GM9S96/GC9S96

Heating Input: 40,000–120,000 BTU/h

Single-Stage, Multi-Speed ECM Gas Furnace Up to 96% AFUE

Contents

Nomenclature.....2
Product Specifications.....3
Dimensions.....5
Airflow Specifications.....7
Wiring Diagram.....19
Accessories.....20

Standard Features

- Heavy-duty aluminized-steel tubular heat exchanger
- Stainless-steel secondary heat exchanger
- Single-stage gas valve
- Durable Silicon Nitride igniter
- Quiet single-speed induced draft blower
- Self-diagnostic control board with constant memory fault code history output to a LED
- All models comply with California 40 ng/J Low NOx emissions standard
- Can no longer be installed in California's South Coast Air Quality Management District (SCAQMD) on or after October 1, 2019.
- AHRI Certified; ETL Listed

Cabinet Features

- Designed for multi-position installation — GM9S96: upflow, horizontal left or right GC9S96: downflow, horizontal left or right
- Certified for direct vent (2-pipe) or non-direct vent (1-pipe)
- Easy-to-install top venting with optional side venting — GM9S96/upflow models only
- Convenient left or right connection for gas and electrical service
- Cabinet air leakage (Q_{Leak}) ≤ 2%
- Heavy-gauge steel cabinet with durable finish
- Fully insulated heat exchanger and blower section
- Airtight solid bottom or side return with easy-cut tabs for effortless removal in bottom air-inlet applications

LIFETIME HEAT EXCHANGER LIMITED WARRANTY* | 10 YEAR UNIT REPLACEMENT HEAT EXCHANGER LIMITED WARRANTY* | 10 YEAR PARTS LIMITED WARRANTY* | Intertek | AHRI CERTIFIED | COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 = | COMPANY WITH ENVIRONMENTAL SYSTEM CERTIFIED BY DNV GL = ISO 14001 =

* Complete warranty details available from your local dealer or at www.goodmanmfg.com. To receive the Lifetime Heat Exchanger Limited Warranty (good for as long as you own your home), 10-Year Unit Replacement Limited Warranty and 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Québec.

G	M	9	S	96	040	4	C	*	**
1	2	3	4	5,6	7,8,9	10	11	12	13,14

Brand

G- Franklin® Brand

Configuration

M- Upflow/Horizontal

C- Downflow/Horizontal

Motor

9 - Nine Speed ECM

Gas Valve

C- 2 Stage

S- 1 STAGE

AFUE

80- 80% AFUE 92- 92% AFUE

96- 96% AFUE 97- 97% AFUE

Engineering

Major/Minor Revisions

A - Initial Release

B - 1st Revision

NOx

N = < 40 NG/J NOx

Cabinet Width

A- 14" C- 21"

B- 17½" D- 24½"

Maximum CFM

3- 1200 CFM 4- 1600 CFM

5- 2000 CFM

MBTU/h

030- 30,000 BTU/h 080- 80,000 BTU/h

040- 40,000 BTU/h 100- 100,000 BTU/h

060- 60,000 BTU/h 120- 120,000 BTU/h

	GM9S96 0403AN	GM9S96 0603BN	GM9S96 0803BN	GM9S96 0804CN	GM9S96 0805CN	GM9S96 1005CN	GM9S96 1205DN
Heating Data							
High Fire Input[1]	40,000	60,000	80,000	80,000	80,000	100,000	120,000
High Fire Output[1]	38,440	57,660	76,880	76,880	76,880	96,100	115,320
AFUE[2]	96	96	96	96	96	96	96
Temperature Rise Range (°F)	25-55	35-65	35-65	25-55	25-55	30-60	35-65
Vent Diameter[3]	2"- 3"	2"- 3"	2"- 3"	2"- 3"	2"- 3"	2"- 3"	3"
No. of Burners	2	3	4	4	4	5	6
Circulator Blower							
Available AC @ 0.5" ESP	1.5- 3	1.5- 3	1.5- 3	1.5- 4	3- 5	3- 5	3- 5
Size (D x W)	11" x 6"	11" x 8"	11" x 8"	11" x 10"	11" x 10"	11" x 10"	11" x 11"
Horsepower @ 1075 RPM	1/2	1/2	1/2	3/4	1	1	1
Speed	9	9	9	9	9	9	9
Filter Size (in²) (Qty)	(1) 16xX 25 (side) or (1) 14 X 25 (bottom)	(1) 16xX 25 (side or bottom)	(1) 16xX 25 (side or bottom)	(1) 16xX 25 (side or bottom)	(1) 20 x 25 (bottom) or (2) 16 x 25 (side)	(1) 20 x 25 (bottom) or (2) 16 x 25 (side)	(1) 20 x 25 (bottom) or (2) 16 x 25 (side)
Electrical Data							
Min. Circuit Ampacity[4]	10.3	10.3	10.3	14.1	16.93	16.93	16.93
Max. Overcurrent Device (amps)[5]	15	15	15	15	20	20	20
Shipping Weight (lbs)	108	118	118	141	142	144	156

1 Natural Gas BTU/h

2 DOE AFUE based upon Isolated Combustion System (ICS)

3 Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run and installation (1 or 2 pipes). The optional Combustion Air Pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.

4 Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

5 Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size. May use fuses or HACR-type circuit breakers of the same size as noted.

Notes

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection ½" FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.
- For bottom return: Failure to unfold flanges may reduce airflow by up to 18%. This could result in performance and noise issues.
- For servicing or cleaning, a 24" front clearance is required. Unit connections (electrical, flue and drain) may necessitate greater clearances than the minimum clearances listed above. In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.

	GC9S96 0403BN	GC9S96 0603BN	GC9S96 0804CN	GC9S96 1005CN	GC9S96 1205DN
Heating Data					
High Fire Input[1]	40,000	60,000	80,000	100,000	120,000
High Fire Output[1]	38,440	57,660	76,880	95,000	114,000
AFUE[2]	96	96	96	95	95
Temperature Rise Range (°F)	25-55	35-65	40-70	40-70	45-75
Vent Diameter[3]	2"- 3"	2"- 3"	2"- 3"	2"- 3"	3"
No. of Burners	2	3	4	5	6
Circulator Blower					
Available AC @ 0.5" ESP	1.5- 3	1.5- 3	2.5- 4	3- 5	3- 5
Size (D x W)	11" x 8"	11" x 8"	11" x 10"	11" x 10"	11" x 11"
Horsepower @ 1075 RPM	1/2	1/2	3/4	1	1
Speed	9	9	9	9	9
Filter Size (in^2) (Qty)	(2) 10 x 20 or (1) 16 x 25 (top return)	(2) 10 x 20 or (1) 16 x 25 (top return)	(2) 10 x 20 or (1) 16 x 25 (top return)	(1) 14 x 20 (bottom) or (1) 20 x 25 (top return)	(1) 14 x 20 (bottom) or (1) 20 x 25 (top return)
Electrical Data					
Min. Circuit Ampacity[4]	10.3	10.3	14.1	16.93	16.93
Max. Overcurrent Device (amps)[5]	15	15	15	20	20
Shipping Weight (lbs)	113	116	141	144	156

1 Natural Gas BTU/h

2 DOE AFUE based upon Isolated Combustion System (ICS)

3 Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2” or 3” in diameter, depending upon furnace input, number of elbows, length of run and installation (1 or 2 pipes). The optional Combustion Air Pipe is dependent on installation/code requirements and must be 2” or 3” diameter PVC.

