

# TECHNICAL GUIDE

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## SEALED COMBUSTION DOWNFLOW GAS FURNACES

### MODELS: DGAX SERIES



## DESCRIPTION

The DGAX Series gas furnace is actually two systems in one. As a powerful air handler, it can handle up to 4 tons of cooling. As a gas furnace, its range of heating capacities make it a perfect match for the heating requirements of almost any manufactured home.

## FEATURES

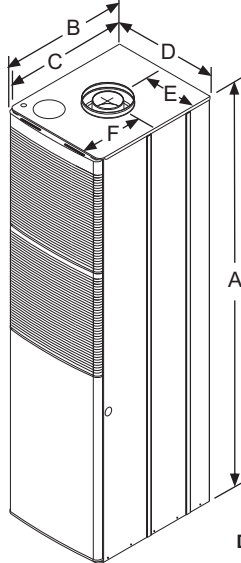
- **Zero Clearance Feature** - Allows these furnaces to be installed where space is a premium.
- **Molded Contoured White Upper Panel** - Provides an attractive modern appearance and offers a scratch-resistant, durable appliance finish.
- **Pre-Painted Contoured White Lower** - Panels provide an attractive scratch-resistant appliance finish.
- **Built-in Coil Cabinet** - Is design-matched to work in conjunction with Coleman heat pumps and air conditioners, providing ease of installation and highly efficient operating performance. (DGAX model).
- **Standard ECM Blower** - Provides energy efficiency while providing 5 speed tap options.
- **Air Conditioner Ready DGAX** - Models have blowers capable of handling up to 4 tons of air conditioning.
- **Aluminized Steel Heat Exchanger** - Provides efficient operation and unmatched corrosion resistance.
- **Universal Disposal Filters** - Clean the air and are easy to replace.
- **Sealed Combustion** - Design draws in combustion air directly from outside, providing quiet operation while increasing operating efficiency and reducing cold drafts.
- Conversion to propane gas is fast and easy. All models are provided with a convertible gas valve and gas orifices for both natural and propane gas.

Due to continuous product improvement, specifications are subject to change without notice.

Additional efficiency rating information can be found at [www.gamanet.org](http://www.gamanet.org).

|   | Inches  | c.m.  |
|---|---------|-------|
| A | 76"     | 193.0 |
| B | 24-3/4" | 62.9  |
| C | 23"     | 58.4  |
| D | 19-1/2" | 49.5  |
| E | 9-3/4"  | 24.8  |
| F | 12"     | 30.5  |

.3" Ext. Static Duct Pressure -  
No Coil - Std. Blower - High Speed



**DGAX SERIES**

A1111-001

**TECHNICAL SPECIFICATIONS**

| MODEL NUMBER                                | DGAX056BDTA   | DGAX070BDTA | DGAX077BDTA | DGAX090BDTA |
|---|---|-------------|-------------|-------------|
| Factory Equipped Fuel                       | Natural Gas   |             |             |             |
| Ignition Type                               | Automatic Hot Surface Ignition  |             |             |             |
| A/C Controls                                | A/C Ready   |             |             |             |
| Input Rate, BTUH                            | 56,000  | 70,000      | 77,000      | 90,000      |
| Output, BTUH                                | 45,000  | 56,000      | 62,000      | 72,000      |
| AFUE, % (Nat./LP)                           | 80.0  | 80.0        | 80.0        | 80.0        |
| High Altitude                               | For elevations above 2,000 feet, reduce input 4% for each 1,000 feet of elevation above sea level |             |             |             |
| Air Temperature RiseRange, °F               | 45-75   |             |             |             |
| Designed Maximum Outlet Air Temperature, °F | 165   |             |             |             |
| Maximum External Static Pressure, in. W.C.  | 0.3   |             |             |             |
| Furnace Flue Pipe                           | Must use 4000 Series Roof Jacks   |             |             |             |
| Gas Connection                              | 1/2" NFPT   |             |             |             |
| Electric Service                            | 115 VAC, 60 Hz, 1 Phase   |             |             |             |
| Fuse or Circuit Breaker                     | 15 Amp  |             |             |             |
| Thermostat Circuit                          | 24 VAC 60 Hz  |             |             |             |
| Filters                                     | Two 16" x 20" x 1"  |             |             |             |

| MINIMUM DISTANCE TO COMBUSTIBLE MATERIALS |        |        |        |        |        |        |        |        |                |        |                    |        |                   |        |
|---|--------|--------|--------|--------|--------|--------|--------|--------|----------------|--------|--------------------|--------|-------------------|--------|
| Application                               | Top    |        | Front  |        | Rear   |        | Sides  |        | Roof Jack Flue |        | Floor <sup>1</sup> |        | Duct <sup>1</sup> |        |
|   | Closet | Alcove | Closet | Alcove | Closet | Alcove | Closet | Alcove | Closet         | Alcove | Closet             | Alcove | Closet            | Alcove |
|   | In.    | In.    | In.    | In.    | In.    | In.    | In.    | In.    | In.            | In.    | In.                | In.    | In.               | In.    |
| <b>Downflow</b>                           | 2      | 2      | 6      | 24     | 0      | 0      | 0      | 0      | 0              | 0      | 0                  | 0      | 0                 | 0      |

