

## FEATURES

- Durable aluminized steel tubular heat exchanger.  
Stainless-steel secondary heat exchanger
- Two-stage gas valve
- Hot surface ignition for dependable operation
- Quiet multi-speed ECM blower motor
- Control board with self-diagnostics and low-voltage terminal block
- Natural gas and propane (LP) convertible, LP kit included
- Designed for multi-position installation: Up flow and horizontal
- Industry-standard cabinet sizes for easy replacement, installation and add-on cooling
- Convenient left or right connection for gas and electric service
- Removable base for side or bottom return applications



## TWO-STAGE MULTI-POSITION GAS FURNACE

96% AFUE



### **California Only**

*This furnace does not meet the South Coast Air Quality Management District (SCAQMD) Rule 1111 and San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4905 NOx emission limit (14 ng/J) and cannot be installed within the SCAQMD or SJVAPCD and Bay Area.*

## MODEL NUMBER GUIDE

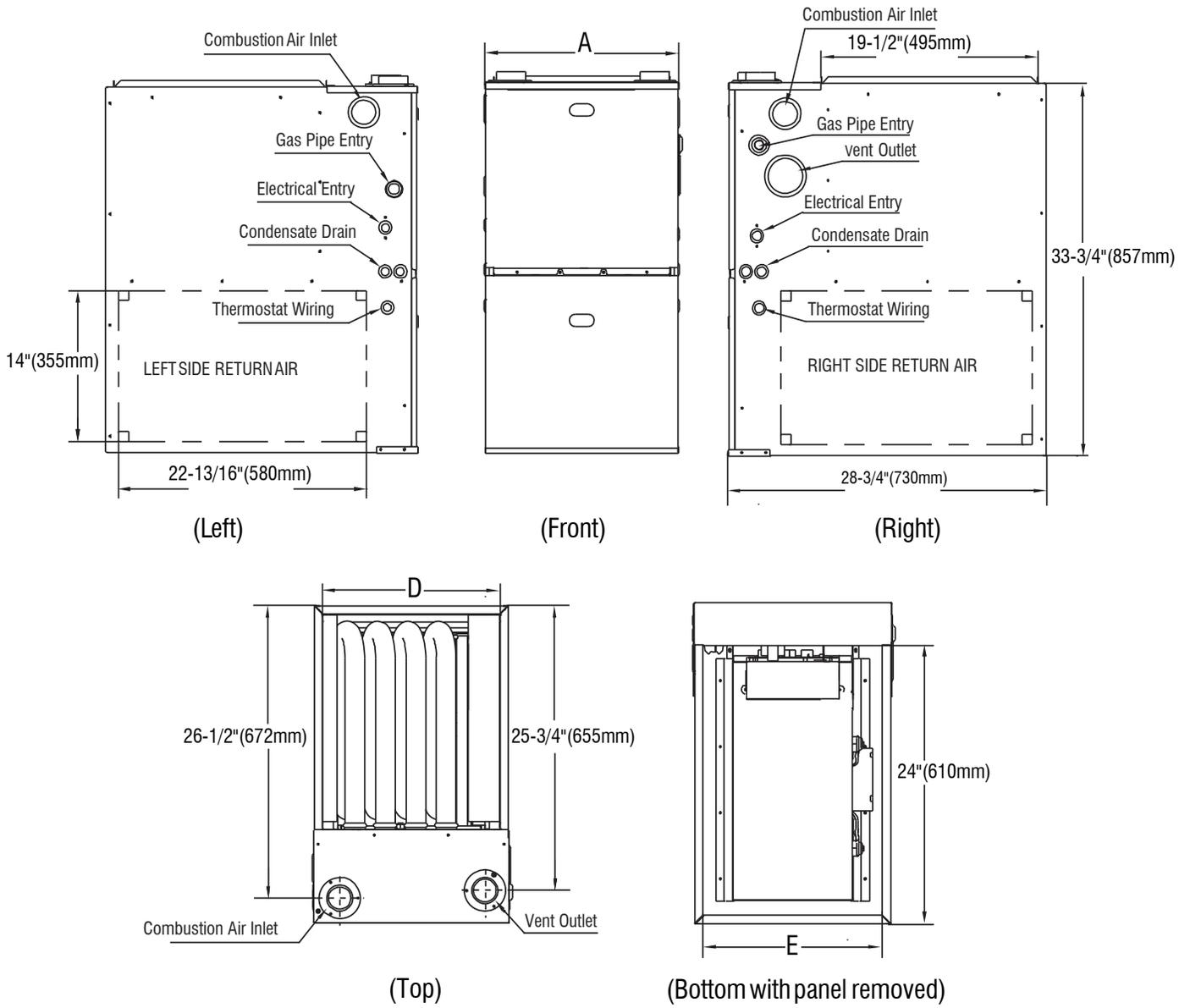
|          |          |                |              |                            |                     |  |              |           |                     |                |
|----------|----------|----------------|--------------|----------------------------|---------------------|--|--------------|-----------|---------------------|----------------|
| <b>G</b> | <b>F</b> | <b>M</b>       | <b>96</b>    | <b>T</b>                   | <b>060</b>          | <b>B</b>   | <b>3</b>     | <b>S</b>  | <b>1</b>            | <b>A</b>       |
| Gas      | Furnace  | Multi-Position | Efficiency % | Number of Stages:<br>T=Two | Heating BTUH x 1000 | Cabinet Width:<br>B=17.5 in.<br>C=21 in.<br>D=24.5 in. | Cooling Tons | SE Series | Power<br>1=115-1-60 | Revision Level |

