

TECHNICAL SPECIFICATIONS

FG7S (C and L Series)

**High Efficiency/Direct Vent
or Non Direct Vent Single Stage
Condensing Upflow/Horizontal and
Downflow Gas Furnaces
Induced Draft - 92.1 AFUE
Input 38,000 - 120,000 Btuh**

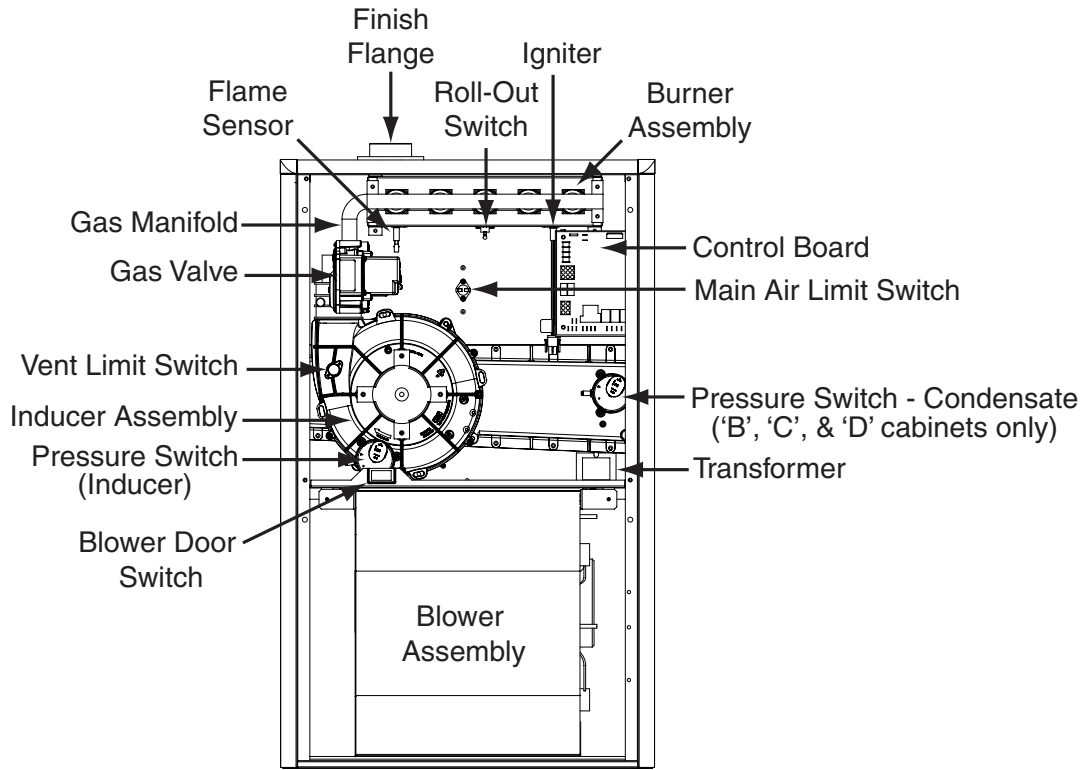
The high efficiency upflow gas furnace may be installed free standing in a utility room, basement, or enclosed in an alcove or closet. Upflow/horizontal units come ready for upflow or horizontal application. The extended flush jacket provides a pleasing "appliance appearance." Design certified by CSA for application in Canada and the United States.