1. Approved duct connector required for use on combustible floor.

**BLOWER PERFORMANCE CFM - DOWNFLOW WITHOUT FILTERS**

| Models  | BTU/H (kW)<br>Input/Output | Speed Tap   | Airflow Data (SCFM)                         |      |      |      |      |           |      |      |      |      |
|---------|----------------------------|-------------|---|------|------|------|------|-----------|------|------|------|------|
|         |                            |             | Ext. Static Pressure (in. H <sub>2</sub> O) |      |      |      |      |           |      |      |      |      |
|         |                            |             | Without Coil                                |      |      |      |      | With Coil |      |      |      |      |
|         |                            |             | 0.1   | 0.2  | 0.3  | 0.4  | 0.5  | 0.1       | 0.2  | 0.3  | 0.4  | 0.5  |
| DGAX056 | 56/45 (16.4/13.1)          | High        | 1441  | 1404 | 1366 | 1332 | 1292 | 1342      | 1311 | 1278 | 1250 | 1224 |
|         |                            | Medium High | 1233  | 1197 | 1164 | 1130 | 1094 | 1164      | 1138 | 1111 | 1083 | 1051 |
|         |                            | Medium      | 1074  | 1035 | 998  | 964  | 922  | 1016      | 989  | 960  | 928  | 898  |
|         |                            | Medium Low  | 1000  | 962  | 923  | 885  | 845  | 953       | 923  | 890  | 854  | 821  |
|         |                            | Low         | 731   | 687  | 637  | 588  | 529  | 689       | 664  | 620  | 574  | 529  |
| DGAX070 | 70/56 (20.5/16.4)          | High        | 1441  | 1404 | 1366 | 1332 | 1292 | 1342      | 1311 | 1278 | 1250 | 1224 |
|         |                            | Medium High | 1233  | 1197 | 1164 | 1130 | 1094 | 1164      | 1138 | 1111 | 1083 | 1051 |
|         |                            | Medium      | 1074  | 1035 | 998  | 964  | 922  | 1016      | 989  | 960  | 928  | 898  |
|         |                            | Medium Low  | 1000  | 962  | 923  | 885  | 845  | 953       | 923  | 890  | 854  | 821  |
|         |                            | Low         | 731   | 687  | 637  | 588  | 529  | 689       | 664  | 620  | 574  | 529  |
| DGAX077 | 77/62 (22.5/18.5)          | High        | 1441  | 1404 | 1366 | 1332 | 1292 | 1342      | 1311 | 1278 | 1250 | 1224 |
|         |                            | Medium High | 1233  | 1197 | 1164 | 1130 | 1094 | 1164      | 1138 | 1111 | 1083 | 1051 |
|         |                            | Medium      | 1074  | 1035 | 998  | 964  | 922  | 1016      | 989  | 960  | 928  | 898  |
|         |                            | Medium Low  | 1000  | 962  | 923  | 885  | 845  | 953       | 923  | 890  | 854  | 821  |
|         |                            | Low         | 731   | 687  | 637  | 588  | 529  | 689       | 664  | 620  | 574  | 529  |
| DGAX090 | 90/72 (26.3/21.1)          | High        | 1441  | 1404 | 1366 | 1332 | 1292 | 1342      | 1311 | 1278 | 1250 | 1224 |
|         |                            | Medium High | 1233  | 1197 | 1164 | 1130 | 1094 | 1164      | 1138 | 1111 | 1083 | 1051 |
|         |                            | Medium      | 1074  | 1035 | 998  | 964  | 922  | 1016      | 989  | 960  | 928  | 898  |
|         |                            | Medium Low  | 1000  | 962  | 923  | 885  | 845  | 953       | 923  | 890  | 854  | 821  |
|         |                            | Low         | 731   | 687  | 637  | 588  | 529  | 689       | 664  | 620  | 574  | 529  |

Use Low speed tap(5) for DGAX056 for compliance with Fan Efficiency Rating test.

Use Medium Low(4) speed tap for DGAX070 for compliance with Fan Efficiency Rating test.

Use Medium(3) speed tap for DGAX077 for compliance with Fan Efficiency Rating test.

Use Medium High(2) speed tap for DGAX090 for compliance with Fan Efficiency Rating test.

Applications with static pressures higher than 0.3" are not recommended.

**ACCESSORIES**

| MODEL NO.  | DESCRIPTION                            | USED WITH  |
|------------|--|------------|
| S1-1PS0166 | High Altitude Kit for Natural Gas      | All Models |
| S1-1PS0167 | High Altitude Kit for Propane (LP) Gas | All Models |
| 7900-7631  | Upper Furnace Door                     | All Models |

# NOTES