TECHNICAL SPECIFICATIONS

FG7T (E and N Series)

iSEER®, **Smartlite®** ecoLogic®
iQDrive®

Two Stage, Variable Speed, Condensing Upflow and Downflow Gas Furnaces

Induced Draft - 96% AFUE
Input 60,000 - 115,000 Btuh

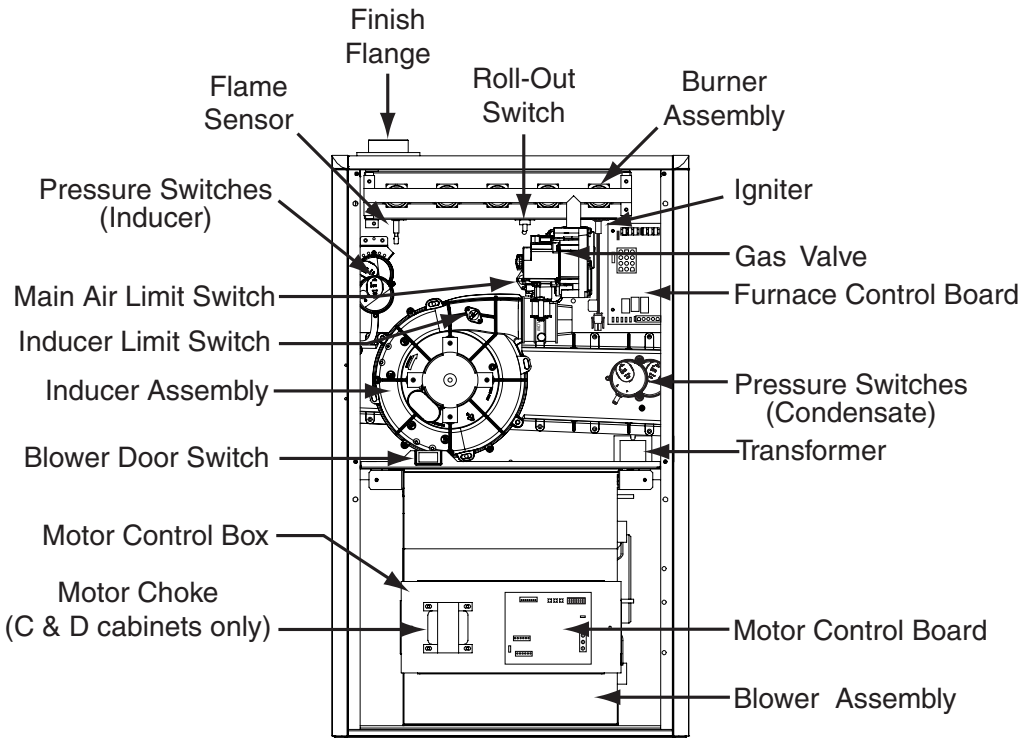
The high efficiency upflow gas furnace may be installed free standing in a utility room, basement, or enclosed in an alcove or closet. The extended flush jacket provides a pleasing "appliance appearance." Design certified by CSA for application in Canada and the United States.

