THE PERFORMANCE 80 GAS FURNACE
The 58CTW/58CTY Two-Stage, Variable-speed, 4-way Multipoise Gas Furnaces offer unmatched comfort in their class with ComfortHeat™ technology in an 80% AFUE gas furnace. You get the benefits of a ComfortHeat™ technology furnace: reduced drafts, reduced sound levels, longer cycles, less temperature swings between cycles, and less temperature differences between rooms. Its exclusive, intelligent microprocessor control adapts to the heating needs of the home by automatically adjusting high and low heat times to maximize comfort. The 58CTW/58CTY furnaces are approved for use with natural or propane gas.

STANDARD FEATURES
- ComfortHeat™ Technology Intelligent microprocessor control
- Two-stage heating with single-stage thermostat with patented Adaptive Control Technology
- Very low operating sound through low-stage operation and QuieTech™ system
- SmartEvap™ - Humidity control when using a Thermidistat™ control
- Comfort Fan™ adjustable constant fan speed from the thermostat
- Microprocessor based control center
  Enhanced diagnostics with LED and reflective sight glass
  Stores fault codes during power outages
  Adjustable heating air temperature rise
  Adjustable cooling airflow
- 4-way Multipoise furnace, 13 vent applications
- Compact design - only 33-1/3 in. (847 mm) tall
- Power Heat™ Igniter
- Draft Safeguard switch to ensure proper furnace venting
- Insulated blower compartment
- Inner door for tighter sealing
- Certified to leak 2 percent or less of its nominal air conditioning CFM delivered when pressurized to 1-In. Water Gauge with all present air inlets and air outlets sealed.
- HYBRID HEAT® Dual Fuel System compatible
- All models are Chimney Friendly when used with accessory vent kit
- Variable-speed ECM blower motor
  Increased SEER ratings for AC and HP systems as compared to the Air Conditioning Heating and Refrigeration Institute’s standard coil-only rating when paired with selected Carrier evaporator coils.
  Perfectly matches CFM to cooling system at all static points
- Residential installations eligible for consumer financing through the Retail Credit Program
NOTE: The 58CTW/58CTY Furnaces are factory shipped for use with natural gas. These furnaces can be field-converted for propane gas with a factory-authorized and listed accessory conversion kit.
EXAMPLE OF MODEL NUMBER NOMENCLATURE

58CTW Two-Stage 4-Way MultiPoise

Input Capacity
045 – 44,000 Btuh
070 – 66,000 Btuh
090 – 88,000 Btuh

Nominal Cooling Size
(Airflow at .5 e.s.p.)
(400 CFM per 12,000 Btuh)
12 ~ 1200 CFM
16 ~ 1600 CFM
22 ~ 2200 CFM
## SPECIFICATIONS

### UNIT SIZE

<table>
<thead>
<tr>
<th>Size</th>
<th>045−12</th>
<th>070−16</th>
<th>090−16</th>
<th>110−22</th>
<th>135−22</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input Btuh</strong></td>
<td><strong>Nonweatherized ICS</strong></td>
<td><strong>All 58CTW; 58CTY Upflow</strong></td>
<td><strong>High</strong></td>
<td><strong>Low</strong></td>
<td><strong>High</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>44,000</td>
<td>29,000</td>
<td>42,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>66,000</td>
<td>43,500</td>
<td>63,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>88,000</td>
<td>58,000</td>
<td>84,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>110,000</td>
<td>72,500</td>
<td>105,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>132,000</td>
<td>87,000</td>
<td>126,000</td>
</tr>
<tr>
<td><strong>Input Btuh</strong></td>
<td><strong>Nonweatherized ICS</strong></td>
<td><strong>All 58CTY Downflow/ Horizontal</strong></td>
<td><strong>High</strong></td>
<td><strong>Low</strong></td>
<td><strong>High</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>42,000</td>
<td>29,000</td>
<td>41,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>63,000</td>
<td>43,500</td>
<td>63,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>84,000</td>
<td>58,000</td>
<td>84,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>105,000</td>
<td>72,500</td>
<td>105,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>126,000</td>
<td>87,000</td>
<td>126,000</td>
</tr>
</tbody>
</table>