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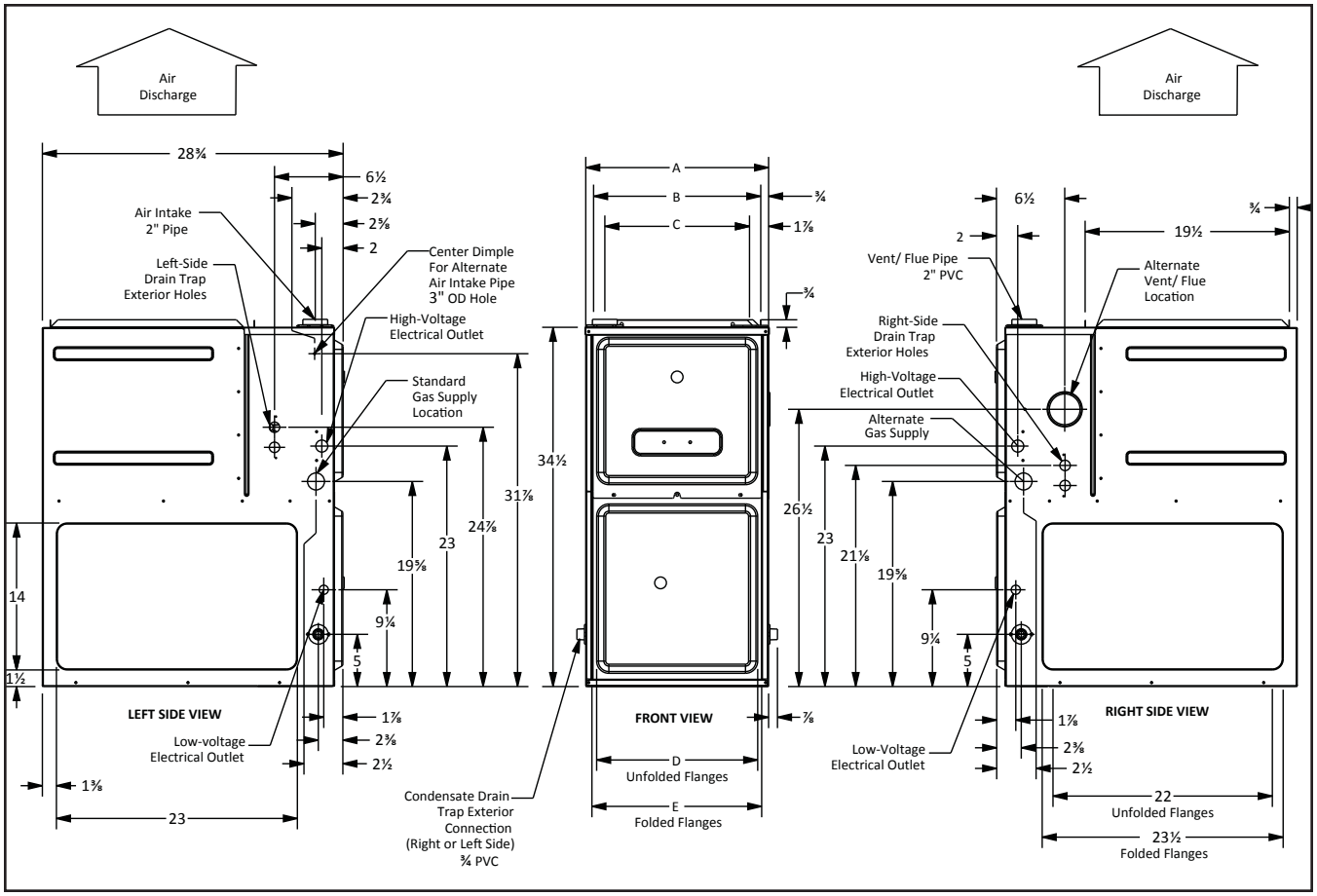
5 Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size. May use fuses or HACR-type circuit breakers of the same size as noted.

Notes

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection ½” FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.
- For bottom return: Failure to unfold flanges may reduce airflow by up to 18%. This could result in performance and noise issues.
- For servicing or cleaning, a 24” front clearance is required. Unit connections (electrical, flue and drain) may necessitate greater clearances than the minimum clearances listed above. In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.

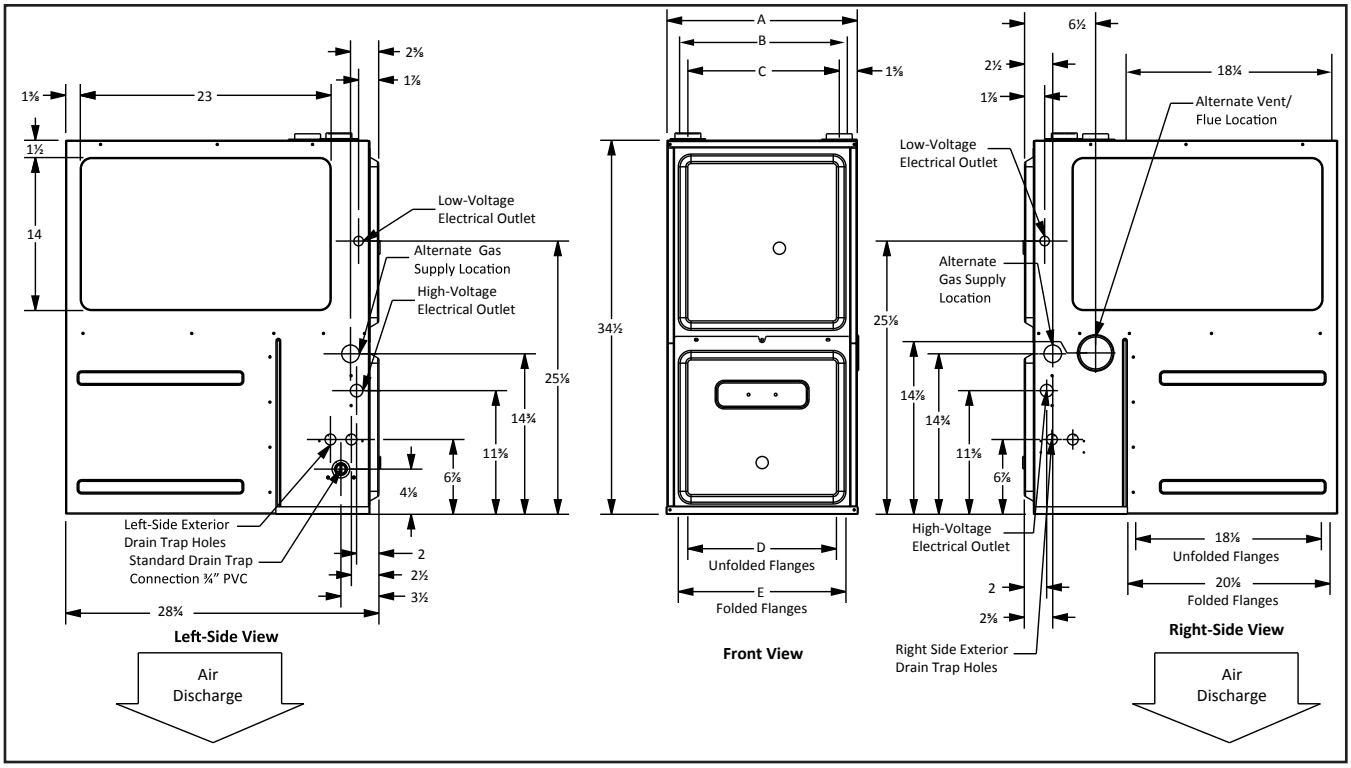


Model	A	B	C	D	E
GM9S960403AN	14"	12½"	10½"	8⅝"	10⅛"
GM9S960603BN	17½	16"	13⅞"	12⅛"	13⅝"
GM9S960803BN	17½	16"	13⅞"	12⅛"	13⅝"
GM9S960804CN	21"	19½"	17⅜	16"	17½"
GM9S960805CN	21"	19½"	17⅜	16"	17½"
GM9S961005CN	21"	19½"	17⅜	16"	17½"
GM9S961205DN	24½	23"	20⅞"	19⅜"	20⅞"

Minimum Clearances to Combustible Materials

Position	Sides	Rear	Front	Bottom	Flue	Top
Upflow	0"	0"	3"	C	0"	1"
Horizontal	6"	0"	3"	C	0"	6"

C = If placed on combustible floor, the floor MUST be wood ONLY.



