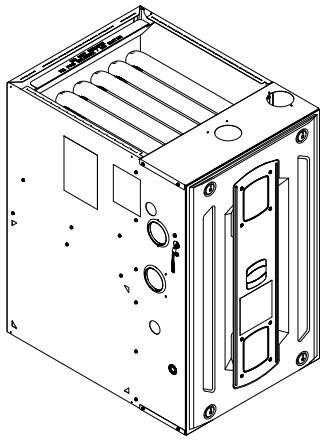
Submittal

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

Upflow, Convertible to
Horizontal Right or
Horizontal Left
S9V2B060U4PSBC/D

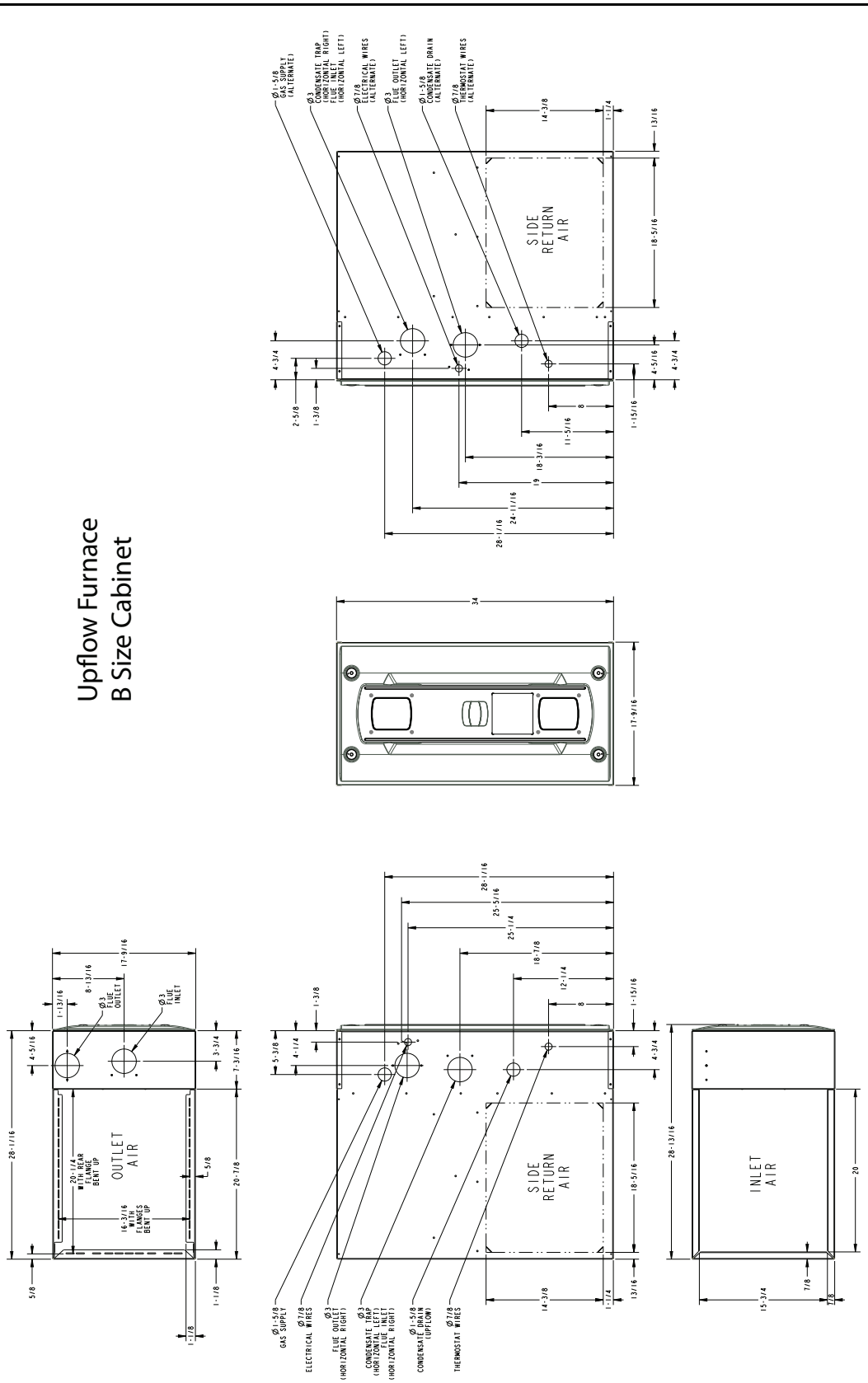


Note: *Graphics in this document are for representation only. Actual model may differ in appearance.*

