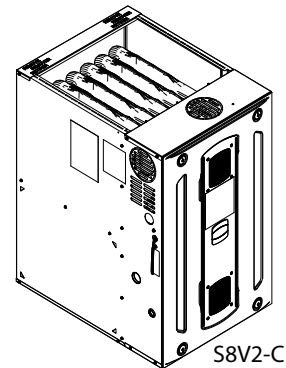


Submittal

Link Communicating or 24 Volt Gas-Fired 2 Stage Induced Draft Furnaces with Variable Speed Motor 100,000 BTUH

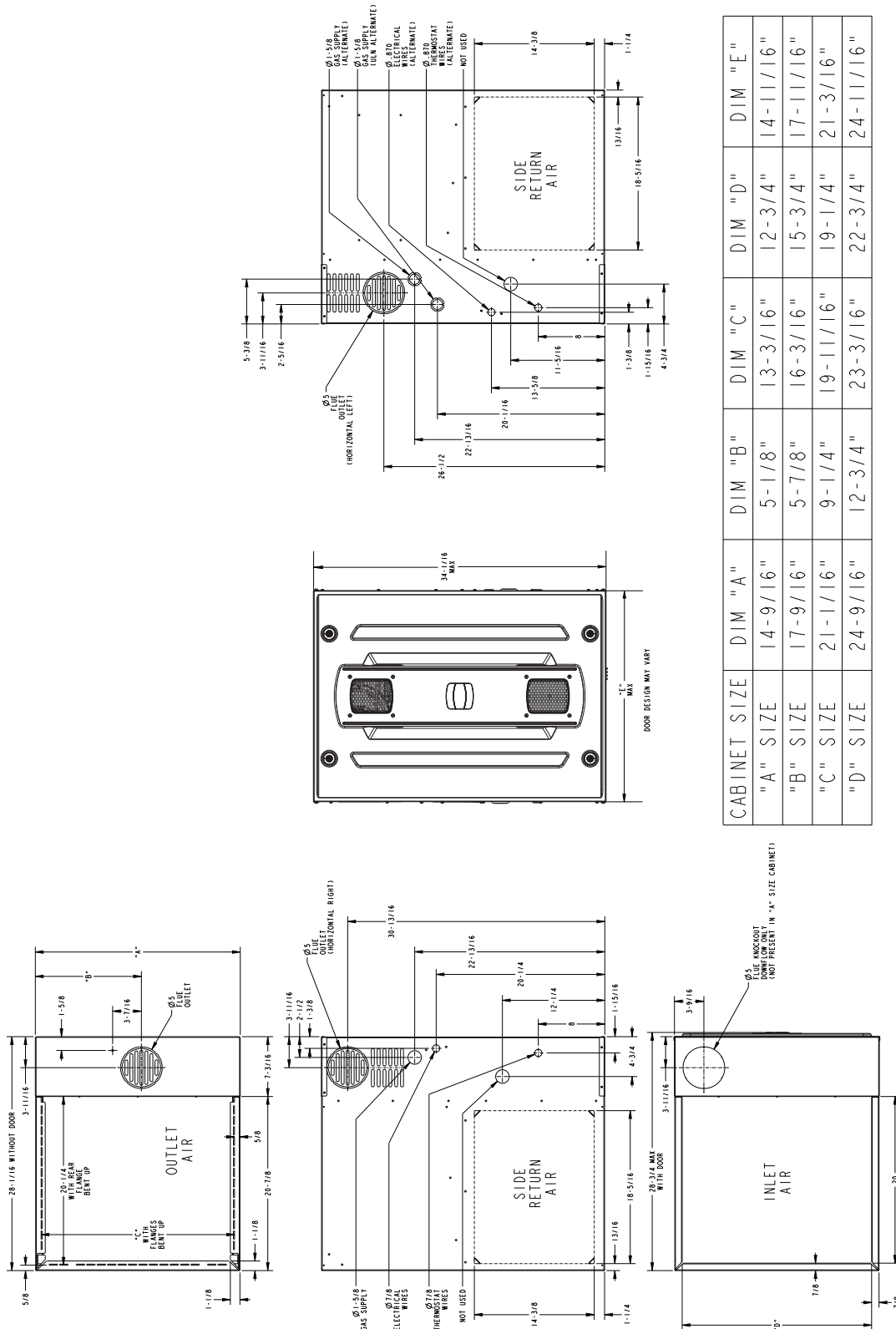
S8V2C100M5PC/D

Note: Models that have a "D" 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