Model	A	B	C	D	E
GC9S960403BN	17½	16"	13⅞"	12⅛"	13⅝"
GC9S960603BNA	17½	16"	13⅞"	12⅛"	13⅝"
GC9S960804CN	21"	19½"	17⅜	16"	17½"
GC9S961005CN	21"	19½"	17⅜	16"	17½"
GC9S961205DN	24½	23"	20⅞"	19⅜"	20⅞"

Minimum Clearances to Combustible Materials

Position	Sides	Rear	Front	Bottom	Flue	Top
Downflow	0"	0"	3"	NC	0"	1"
Horizontal	6"	0"	3"	C	0"	6"

C = If placed on combustible floor, the floor MUST be wood ONLY.

NC = For installation on non-combustible floors only. A combustible floor sub-base must be used for installations on combustible flooring.

CFM & Temperature Rise vs. External Static Pressure

Model	Thermostat Call	Tap #	External Static Pressure, (Inches Water Column)													Temp Range
			0.1		0.2		0.3		0.4		0.5		0.6	0.7	0.8	
			CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	CFM	CFM	
M9S96 0403A	W/W1	F01^^	705	50	661	54	617	N/A	564	N/A	509	N/A	455	405	362	25-55
		F02^	1079	33	1055	34	1027	35	994	36	965	37	935	906	863	
		F03	915	39	881	40	846	42	814	44	780	46	737	695	652	
		F04	887	40	855	42	823	43	790	45	751	47	705	666	608	
M9S96 0603B	W/W1	F01^^	758	N/A	696	N/A	636	N/A	572	N/A	512	N/A	460	412	354	35-65
		F02^	1218	44	1178	45	1140	47	1100	48	1060	50	1016	977	937	
		F03	1164	46	1123	47	1084	49	1042	51	1003	53	960	920	871	
		F04	1121	48	1083	49	1041	51	996	54	953	56	906	861	818	
M9S96 0803B	W/W1	F01^^	715	N/A	658	N/A	589	N/A	524	N/A	465	N/A	412	360	279	35-65
		F02^	1415	50	1385	51	1355	52	1322	54	1291	55	1255	1219	1186	
		F03	1388	51	1360	52	1325	54	1291	55	1259	57	1223	1191	1157	
		F04	1290	55	1252	57	1215	59	1182	60	1143	62	1107	1071	1032	
M9S96 0804C	W/W1	F01^^	1019	N/A	952	N/A	878	N/A	796	N/A	706	N/A	619	542	485	25-55
		F02^	1791	40	1743	41	1700	42	1663	43	1626	44	1583	1538	1489	
		F03	1625	44	1559	46	1512	47	1468	48	1425	50	1370	1325	1271	
		F04	1537	46	1490	48	1447	49	1403	51	1354	53	1301	1247	1190	
M9S96 0805C	W/W1	F01^^	1029	N/A	959	N/A	890	N/A	811	N/A	727	N/A	647	579	511	25-55
		F02^	1814	39	1766	40	1722	41	1679	42	1637	43	1595	1555	1511	
		F03	1893	38	1844	39	1803	39	1763	40	1723	41	1685	1641	1604	
		F04	1738	41	1680	42	1637	43	1596	45	1554	46	1510	1469	1420	
M9S96 1005C	W/W1	F01^^	1008	N/A	934	N/A	855	N/A	779	N/A	702	N/A	628	557	493	30-60
		F02^	2026	44	1981	45	1929	46	1901	47	1858	48	1819	1773	1733	
		F03	1921	46	1879	47	1840	48	1791	50	1751	51	1705	1656	1610	
		F04	1804	49	1755	51	1710	52	1664	53	1619	55	1574	1526	1479	
M9S96 1205D	W/W1	F01^^	1118	N/A	1035	N/A	952	N/A	860	N/A	750	N/A	663	590	519	35-65
		F02^	2143	50	2095	51	2047	52	2002	53	1954	55	1891	1850	1802	
		F03	2025	53	1977	54	1930	55	1897	56	1848	58	1798	1750	1703	
		F04^^	1906	56	1877	57	1828	58	1778	60	1726	62	1674	1622	1568	

Minimum Filter Sizes

	GM9S96 0403ANA	GM9S96 0603BNA	GM9S96 0803BNA	GM9S96 0804CNA	GM9S96 0805CNA	GM9S96 1005CNA	GM9S96 1205DNA
Filter Size (in^2) (Qty)	(1) 16 x 25 (side) or (1) 14 x 25 bottom)	(1) 16 x 25 (side or bottom)			(1) 20 x 25 (bottom) or (2) 16 x 25 (side)		

Note: Other size filters of equal or greater dimensions may be used. Filters may also be centrally located.

CFM & Temperature Rise vs. External Static Pressure

Model	Thermostat Call	Tap #	External Static Pressure, (Inches Water Column)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
M9S96 0403A	G	F01	705	661	617	564	509	455	405	362
		F02	1079	1055	1027	994	965	935	906	863
		F03	915	881	846	814	780	737	695	652
		F04	887	855	823	790	751	705	666	608
		F05	1135	1106	1078	1049	1021	994	965	933
		F06	1189	1163	1138	1111	1085	1059	1032	1001
		F07	1266	1243	1218	1197	1172	1148	1123	1099
		F08	1313	1288	1261	1239	1215	1189	1165	1143
		F09	1342	1324	1305	1280	1263	1239	1216	1193
M9S96 0603B	G	F01	758	696	636	572	512	460	412	354
		F02	1218	1178	1140	1100	1060	1016	977	937
		F03	1164	1123	1084	1042	1003	960	920	871
		F04	1121	1083	1041	996	953	906	861	818
		F05	902	851	801	746	689	637	585	542
		F06	960	917	864	812	764	708	661	614
		F07	1273	1240	1207	1171	1128	1089	1051	1012
		F08	1335	1301	1266	1228	1192	1154	1118	1078
		F09	1427	1390	1362	1327	1297	1260	1224	1193
M9S96 0803B	G	F01	715	658	589	524	465	412	360	279
		F02	1415	1385	1355	1322	1291	1255	1219	1186
		F03	1388	1360	1325	1291	1259	1223	1191	1157
		F04	1290	1252	1215	1182	1143	1107	1071	1032
		F05	916	867	817	767	710	657	608	563
		F06	985	940	892	842	797	746	693	649
		F07	1118	1078	1037	992	952	910	863	822
		F08	1191	1153	1114	1074	1034	993	951	911
		F09	1471	1440	1409	1377	1347	1314	1283	1247
M9S96 0804C	G	F01	1019	952	878	796	706	619	542	485
		F02	1791	1743	1700	1663	1626	1583	1538	1489
		F03	1625	1559	1512	1468	1425	1370	1325	1271
		F04	1537	1490	1447	1403	1354	1301	1247	1190
		F05	1289	1234	1180	1122	1058	991	917	840
		F06	1431	1375	1329	1283	1227	1169	1108	1043
		F07	1836	1784	1741	1703	1664	1628	1585	1537
		F08	1919	1890	1846	1807	1771	1735	1694	1650
		F09	1952	1921	1885	1843	1804	1769	1731	1691

[1] at 0.5” ESP

Notes:

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer. If the furnace requires two return filters, this chart assumes both filters are installed.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling and heating speed as needed.

