

TECHNICAL SPECIFICATIONS

FG7S (A and K Series)

High Efficiency Upflow/Horizontal and Downflow Gas Furnaces

Induced Draft - 80+ AFUE
Input 45,000 - 126,000 Btuh

The high efficiency gas furnace may be installed free standing in a utility room, basement, or enclosed in an alcove or closet. The rounded corner jacket provides a pleasing "appliance appearance." Design certified by CSA for application in Canada and the United States.



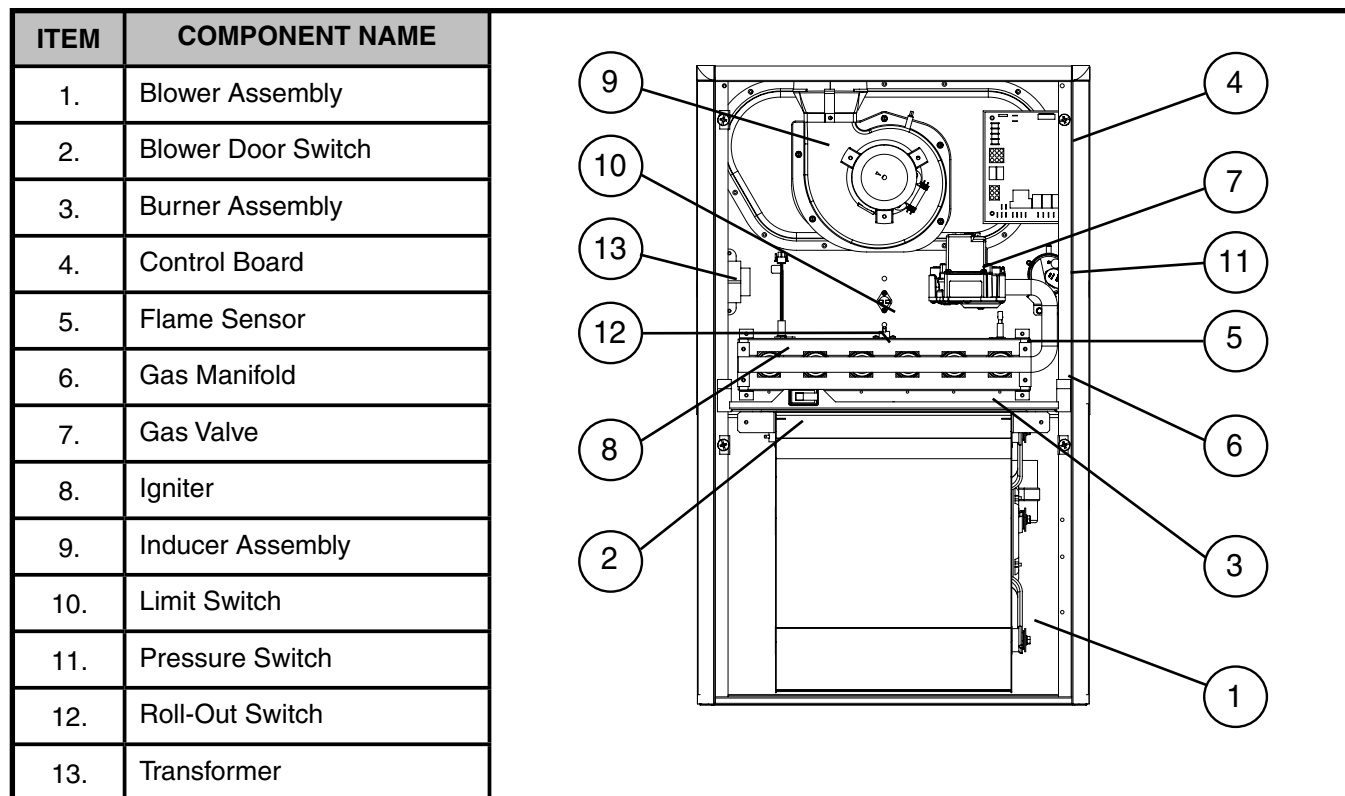
This furnace series is approved and certified by the SCAQM and the SJVAPC Districts in the state of California under each Districts' Mitigation Fee Plan for shipment into and sales in both districts.