FEATURES and BENEFITS

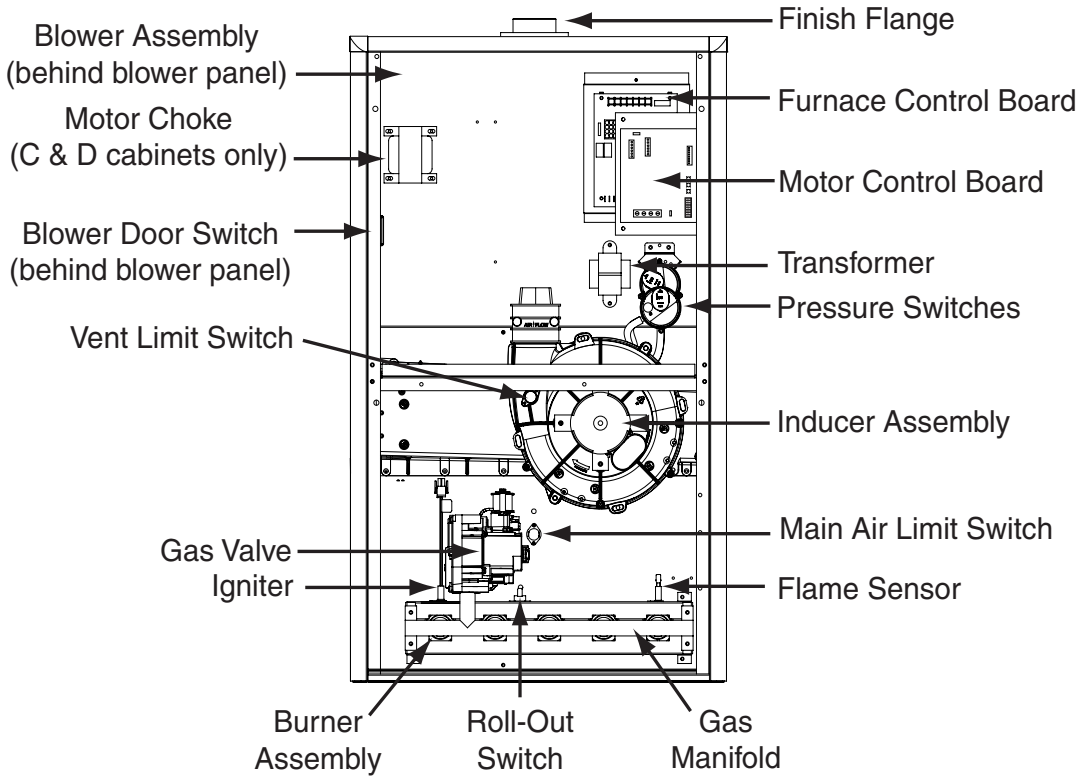
- **iSEER™:** Energy efficient brushless DC (ECM) variable-speed motor can give up to 1 SEER point efficiency gain in cooling with 16 speeds in heating and cooling.
- **SmartLite® Technology:** Auto-adjusts igniter on time to extend igniter life.
- **Hot Surface Igniter:** Innovative application of a silicon nitride type igniter.
- **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.
- **90 Second Fixed Cooling Cycle Blower-Off Delay (TDR):** Increases cooling performance when matched with a Nortek Global HVAC coil.
- **Color Coded Wire Harness:** Designed to fit the components, all with quick-connect fittings for ease of service and replacement.
- **Diagnostic Lights:** 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 Boards:** With connections for electronic air cleaner, humidifier, and dehumidification.
- **2 Stage Inducer:** Optimizes efficiency on first stage heat and reduces sound levels.
- **Heat Exchanger:** Heavy gauge aluminized steel primary heat exchanger and stainless steel secondary heat exchanger assures a long life.
- **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.
- **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.
- **Low Boy Height:** Easy to apply in low ceiling applications, works well with taller high SEER coils, easier to handle and install.
- **LP Convertible:** Simple burner orifice and regulator spring change for ease of convertibility (as an accessory).
- **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.
- **Furnace Air Leakage:** These furnaces comply with Energy Star cabinet air leakage requirement of less than or equal to 2%. Keep the conditioned air flowing to where it's needed.

LOCATION OF FURNACE COMPONENTS

UPFLOW FURNACE (*TE SERIES)