CFM & Temperature Rise vs. External Static Pressure

Model	Thermostat Call	Tap #	External Static Pressure, (Inches Water Column)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
M9S96 0805C	G	F01	1029	959	890	811	727	647	579	511
		F02	1814	1766	1722	1679	1637	1595	1555	1511
		F03	1893	1844	1803	1763	1723	1685	1641	1604
		F04	1738	1680	1637	1596	1554	1510	1469	1420
		F05	1193	1135	1087	1016	986	950	880	805
		F06	1421	1369	1323	1272	1222	1168	1108	1045
		F07	1582	1536	1491	1445	1404	1358	1309	1255
		F08	1962	1919	1889	1851	1816	1780	1743	1702
		F09	2068	2024	1986	1947	1912	1873	1837	1797
M9S96 1005C	G	F01	1008	934	855	779	702	628	557	493
		F02	2026	1981	1929	1901	1858	1819	1773	1733
		F03	1921	1879	1840	1791	1751	1705	1656	1610
		F04	1804	1755	1710	1664	1619	1574	1526	1479
		F05	1475	1421	1369	1314	1260	1207	1152	1097
		F06	1626	1578	1522	1475	1427	1353	1328	1283
		F07	1693	1639	1588	1542	1491	1437	1390	1340
		F08	1775	1723	1674	1629	1580	1529	1484	1435
		F09	2161	2122	2084	2048	2010	1973	1940	1914
M9S96 1205D	G	F01	1118	1035	952	860	750	663	590	519
		F02	2143	2095	2047	2002	1954	1891	1850	1802
		F03	2025	1977	1930	1897	1848	1798	1750	1703
		F04	1906	1877	1828	1778	1726	1674	1622	1568
		F05	1220	1145	1070	995	952	907	811	725
		F06	1684	1620	1561	1499	1438	1378	1318	1259
		F07	1766	1712	1666	1612	1558	1506	1450	1395
		F08	1863	1807	1754	1698	1642	1587	1532	1476
		F09	2454	2396	2347	2296	2250	2202	2157	2113

[1] at 0.5” ESP

Notes:

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer. If the furnace requires two return filters, this chart assumes both filters are installed.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling and heating speed as needed.

CFM & Temperature Rise vs. External Static Pressure

Model	Thermostat Call	Tap #	External Static Pressure, (Inches Water Column)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
M9S96 0403A	Y2	F01	705	661	617	564	509	455	405	362
		F02	1079	1055	1027	994	965	935	906	863
		F03	915	881	846	814	780	737	695	652
		F04	887	855	823	790	751	705	666	608
		F05^	1135	1106	1078	1049	1021	994	965	933
		F06	1189	1163	1138	1111	1085	1059	1032	1001
		F07	1266	1243	1218	1197	1172	1148	1123	1099
		F08	1313	1288	1261	1239	1215	1189	1165	1143
		F09	1342	1324	1305	1280	1263	1239	1216	1193
M9S96 0603B	Y2	F01	758	696	636	572	512	460	412	354
		F02	1218	1178	1140	1100	1060	1016	977	937
		F03	1164	1123	1084	1042	1003	960	920	871
		F04	1121	1083	1041	996	953	906	861	818
		F05^	902	851	801	746	689	637	585	542
		F06	960	917	864	812	764	708	661	614
		F07	1273	1240	1207	1171	1128	1089	1051	1012
		F08	1335	1301	1266	1228	1192	1154	1118	1078
		F09	1427	1390	1362	1327	1297	1260	1224	1193
M9S96 0803B	Y2	F01	715	658	589	524	465	412	360	279
		F02	1415	1385	1355	1322	1291	1255	1219	1186
		F03	1388	1360	1325	1291	1259	1223	1191	1157
		F04	1290	1252	1215	1182	1143	1107	1071	1032
		F05^	916	867	817	767	710	657	608	563
		F06	985	940	892	842	797	746	693	649
		F07	1118	1078	1037	992	952	910	863	822
		F08	1191	1153	1114	1074	1034	993	951	911
		F09	1471	1440	1409	1377	1347	1314	1283	1247
M9S96 0804C	Y2	F01	1019	952	878	796	706	619	542	485
		F02	1791	1743	1700	1663	1626	1583	1538	1489
		F03	1625	1559	1512	1468	1425	1370	1325	1271
		F04	1537	1490	1447	1403	1354	1301	1247	1190
		F05^	1289	1234	1180	1122	1058	991	917	840
		F06	1431	1375	1329	1283	1227	1169	1108	1043
		F07	1836	1784	1741	1703	1664	1628	1585	1537
		F08	1919	1890	1846	1807	1771	1735	1694	1650
		F09	1952	1921	1885	1843	1804	1769	1731	1691

Notes

- ^ DEFAULT SPEED

CFM & Temperature Rise vs. External Static Pressure

Model	Thermostat Call	Tap #	External Static Pressure, (Inches Water Column)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
M9S96 0805C	Y2	F01	1029	959	890	811	727	647	579	511
		F02	1814	1766	1722	1679	1637	1595	1555	1511
		F03	1893	1844	1803	1763	1723	1685	1641	1604
		F04	1738	1680	1637	1596	1554	1510	1469	1420
		F05^	1193	1135	1087	1016	986	950	880	805
		F06	1421	1369	1323	1272	1222	1168	1108	1045
		F07	1582	1536	1491	1445	1404	1358	1309	1255
		F08	1962	1919	1889	1851	1816	1780	1743	1702
		F09	2068	2024	1986	1947	1912	1873	1837	1797
M9S96 1005C	Y2	F01	1008	934	855	779	702	628	557	493
		F02	2026	1981	1929	1901	1858	1819	1773	1733
		F03	1921	1879	1840	1791	1751	1705	1656	1610
		F04	1804	1755	1710	1664	1619	1574	1526	1479
		F05^	1475	1421	1369	1314	1260	1207	1152	1097
		F06	1626	1578	1522	1475	1427	1353	1328	1283
		F07	1693	1639	1588	1542	1491	1437	1390	1340
		F08	1775	1723	1674	1629	1580	1529	1484	1435
		F09	2161	2122	2084	2048	2010	1973	1940	1914
M9S96 1205D	Y2	F01	1118	1035	952	860	750	663	590	519
		F02	2143	2095	2047	2002	1954	1891	1850	1802
		F03	2025	1977	1930	1897	1848	1798	1750	1703
		F04	1906	1877	1828	1778	1726	1674	1622	1568
		F05^	1220	1145	1070	995	952	907	811	725
		F06	1684	1620	1561	1499	1438	1378	1318	1259
		F07	1766	1712	1666	1612	1558	1506	1450	1395
		F08	1863	1807	1754	1698	1642	1587	1532	1476
		F09	2454	2396	2347	2296	2250	2202	2157	2113