For California installations in SCAQMD only: This furnace does not meet the SCAQMD Rule 1111 NOx emission limit (14 ng/J), and thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com.

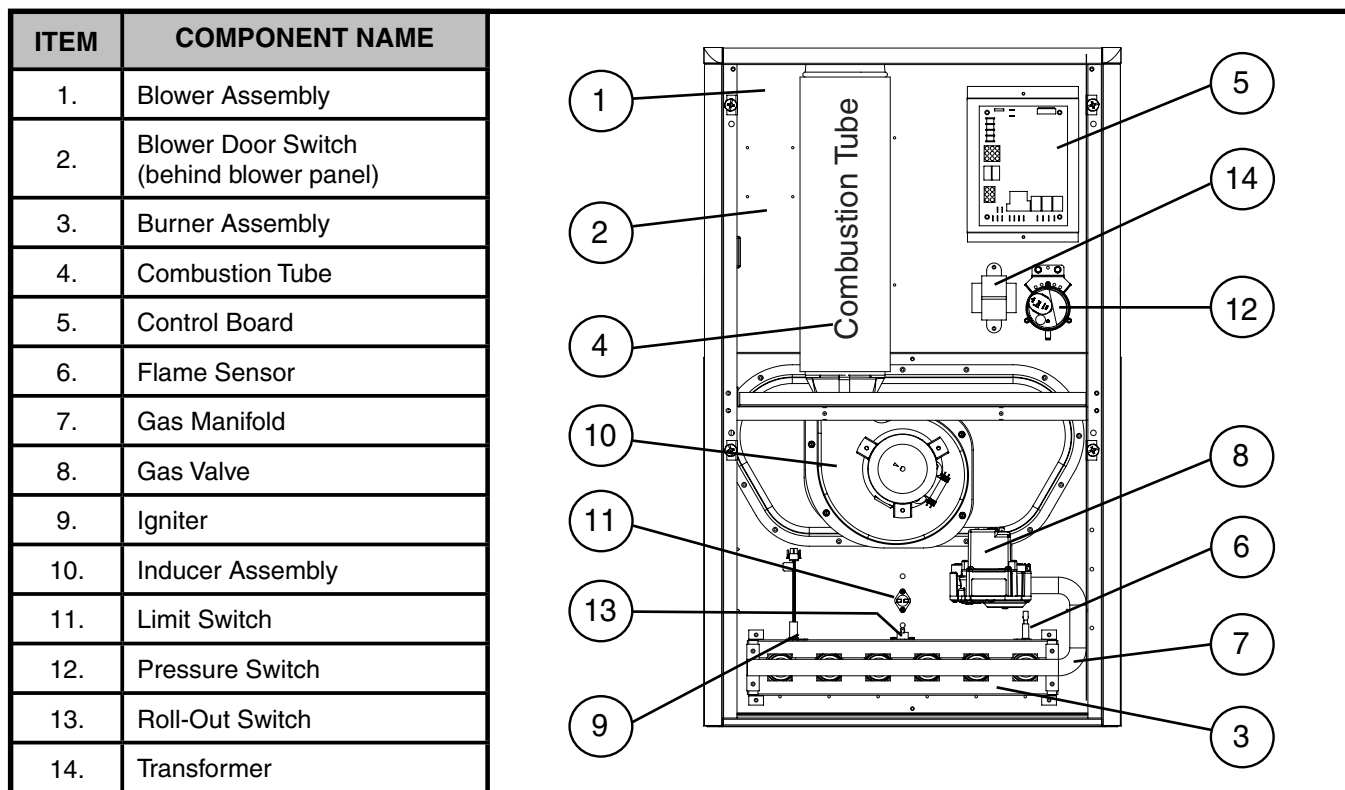
FEATURES and BENEFITS

- **100% fired and tested:** All units and each component are tested on the manufacturing line.
- **Best packaging in the industry:** Unique corner post design assures product will arrive to the homeowner dent free.
- **Low Boy Height:** Easy to apply in low ceiling applications, works well with taller high SEER coils, easier to handle and install.
- **Tubular primary heat exchanger:** Heavy gauge aluminized steel heat exchanger assures a long life.
- **30 second blower delay at start-up:** Assures a warm duct temperature at furnace start-up. Adjustable blower off settings (60, 90, 120 and 180 seconds).
- **30 second post purge:** Increases life of heat exchanger.
- **Hot surface igniter:** Innovative application of a silicon nitride type igniter. Utilizes proven Smartlite® technology.
- **Color coded wire harness:** Designed to fit the components, all with quick-connect fittings for ease of service and replacement.
- **High static blowers:** All models equipped with high static blowers.
- **90 second cooling cycle blower-off delay (TDR):** increases cooling performance when matched with a Nortek Global HVAC coil.