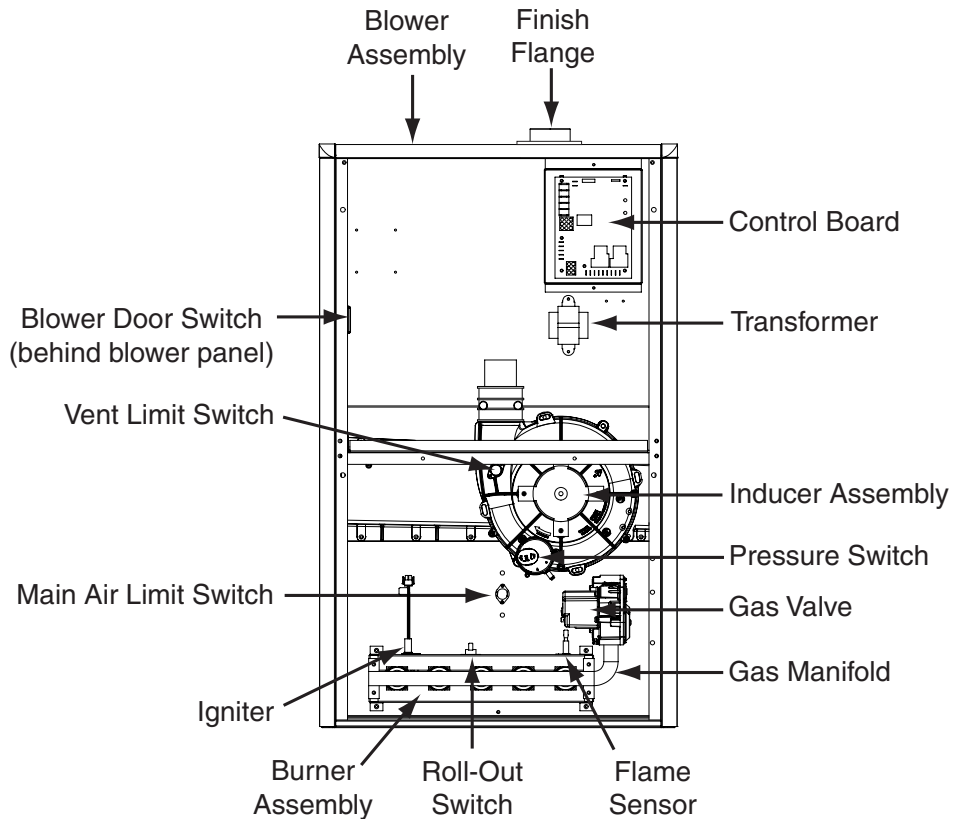
FEATURES and BENEFITS

- **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.
- **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.
- **Flexible category IV venting system:** May be vertically or horizontally vented using either a one-pipe or two-pipe system for maximum flexibility in installation.
- **High Static Blowers:** All models equipped with high static blowers.
- **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 and stainless steel secondary heat exchanger assures a long life.
- **90 second fixed cooling cycle blower-off delay (TDR)** increases cooling performance when matched with a NORDYNE coil.
- **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.
- **Incorporates integrated control board** with connections for electronic air cleaner, humidifier, and twinning.
- **Two piece door design** enhances furnace appearance and uses captured screws to prevent losing door screws.
- **Blower Compartment:** Sealed door to reduce air leakage and insulated for ultra quiet operation.
- **Sealed Vestibule** reduces burner and inducer sound levels.