Notes

- ^ DEFAULT SPEED

CFM & Temperature Rise vs. External Static Pressure

Model	Thermostat Call	Tap #	External Static Pressure, (Inches Water Column)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
M9S96 0403A	Y/Y1	F01	705	661	617	564	509	455	405	362
		F02	1079	1055	1027	994	965	935	906	863
		F03	915	881	846	814	780	737	695	652
		F04^	887	855	823	790	751	705	666	608
		F05	1135	1106	1078	1049	1021	994	965	933
		F06	1189	1163	1138	1111	1085	1059	1032	1001
		F07	1266	1243	1218	1197	1172	1148	1123	1099
		F08	1313	1288	1261	1239	1215	1189	1165	1143
		F09	1342	1324	1305	1280	1263	1239	1216	1193
M9S96 0603B	Y/Y1	F01	758	696	636	572	512	460	412	354
		F02	1218	1178	1140	1100	1060	1016	977	937
		F03	1164	1123	1084	1042	1003	960	920	871
		F04^	1121	1083	1041	996	953	906	861	818
		F05	902	851	801	746	689	637	585	542
		F06	960	917	864	812	764	708	661	614
		F07	1273	1240	1207	1171	1128	1089	1051	1012
		F08	1335	1301	1266	1228	1192	1154	1118	1078
		F09	1427	1390	1362	1327	1297	1260	1224	1193
M9S96 0803B	Y/Y1	F01	715	658	589	524	465	412	360	279
		F02	1415	1385	1355	1322	1291	1255	1219	1186
		F03	1388	1360	1325	1291	1259	1223	1191	1157
		F04^	1290	1252	1215	1182	1143	1107	1071	1032
		F05	916	867	817	767	710	657	608	563
		F06	985	940	892	842	797	746	693	649
		F07	1118	1078	1037	992	952	910	863	822
		F08	1191	1153	1114	1074	1034	993	951	911
		F09	1471	1440	1409	1377	1347	1314	1283	1247
M9S96 0804C	Y/Y1	F01	1019	952	878	796	706	619	542	485
		F02	1791	1743	1700	1663	1626	1583	1538	1489
		F03	1625	1559	1512	1468	1425	1370	1325	1271
		F04^	1537	1490	1447	1403	1354	1301	1247	1190
		F05	1289	1234	1180	1122	1058	991	917	840
		F06	1431	1375	1329	1283	1227	1169	1108	1043
		F07	1836	1784	1741	1703	1664	1628	1585	1537
		F08	1919	1890	1846	1807	1771	1735	1694	1650
		F09	1952	1921	1885	1843	1804	1769	1731	1691

Notes

- ^ DEFAULT SPEED

CFM & Temperature Rise vs. External Static Pressure

Model	Thermostat Call	Tap #	External Static Pressure, (Inches Water Column)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
M9S96 0805C	Y/Y1	F01	1029	959	890	811	727	647	579	511
		F02	1814	1766	1722	1679	1637	1595	1555	1511
		F03	1893	1844	1803	1763	1723	1685	1641	1604
		F04^	1738	1680	1637	1596	1554	1510	1469	1420
		F05	1193	1135	1087	1016	986	950	880	805
		F06	1421	1369	1323	1272	1222	1168	1108	1045
		F07	1582	1536	1491	1445	1404	1358	1309	1255
		F08	1962	1919	1889	1851	1816	1780	1743	1702
		F09	2068	2024	1986	1947	1912	1873	1837	1797
M9S96 1005C	Y/Y1	F01	1008	934	855	779	702	628	557	493
		F02	2026	1981	1929	1901	1858	1819	1773	1733
		F03	1921	1879	1840	1791	1751	1705	1656	1610
		F04^	1804	1755	1710	1664	1619	1574	1526	1479
		F05	1475	1421	1369	1314	1260	1207	1152	1097
		F06	1626	1578	1522	1475	1427	1353	1328	1283
		F07	1693	1639	1588	1542	1491	1437	1390	1340
		F08	1775	1723	1674	1629	1580	1529	1484	1435
		F09	2161	2122	2084	2048	2010	1973	1940	1914
M9S96 1205D	Y/Y1	F01	1118	1035	952	860	750	663	590	519
		F02	2143	2095	2047	2002	1954	1891	1850	1802
		F03	2025	1977	1930	1897	1848	1798	1750	1703
		F04^	1906	1877	1828	1778	1726	1674	1622	1568
		F05	1220	1145	1070	995	952	907	811	725
		F06	1684	1620	1561	1499	1438	1378	1318	1259
		F07	1766	1712	1666	1612	1558	1506	1450	1395
		F08	1863	1807	1754	1698	1642	1587	1532	1476
		F09	2454	2396	2347	2296	2250	2202	2157	2113

Notes

- ^ DEFAULT SPEED

CFM & Temperature Rise vs. External Static Pressure

Model	Thermostat Call	Tap #	External Static Pressure, (Inches Water Column)													Temp Range
			0.1		0.2		0.3		0.4		0.5		0.6	0.7	0.8	
			CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	CFM	CFM	
C9S96 0403B	W/W1	F01^^	632	N/A	574	N/A	510	N/A	448	N/A	388	N/A	332	277	234	35-65
		F02^	727	48	677	51	623	54	565	60	510	65	455	403	351	
		F03	878	41	839	42	797	45	751	47	701	51	653	607	561	
		F04	948	38	910	39	870	41	828	43	785	45	739	693	652	
C9S96 0603B	W/W1	F01^^	771	N/A	698	N/A	632	N/A	560	N/A	491	N/A	428	372	307	35-65
		F02^	1197	45	1150	46	1102	48	1057	50	1014	53	968	926	877	
		F03	1309	41	1264	42	1224	44	1180	45	1141	47	1098	1058	1018	
		F04	1138	47	1091	49	1043	51	993	54	949	56	901	853	805	
C9S96 0804C	W/W1	F01^^	873	N/A	778	N/A	682	N/A	630	N/A	578	N/A	490	419	347	40-70
		F02^	1442	49	1386	51	1335	53	1280	56	1221	58	1157	1110	1054	
		F03	1643	43	1588	45	1534	46	1478	48	1415	50	1357	1299	1246	
		F04	1600	44	1555	46	1505	47	1460	49	1412	50	1364	1309	1260	
C9S96 1005C	W/W1	F01^^	1176	N/A	1107	N/A	1037	N/A	969	N/A	891	N/A	825	753	692	40-70
		F02^	1773	50	1721	52	1671	53	1621	55	1571	57	1521	1470	1421	
		F03^^	1709	52	1658	54	1607	55	1556	57	1503	59	1451	1399	1349	
		F04	1651	54	1597	56	1542	58	1491	60	1437	62	1384	1332	1278	
C9S96 1205D	W/W1	F01^^	1187	N/A	1101	N/A	1013	N/A	931	N/A	847	N/A	764	677	604	45-75
		F02^	1973	54	1916	56	1864	57	1810	59	1756	61	1702	1650	1590	
		F03	1918	56	1859	57	1807	59	1748	61	1696	63	1643	1591	1531	
		F04	1835	58	1776	60	1720	62	1657	64	1602	67	1544	1483	1428	

Notes

- ^ DEFAULT SPEED
- ^^NOT RECOMMENDED FOR HEATING

Minimum Filter Sizes

	GC9S96 0403BNA	GC9S96 0603BNA	GC9S96 0804CNA	GC9S96 1005CNA	GC9S96 1205DNA
Filter Size (in^2) (Qty)	(2) 10 x 20 or (1) 16 x 25 (top return)			(1) 14 x 20 (bottom) or (1) 20 x 25 (top return)	

Note: Other size filters of equal or greater dimensions may be used. Filters may also be centrally located.