- **Flexible category I venting system:** May be vented with dedicated venting system or common vented with other category one appliances.
- **High efficiency blower kits:** Maximize efficiencies. On select units, a SEER improvement of up to 1 point is realized.
- **Multi-speed direct drive blower:** Designed to give a wide range of cooling capacities. Switches on PCB, provide ultra easy motor speed selection.
- **LP convertible:** Simple burner orifice and regulator spring change for ease of convertibility.
- **Diagnostic lights for easy troubleshooting without counting flashes:** Dedicated light for flame signal strength and 2 lights in combination to indicate all other fault codes with easy to recognize states without counting flashes.
- **Integrated control board:** Incorporates connections for electronic air cleaner and humidifier.
- **Two piece door design:** Enhances furnace appearance and uses captured screws to prevent loosening door screws.
- **Blower Compartment:** Insulated for ultra quiet operation.
- **PolyPro by DuraVent:** These furnaces have been tested with and are approved to be installed with DuraVent's PolyPro venting system.

GAS FURNACE COMPONENTS



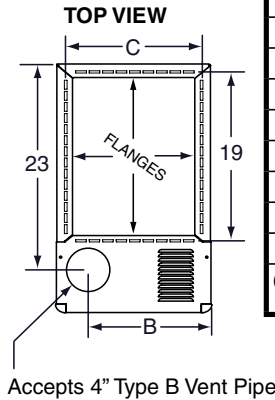
Upflow/Horizontal Gas Furnace



Downflow Gas Furnace

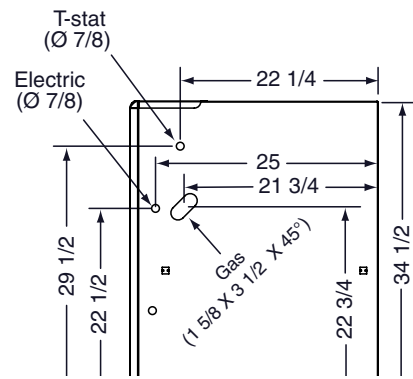
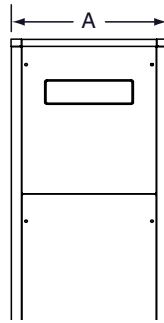
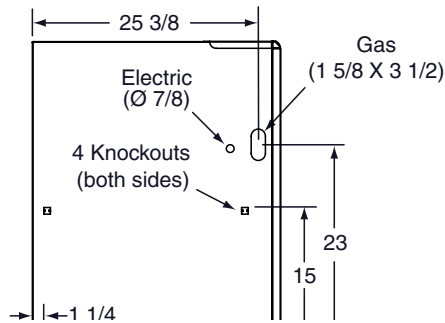
DIMENSIONS