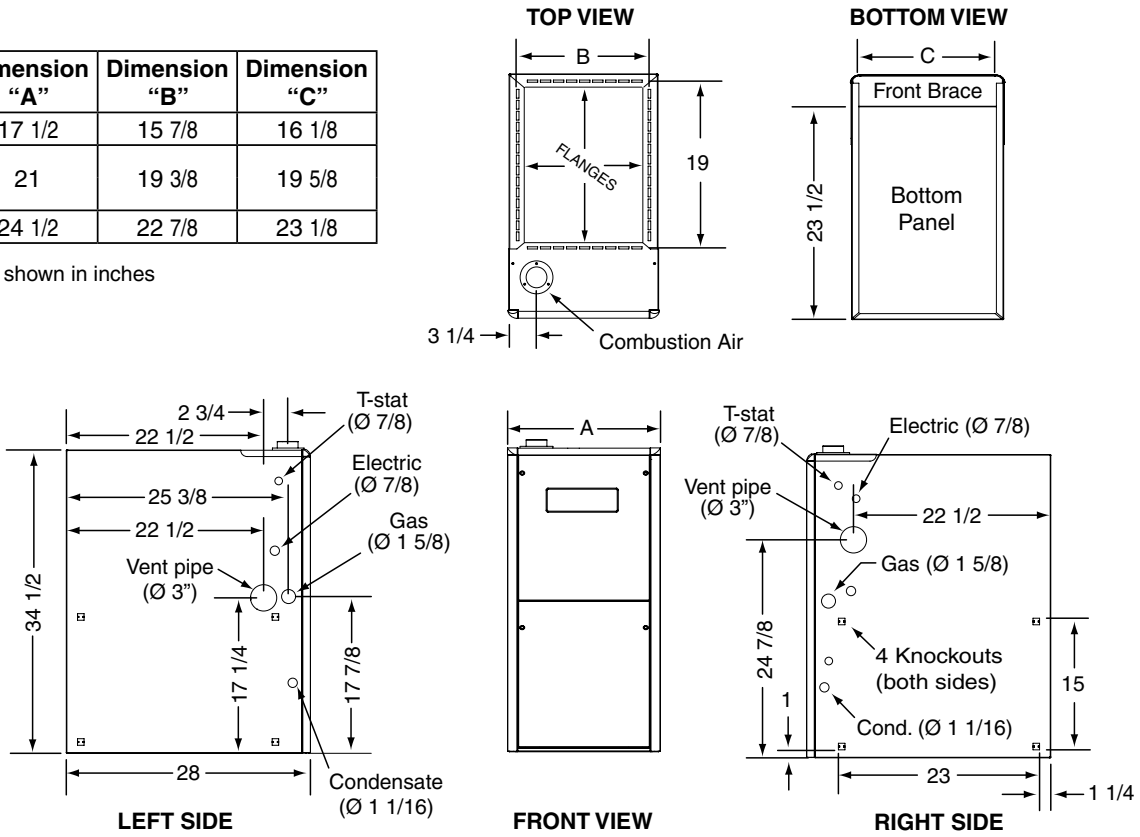
DOWNFLOW FURNACE (*TN SERIES)



DIMENSIONS

*TE Model #'s	Dimension "A"	Dimension "B"	Dimension "C"
060D-VB1	17 1/2	15 7/8	16 1/8
080D-VC1	21	19 3/8	19 5/8
100D-VC1			
115D-VD1	24 1/2	22 7/8	23 1/8