GAS FURNACE COMPONENTS



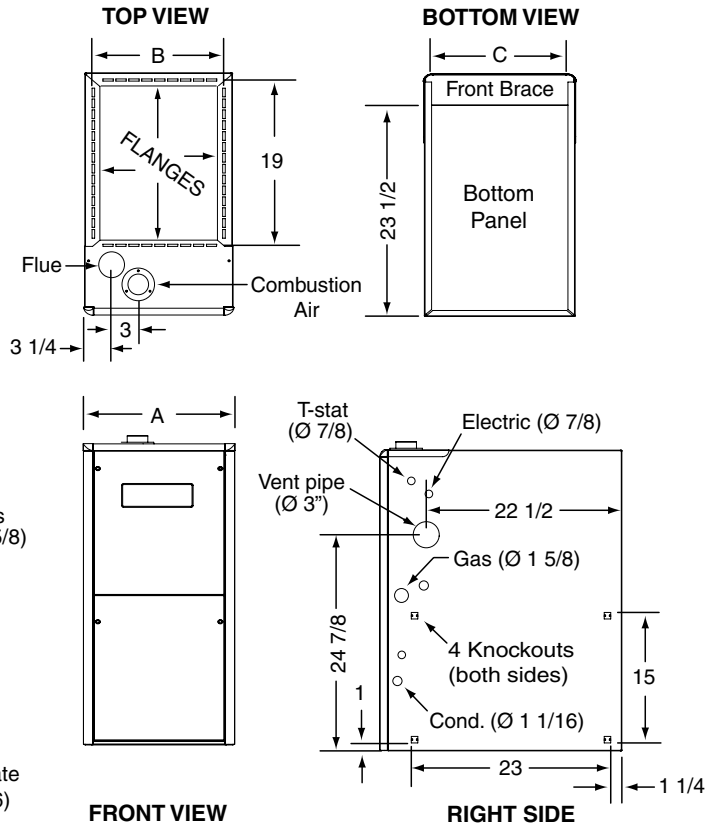
Upflow/Horizontal Gas Furnace



Downflow Gas Furnace

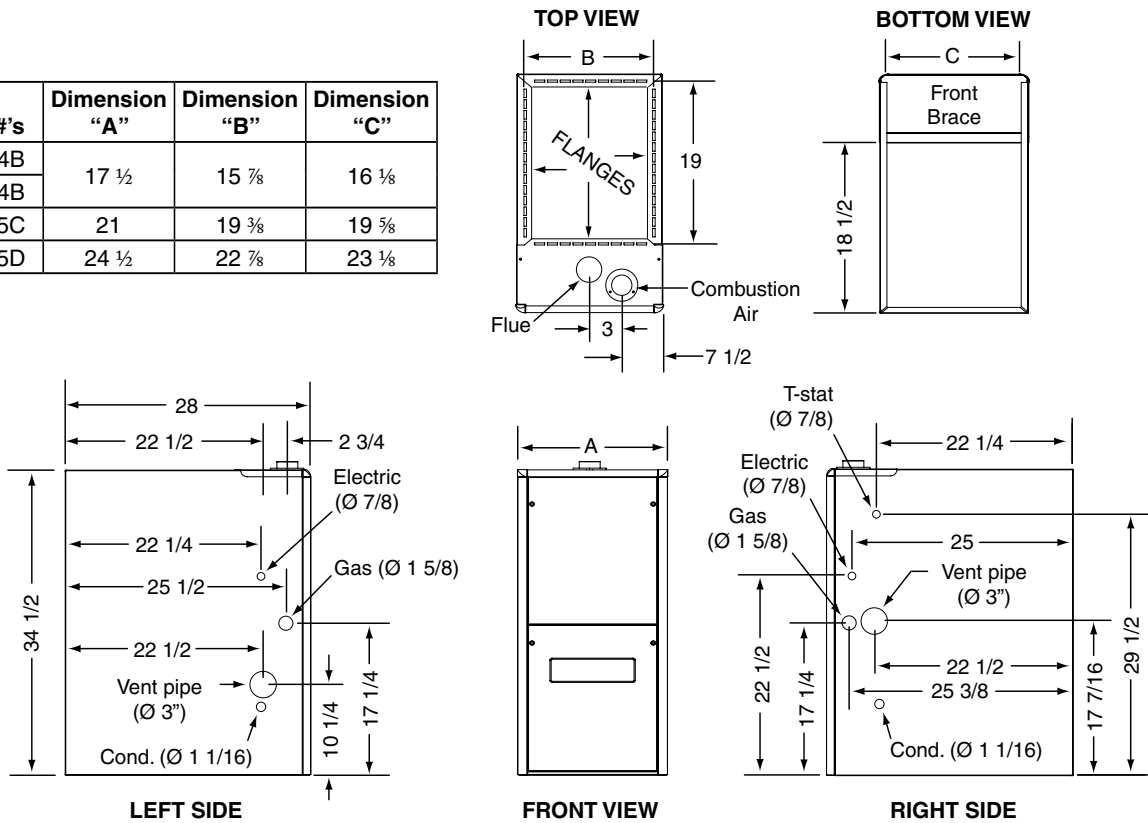
DIMENSIONS

*SC Model #'s	Dimension "A"	Dimension "B"	Dimension "C"
038D-23A	14 1/4	12 5/8	12 5/8
054D-24B	17 1/2	15 7/8	16 1/8
072D-24B		15 7/8	16 1/8
072D-35C	21	19 3/8	19 5/8
090D-35C		19 3/8	19 5/8
108D-45D	24 1/2	22 7/8	23 1/8
120D-45D		22 7/8	23 1/8



FG7SC 90+ High Efficiency Upflow/Horizontal Series

SL Model #'s	Dimension "A"	Dimension "B"	Dimension "C"
054D-24B	17 1/2	15 7/8	16 1/8
072D-24B		15 7/8	16 1/8
090D-35C	21	19 3/8	19 5/8
120D-45D		19 3/8	19 5/8