CFM & Temperature Rise vs. External Static Pressure

Model	Thermostat Call	Tap #	External Static Pressure, (Inches Water Column)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
C9S96 0403B	G	F01	632	574	510	448	388	332	277	234
		F02	727	677	623	565	510	455	403	351
		F03	878	839	797	751	701	653	607	561
		F04	948	910	870	828	785	739	693	652
		F05	1106	1076	1044	1010	974	939	899	860
		F06	1156	1125	1096	1063	1028	996	960	927
		F07	1237	1205	1174	1145	1115	1081	1050	1016
		F08	1334	1306	1275	1249	1220	1194	1163	1136
		F09	1382	1354	1327	1302	1276	1246	1219	1190
C9S96 0603B	G	F01	771	698	632	560	491	428	372	307
		F02	1197	1150	1102	1057	1014	968	926	877
		F03	1309	1264	1224	1180	1141	1098	1058	1018
		F04	1138	1091	1043	993	949	901	853	805
		F05	944	884	824	774	716	660	605	554
		F06	963	907	852	803	745	689	639	587
		F07	1332	1289	1245	1200	1160	1120	1081	1036
		F08	1366	1319	1277	1235	1192	1154	1117	1074
		F09	1468	1436	1393	1359	1323	1285	1248	1210
C9S96 0804C	G	F01	873	778	682	630	578	490	419	347
		F02	1442	1386	1335	1280	1221	1157	1110	1054
		F03	1643	1588	1534	1478	1415	1357	1299	1246
		F04	1600	1555	1505	1460	1412	1364	1309	1260
		F05	1338	1269	1206	1133	1063	999	934	861
		F06	1796	1744	1691	1638	1584	1532	1473	1422
		F07	1874	1823	1775	1729	1675	1621	1567	1512
		F08	1798	1754	1719	1672	1627	1585	1546	1497
		F09	1991	1947	1900	1854	1808	1759	1707	1655
C9S96 1005C	G	F01	1176	1107	1037	969	891	825	753	692
		F02	1773	1721	1671	1621	1571	1521	1470	1421
		F03	1709	1658	1607	1556	1503	1451	1399	1349
		F04	1651	1597	1542	1491	1437	1384	1332	1278
		F05	1467	1409	1352	1307	1240	1182	1124	1063
		F06	1834	1785	1738	1691	1643	1593	1545	1502
		F07	1924	1881	1836	1796	1750	1701	1652	1606
		F08	2028	1994	1937	1899	1863	1814	1769	1724
		F09	2193	2145	2106	2076	2032	1998	1945	1903
C9S96 1205D	G	F01	1187	1101	1013	931	847	764	677	604
		F02	1973	1916	1864	1810	1756	1702	1650	1590
		F03	1918	1859	1807	1748	1696	1643	1591	1531
		F04	1835	1776	1720	1657	1602	1544	1483	1428
		F05	1236	1152	1073	990	919	834	749	679
		F06	1521	1459	1391	1327	1253	1187	1116	1053
		F07	1673	1609	1549	1493	1430	1362	1305	1242
		F08	2033	1981	1929	1878	1822	1771	1716	1669
		F09	2257	2201	2151	2099	2057	2008	1959	1906

[1] at 0.5" ESP

Notes:

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer. If the furnace requires two return filters, this chart assumes both filters are installed.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling and heating speed as needed.

CFM & Temperature Rise vs. External Static Pressure

Model	Thermostat Call	Tap #	External Static Pressure, (Inches Water Column)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
C9S96 0403B	Y2	F01	632	574	510	448	388	332	277	234
		F02	727	677	623	565	510	455	403	351
		F03	878	839	797	751	701	653	607	561
		F04	948	910	870	828	785	739	693	652
		F05^	1106	1076	1044	1010	974	939	899	860
		F06	1156	1125	1096	1063	1028	996	960	927
		F07	1237	1205	1174	1145	1115	1081	1050	1016
		F08	1334	1306	1275	1249	1220	1194	1163	1136
		F09	1382	1354	1327	1302	1276	1246	1219	1190
C9S96 0603B	Y2	F01	771	698	632	560	491	428	372	307
		F02	1197	1150	1102	1057	1014	968	926	877
		F03	1309	1264	1224	1180	1141	1098	1058	1018
		F04	1138	1091	1043	993	949	901	853	805
		F05^	944	884	824	774	716	660	605	554
		F06	963	907	852	803	745	689	639	587
		F07	1332	1289	1245	1200	1160	1120	1081	1036
		F08	1366	1319	1277	1235	1192	1154	1117	1074
		F09	1468	1436	1393	1359	1323	1285	1248	1210
C9S96 0804C	Y2	F01	873	778	682	630	578	490	419	347
		F02	1442	1386	1335	1280	1221	1157	1110	1054
		F03	1643	1588	1534	1478	1415	1357	1299	1246
		F04	1600	1555	1505	1460	1412	1364	1309	1260
		F05^	1338	1269	1206	1133	1063	999	934	861
		F06	1796	1744	1691	1638	1584	1532	1473	1422
		F07	1874	1823	1775	1729	1675	1621	1567	1512
		F08	1798	1754	1719	1672	1627	1585	1546	1497
		F09	1991	1947	1900	1854	1808	1759	1707	1655
C9S96 1005C	Y2	F01	1176	1107	1037	969	891	825	753	692
		F02	1773	1721	1671	1621	1571	1521	1470	1421
		F03	1709	1658	1607	1556	1503	1451	1399	1349
		F04	1651	1597	1542	1491	1437	1384	1332	1278
		F05^	1467	1409	1352	1307	1240	1182	1124	1063
		F06	1834	1785	1738	1691	1643	1593	1545	1502
		F07	1924	1881	1836	1796	1750	1701	1652	1606
		F08	2028	1994	1937	1899	1863	1814	1769	1724
		F09	2193	2145	2106	2076	2032	1998	1945	1903
C9S96 1205D	Y2	F01	1187	1101	1013	931	847	764	677	604
		F02	1973	1916	1864	1810	1756	1702	1650	1590
		F03	1918	1859	1807	1748	1696	1643	1591	1531
		F04	1835	1776	1720	1657	1602	1544	1483	1428
		F05^	1236	1152	1073	990	919	834	749	679
		F06	1521	1459	1391	1327	1253	1187	1116	1053
		F07	1673	1609	1549	1493	1430	1362	1305	1242
		F08	2033	1981	1929	1878	1822	1771	1716	1669
		F09	2257	2201	2151	2099	2057	2008	1959	1906