*SA 80+ Upflow Furnace

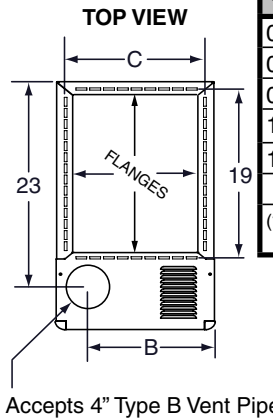


*SA Model #'s	Dim. "A"	Dim. "B"	Dim. "C"	Dim. "D"
045(†)-23A	14 1/4	10 3/4	12 5/8	12 7/8
054(†)-23A	14 1/4	10 3/4	12 5/8	12 7/8
072(†)-24B	17 1/2	11 3/4	15 7/8	16 1/8
090(†)-24B	17 1/2	11 3/4	15 7/8	16 1/8
072(†)-35C	21	14	19 3/8	19 7/8
090(†)-35C	21	14	19 3/8	19 7/8
108(†)-35C	21	14	19 3/8	19 7/8
126(†)-45D	24 1/2	15 1/4	22 7/8	23 1/8

NOTES:
 (†) "C" = Standard Models
 "N" = 80% Low NOx Models
 Dimensions shown in Inches.

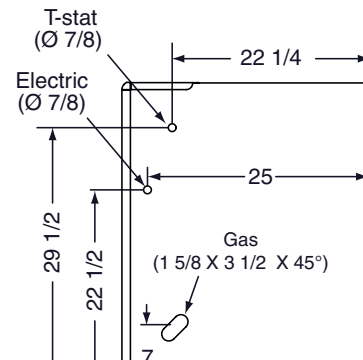
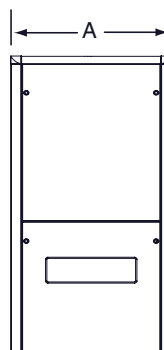
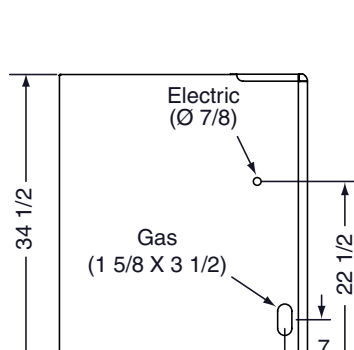


*SK 80+ Downflow Furnace



*SK Model #'s	Dim. "A"	Dim. "B"	Dim. "C"	Dim. "D"
054(†)-23A	14 1/4	10 3/4	12 5/8	12 7/8
072(†)-24B	17 1/2	11 3/4	15 7/8	16 1/8
090(†)-24B	17 1/2	11 3/4	15 7/8	16 1/8
108(†)-35C	21	14	19 3/8	19 5/8
126(†)-45D	24 1/2	15 1/4	22 7/8	23 1/8

NOTES:
 (†) "C" = Standard Models
 "N" = 80% Low NOx Models
 Dimensions shown in Inches.



