

## TECHNICAL SPECIFICATIONS

# FG7MQ

iSEER, Smartlite®  ecoLogic®  
iQ Drive

### Fully Modulating, Variable Speed, Condensing Upflow/Horizontal Gas Furnaces

Induced Draft - 97.0 AFUE  
Input 60,000 - 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.

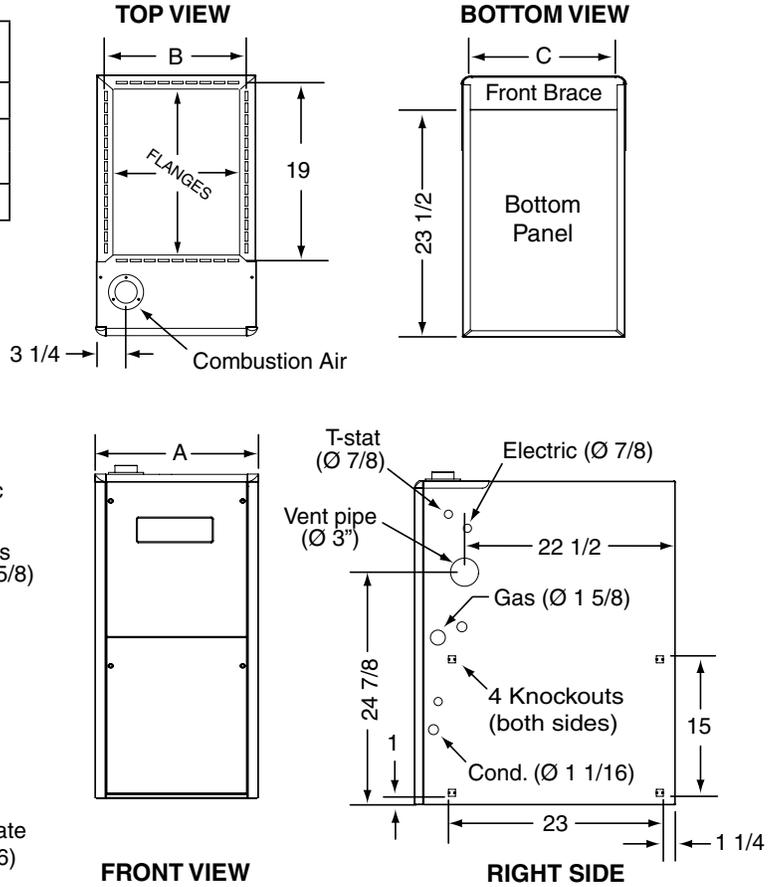


## FEATURES and BENEFITS

- **i SEER:** Energy efficient brushless DC (ECM) motor gives up to 1 SEER point efficiency gain in cooling.
- **Modulating heating operation Includes:**
  - Modulating gas valve from 100% to 50% input in 5% increments.
  - Time proportioning modulation down to 15%.
  - Variable speed inducer and blower.
- **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.
- **LP convertible:** Simple burner orifice change for ease of convertibility.
- **Diagnostic lights for easy troubleshooting without counting flashess:** 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 and humidifier.
- **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.
- **iQ Drive Thermostat:** Provides modulation down to 15% and is required for furnace operation.
- **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.