Notes

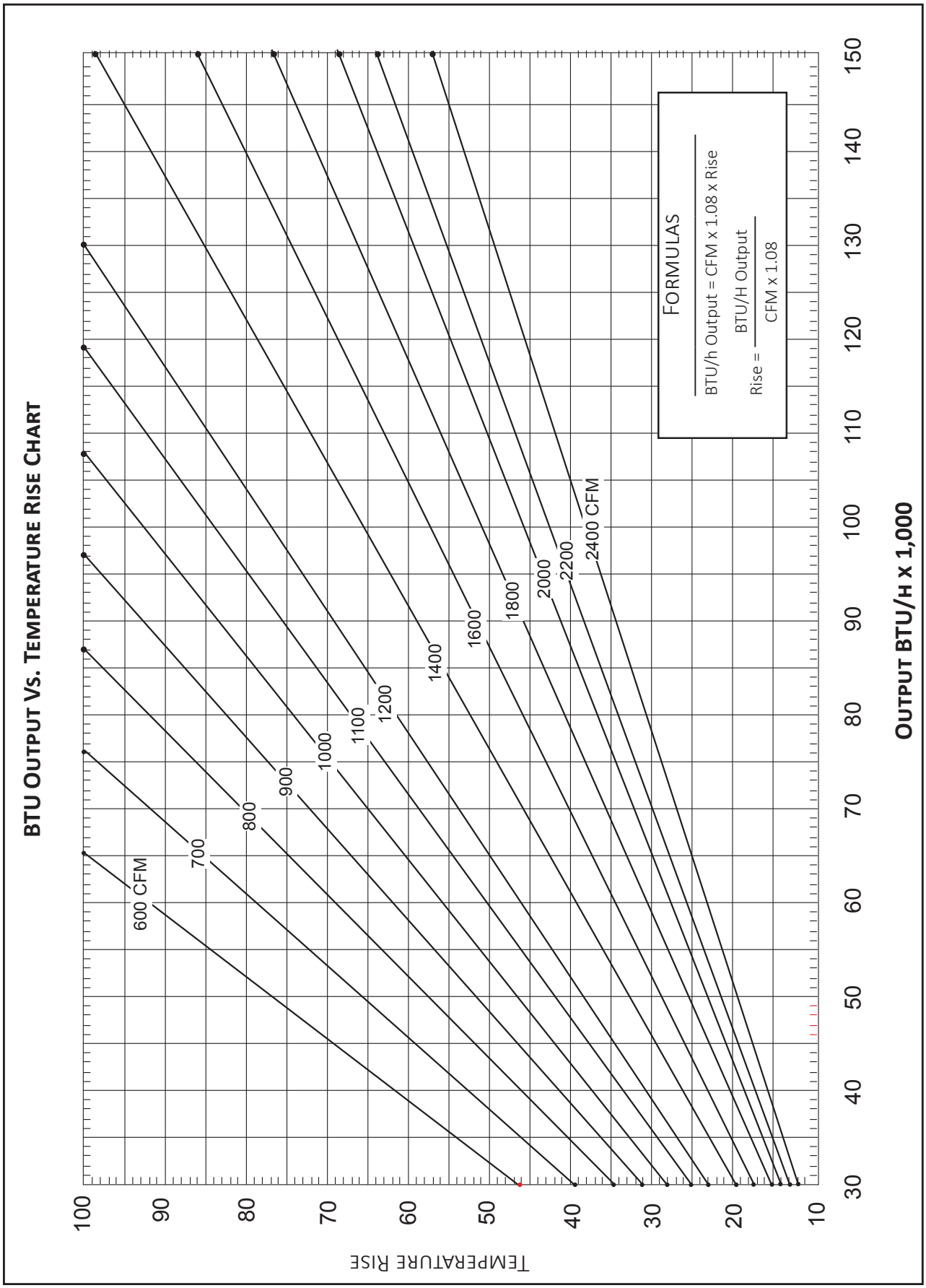
- ^ DEFAULT SPEED

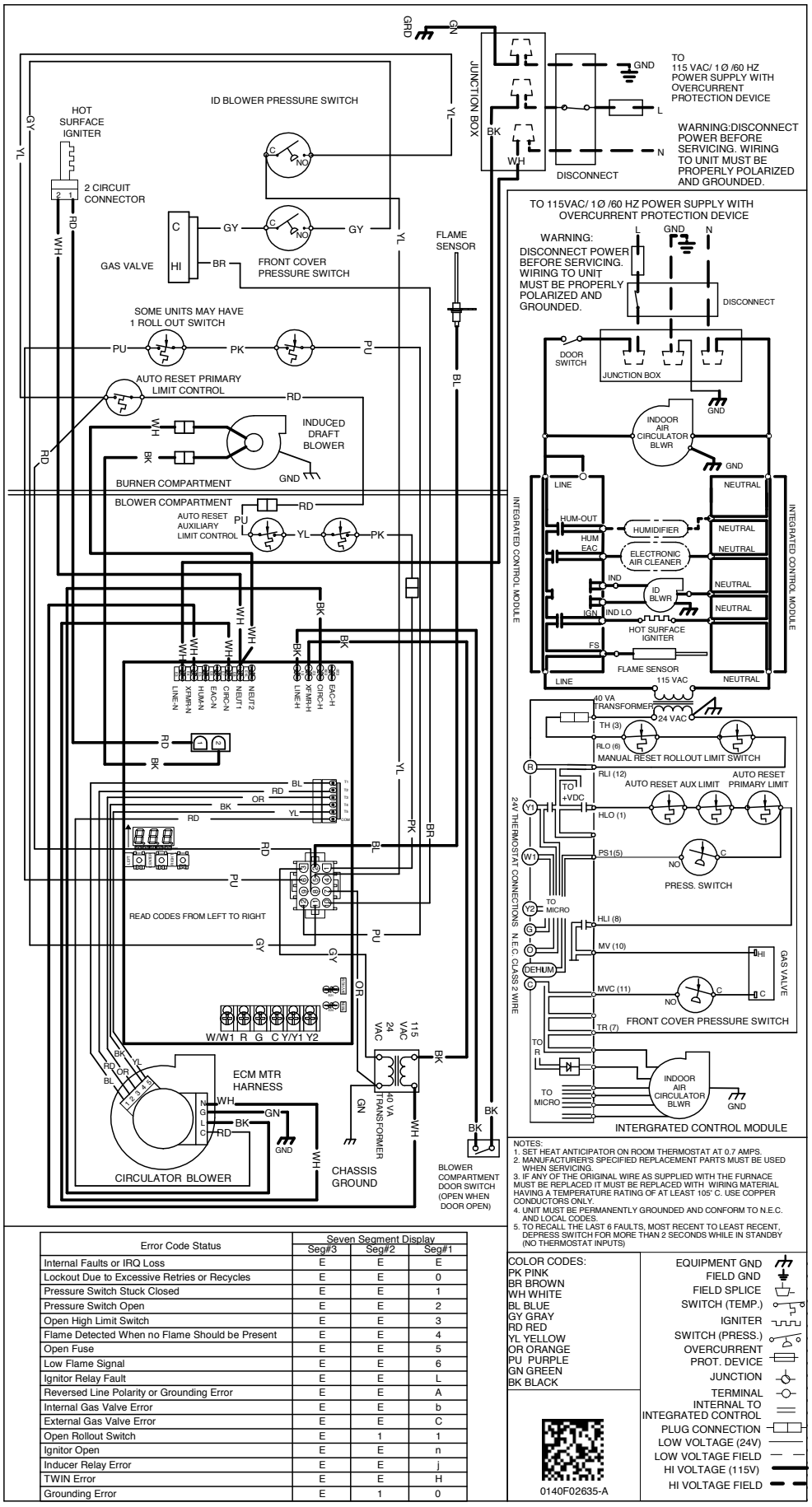
CFM & Temperature Rise vs. External Static Pressure