## SPECIFICATIONS

|                                | GFM96T060B3S1A | GFM96T080B3S1A | GFM96T080C4S1A | GFM96T100C5S1A | GFM96T100D5S1A | GFM96T120D5S1A |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>GAS HEATING PERFORMANCE</b> |                |                |                |                |                |                |
| High Fire Input (BTU/h)        | 60,000         | 80,000         | 80,000         | 100,000        | 100,000        | 120,000        |
| High Fire Output (BTU/h)       | 57,000         | 76,000         | 76,000         | 95,000         | 95,000         | 115,000        |
| Low Fire Input (BTU/h)         | 39,000         | 52,000         | 52,000         | 65,000         | 65,000         | 78,000         |
| Low Fire Output (BTU/h)        | 37,000         | 49,000         | 49,000         | 62,000         | 62,000         | 75,000         |
| <b>ELECTRICAL DATA</b>         |                |                |                |                |                |                |
| Voltage / Phase(60Hz)          | 115/1          | 115/1          | 115/1          | 115/1          | 115/1          | 115/1          |
| Min. / Max. Voltage            | 104/127        | 104/127        | 104/127        | 104/127        | 104/127        | 104/127        |
| Min. Circuit Amps              | 8              | 8              | 7.8            | 11.5           | 10.5           | 10.5           |
| Max. Overcurrent Protection    | 15             | 15             | 15             | 20             | 20             | 20             |
| <b>FAN BLOWER</b>              |                |                |                |                |                |                |
| Motor Type                     | ECM            | ECM            | ECM            | ECM            | ECM            | ECM            |
| Horsepower                     | 3/4            | 3/4            | 3/4            | 1              | 1              | 1              |
| Rated RPM                      | 1050           | 1050           | 1050           | 1050           | 1050           | 1050           |
| Full Load Amps (FLA)           | 8              | 8              | 7.8            | 11.5           | 10.5           | 10.5           |



# DIMENSIONS



|                                   | 060B3S    | 080B3S   | 080C4S   | 0100C5S  | 100D5S   | 120D5S   |
|-----------------------------------|-----------|----------|----------|----------|----------|----------|
| <b>DIMENSIONS AND WEIGHTS</b>     |           |          |          |          |          |          |
| <b>A - Cabinet Width (in.)</b>    | 17.5      | 17.5     | 21       | 21       | 24.5     | 24.5     |
| <b>D - Supply Air Width (in.)</b> | 16        | 16       | 19.5     | 19.5     | 23       | 23       |
| <b>E - Return Air Width (in.)</b> | 15-27/32  | 15-27/32 | 19-13/32 | 19-13/32 | 22-27/32 | 22-27/32 |
| <b>Net/Shipping Weight (lbs.)</b> | 135/147.5 | 141/153  | 152/165  | 162/173  | 170/185  | 176/190  |