CABINET SIZE	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"
"A" SIZE	14-9/16"	5-1/8"	13-3/16"	12-3/4"	14-1/16"
"B" SIZE	17-9/16"	5-7/8"	16-3/16"	15-3/4"	17-1/16"
"C" SIZE	21-1/16"	9-1/4"	19-1/16"	19-1/4"	21-3/16"
"D" SIZE	24-9/16"	12-3/4"	23-3/16"	22-3/4"	24-1/16"

Ø5 FLUE GAS OUTLET HORIZONTAL RIGHT (NOT PRESENT IN "A" SIZE CABINET)

Product Specification

Model	S8V2C100M5PC ^(a) S8V2C100M5PD ^(a)
Type	Upflow / Horizontal / Downflow
RATINGS ^(b)	
1st Stage Input BTUH	65,000
1st Stage Capacity BTUH (ICS)	52,300
2nd Stage Input BTUH	100,000
2nd Stage Capacity BTUH (ICS) ^(c)	81,200
1st Stage Temp. Rise (Min. - Max.) °F	25 - 55
2nd Stage 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 11
No. Used	1
Speeds (No.) ^(d)	Variable
CFM vs. in. w.g.	See Fan Performance Table
Motor HP	1
R.P.M.	Variable
Volts / Ph / Hz	120 / 1 / 60
FLA	10
COMBUSTION FAN - Type	PSC
Drive - No. Speeds	Direct - 2
Motor HP - RPM	3200/2900
Volts/Ph/Hz	120 / 1 / 60
FLA	0.33
Inducer Orifice	2.50
FILTER - Furnished?	No
Type Recommended	High Velocity

Model	S8V2C100M5PC ^(a) S8V2C100M5PD ^(a)
Hi Vel. (No.-Size-Thk.)	1 - 20 X 25 - 1 in.
VENT PIPE DIAMETER - Min. (in.) ^(e)	4 Round
HEAT EXCHANGER - Type	Aluminized Steel
Gauge (Fired)	20 - 19
ORIFICES - Main	
Nat. Gas Qty. - Drill Size	5 - 45
L.P. Gas Qty. - Drill Size	5 - 56
GAS VALVE	Redundant - Two Stage
PILOT SAFETY DEVICE - Type	120 V SiNi Igniter
BURNERS - QTY	5
POWER CONN. - V/Ph/HZ ^(f)	120 / 1 / 60
Ampacity (Amps)	13.0
Max. Overcurrent Protection (Amps)	15
PIPE CONN. SIZE (IN.)	1/2
DIMENSIONS	H x W x D
Uncrated (in.)	34 x 21 x 28.75
Crated (in.)	35.5 x 23 x 30.87
WEIGHT	
Shipping (Lbs.)/Net (Lbs.)	144/136

- ^(a) Central Furnace heating designs are certified to ANSI Z21.47 - latest edition.
- ^(b) 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.
- ^(c) Based on U.S. government standard tests.
- ^(d) Direct drive variable speed blower motor is an ECM constant airflow blower motor.
- ^(e) Refer to the Installation, Operation, and Maintenance Manual.
- ^(f) The above wiring specifications are in accordance with National Electric Code, however, installations must comply with local codes.