Model	Thermostat Call	Tap #	External Static Pressure, (Inches Water Column)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
			CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
C9S96 0403B	Y/Y1	F01	632	574	510	448	388	332	277	234
		F02	727	677	623	565	510	455	403	351
		F03	878	839	797	751	701	653	607	561
		F04^	948	910	870	828	785	739	693	652
		F05	1106	1076	1044	1010	974	939	899	860
		F06	1156	1125	1096	1063	1028	996	960	927
		F07	1237	1205	1174	1145	1115	1081	1050	1016
		F08	1334	1306	1275	1249	1220	1194	1163	1136
		F09	1382	1354	1327	1302	1276	1246	1219	1190
C9S96 0603B	Y/Y1	F01	771	698	632	560	491	428	372	307
		F02	1197	1150	1102	1057	1014	968	926	877
		F03	1309	1264	1224	1180	1141	1098	1058	1018
		F04^	1138	1091	1043	993	949	901	853	805
		F05	944	884	824	774	716	660	605	554
		F06	963	907	852	803	745	689	639	587
		F07	1332	1289	1245	1200	1160	1120	1081	1036
		F08	1366	1319	1277	1235	1192	1154	1117	1074
		F09	1468	1436	1393	1359	1323	1285	1248	1210
C9S96 0804C	Y/Y1	F01	873	778	682	630	578	490	419	347
		F02	1442	1386	1335	1280	1221	1157	1110	1054
		F03	1643	1588	1534	1478	1415	1357	1299	1246
		F04^	1600	1555	1505	1460	1412	1364	1309	1260
		F05	1338	1269	1206	1133	1063	999	934	861
		F06	1796	1744	1691	1638	1584	1532	1473	1422
		F07	1874	1823	1775	1729	1675	1621	1567	1512
		F08	1798	1754	1719	1672	1627	1585	1546	1497
		F09	1991	1947	1900	1854	1808	1759	1707	1655
C9S96 1005C	Y/Y1	F01	1176	1107	1037	969	891	825	753	692
		F02	1773	1721	1671	1621	1571	1521	1470	1421
		F03	1709	1658	1607	1556	1503	1451	1399	1349
		F04^	1651	1597	1542	1491	1437	1384	1332	1278
		F05	1467	1409	1352	1307	1240	1182	1124	1063
		F06	1834	1785	1738	1691	1643	1593	1545	1502
		F07	1924	1881	1836	1796	1750	1701	1652	1606
		F08	2028	1994	1937	1899	1863	1814	1769	1724
		F09	2193	2145	2106	2076	2032	1998	1945	1903
C9S96 1205D	Y/Y1	F01	1187	1101	1013	931	847	764	677	604
		F02	1973	1916	1864	1810	1756	1702	1650	1590
		F03	1918	1859	1807	1748	1696	1643	1591	1531
		F04^	1835	1776	1720	1657	1602	1544	1483	1428
		F05	1236	1152	1073	990	919	834	749	679
		F06	1521	1459	1391	1327	1253	1187	1116	1053
		F07	1673	1609	1549	1493	1430	1362	1305	1242
		F08	2033	1981	1929	1878	1822	1771	1716	1669
		F09	2257	2201	2151	2099	2057	2008	1959	1906

Notes

- ^ DEFAULT SPEED


BTU Output Vs. Temperature Rise Chart
Temperature Rise
Output BTU/H x 1,000
600 CFM
700
800
900
1000
1100
1200
1400
1600
1800
2000
2200
2400 CFM
Formulas
BTU/h Output = CFM x 1.08 x Rise
Rise = BTU/H Output / CFM x 1.08



NOTES:
1. SET HEAT ANTICIPATOR ON ROOM THERMOSTAT AT 0.7 AMPS.
2. MANUFACTURER'S SPECIFIED REPLACEMENT PARTS MUST BE USED WHEN SERVICING.
3. IF ANY OF THE ORIGINAL WIRE AS SUPPLIED WITH THE FURNACE MUST BE REPLACED IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105° C. USE COPPER CONDUCTORS ONLY.
4. UNIT MUST BE PERMANENTLY GROUNDED AND CONFORM TO N.E.C. AND LOCAL CODES.
5. TO RECALL THE LAST 6 FAULTS, MOST RECENT TO LEAST RECENT, DEPRESS SWITCH FOR MORE THAN 2 SECONDS WHILE IN STANDBY (NO THERMOSTAT INPUTS)

Error Code Status	Seven Segment Display		
	Seg#3	Seg#2	Seg#1
Internal Faults or IRQ Loss	E	E	E
Lockout Due to Excessive Retries or Recycles	E	E	0
Pressure Switch Stuck Closed	E	E	1
Pressure Switch Open	E	E	2
Open High Limit Switch	E	E	3
Flame Detected When no Flame Should be Present	E	E	4
Open Fuse	E	E	5
Low Flame Signal	E	E	6
Ignitor Relay Fault	E	E	L
Reversed Line Polarity or Grounding Error	E	E	A
Internal Gas Valve Error	E	E	b
External Gas Valve Error	E	E	C
Open Rollout Switch	E	1	1
Ignitor Open	E	E	n
Inducer Relay Error	E	E	j
TWIN Error	E	E	H
Grounding Error	E	1	0

COLOR CODES:
PK PINK
BR BROWN
WH WHITE
BL BLUE
GY GRAY
RD RED
YL YELLOW
OR ORANGE
PU PURPLE
GN GREEN
BK BLACK

0140F02635-A

EQUIPMENT GND
FIELD GND
FIELD SPLICE
SWITCH (TEMP.)
IGNITER
SWITCH (PRESS.)
OVERCURRENT PROT. DEVICE
JUNCTION
TERMINAL
INTERNAL TO INTEGRATED CONTROL
PLUG CONNECTION
LOW VOLTAGE (24V)
LOW VOLTAGE FIELD
HI VOLTAGE (115V)
HI VOLTAGE FIELD

WARNING

High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

MODEL	DESCRIPTION	GM9S96 0403ANA	GM9S96 0603BNA	GM9S96 0803BNA	GM9S96 0804CNA	GM9S96 0805CNA	GM9S96 1005CNA	GM9S96 1205DNA
72950	Concentric Vent Kit (2")	√	√	√	√	√	√	—
72951	Concentric Vent Kit (3")	√	√	√	√	√	√	√
RF000142	Drain Kit Horizontal Left Vertical Flue	√	√	√	√	√	√	√
EFR02	External Filter Rack with 16"x25" Permanent Filter	√	√	√	√	—	—	—
0170K00000S	Flush Mount Vent Kit- 3" or 2"	√	√	√	√	√	√	√
0170K00001S	Flush Mount Vent Kit- 2"	√	√	√	√	√	√	—
AFE18-60A	Fossil Fuel (Dual Fuel) Kit	√	√	√	√	√	√	√
HASFK	High-Altitude Natural Gas Kit	TBD	HASFK-4	HASFK-4	HASFK-4	HASFK-4	HASFK-4	HASFK-4
HASFK	High-Altitude LP Gas Kit	TBD	HASFK-6	HASFK-6	HASFK-6	HASFK-5	HASFK-5	HASFK-5
0270F05404	Horizontal Drain Tubing Kit	√	√	√	√	√	√	√
LPLP03	Low LP Gas Pressure Switch	√	√	√	√	√	√	√
LPM-07	LP Conversion Kits	—	√	√	√	√	√	√

MODEL	DESCRIPTION	GC9S96 0403BNA	GC9S96 0603BNA	GC9S96 0804CNA	GC9S96 1005CNA	GC9S96 1205DNA
72950	Concentric Vent Kit (2")	√	√	√	√	—
72951	Concentric Vent Kit (3")	√	√	√	√	√
CFSB17	Downflow Sub-Base 17.5"	√	√	—	—	—
CFSB21	Downflow Sub-Base 21"	—	—	√	√	—
CFSB24	Downflow Sub-Base 24"	—	—	—	—	√
RF000142	Drain Kit Horizontal Left Vertical Flue	√	√	√	√	√
EFR02	External Filter Rack with 16"x25" Permanent Filter	√	√	√	—	—
0170K00000S	Flush Mount Vent Kit- 3" or 2"	√	√	√	√	√
0170K00001S	Flush Mount Vent Kit- 2"	√	√	√	√	√
AFE18-60A	Fossil Fuel (Dual Fuel) Kit	√	√	√	√	√
HASFK	High-Altitude Natural Gas Kit	HASFK-4	HASFK-4	HASFK-4	HASFK-4	HASFK-4
HASFK	High-Altitude LP Gas Kit	HASFK-5	HASFK-5	HASFK-5	HASFK-4	HASFK-4
0270F05405	Horizontal Drain Tubing Kit	√	√	√	√	√
LPLP03	Low LP Gas Pressure Switch	√	√	√	√	√
LPM-07	LP Conversion Kits	√	√	√	√	√

The manufacturing entity reserves the right to discontinue, or change at any time, specifications or designs without notice or without incurring obligations.