**AIRFLOW DATA CONT.**

| FURNACE SIZE | SPEED |                       | External Static Pressure (in. w.c.) |      |      |      |      |      |      |      |      |      |
|--------------|-------|-----------------------|-------------------------------------|------|------|------|------|------|------|------|------|------|
|              |       |                       | 0.1                                 | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
| 100C         | H     | CFM                   | 2195                                | 2158 | 2116 | 2072 | 2031 | 1985 | 1940 | 1896 | 1852 | 1862 |
|              |       | Temp Rise-1st stage°F | --                                  | --   | --   | --   | --   | --   | --   | --   | --   | --   |
|              |       | Temp Rise-2nd stage°F | 40.3                                | 41.0 | 41.8 | 42.7 | 43.6 | 44.6 | 45.6 | 46.7 | 47.8 | 47.5 |
|              | MH    | CFM                   | 2008                                | 1963 | 1924 | 1882 | 1836 | 1791 | 1744 | 1697 | 1648 | 1603 |
|              |       | Temp Rise-1st stage°F | --                                  | --   | --   | --   | --   | --   | --   | --   | --   | --   |
|              |       | Temp Rise-2nd stage°F | 44.1                                | 45.1 | 46.0 | 47.0 | 48.2 | 49.4 | 50.8 | 52.2 | 53.7 | 55.2 |
|              | M     | CFM                   | 1753                                | 1709 | 1666 | 1627 | 1573 | 1530 | 1487 | 1444 | 1395 | 1347 |
|              |       | Temp Rise-1st stage°F | --                                  | --   | --   | 35.4 | 36.6 | 37.6 | 38.7 | 39.9 | 41.3 | 42.7 |
|              |       | Temp Rise-2nd stage°F | 50.5                                | 51.8 | 53.1 | 54.4 | 56.3 | 57.9 | 59.5 | 61.3 | 63.5 | 65.8 |
|              | ML    | CFM                   | 1447                                | 1388 | 1338 | 1286 | 1241 | 1186 | 1137 | 1083 | 1029 | 983  |
|              |       | Temp Rise-1st stage°F | 39.8                                | 41.5 | 43.0 | 44.7 | 46.4 | 48.5 | 50.6 | 53.2 | 55.9 | 58.5 |
|              |       | Temp Rise-2nd stage°F | 61.2                                | 63.8 | --   | --   | --   | --   | --   | --   | --   | --   |
|              | L     | CFM                   | 1089                                | 1021 | 946  | 883  | 820  | 751  | 685  | 625  | 565  | 520  |
|              |       | Temp Rise-1st stage°F | 52.8                                | 56.4 | 60.8 | --   | --   | --   | --   | --   | --   | --   |
|              |       | Temp Rise-2nd stage°F | --                                  | --   | --   | --   | --   | --   | --   | --   | --   | --   |
| 100D         | H     | CFM                   | 2283                                | 2239 | 2193 | 2143 | 2095 | 2049 | 1998 | 1947 | 1897 | 1847 |
|              |       | Temp Rise-1st stage°F | --                                  | --   | --   | --   | --   | --   | --   | --   | --   | --   |
|              |       | Temp Rise-2nd stage°F | 38.8                                | 39.5 | 40.4 | 41.3 | 42.3 | 43.2 | 44.3 | 45.5 | 46.7 | 48.0 |
|              | MH    | CFM                   | 2086                                | 2038 | 1988 | 1942 | 1889 | 1841 | 1792 | 1745 | 1695 | 1637 |
|              |       | Temp Rise-1st stage°F | --                                  | --   | --   | --   | --   | --   | --   | --   | --   | --   |
|              |       | Temp Rise-2nd stage°F | 42.4                                | 43.5 | 44.5 | 45.6 | 46.9 | 48.1 | 49.4 | 50.7 | 52.3 | 54.1 |
|              | M     | CFM                   | 1813                                | 1760 | 1711 | 1657 | 1609 | 1560 | 1506 | 1453 | 1402 | 1350 |
|              |       | Temp Rise-1st stage°F | --                                  | --   | --   | --   | 35.8 | 36.9 | 38.2 | 39.6 | 41.0 | 42.6 |
|              |       | Temp Rise-2nd stage°F | 48.8                                | 50.3 | 51.8 | 53.4 | 55.0 | 56.8 | 58.8 | 60.9 | 63.1 | --   |
|              | ML    | CFM                   | 1487                                | 1417 | 1360 | 1296 | 1241 | 1183 | 1123 | 1064 | 1005 | 941  |
|              |       | Temp Rise-1st stage°F | 38.7                                | 40.6 | 42.3 | 44.4 | 46.4 | 48.7 | 51.3 | 54.1 | 57.2 | 61.1 |
|              |       | Temp Rise-2nd stage°F | 59.5                                | 62.5 | --   | --   | --   | --   | --   | --   | --   | --   |
|              | L     | CFM                   | 1122                                | 1036 | 977  | 889  | 802  | 731  | 646  | 586  | 532  | 485  |
|              |       | Temp Rise-1st stage°F | 55.6                                | 58.9 | 64.7 | --   | --   | --   | --   | --   | --   | --   |
|              |       | Temp Rise-2nd stage°F | --                                  | --   | --   | --   | --   | --   | --   | --   | --   | --   |
| 120D         | H     | CFM                   | 2290                                | 2253 | 2213 | 2170 | 2127 | 2080 | 2031 | 1985 | 1937 | 1888 |
|              |       | Temp Rise-1st stage°F | --                                  | --   | --   | --   | --   | --   | --   | --   | --   | --   |
|              |       | Temp Rise-2nd stage°F | 46.4                                | 47.2 | 48.0 | 49.0 | 50.0 | 51.1 | 52.3 | 53.5 | 54.9 | 56.3 |
|              | MH    | CFM                   | 2079                                | 2037 | 1993 | 1950 | 1907 | 1856 | 1813 | 1767 | 1726 | 1675 |
|              |       | Temp Rise-1st stage°F | --                                  | --   | --   | --   | --   | --   | --   | --   | 40.0 | 41.2 |
|              |       | Temp Rise-2nd stage°F | 51.1                                | 52.2 | 53.3 | 54.5 | 55.7 | 57.3 | 58.6 | 60.1 | 61.6 | 63.4 |
|              | M     | CFM                   | 1809                                | 1764 | 1719 | 1668 | 1620 | 1572 | 1528 | 1487 | 1432 | 1364 |
|              |       | Temp Rise-1st stage°F | --                                  | --   | 40.2 | 41.4 | 42.6 | 43.9 | 45.2 | 46.5 | 48.2 | 50.6 |
|              |       | Temp Rise-2nd stage°F | 58.7                                | 60.2 | 61.8 | 63.7 | 65.6 | 67.6 | 69.6 | --   | --   | --   |
|              | ML    | CFM                   | 1489                                | 1429 | 1373 | 1311 | 1265 | 1208 | 1137 | 1083 | 1032 | 972  |
|              |       | Temp Rise-1st stage°F | 46.4                                | 48.3 | 50.3 | 52.7 | 54.6 | 57.2 | 60.7 | 63.8 | 66.9 | --   |
|              |       | Temp Rise-2nd stage°F | --                                  | --   | --   | --   | --   | --   | --   | --   | --   | --   |
|              | L     | CFM                   | 1123                                | 1051 | 1352 | 899  | 814  | 741  | 688  | 605  | 551  | 507  |
|              |       | Temp Rise-1st stage°F | 61.5                                | 65.7 | --   | --   | --   | --   | --   | --   | --   | --   |
|              |       | Temp Rise-2nd stage°F | --                                  | --   | --   | --   | --   | --   | --   | --   | --   | --   |