Airflow Tables

Table 1. S8V2C100M5P Heating Airflow

S8V2C100M5P Furnace Heating Airflow (CFM), Temp. Rise (°F), and Power (Watts) vs. External Static Pressure with Filter (iwc)								
				1st Stage Capacity = 52,300 2nd Stage Capacity = 81,200				
Heating	Airflow Setting	Target Airflow		External Static Pressure				
				0.1	0.3	0.5	0.7	0.9
Heating 1st Stage	Low	979	CFM	1014	998	981	966	950
			Temp. Rise	48	49	50	51	51
			Watts	77	139	200	261	322
	Medium Low	1080	CFM	1103	1093	1083	1073	1062
			Temp. Rise	44	44	45	45	46
			Watts	98	163	228	294	359
	Medium ^(a)	1188	CFM	1202	1190	1177	1165	1153
			Temp. Rise	41	41	41	42	42
			Watts	119	188	257	327	397
	High	1296	CFM	1332	1314	1296	1278	1260
			Temp. Rise	37	37	38	38	39
			Watts	156	229	302	376	449
Heating 2nd Stage	Low	1360	CFM	1401	1393	1385	1377	1369
			Temp. Rise	54	54	54	54	54
			Watts	164	249	334	419	503
	Medium Low	1500	CFM	1537	1523	1509	1495	1482
			Temp. Rise	49	49	49	50	50
			Watts	223	313	404	494	585
	Medium ^(a)	1650	CFM	1673	1667	1661	1654	1649
			Temp. Rise	45	45	45	45	45
			Watts	285	381	478	575	671
	High	1800	CFM	1825	1819	1812	1806	1800
			Temp. Rise	42	41	41	42	42
			Watts	371	480	588	696	805

^(a) Factory Setting

Table 2. S8V2C100M5P Cooling Airflow

S8V2C100M5P Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)							
Outdoor Tonnage - "Odt" (tons)	Airflow Setting - "CPC" (CFM/ton)		EXTERNAL STATIC PRESSURE (IN. W. C.)				
			0.1	0.3	0.5	0.7	0.9
2.5	450	CFM / WATTS	1120 / 108	1119 / 167	1115 / 229	1109 / 294	1101 / 360
	420	CFM / WATTS	1043 / 92	1041 / 148	1036 / 207	1030 / 268	1021 / 332
	400	CFM / WATTS	992 / 83	989 / 136	984 / 193	976 / 252	968 / 315
	370	CFM / WATTS	915 / 70	910 / 120	904 / 173	895 / 230	886 / 290
	350	CFM / WATTS	863 / 62	857 / 110	850 / 161	841 / 216	831 / 275
	330	CFM / WATTS	811 / 55	804 / 100	795 / 150	786 / 204	776 / 261
	310	CFM / WATTS	759 / 48	750 / 92	741 / 140	730 / 192	719 / 248
	290	CFM / WATTS	706 / 42	696 / 84	686 / 130	674 / 181	663 / 236
3.0	450	CFM / WATTS	1346 / 166	1348 / 236	1346 / 309	1341 / 383	1335 / 458
	420	CFM / WATTS	1256 / 140	1257 / 207	1254 / 275	1249 / 345	1243 / 417
	400	CFM / WATTS	1196 / 125	1196 / 188	1193 / 254	1187 / 321	1180 / 391
	370	CFM / WATTS	1104 / 104	1103 / 163	1099 / 225	1093 / 288	1085 / 355
	350	CFM / WATTS	1043 / 92	1041 / 148	1036 / 207	1030 / 268	1021 / 332
	330	CFM / WATTS	982 / 81	979 / 134	973 / 190	965 / 249	957 / 311
	310	CFM / WATTS	920 / 70	916 / 121	909 / 174	901 / 231	892 / 292
	290	CFM / WATTS	858 / 61	852 / 109	844 / 160	835 / 215	825 / 274

Table 2. S8V2C100M5P Cooling Airflow (continued)