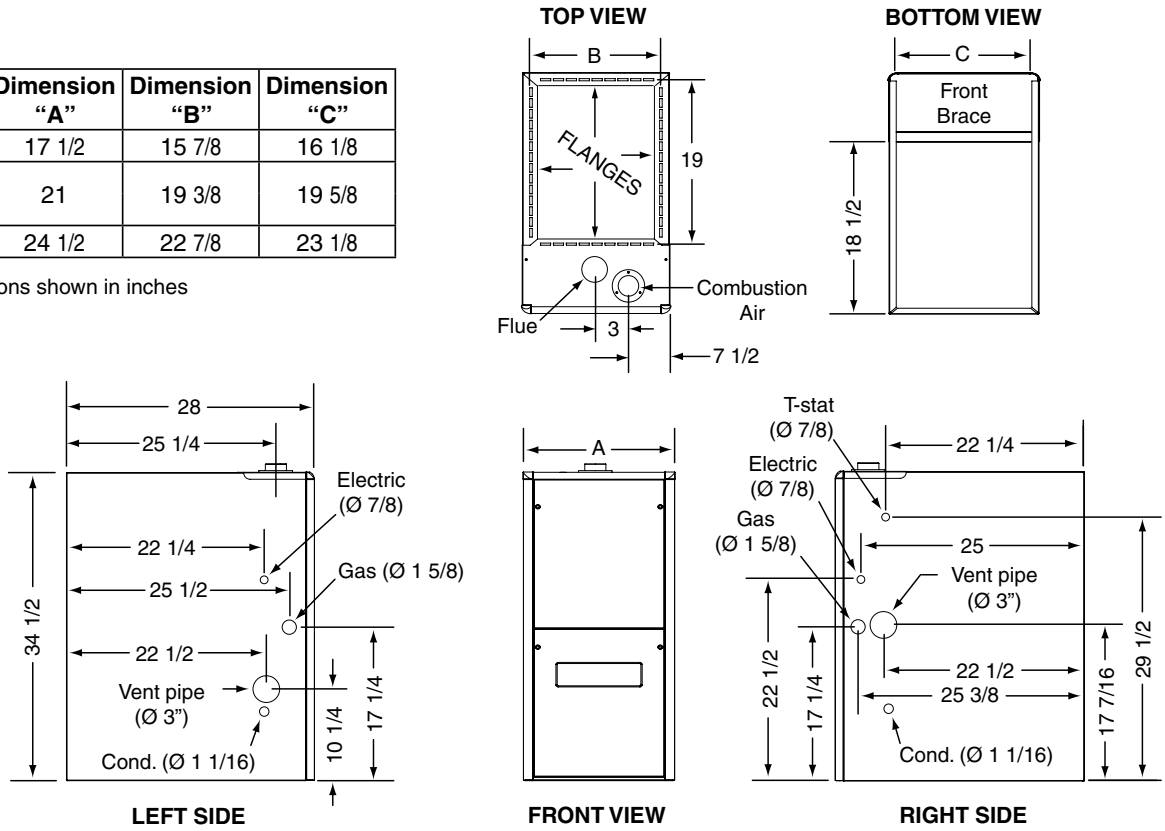
NOTE: Dimensions shown in inches



FG7TE 96% High Efficiency Upflow Series

*TN Model #'s	Dimension "A"	Dimension "B"	Dimension "C"
060D-VB1	17 1/2	15 7/8	16 1/8
080D-VC1	21	19 3/8	19 5/8
100D-VC1			
115D-VD1	24 1/2	22 7/8	23 1/8

NOTE: Dimensions shown in inches



FG7TN 96% High Efficiency Downflow Series

BLOWER PERFORMANCE - FG7TE/TN

NOMINAL HEATING AIRFLOWS (CFM) AND TEMPERATURE RISE (°F)								
	SWITCH SETTINGS FOR HEAT (0 = OFF, 1 = ON)				*TE/*TN - 060D - VB1 INPUT (BTU) 60,000			
	1	2	3	4	CFM		TEMP RISE (° F)	
"B" CABINET RISE 30° F TO 60° F	1	0	0	0	1,000		53	
	1	0	0	1	1,100		48	
	1	0	1	0	1,200		44	
	1	0	1	1	1,300		41	
	1	1	0	0	1,400		38	
	1	1	0	1	1,500		35	
	1	1	1	0	1,600		—	
	1	1	1	1	1,700		—	

	SWITCH SETTINGS FOR HEAT (0 = OFF, 1 = ON)				*TE/*TN - 080D - VC1 INPUT (BTU) 80,000		*TE/*TN - 100D - VC1 INPUT (BTU) 100,000	
	1	2	3	4	CFM	TEMP RISE (° F)	CFM	TEMP RISE (° F)
"C" CABINET RISE 35° F TO 65° F	#	0	0	0	1,000	—	1,000	—
	#	0	0	1	1,115	63	1,115	—
	#	0	1	0	1,230	57	1,230	—
	#	0	1	1	1,345	52	1,345	65
	#	1	0	0	1,460	48	1,460	60
	#	1	0	1	1,575	45	1,575	56
	#	1	1	0	1,690	42	1,690	52
	#	1	1	1	1,805	39	1,805	49

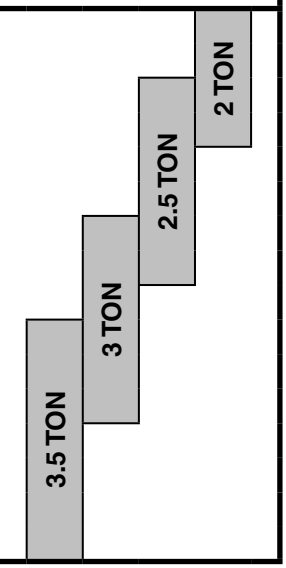
	SWITCH SETTINGS FOR HEAT (0 = OFF, 1 = ON)				*TE/*TN - 115D - VD1 INPUT (BTU) 115,000	
	1	2	3	4	CFM	TEMP RISE (° F)
"D" CABINET RISE 40° F TO 70° F	#	0	0	0	1,500	68
	#	0	0	1	1,615	63
	#	0	1	0	1,730	59
	#	0	1	1	1,845	55
	#	1	0	0	1,960	52
	#	1	0	1	2,075	49
	#	1	1	0	2,190	46
	#	1	1	1	2,305	44

1. Two openings are recommended for airflows above 1,600 CFM if the filter(s) is (are) adjacent to the furnace.
2. Temperature rises in the table are approximate. Actual temperature rises may vary.
3. Temperature rises shaded in grey are for reference only. These conditions are not recommended.
4. Rated static is .5" ESP in W.C.