A filter is required for each return-air inlet. Airflow performance included 3/4-in. (19 mm) washable filter media such as contained in factory-authorized accessory filter rack. To determine airflow performance with this filter, assume an additional 0.1 in.w.c available external static pressure.

## COMBUSTION SYSTEM SPECIFICATIONS

| Model  |                  |             | 060A3S                          | 060B4S                          | 080B4S                          | 080C4S                          | 100C5S                          | 120D5S  |
|--|------------------|-------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------|
| Max. Inlet Gas Press                           | Natural Gas      | in.w.c      | 10.5                            | 10.5                            | 10.5                            | 10.5                            | 10.5                            | 10.5    |
|  | Propane Gas (LP) | in.w.c      | 13                              | 13                              | 13                              | 13                              | 13                              | 13      |
| Min. Inlet Gas Press                           | Natural Gas      | in.w.c      | 4.5                             | 4.5                             | 4.5                             | 4.5                             | 4.5                             | 4.5     |
|  | Propane Gas (LP) | in.w.c      | 11                              | 11                              | 11                              | 11                              | 11                              | 11      |
| Natural Gas Manifold Pressure(High fire)       |                  | in.w.c      | 3.5                             | 3.5                             | 3.5                             | 3.5                             | 3.5                             | 3.5     |
| Natural Gas Manifold Pressure(Low fire)        |                  | in.w.c      | 1.6                             | 1.6                             | 1.6                             | 1.6                             | 1.6                             | 1.6     |
| Propane Gas Manifold Pressure(High fire)       |                  | in.w.c      | 10                              | 10                              | 10                              | 10                              | 10                              | 10      |
| Propane Gas Manifold Pressure(Low fire)        |                  | in.w.c      | 4                               | 4                               | 4                               | 4                               | 4                               | 4       |
| Natural Gas Factory Orifice (0-2000 feet)      |                  | #           | 45                              | 45                              | 45                              | 45                              | 45                              | 45      |
| Propane Gas (LP) Factory Orifice (0-2000 feet) |                  | #           | 55                              | 55                              | 55                              | 55                              | 55                              | 55      |
| Gas Connection Size                            |                  | in. NPT     | 1/2                             | 1/2                             | 1/2                             | 1/2                             | 1/2                             | 1/2     |
| Igniton Device                                 |                  | Hot surface |                                 |                                 |                                 |                                 |                                 |         |
| Number of Burners                              |                  | #           | 3                               | 4                               | 4                               | 5                               | 5                               | 6       |
| Flue Vent Diameter                             |                  | Inch        | 2 <sup>2</sup> / <sub>3</sub> " | 3"      |
| <b>Safety Switch Settings</b>                  |                  |             |                                 |                                 |                                 |                                 |                                 |         |
| Pressure Switch Factory Setting                |                  | High        | in.w.c                          | 1.1                             | 1.1                             | 1.1                             | 1.1                             | 1.1     |
| Pressure Switch Factory Setting                |                  | Low         | in.w.c                          | 0.55                            | 0.55                            | 0.55                            | 0.55                            | 0.55    |
| Rollout switch - resettable                    |                  | Off/On      | °F                              | 300                             | 300                             | 300                             | 300                             | 300     |
| Inlet High Temperature Limit switch - fixed    |                  | Off/On      | °F                              | 150/120                         | 150/120                         | 150/120                         | 150/120                         | 150/120 |