BLOWER PERFORMANCE - FG7SA

Model Number	Heating Input (Btuh)	Motor Speed	External Static Pressure (Inches Water Column)											
			0.1		0.2		0.3		0.4		0.5		0.6	
			CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise
SA045()-23A Bottom Return	45,000	High*	1260	26	1205	28	1145	29	1080	31	1025	33	960	35
		Med-High	955	35	950	35	940	35	935	36	925	36	860	39
		Med-Low**	825	40	800	42	760	44	730	46	690	48	650	51
		Low	655	51	630	53	610	55	580	57	550	61	520	64
SA045()-23A Side Return	45,000	High*	1350	25	1290	26	1225	27	1155	29	1100	30	1025	33
		Med-High	1025	33	1015	33	1005	33	1000	33	990	34	920	36
		Med-Low**	885	38	855	39	815	41	780	43	740	45	695	48
		Low	700	48	675	49	655	51	620	54	590	56	555	60
SA054()-23A Bottom Return	54,000	High*	1260	32	1205	33	1145	35	1080	37	1025	39	960	42
		Med-High	955	42	950	42	940	43	935	43	925	43	860	47
		Med-Low**	825	48	800	50	760	53	730	55	690	58	650	62
		Low	655	61	630	63	610	66	580	69	550	73	520	77
SA054()-23A Side Return	54,000	High*	1350	30	1290	31	1225	33	1155	35	1100	36	1025	39
		Med-High	1025	39	1015	39	1005	40	1000	40	990	40	920	43
		Med-Low**	885	45	855	47	815	49	780	51	740	54	695	58
		Low	700	57	675	59	655	61	620	65	590	68	555	72
SA072()-24B Bottom Return	72,000	High*	1685	32	1640	33	1605	33	1565	34	1515	35	1475	36
		Med-High	1330	40	1295	41	1275	42	1245	43	1215	44	1185	45
		Med-Low**	1175	45	1155	46	1125	47	1100	48	1075	50	1045	51
		Low	930	57	895	60	885	60	850	63	825	65	800	67
SA072()-24B Side Return	72,000	High*	1770	30	1720	31	1685	32	1645	32	1590	34	1550	34
		Med-High	1400	38	1360	39	1340	40	1310	41	1275	42	1245	43
		Med-Low**	1235	43	1215	44	1180	45	1155	46	1130	47	1100	48
		Low	975	55	940	57	930	57	890	60	865	62	840	63
SA090()-24B Bottom Return	90,000	High*	1610	41	1575	42	1530	44	1485	45	1440	46	1385	48
		Med-High**	1295	51	1260	53	1235	54	1220	55	1175	57	1135	59
		Med-Low	1155	58	1130	59	1100	61	1070	62	1035	64	1015	66
		Low	880	76	860	78	830	80	800	83	765	87	740	90
SA090()-24B Side Return	90,000	High*	1690	39	1655	40	1610	41	1560	43	1510	44	1455	46
		Med-High**	1360	49	1325	50	1300	51	1280	52	1235	54	1190	56
		Med-Low	1215	55	1190	56	1155	58	1125	59	1090	61	1065	63
		Low	925	72	900	74	870	77	840	79	800	83	775	86
SA072()-35C Bottom Return	72,000	High*	1950	27	1865	29	1790	30	1715	31	1630	33	1550	34
		Med-High	1860	29	1780	30	1710	31	1635	33	1575	34	1500	36
		Med-Low**	1300	41	1240	43	1200	44	1160	46	1120	48	1065	50
		Low	1165	46	1115	48	1060	50	1025	52	985	54	940	57
SA072()-35C Side Return	72,000	High*	2030	26	1940	27	1860	29	1785	30	1695	31	1615	33
		Med-High	1935	28	1850	29	1780	30	1700	31	1630	33	1560	34
		Med-Low**	1350	40	1290	41	1250	43	1205	44	1165	46	1110	48
		Low	1215	44	1160	46	1105	48	1065	50	1025	52	980	54