COOLING AIRFLOW

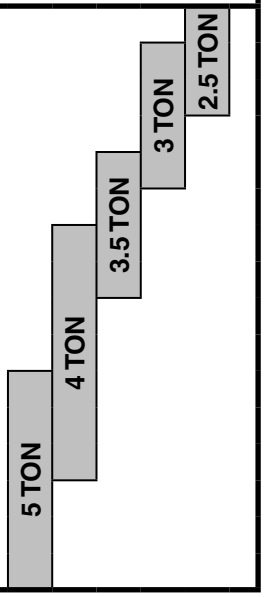
"B" CABINET

SWITCH SETTINGS (0 = OFF, 1 = ON)					CFM		NOMINAL A/C & HP CAPACITY
HEAT	COOL						
1-4	5	6	7	8	LOW	HIGH	
1	0	0	0	0	470	700	
1	0	0	0	1	510	760	
1	0	0	1	0	550	820	
1	0	0	1	1	590	880	
1	0	1	0	0	630	940	
1	0	1	0	1	670	1000	
1	0	1	1	0	710	1060	
1	0	1	1	1	750	1120	
1	1	0	0	0	790	1180	
1	1	0	0	1	830	1240	
1	1	0	1	0	870	1300	
1	1	0	1	1	910	1360	
1	1	1	0	0	950	1420	
1	1	1	0	1	990	1480	
1	1	1	1	0	1030	1540	
1	1	1	1	1	1070	1600	



"C" CABINET

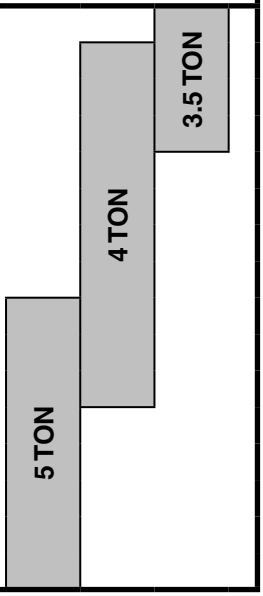
SWITCH SETTINGS (0 = OFF, 1 = ON)					CFM		NOMINAL A/C & HP CAPACITY
HEAT	COOL						
1-4	5	6	7	8	LOW	HIGH	
#	0	0	0	0	685	1025	
#	0	0	0	1	730	1090	
#	0	0	1	0	775	1155	
#	0	0	1	1	815	1220	
#	0	1	0	0	860	1285	
#	0	1	0	1	905	1350	
#	0	1	1	0	950	1415	
#	0	1	1	1	990	1480	
#	1	0	0	0	1035	1545	
#	1	0	0	1	1080	1610	
#	1	0	1	0	1120	1675	
#	1	0	1	1	1165	1740	
#	1	1	0	0	1210	1805	
#	1	1	0	1	1255	1870	
#	1	1	1	0	1295	1935	
#	1	1	1	1	1340	2000	



Switch not used - can be 0 or 1

"D" CABINET

SWITCH SETTINGS (0 = OFF, 1 = ON)					CFM		NOMINAL A/C & HP CAPACITY
HEAT	COOL						
1-4	5	6	7	8	LOW	HIGH	
#	0	0	0	0	940	1400	
#	0	0	0	1	965	1440	
#	0	0	1	0	990	1480	
#	0	0	1	1	1020	1520	
#	0	1	0	0	1045	1560	
#	0	1	0	1	1070	1600	
#	0	1	1	0	1100	1640	
#	0	1	1	1	1125	1680	
#	1	0	0	0	1150	1720	
#	1	0	0	1	1180	1760	
#	1	0	1	0	1205	1800	
#	1	0	1	1	1235	1840	
#	1	1	0	0	1260	1880	
#	1	1	0	1	1285	1920	
#	1	1	1	0	1315	1960	
#	1	1	1	1	1340	2000	