February 2022

S9V2B060U4-SUB-2B-EN

Outline Drawing



Product Specification

Model	S9V2B060U4PSBC/D [a], [b]
Type	Upflow / Horizontal
RATINGS [c]	
1st Stage Input BTUH	39,000
1st Stage Capacity BTUH (ICS)	38,100
2nd Stage Input BTUH	60,000
2nd Stage Capacity BTUH (ICS) [d]	58,400
1st Stage Temp. Rise (Min. - Max.) °F	25 - 55
2nd Stage Temp. Rise (Min. - Max.) °F	35 - 65
AFUE (%) [d]	96.0
Return Air Temp. (Min. - Max.) °F	45°F - 80°F
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	3/4
R.P.M.	Variable
Volts / Ph / Hz	120 / 1 / 60
FLA	8 / 9.6
COMBUSTION FAN - Type	PSC
Drive - No. Speeds	Direct - 2
Motor RPM	3300/2600
Volts/Ph/Hz	120 / 1 / 60
FLA	0.66
Inducer Orifice	0.79
FILTER - Furnished?	No
Type Recommended	High Velocity
Hi Vel. (No.-Size-Thk.)	1 - 16 X 25 - 1 in.
VENT OUTLET DIAMETER - MIN. (in.) [e]	2 Round

Model	S9V2B060U4PSBC/D [a], [b]
INLET AIR DIAMETER -MIN. (in.) [e]	2 Round
HEAT EXCHANGER – Type	
Fired	409 Stainless Steel
Unfired	29-4C Stainless Steel
Gauge (Fired)	20
ORIFICES - Main	
Nat. Gas (Qty. - Drill Size)	3 - 45
Propane Gas (Qty. - Drill Size)	3 - 56
GAS VALVE	Redundant - Two Stage
PILOT SAFETY DEVICE – Type	120 V SiNi Igniter
BURNERS - TYPE - QTY	Inshot - 3
POWER CONN. - V/Ph/HZ [f]	120 / 1 / 60
Ampacity (Amps)	10.8 / 12.8
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.)	130/122

[a] Meets Energy Star

[b] Central Furnace heating designs are certified to ANSI Z21.47 / CSA 2.3 - latest edition.

[c] 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.

[d] Based on U.S. government standard tests.

[e] Refer to Vent Length Table in the Installer's Guide.

[f] 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. S9V2B060U4PSBC/D Heating Airflow

S9V2B060U4PSBC/D Furnace Heating Airflow (CFM), Temp. Rise (°F), and Power (Watts) vs. External Static Pressure with Filter (iwc)								
				1st Stage Capacity = 38,100 2nd Stage Capacity = 58,400				
Heating	**Airflow Setting**	**Target Airflow**		**External Static Pressure**				
				0.1	**0.3**	**0.5**	**0.7**	**0.9**
Heating 1st Stage	Low	782	CFM	776	769	762	756	749
			Temp. Rise	45	45	45	45	46
			Watts	70	109	149	188	227
	Medium Low	861	CFM	842	823	805	786	768
			Temp. Rise	42	43	43	44	44
			Watts	88	126	164	202	240
	Medium [a]	916	CFM	863	860	858	855	853
			Temp. Rise	41	41	41	41	41
			Watts	105	143	181	219	257
	High	1027	CFM	1105	1084	1063	1042	1021
			Temp. Rise	32	32	33	34	34
			Watts	135	173	210	248	285
Heating 2nd Stage	Low	990	CFM	1002	996	990	984	979
			Temp. Rise	55	55	55	55	55
			Watts	126	172	219	266	313
	Medium Low	1090	CFM	1130	1117	1105	1092	1079
			Temp. Rise	49	49	49	50	50
			Watts	160	206	253	300	347
	Medium [a]	1160	CFM	1139	1133	1128	1122	1116
			Temp. Rise	48	48	49	49	49
			Watts	181	231	281	331	381
	High	1300	CFM	1319	1307	1295	1283	1272
			Temp. Rise	41	42	42	42	43
			Watts	246	300	353	407	461

[a] Factory Setting.