BLOWER PERFORMANCE - FG7SA Continued

Model Number	Heating Input (Btuh)	Motor Speed	External Static Pressure (Inches Water Column)											
			0.1		0.2		0.3		0.4		0.5		0.6	
			CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise
SA072()-35C Side + Bottom or 2 Sides	72,000	High*	2050	26	1960	27	1880	28	1800	30	1710	31	1630	33
		Med-High	1955	27	1870	29	1800	30	1715	31	1655	32	1575	34
		Med-Low**	1365	39	1300	41	1260	42	1220	44	1175	45	1120	48
		Low	1225	44	1170	46	1115	48	1075	50	1035	52	985	54
SA090()-35C Bottom Return	90,000	High*	1940	34	1860	36	1790	37	1710	39	1625	41	1540	43
		Med-High**	1820	37	1760	38	1695	39	1620	41	1545	43	1466	45
		Med-Low	1290	52	1245	54	1200	56	1155	58	1110	60	1060	63
		Low	1145	58	1110	60	1070	62	1035	64	1000	67	950	70
SA090()-35C Side Return	90,000	High*	2020	33	1935	34	1860	36	1780	37	1690	39	1600	42
		Med-High**	1895	35	1830	36	1765	38	1685	40	1610	41	1525	44
		Med-Low	1345	50	1295	51	1250	53	1200	56	1155	58	1100	61
		Low	1190	56	1155	58	1115	60	1075	62	1040	64	980	68
SA090()-35C Side + Bottom or 2 Sides	90,000	High*	2040	33	1955	34	1880	35	1795	37	1705	39	1620	41
		Med-High**	1910	35	1850	36	1780	37	1700	39	1625	41	1540	43
		Med-Low	1355	49	1310	51	1260	53	1215	55	1165	57	1115	60
		Low	1205	55	1165	57	1125	59	1085	61	1050	63	1000	67
SA108()-35C Bottom Return	108,000	High*	2205	36	2150	37	2095	38	2030	39	1970	41	1900	42
		Med-High**	2050	39	1995	40	1955	41	1895	42	1840	43	1775	45
		Med-Low	1700	47	1680	48	1645	49	1610	50	1565	51	1525	52
		Low	1390	58	1370	58	1355	59	1320	61	1300	62	1270	63
SA108()-35C Side Return	108,000	High*	2295	35	2235	36	2180	37	2110	38	2050	39	1975	41
		Med-High**	2130	38	2075	39	2035	39	1970	41	1915	42	1845	43
		Med-Low	1770	45	1750	46	1710	47	1675	48	1630	49	1585	50
		Low	1445	55	1425	56	1410	57	1375	58	1350	59	1320	61
SA108()-35C Side + Bottom or 2 Sides	108,000	High*	2315	35	2260	35	2200	36	2130	38	2070	39	1995	40
		Med-High**	2155	37	2095	38	2055	39	1990	40	1930	41	1865	43
		Med-Low	1785	45	1765	45	1725	46	1690	47	1645	49	1600	50
		Low	1460	55	1440	56	1425	56	1385	58	1365	59	1335	60
SA126()-45D Bottom only or 2 openings	126,000	High*	2255	41	2200	42	2125	44	2065	45	2010	46	1935	48
		Med-High**	2075	45	2025	46	1970	47	1940	48	1875	50	1810	52
		Med-Low	1720	54	1695	55	1655	56	1630	57	1580	59	1520	61
		Low	1360	69	1375	68	1365	68	1315	71	1310	71	1300	72
SA126()-45D Side Return	126,000	High*	2230	42	2180	43	2105	44	2045	46	1990	47	1915	49
		Med-High**	2055	45	2005	47	1950	48	1920	49	1855	50	1790	52
		Med-Low	1705	55	1680	56	1640	57	1615	58	1565	60	1505	62
		Low	1345	69	1360	69	1350	69	1300	72	1230	76	1290	72

NOTES:

1. Two openings are recommended for airflows above 1600 CFM if filter(s) is(are) adjacent to furnace.
2. Temperature rises in the table are approximate. Actual temperature rises may vary.
3. Temperature rises shaded in gray are for reference only. These conditions are not recommended.