FG7SL 90+ High Efficiency Downflow Series

BLOWER PERFORMANCE - FG7SC 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		0.7		0.8	
			CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise
SL054D-24B	54,000	HIGH*	1580	29	1550	30	1520	30	1485	31	1460	32	1425	32	1375	33	1320	35
		MED-HIGH	1240	37	1230	37	1210	38	1185	39	1165	39	1135	41	1100	42	1045	44
		MED-LOW**	1145	40	1120	41	1100	42	1080	43	1055	44	1030	45	985	47	940	49
		LOW	895	51	870	53	850	54	825	56	800	58	770	60	740	62	715	64
SL072D-24B	72,000	HIGH*	1560	39	1530	40	1500	41	1480	41	1435	43	1400	44	1360	45	1310	47
		MED-HIGH**	1245	49	1225	50	1205	51	1180	52	1150	53	1125	55	1090	56	1045	59
		MED-LOW	1085	57	1070	57	1045	59	1025	60	1000	61	970	63	930	66	880	70
		LOW	850	72	830	74	800	77	780	79	760	81	730	84	710	86	685	90
SL090D-35C	90,000	HIGH*	1955	39	1905	40	1835	42	1795	43	1730	44	1620	47	1545	50	1450	53
		MED-HIGH**	1845	42	1790	43	1750	44	1680	46	1515	51	1540	50	1475	52	1410	54
		MED-LOW	1320	58	1290	59	1250	61	1215	63	1180	65	1120	68	1050	73	970	79
		LOW	1190	64	1165	66	1125	68	1080	71	1055	73	1000	77	945	81	875	88
SL120D-45D	120,000	HIGH*	2215	46	2150	48	2075	49	2035	50	1970	52	1905	54	1800	57	1745	59
		MED-HIGH**	2050	50	2015	51	1955	52	1900	54	1860	55	1795	57	1720	59	1620	63
		MED-LOW	1720	59	1690	60	1655	62	1640	62	1610	63	1560	66	1505	68	1465	70
		LOW	1420	72	1410	72	1400	73	1365	75	1350	76	1335	77	1290	79	1260	81

* Factory Set Cooling Speed

** Factory Set Heating Speed

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

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

VENTING

All models are approved for vertical non direct (1 pipe) and direct (2 pipe) venting applications. See Vent Table below for specified sizes and allowable lengths.