Switch not used - can be 0 or 1

VENTING

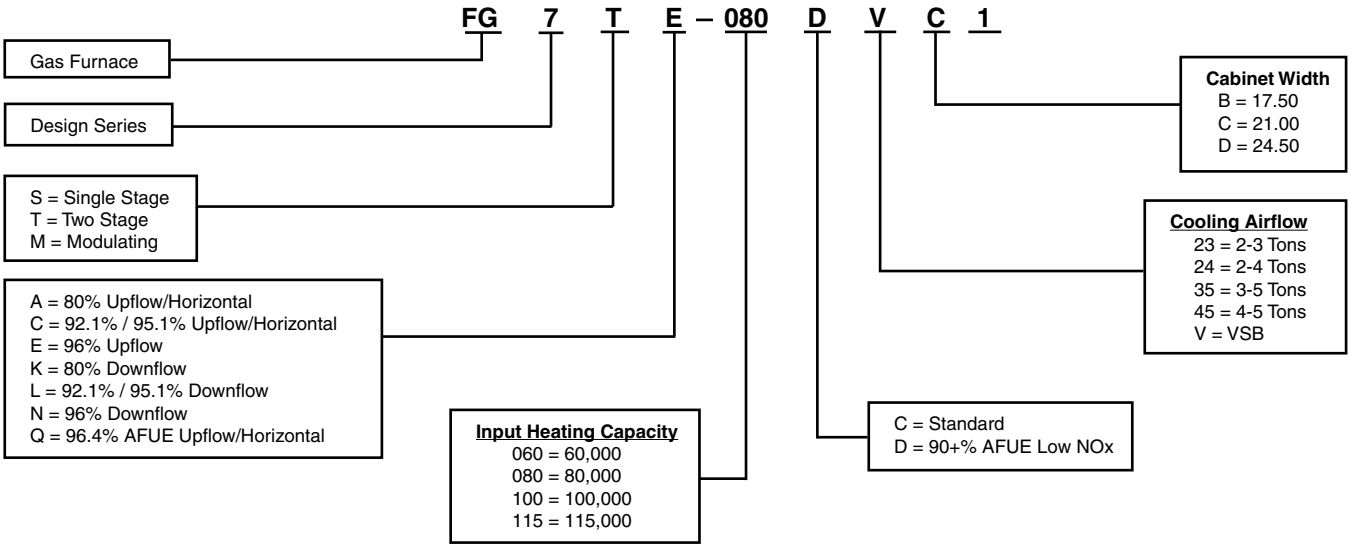
All models are approved for vertical non direct (1 pipe) and direct (2 pipe) venting applications. See Vent Table below for specified sizes and allowable lengths.

FURNACE MODELS (BTU)	FURNACE INSTALLATION	SINGLE PIPE LENGTH (FT.) with 1 long radius elbow**		DIRECT VENT, DUAL PIPE LENGTH (ft.) WITH 1 long radius elbow on each pipe**	
		OUTLET	OUTLET	INLET/OUTLET	INLET/OUTLET
		2" Diameter	3" Diameter	2" Diameter	3" Diameter
60,000	Upflow	90	90	60	90
	Downflow	30	90	30	90
80,000	Upflow	40	90	40	90
	Downflow	30	90	30	90
100,000	Upflow	30	90	30	90
	Downflow	30	90	25	90
115,000	Upflow	N/A	90	N/A	90
	Downflow	N/A	90	N/A	90

***NOTES:**

1. Subtract 2.5 ft. for each additional 2 inch long radius elbow, 5 ft. for each additional 2 inch short radius elbow, 3.5 ft. for each additional 3 inch long radius elbow, and 7 ft. for each additional 3 inch short radius elbow. Subtract 5ft for each 2" tee and 8ft for each 3" tee.
2. Two 45 degree elbows are equivalent to one 90 degree elbow.
3. This table applies for elevations from sea level to 2,000 ft. For higher elevations, decrease pipe lengths by 8% per 1,000 ft of altitude.

MODEL IDENTIFICATION CODE



SPECIFICATIONS

FG7TE/TN MODELS NUMBERS:	-060D-VB1	-080D-VC1	-100D-VC1	-115D-VD1
Input - Btuh (a)	60,000 / 39,000	80,000 / 52,000	100,000 / 65,000	115,000 / 74,750
Heating Capacity - Btuh	57,600 / 37,440	76,800 / 49,920	96,000 / 62,400	110,400 / 71,760
AFUE	96	96	96	96
Motor FLA	6.2	8.7	8.7	11.70
Rated Ext. SP - In. W.C.	0.5	0.5	0.5	0.5
Temperature Rise Range - ºF	30-60	35-65	35-65	40-70
Shipping Weights	125lbs	135lbs	145lbs	160lbs

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

FG7TE/TN KITS	
Description	**SKU**
2" Concentric Vent Kit	904177
3" Concentric Vent Kit	904176
2" Concentric Vent Kit (Canadian Approved)	904952
3" Concentric Vent Kit (Canadian Approved)	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.)	905028
Canada LP Conversion Kit (0 to 4,500 ft.)	905029
Bottom Return Filter 20 per Box, "B" Cabinet	904916
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 (02/2018)