() Can be C or N
 * Factory Set Cooling Speed
 ** Factory Set Heating Speed

BLOWER PERFORMANCE - FG7SK

Model Number	Heating Input (Btuh)	Motor Speed	External Static Pressure (Inches Water Column)																	
			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	Rise	CFM	Rise	CFM	Rise	CFM	Rise		
SK054()-23A	54,000	High*	1375	29	1340	30	1300	31	1270	31	1225	33	1175	34	1115	36	1035	39	1035	39
		Med-High	1155	35	1130	35	1110	36	1085	37	1055	38	1015	39	975	41	910	44	910	44
		Med-Low**	790	51	775	52	765	52	750	53	730	55	700	57	665	60	610	66	610	66
		Low	650	62	640	63	630	63	610	66	590	68	565	71	530	75	480	83	480	83
SK072()-24B	72,000	High*	1610	33	1590	34	1575	34	1560	34	1540	35	1495	36	1460	37	1415	38	1415	38
		Med-High	1295	41	1275	42	1260	42	1250	43	1220	44	1195	45	1170	46	1120	48	1120	48
		Med-Low**	1155	46	1135	47	1115	48	1095	49	1065	50	1040	51	1015	53	980	54	980	54
		Low	910	59	885	60	860	62	835	64	810	66	785	68	765	70	735	73	735	73
SK090()-24B	90,000	High*	1675	40	1655	40	1640	41	1620	41	1590	42	1560	43	1520	44	1475	45	1475	45
		Med-High	1330	50	1315	51	1300	51	1280	52	1255	53	1230	54	1200	56	1150	58	1150	58
		Med-Low**	1180	56	1165	57	1150	58	1135	59	1115	60	1090	61	1060	63	1010	66	1010	66
		Low	940	71	925	72	900	74	880	76	850	78	825	81	795	84	760	88	760	88
SK108()-35C	108,000	High*	2395	33	2335	34	2285	35	2230	36	2200	36	2140	37	2080	38	2000	40	2000	40
		Med-High	2190	37	2135	37	2115	38	2080	38	2030	39	1975	41	1915	42	1810	44	1810	44
		Med-Low**	1785	45	1770	45	1740	46	1725	46	1685	47	1645	49	1615	50	1565	51	1565	51
		Low	1145	70	1110	72	1070	75	1035	77	1000	80	950	84	905	88	835	96	835	96
SK126()-45D	126,000	High*	2445	38	2395	39	2385	39	2330	40	2275	41	2225	42	2130	44	2015	46	2015	46
		Med-High	2195	43	2170	43	2140	44	2120	44	2090	45	2030	46	1975	47	1855	50	1855	50
		Med-Low**	1795	52	1780	52	1770	53	1760	53	1725	54	1690	55	1655	56	1610	58	1610	58
		Low	1480	63	1475	63	1450	64	1440	65	1440	65	1415	66	1405	66	1375	68	1375	68

() Can be C or N

* Factory Set Cooling Speed

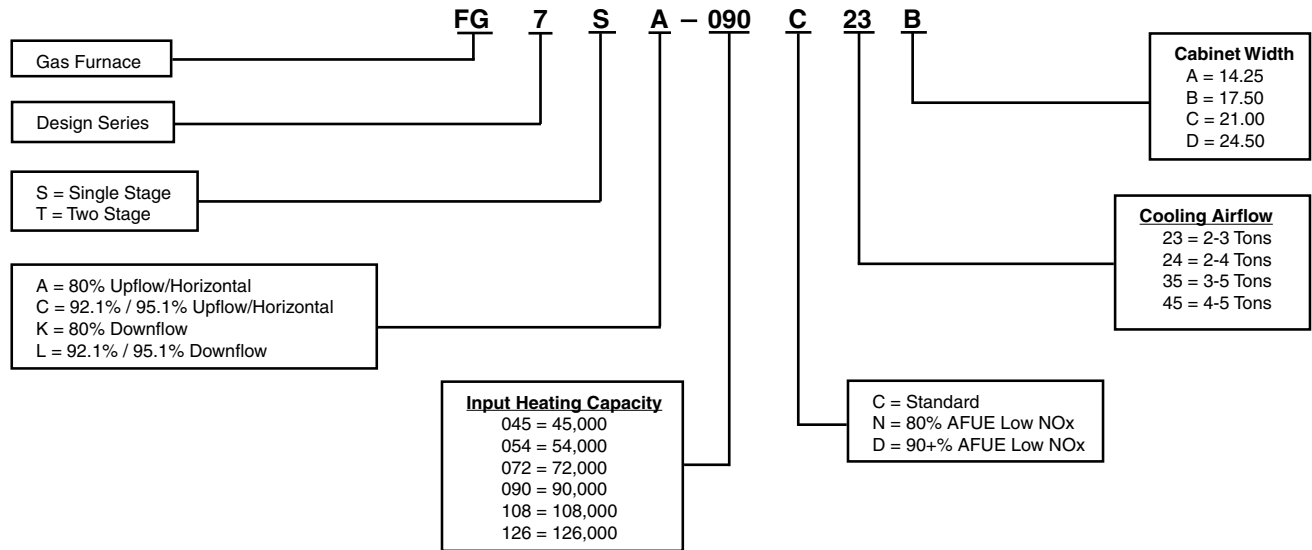
** Factory Set Heating Speed

NOTES:

1. Temperature rises in the table are approximate. Actual temperature rises may vary.

2. Temperature rises shaded in gray are for reference only. These conditions are not recommended.

MODEL IDENTIFICATION CODE



SPECIFICATIONS

FG7SA MODEL NUMBERS	-045-23A	-054-23A	-072-24B	-090-24B	-072-35C	-090-35C	-108-35C	-126-45D
Input - Btuh (a)	45,000	54,000	72,000	90,000	72,000	90,000	108,000	126,000
Heating Capacity - Btuh	36,000	43,200	57,600	72,000	57,600	72,000	86,400	100,800
AFUE	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
Blower D x W	10 x 6	10 x 6	11 x 8	11 x 8	10 x 10	10 x 10	11 x 10	11 x 10
Motor H.P. - Speed - Type	1/3 - 4 - PSC	1/3 - 4 - PSC	1/2 - 4 - PSC	1/2 - 4 - PSC	1/2 - 4 - PSC	1/2 - 4 - PSC	1.0 - 4 - PSC	1.0 - 4 - PSC
Motor FLA	4.80	4.80	8.20	8.20	7.50	7.50	13.75	13.75
Rated Ext. SP - In. W.C.	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Temperature Rise Range - °F	30-60	30-60	35-65	35-65	35-65	35-65	40-70	40-70
Shipping Weights	100lbs	100lbs	110lbs	115lbs	115lbs	120lbs	125lbs	145lbs
SKU	905004F	905005F	904989F	905006F	905007F	905008F	905009F	905010F

FG7SK MODEL NUMBERS	-054-23A	-072-24B	-090-24B	-108-35C	-126-45D
Input - Btuh (a)	54,000	72,000	90,000	108,000	126,000
Heating Capacity - Btuh	43,200	57,600	72,000	86,400	100,800
AFUE	80.0	80.0	80.0	80.0	80.0
Blower D x W	10 x 6	11 x 8	11 x 8	11 x 10	11 x 10
Motor H.P. - Speed - Type	1/3 - 4 - PSC	1/2 - 4 - PSC	1/2 - 4 - PSC	3/4 - 4 - PSC	1.0 - 4 - PSC
Motor FLA	4.80	8.20	8.20	13.75	13.75
Rated Ext. SP - In. W.C.	0.5	0.5	0.5	0.5	0.5
Temperature Rise Range - °F	30-60	35-65	35-65	40-70	40-70
Shipping Weights	100lbs	110lbs	115lbs	125lbs	145lbs
SKU	905011F	905012F	905013F	905014F	905015F

ACCESSORIES

FG7S (A, K) KITS	
Description	SKU
"A" Cabinet fixed speed, high efficiency, FSHE	904872
"B" Cabinet fixed speed, high efficiency, FSHE	904873
"C" Cabinet fixed speed, high efficiency, FSHE	904874
"D" Cabinet fixed speed, high efficiency, FSHE	904875
"A" Cabinet variable speed, high efficiency, VSHE	904876
"B" Cabinet variable speed, high efficiency, VSHE	904877
"C" Cabinet variable speed, high efficiency, VSHE	904878
"D" Cabinet variable speed, high efficiency, VSHE	904879
"A" Cabinet downflow sub base kit	902974
"B", "C", "D" Cabinet downflow sub base kit	904911
U.S. LP Conversion kit (0 to 10,000 ft.)	904914
Canada LP Conversion kit (0 to 4,500 ft.)	904915
Bottom return filter 20 per box, "A" cabinet	903088
Bottom return filter 20 per box, "B" cabinet	904916
Bottom return filter 20 per box, "C" cabinet	904917
Bottom return filter 20 per box, "D" cabinet	904918
Side return filter kit	541036
Furnace Twinning Kit	1010035



GENERAL TERMS OF LIMITED WARRANTY

Nortek Global HVAC, LLC will furnish a replacement for any part of this product which fails in normal use and service within the terms and conditions of the warranty.

For complete details of the Limited Warranty, including applicable terms and conditions, see your local installer or contact the Nortek Global HVAC, LLC warranty department for a copy.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer. Specifications and illustrations subject to change without notice and without incurring obligations. Printed in U.S.A (09/2018)