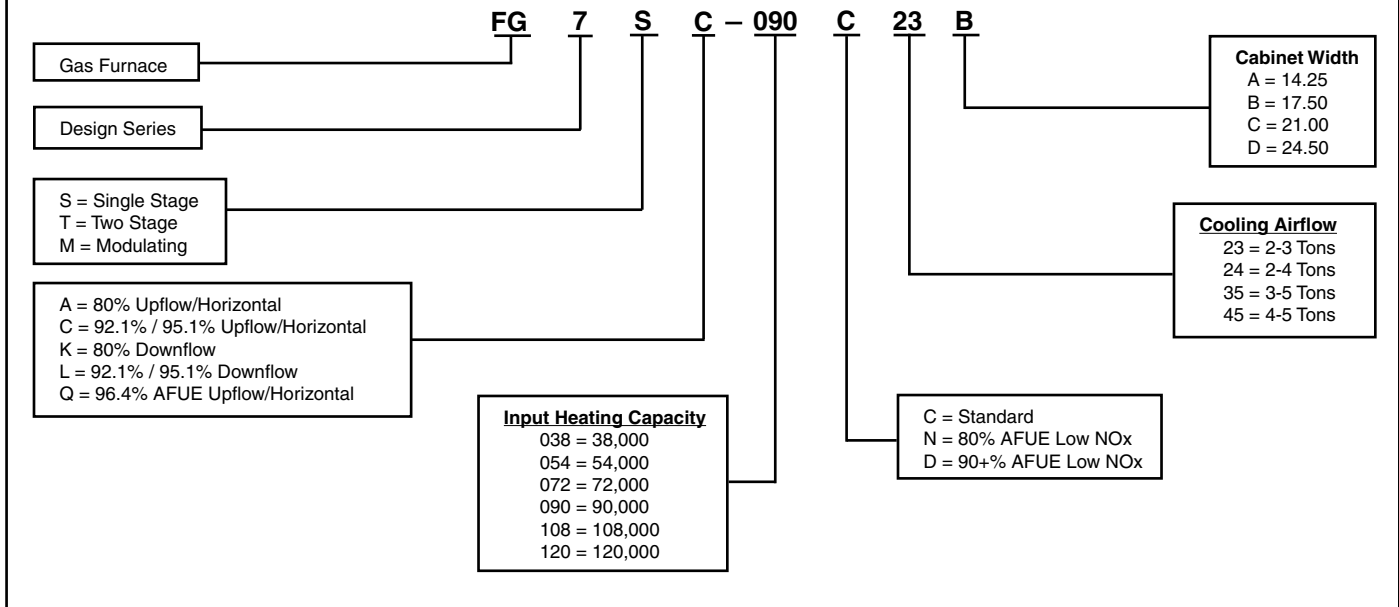
VENT TABLE

MODELS	SINGLE PIPE LENGTH (FT.) with 1 long radius elbow*		DIRECT VENT, DUEL PIPE LENGTH (ft.) WITH 1 long radius elbow on each pipe*	
	OUTLET	OUTLET	INLET/OUTLET	INLET/OUTLET
	2"	3"	2"	3"
SC038	50	70	50	70
SC054	70	90	70	90
SC072	50	90	50	90
SC090	60	90	60	90
SC108	N/A	90	N/A	90
SC120	N/A	90	N/A	90
SL054	90	90	90	90
SL072	90	90	90	90
SL090	70	90	70	90
SL120	N/A	90	N/A	90

* NOTE:

1. Subtract 2.5 ft. for each additional 2" elbow and 3.5 ft. for each additional 3" elbow.
2. Two 45 degree elbows are equivalent to one 90 degree elbow.
3. One short radius elbow is equivalent to two long radius elbows.
4. Do not include termination elbows in calculation of vent length.
5. This table is applicable for elevations from sea level to 2000 ft. For higher elevations decrease vent pipe lengths by 8% per 1000 ft. of altitude.
6. Only the listed pipe materials are approved for use with FG7 Condensing Furnaces.

MODEL IDENTIFICATION CODE



SPECIFICATIONS

FG7SC MODEL NUMBERS:	-038D-23A	-054D-24B	-072D-24B	-072D-35C	-090D-35C	-108D-45D	-120D-45D
Input - Btuh (a)	38,000	54,000	72,000	72,000	90,000	108,000	120,000
Heating Capacity - Btuh	35,000	49,700	66,000	66,000	82,800	99,000	110,400
AFUE	92.1	92.1	92.1	92.1	92.1	92.1	92.1
Blower D x W	10 x 6	11 x 8	11 x 8	10 x 10	11 x 10	11 x 10	11 x 10
Motor H.P. - Speed - Type	1/3 - 4 - PSC	1/2 - 4 - PSC	1/2 - 4 - PSC	1/2 - 4 - PSC	1.0 - 4 - PSC	1.0 - 4 - PSC	1.0 - 4 - PSC
Motor FLA	4.80	8.20	8.20	7.50	13.75	13.75	13.75
Rated Ext. SP - In. W.C.	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	40-70	40-70
Shipping Weights	100lbs	120lbs	125lbs	130lbs	135lbs	155lbs	155lbs

FG7SL MODEL NUMBERS:	-054D-24B	-072D-24B	-090D-35C	-120D-45D
Input - Btuh (a)	54,000	72,000	90,000	120,000
Heating Capacity - Btuh	49,700	66,000	82,800	110,400
AFUE	92.1	92.1	92.1	92.1
Blower D x W	11 x 8	11 x 8	10 x 10	11 x 10
Motor H.P. - Speed - Type	1/2 - 4 - PSC	1/2 - 4 - PSC	1.0 - 4 - PSC	1.0 - 4 - PSC
Motor FLA	8.20	8.20	7.50	13.75
Rated Ext. SP - In. W.C.	0.5	0.5	0.5	0.5
Temperature Rise Range - °F	30-60	35-65	35-65	40-70
Shipping Weights	120lbs	125lbs	135lbs	155lbs

Note: All models are 115V, 60 Hz. Gas Connections are 1/2" N.P.T. AFUE = Annual Fuel Utilization Efficiency
 (a) Ratings to 2,000 ft. Over 2,000 ft. reduce 4% for each 1,000 ft. above sea level.

ACCESSORIES

FG7S (C, L) 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
2" Concentric vent kit	904952
3" Concentric vent kit	904953
"A" Cabinet downflow sub base kit	902974
"B", "C", "D" Cabinet downflow sub base kit	904911
2" Side wall vent kit	904617
3" Side wall vent kit	904347
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
Neutralizer kit	902377



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 (01/2015)

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