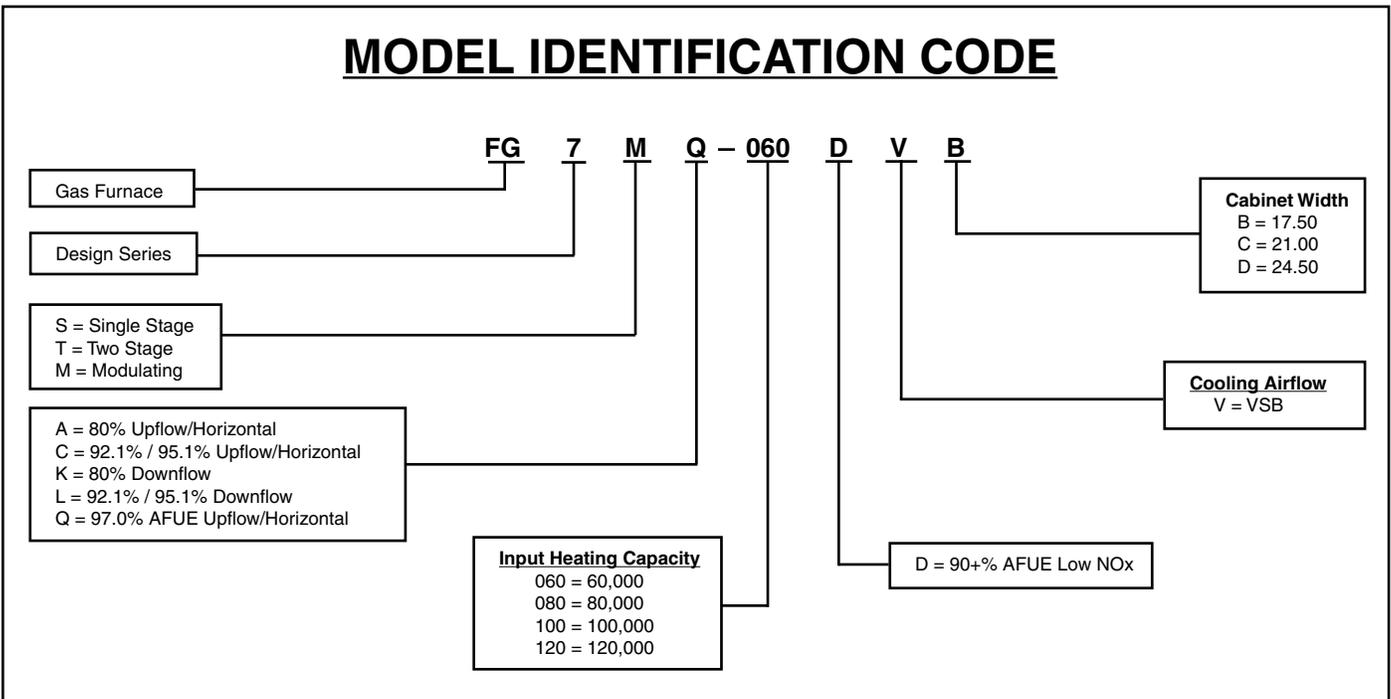
# DIMENSIONS

*MQ Model #'s	Dimension "A"	Dimension "B"	Dimension "C"
060D-VB	17 1/2	15 7/8	16 1/8
080D-VC	21	19 3/8	19 5/8
100D-VC			
120D-VD	24 1/2	22 7/8	23 1/8



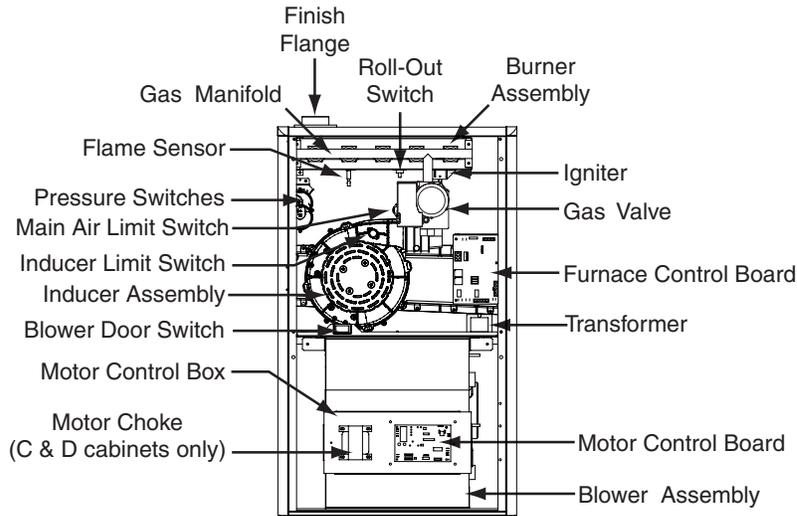
**FG7MQ 97+ Modulating Upflow/Horizontal Series**

## MODEL IDENTIFICATION CODE



# LOCATION OF FURNACE COMPONENTS

## UPFLOW / HORIZONTAL FURNACE (\*MQ SERIES)



## SPECIFICATIONS

FG7MQ MODEL NUMBERS:	-060D-VB	-080D-VC	-100D-VC	-120D-VD
Input - Btuh (a)	60,000 / 30,000	80,000 / 40,000	100,000 / 50,000	120,000 / 60,000
Heating Capacity - Btuh	58,200 / 29,100	77,600 / 38,800	97,000 / 48,500	116,400 / 58,200
AFUE	97.0	97.2	97.4	97.0
Blower D x W	11 x 8	11 x 10	11 x 10	11 x 10
Motor H.P. - Speed - Type	1/2 - Variable	3/4 - Variable	3/4 - Variable	1 - Variable
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 - °F	30-60	35-65	35-65	40-70
Shipping Weights	130lbs	140lbs	150lbs	165lbs

**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.

## iQ Controller Kit

Description	Sku
iQ Controller kit	920621*

\* Revision Letter

## AIRFLOW DATA

Gas Input Rate (Btuh)	Target CFM for Selected Circulating Air Temperature Rises, F								
	45		50		55		60		Constant
	Full Input	Minimum Input	Full Input	Minimum Input	Full Input	Minimum Input	Full Input	Minimum Input	
60,000	1,110	635	1,000	560	940	515	850	470	950
80,000	1,480	850	1,345	740	1,255	685	1,140	625	1,300
100,000	1,850	1,050	1,680	925	1,565	855	1,460	780	1,760
120,000	2,225	1,270	2,020	1,115	1,890	1,025	1,730	940	2,100

**NOTE:** This table lists the High and Low target CFMs for each maximum input rate and temperature rise. If the target CFM is more than 1,600 CFM, it is recommended that two return air openings into the furnace be used.

**NOTE:** The blower operating range is .1" to .8" ESP in wc.

# MAXIMUM PIPE LENGTH CHART

FURNACE MODELS (BTU)	FURNACE INSTALLATION	SINGLE VENT PIPE LENGTH (FT.) with 1 long radius elbow*		DUAL VENT PIPE LENGTH (ft.) with 1 long radius elbow on each pipe*	
		OUTLET 2" Diameter	OUTLET 3" Diameter	INLET/OUTLET 2" Diameter	INLET/OUTLET 3" Diameter
60,000	Upflow	50	80	50	80
	Horizontal	40	80	40	80
80,000	Upflow	60	90	60	90
	Horizontal	50	90	50	90
100,000	Upflow	50	90	50	90
	Horizontal	40	90	40	90
120,000	Upflow	N/A	90	N/A	90
	Horizontal	N/A	70	N/A	70

**\*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. Two 45° elbows are equivalent to one 90° elbow.
2. Subtract 5ft for each 2" tee and 8ft for each 3" tee.
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.
4. The minimum length for 2" or 3" diameter vent pipe is 5 ft.

## ACCESSORIES

FG7MQ KITS	
Description	SKU
2" Concentric vent kit	904177
3" Concentric vent kit	904176
2" Side wall vent kit	904617
3" Side wall vent kit	904347
U.S. LP Conversion kit (0 to 10,000 ft.) for US and Canada	904950
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
Outdoor sensor for conventional heat pump	920938



### 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 (08/2016)