S8V2C100M5P Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)							
Outdoor Tonnage - "Odt" (tons)	Airflow Setting - "CPC" (CFM/ton)		EXTERNAL STATIC PRESSURE (IN. W. C.)				
			0.1	0.3	0.5	0.7	0.9
3.5	450	CFM / WATTS	1568 / 242	1571 / 324	1570 / 407	1566 / 492	1560 / 577
	420	CFM / WATTS	1465 / 204	1467 / 281	1466 / 359	1462 / 438	1456 / 519
	400	CFM / WATTS	1396 / 181	1398 / 254	1396 / 329	1392 / 405	1386 / 483
	370	CFM / WATTS	1291 / 150	1292 / 218	1290 / 287	1285 / 359	1279 / 432
	350	CFM / WATTS	1221 / 131	1221 / 196	1218 / 262	1213 / 331	1206 / 401
	330	CFM / WATTS	1150 / 114	1150 / 175	1146 / 239	1140 / 304	1133 / 372
	310	CFM / WATTS	1079 / 99	1078 / 157	1073 / 217	1067 / 280	1059 / 345
	290	CFM / WATTS	1007 / 85	1005 / 140	999 / 197	992 / 257	984 / 320
4.0	450	CFM / WATTS	1785 / 339	1788 / 433	1787 / 527	1784 / 623	1778 / 719
	420	CFM / WATTS	1670 / 284	1673 / 372	1672 / 460	1669 / 550	1663 / 640
	400	CFM / WATTS	1592 / 252	1595 / 335	1594 / 419	1591 / 505	1585 / 592
	370	CFM / WATTS	1475 / 207	1477 / 284	1476 / 363	1472 / 443	1466 / 524
	350	CFM / WATTS	1396 / 181	1398 / 254	1396 / 329	1392 / 405	1386 / 483
	330	CFM / WATTS	1316 / 157	1318 / 226	1315 / 297	1311 / 370	1304 / 444
	310	CFM / WATTS	1236 / 135	1237 / 200	1234 / 267	1229 / 337	1222 / 408
	290	CFM / WATTS	1155 / 116	1155 / 177	1151 / 240	1146 / 306	1138 / 374
4.5	450	CFM / WATTS	1997 / 459	2000 / 564	1998 / 671	1994 / 777	1988 / 885
	420	CFM / WATTS	1870 / 384	1873 / 482	1872 / 582	1869 / 681	1863 / 782
	400	CFM / WATTS	1785 / 339	1788 / 433	1787 / 527	1784 / 623	1778 / 719
	370	CFM / WATTS	1655 / 278	1658 / 365	1658 / 452	1654 / 541	1648 / 631
	350	CFM / WATTS	1568 / 242	1571 / 324	1570 / 407	1566 / 492	1560 / 577
	330	CFM / WATTS	1479 / 209	1482 / 286	1481 / 365	1477 / 445	1471 / 527
	310	CFM / WATTS	1391 / 179	1393 / 252	1391 / 327	1387 / 403	1381 / 480
	290	CFM / WATTS	1301 / 153	1302 / 221	1300 / 291	1296 / 363	1289 / 437
5.0 ^(a)	450	CFM / WATTS	2204 / 604	2206 / 722	2203 / 840	2198 / 958	2191 / 1077
	420	CFM / WATTS	2067 / 504	2069 / 614	2067 / 724	2063 / 835	2056 / 946
	400	CFM / WATTS	1974 / 444	1976 / 549	1975 / 653	1971 / 759	1965 / 865
	370	CFM / WATTS	1832 / 363	1835 / 460	1835 / 557	1831 / 655	1825 / 754
	350	CFM / WATTS	1737 / 315	1740 / 406	1739 / 498	1736 / 591	1730 / 685
	330	CFM / WATTS	1641 / 272	1644 / 358	1643 / 445	1639 / 533	1634 / 622
	310	CFM / WATTS	1543 / 232	1546 / 313	1545 / 395	1542 / 478	1536 / 563
	290	CFM / WATTS	1445 / 197	1447 / 273	1446 / 350	1442 / 428	1436 / 509

^(a) Factory Setting

General Features

COMMUNICATING MODE

Furnace is shipped ready to be connected in communicating mode.

A/T LINK360A2VVUA Link Smart Thermostat and System Controller must be ordered separately.

COMFORT CONTROL

Link communicating technology seamlessly connects each of the system's components, allowing for advanced diagnostics, system performance updates, and optional remote monitoring that can help keep the system running at optimal performance levels throughout its lifetime.

ALTERNATE 24V MODE

Furnace is field configurable to 24V non-communicating mode.

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 highly efficient, variable speed blower motor delivers consistent airflow and will switch from heating to cooling speeds on demand from the 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

LINK COMMUNICATION OR 24 VOLT CONTROL

Seamless connection between system components to monitor system performance and efficiency

Diagnostics and configuration capability through Mobile App

Field configurable to 24 volt non-communicating mode

80% AFUE on S8V2 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

12 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

Width is industry standard: 21"

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

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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