 / 3 / 60-180
FLA	1.0
FILTER — Furnished?	No
Type recommended	High Velocity
Hi Vel. (No.-Size-Thk.)	1 — 16x25 — 1 in.
VENT PIPE DIAMETER — Min (in.) (e) (f)	2 Round
HEAT EXCHANGER	
Type — Fired	409 Stainless Steel

MODEL	S9V2B060U3VSAB (a)
— Unfired	29-4C Stainless Steel
Gauge (Fired)	20
ORIFICES — Main	
Nat. Gas Qty. — Drill Size	3 - 45
LP Gas Qty. — Drill Size	3 - 56
GAS VALVE	Redundant - Two Stage
PILOT SAFETY DEVICE	
Type	120 V SiNi Igniter
BURNERS — Type	Multiport Inshot
Number	3
POWER CONN. — V/Ph/Hz (g)	120 / 1 / 60
Ampacity (In Amps)	7.9
Max. Overcurrent Protection (Amps)	15
PIPE CONN. SIZE (in.)	1/2
DIMENSIONS	H x W x D
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

- (a) Meets Energy Star
- (b) Use high altitude pressure switch kits above 4000'. 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 — latest edition.
- (d) Based on U.S. government standard tests.
- (e) Refer to the Vent Length Table in the Installer's Guide.
- (f) All S9V2-VS furnace models have a vent outlet diameter that equals 2 in.
- (g) The above wiring specifications are in accordance with National Electrical Code; however, installations must comply with local codes.

Heating and Cooling Airflow Tables

Table 1. S9V2B060U3VSAB Heating Airflow

S9V2B060U3VSAB Furnace Heating Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter				1st Stage Capacity = 38,220 2nd Stage Capacity = 58,800				
Heating	Airflow Setting	Target Airflow		External Static Pressure				
				0.1	0.3	0.5	0.7	0.9
Heating 1st Stage	Low	632	CFM	660	658	656	654	652
			Temp. Rise	53	53	53	53	54
			Watts	48	85	121	157	193
	Medium Low ^(a)	814	CFM	860	856	852	848	844
			Temp. Rise	41	41	42	42	43
			Watts	91	128	164	200	236
	Medium	893	CFM	900	899	898	897	896
			Temp. Rise	39	39	39	39	39
			Watts	110	147	183	219	255
	High	1027	CFM	1068	1061	1054	1047	1041
			Temp. Rise	33	33	33	33	33
			Watts	165	202	239	276	313
Heating 2nd Stage	Low	800	CFM	851	843	835	826	818
			Temp. Rise	64	64	64	64	64
			Watts	81	127	172	218	264
	Medium Low ^(a)	1030	CFM	1092	1075	1057	1039	1022
			Temp. Rise	49	50	50	51	52
			Watts	157	209	262	314	366
	Medium	1130	CFM	1132	1128	1124	1119	1115
			Temp. Rise	47	47	48	48	48
			Watts	201	255	308	362	416
	High	1300	CFM	1280	1281	1282	1283	1283
			Temp. Rise	42	42	42	42	42
			Watts	319	365	410	456	502

^(a) Factory Setting.