**HIGH ALTITUDE DERATE ORIFICE SIZE CHART  
(NATURAL AND LP GAS\*)U.S. INSTALLATION**

| Input Rate<br>KBTU/H | Number of<br>Burners | Elevation(Ft) |    |           |    |           |    |           |    |            |    |
|----------------------|----------------------|---------------|----|-----------|----|-----------|----|-----------|----|------------|----|
|                      |                      | 0-2000        |    | 2000-4000 |    | 4000-6000 |    | 6000-8000 |    | 8000-10000 |    |
|                      |                      | Nat           | LP | Nat       | LP | Nat       | LP | Nat       | LP | Nat        | LP |
| 60                   | 3                    | 45            | 55 | 47        | 56 | 48        | 57 | 49        | 58 | 50         | 59 |
| 80                   | 4                    | 45            | 55 | 47        | 56 | 48        | 57 | 49        | 58 | 50         | 59 |
| 100                  | 5                    | 45            | 55 | 47        | 56 | 48        | 57 | 49        | 58 | 50         | 59 |
| 120                  | 6                    | 45            | 55 | 47        | 56 | 48        | 57 | 49        | 58 | 50         | 59 |

*NOTE: \*LP orifice based on 10in.w.c manifold pressure  
The input to the furnace must be checked AFTER reorificing*

**HIGH ALTITUDE DERATE ORIFICE SIZE CHART  
(NATURAL AND LP GAS\*)CANADA INSTALLATION**

| Input Rate<br>KBTU/H | Number of<br>Burners | Elevation(Ft) |    |           |    |           |    |           |    |            |    |
|----------------------|----------------------|---------------|----|-----------|----|-----------|----|-----------|----|------------|----|
|                      |                      | 0-2000        |    | 2000-4000 |    | 4000-6000 |    | 6000-8000 |    | 8000-10000 |    |
|                      |                      | Nat           | LP | Nat       | LP | Nat       | LP | Nat       | LP | Nat        | LP |
| 60                   | 3                    | 45            | 55 | 47        | 56 | 48        | 57 | 49        | 58 | 50         | 59 |
| 80                   | 4                    | 45            | 55 | 47        | 56 | 48        | 57 | 49        | 58 | 50         | 59 |
| 100                  | 5                    | 45            | 55 | 47        | 56 | 48        | 57 | 49        | 58 | 50         | 59 |
| 120                  | 6                    | 45            | 55 | 47        | 56 | 48        | 57 | 49        | 58 | 50         | 59 |

*NOTE: \*LP orifice based on 10in.w.c manifold pressure  
The input to the furnace must be checked AFTER reorificing  
For Canada application, based on regulation that requires 10% derating between 2000-4500ft.  
Orifice change is NOT required up to 4500ft.*



# GFM96T



*Due to ongoing product improvements, specifications and dimensions are subject to change and correction without notice or incurring obligations. Determining the application and suitability for use of any product is the responsibility of the installer. Additionally, the installer is responsible for verifying dimensional data on the actual product prior to beginning any installation preparations.*

*Third party incentive and rebate programs have precise requirements as to product performance and certification. All products meet applicable regulations in effect on date of manufacture; however, certifications are not necessarily granted for the life of a product. Therefore, it is the responsibility of the applicant to determine whether a specific model qualifies for these incentive/rebate programs.*

"This product complies with all California product labeling laws including, but not limited to, the Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known as Proposition 65."