Table 2. S9V2B060U4PSBC/D Cooling Airflow

S9V2B060U4PSBC/D Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)								
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	663	673	666	641	596
			Watts	47	83	119	155	192
		Cooling 420 CFM/Ton	CFM	621	630	621	595	549
			Watts	41	75	109	144	180
		Cooling 400 CFM/Ton	CFM	582	580	566	528	507
			Watts	36	67	99	130	170
		Cooling 370 CFM/Ton	CFM	549	556	546	517	469
			Watts	32	63	95	128	162
		Cooling 350 CFM/Ton	CFM	521	527	516	486	437
			Watts	29	59	90	122	156
		Cooling 330 CFM/Ton	CFM	492	497	486	455	405
			Watts	26	55	85	117	150
		Cooling 310 CFM/Ton	CFM	463	468	455	423	372
			Watts	23	51	81	112	145
		Cooling 290 CFM/Ton	CFM	435	438	424	391	339
			Watts	21	48	77	107	141
Cooling	2.0 Ton	Cooling 450 CFM/Ton	CFM	878	893	890	869	829
			Watts	90	135	179	223	266
		Cooling 420 CFM/Ton	CFM	821	834	830	808	767
			Watts	76	119	161	202	244
		Cooling 400 CFM/Ton	CFM	770	778	770	742	725
			Watts	66	105	144	182	230
		Cooling 370 CFM/Ton	CFM	725	737	731	707	664
			Watts	57	96	134	172	211
		Cooling 350 CFM/Ton	CFM	687	698	691	666	622
			Watts	51	88	124	161	199
		Cooling 330 CFM/Ton	CFM	649	659	651	625	580
			Watts	45	80	115	151	188
		Cooling 310 CFM/Ton	CFM	611	620	611	584	538
			Watts	39	73	107	142	177
		Cooling 290 CFM/Ton	CFM	573	581	571	543	496
			Watts	34	67	99	133	168
Cooling	2.5 Ton	Cooling 450 CFM/Ton	CFM	1097	1114	1114	1097	1061
			Watts	159	212	265	317	368
		Cooling 420 CFM/Ton	CFM	1023	1040	1039	1020	984
			Watts	133	184	233	282	331
		Cooling 400 CFM/Ton	CFM	976	989	990	970	932
			Watts	117	166	214	261	308
		Cooling 370 CFM/Ton	CFM	902	917	915	894	855
			Watts	97	142	187	232	276
		Cooling 350 CFM/Ton	CFM	854	868	865	843	803
			Watts	84	128	171	214	257
		Cooling 330 CFM/Ton	CFM	806	819	815	793	752
			Watts	73	115	157	198	239
		Cooling 310 CFM/Ton	CFM	759	771	766	742	700
			Watts	63	103	143	182	222
		Cooling 290 CFM/Ton	CFM	711	722	716	692	648
			Watts	55	93	130	168	206
Cooling	3.0 Ton	Cooling 450 CFM/Ton	CFM	1319	1340	1343	1328	1295
			Watts	260	321	382	441	501
		Cooling 420 CFM/Ton	CFM	1229	1249	1251	1235	1201
			Watts	215	274	331	387	443
		Cooling 400 CFM/Ton	CFM	1170	1189	1190	1173	1139
			Watts	189	245	300	354	408
		Cooling 370 CFM/Ton	CFM	1082	1100	1099	1081	1046
			Watts	154	206	258	309	360
		Cooling 350 CFM/Ton	CFM	1023	1040	1039	1020	984
			Watts	133	184	233	282	331
		Cooling 330 CFM/Ton	CFM	965	981	979	960	922
			Watts	114	163	210	257	304
		Cooling 310 CFM/Ton	CFM	907	922	919	899	860
			Watts	98	144	189	234	278
		Cooling 290 CFM/Ton	CFM	850	863	860	838	798
			Watts	83	127	170	212	255

Table 2. S9V2B060U4PSBC/D Cooling Airflow (continued)

S9V2B060U4PSBC/D Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)								
Cooling	**Unit Outdoor**	**Airflow Setting (CFM/ton)**		**External Static Pressure**				
				0.1	**0.3**	**0.5**	**0.7**	**0.9**
Cooling	3.5 Ton	Cooling 450 CFM/Ton	CFM	1546	1570	1576	1564	1534
			Watts	399	469	537	604	671
		Cooling 420 CFM/Ton	CFM	1440	1462	1466	1453	1422
			Watts	329	395	459	523	586
		Cooling 400 CFM/Ton	CFM	1369	1391	1394	1380	1348
			Watts	287	350	413	474	535
		Cooling 370 CFM/Ton	CFM	1264	1284	1287	1271	1238
			Watts	232	291	350	408	465
		Cooling 350 CFM/Ton	CFM	1195	1214	1215	1199	1165
			Watts	199	257	313	368	423
		Cooling 330 CFM/Ton	CFM	1126	1144	1145	1127	1092
			Watts	170	225	278	331	384
		Cooling 310 CFM/Ton	CFM	1059	1075	1074	1056	1020
			Watts	145	197	248	298	348
		Cooling 290 CFM/Ton	CFM	992	1006	1004	985	948
			Watts	122	171	219	267	315
Cooling	4.0 Ton [a]	Cooling 450 CFM/Ton	CFM	1779	1806	1814	1805	1778
			Watts	585	661	737	812	886
		Cooling 420 CFM/Ton	CFM	1654	1679	1686	1676	1647
			Watts	480	552	624	695	765
		Cooling 400 CFM/Ton	CFM	1572	1596	1602	1590	1561
			Watts	418	488	557	625	693
		Cooling 370 CFM/Ton	CFM	1450	1472	1477	1464	1433
			Watts	335	401	466	530	594
		Cooling 350 CFM/Ton [a]	CFM	1369	1391	1394	1380	1348
			Watts	287	350	413	474	535
		Cooling 330 CFM/Ton	CFM	1289	1310	1312	1297	1264
			Watts	244	305	364	423	481
		Cooling 310 CFM/Ton	CFM	1210	1229	1231	1214	1180
			Watts	206	264	320	376	431
		Cooling 290 CFM/Ton	CFM	1131	1149	1150	1132	1097
			Watts	172	227	281	334	386

[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

96.0% 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

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_20 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

DIMENSIONS

Width is industry standard: 17.5"

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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Supersedes S9V2B060U4-SUB-2A-EN (June 2021)