Table 2. S9V2B060U3VSAB Cooling Airflow

S9V2B060U3VSAB Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter								
Cooling	Unit Outdoor	Airflow Setting (CFM/ton)	External Static Pressure					
				0.1	0.3	0.5	0.7	0.9
Cooling	1.5 Ton	Cooling 450 CFM/Ton	CFM	675	675	675	675	675
			Watts	46	81	121	165	212
		Cooling 420 CFM/Ton	CFM	630	630	630	630	630
			Watts	40	72	111	153	200
		Cooling 400 CFM/Ton	CFM	600	600	600	600	600
			Watts	36	67	105	146	192
		Cooling 370 CFM/Ton	CFM	555	555	555	555	555
			Watts	30	60	96	137	182
		Cooling 350 CFM/Ton	CFM	525	525	525	525	525
			Watts	27	56	91	131	175
		Cooling 330 CFM/Ton	CFM	495	495	495	495	495
			Watts	24	52	86	126	170
		Cooling 310 CFM/Ton	CFM	465	465	465	465	465
			Watts	21	48	82	121	164
		Cooling 290 CFM/Ton	CFM	435	435	435	435	435
			Watts	19	45	78	116	160
Cooling	2.0 Ton	Cooling 450 CFM/Ton	CFM	900	900	900	900	900
			Watts	92	135	184	236	291
		Cooling 420 CFM/Ton	CFM	840	840	840	840	840
			Watts	78	118	164	214	267
		Cooling 400 CFM/Ton	CFM	800	800	800	800	800
			Watts	69	108	153	201	253
		Cooling 370 CFM/Ton	CFM	740	740	740	740	740
			Watts	57	94	136	183	232
		Cooling 350 CFM/Ton	CFM	700	700	700	700	700
			Watts	50	86	126	171	220
		Cooling 330 CFM/Ton	CFM	660	660	660	660	660
			Watts	44	78	117	161	208
		Cooling 310 CFM/Ton	CFM	620	620	620	620	620
			Watts	38	71	109	151	197
		Cooling 290 CFM/Ton	CFM	580	580	580	580	580
			Watts	33	64	101	142	187
Cooling	2.5 Ton	Cooling 450 CFM/Ton	CFM	1125	1125	1125	1125	1125
			Watts	164	216	273	334	399
		Cooling 420 CFM/Ton	CFM	1050	1050	1050	1050	1050
			Watts	137	186	240	298	359
		Cooling 400 CFM/Ton	CFM	1000	1000	1000	1000	1000
			Watts	121	168	220	276	335
		Cooling 370 CFM/Ton	CFM	925	925	925	925	925
			Watts	99	143	192	245	302
		Cooling 350 CFM/Ton	CFM	875	875	875	875	875
			Watts	86	128	175	227	281
		Cooling 330 CFM/Ton	CFM	825	825	825	825	825
			Watts	74	115	160	209	262
		Cooling 310 CFM/Ton	CFM	775	775	775	775	775
			Watts	64	102	146	193	244
		Cooling 290 CFM/Ton	CFM	725	725	725	725	725
			Watts	54	91	133	178	228
Cooling	3.0 Ton (a)	Cooling 450 CFM/Ton	CFM	1350	1350	1350	1296	1218
			Watts	267	329	395	431	452
		Cooling 420 CFM/Ton	CFM	1260	1260	1260	1260	1218
			Watts	222	279	342	409	452
		Cooling 400 CFM/Ton	CFM	1200	1200	1200	1200	1200
			Watts	195	250	310	374	441
		Cooling 370 CFM/Ton	CFM	1110	1110	1110	1110	1110
			Watts	158	210	266	327	390
		Cooling 350 CFM/Ton (a)	CFM	1050	1050	1050	1050	1050
			Watts	137	186	240	298	359
		Cooling 330 CFM/Ton	CFM	990	990	990	990	990
			Watts	118	164	216	272	330
		Cooling 310 CFM/Ton	CFM	930	930	930	930	930
			Watts	100	145	194	247	304
		Cooling 290 CFM/Ton	CFM	870	870	870	870	870
			Watts	85	127	174	225	279

(a) Factory Setting

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. Also contains dry contacts for EAC and HUM.

ENERGY EFFICIENT OPERATION

Furnace is certified by the manufacturer to leak 1% 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.

SECONDARY HEAT EXCHANGER

The S-Series furnace has a special type 29- 4C™ 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 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

97.0% AFUE ACROSS ALL MODELS

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

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

2 SKU's — Downflow

Added application flexibility and reduction in specification errors

AIRFLOW

At least 400 CFM/ton at 0.5 in. H₂O external static pressure; setup airflow options down to 290 CFM/ton

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

VARIABLE SPEED DRAFT INDUCER MOTOR

Increased efficiency

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

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 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

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

Improved airflow efficiency

Durable, easy to clean, two piece housing

Single piece belly band/ motor arm assembly

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

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

About Trane and American Standard Heating and Air Conditioning

Trane and American Standard create comfortable, energy efficient indoor environments for residential applications. For more information, please visit www.trane.com or www.americanstandardair.com.



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