### RATINGS AND PERFORMANCE

#### Input Btuh

- **Nonweatherized ICS**
  - **All 58CTW; 58CTY Upflow**
    - **High**: 44,000, 66,000, 88,000, 110,000, 132,000
    - **Low**: 29,000, 43,500, 58,000, 72,500, 87,000
  - **All 58CTY Downflow/ Horizontal**
    - **High**: 42,000, 63,000, 84,000, 105,000, 126,000
    - **Low**: 29,000, 43,000, 58,000, 72,500, 87,000

#### Output Capacity (Btuh)

- **Nonweatherized ICS**
  - **All 58CTW; 58CTY Upflow**
    - **High**: 35,000, 53,000, 71,000, 89,000, 107,000
    - **Low**: 23,000, 35,000, 47,000, 59,000, 70,000
  - **All 58CTY Downflow/ Horizontal**
    - **High**: 34,000, 51,000, 68,000, 85,000, 102,000
    - **Low**: 23,000, 35,000, 47,000, 59,000, 70,000

#### AFUE

| | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |

### ELECTRICAL

#### Unit Volts−Hertz−Phase

- **115−60-1**

#### Operating Voltage Range

- **Min-Max**: 104-127

#### Maximum Unit Amps

- **8.0**

#### Maximum Wire Length (Measure 1 Way in Ft. (M))

- **34 (10.4)**

#### Minimum Wire Size

- **14**

#### Transformer (24v)

- **40va**

#### External Control

- **Heating**: 12va

#### Power Available

- **Cooling**: 35va

#### Air Conditioning Blower Relay

- **Standard**

### CONTROLS

#### Limit Control

- **SPST**

#### Heating Blower Control

- **Solid-State Time Operation**

#### Burners (Monoport)

- **2**, **3**, **4**, **5**, **6**

#### Gas Connection Size

- **1/2-in. NPT**

### GAS CONTROLS

#### Gas Valve (Redundant)

- **Mfr.**: White-Rodgers
- **Min. inlet pressure (In. W.C.)**: 4.5 (Natural Gas)
- **Max. inlet pressure (In. W.C.)**: 13.6 (Natural Gas)

#### Ignition Device

- **Hot Surface**

#### Factory-installed orifice

- **Size 43**

### BLOWER DATA

#### Direct-Drive Motor HP (ECM)

- **1/2**, **3/4**, **3/4**, **1**, **1**

#### Motor Full Load Amps

- **6.8**

#### RPM (Nominal)

- **1200**

#### Blower Wheel Diameter x Width − In. (mm)

- **10 x 6**, **11 x 8**, **10 x 10**, **11 x 11**, **11 x 11**

- **(254x152)**, **(279x203)**, **(254x254)**, **(279x279)**, **(279x279)**

### NOTES

* Gas input ratings are certified for elevations to 2000 ft. (610 M). For elevations above 2000 ft. (610 M), reduce ratings 4 percent for each 1000 ft. (305 M) above sea level. Refer to National Fuel Gas Code NFPA 54/ANSI Z223.1−2012 Table F.4 or furnace installation instructions.

† Capacity in accordance with U.S. Government DOE test procedures.

‡ Airflow shown is for bottom only return-air supply for the as-shipped speed tap. For air delivery above 1800 CFM, see Air Delivery table for other options. A filter is required for each return-air supply. An airflow reduction of up to 7 percent may occur when using the factory-specified 4-5/16 in. (110 mm) wide, high efficiency media filter.

** Time−delay type is recommended.

ICS Isolated Combustion System
<table>
<thead>
<tr>
<th>58CTW/58CTY DESCRIPTION</th>
<th>PART NO.</th>
<th>045-12</th>
<th>070-16</th>
<th>090-16</th>
<th>110-22</th>
<th>135-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media Filter Cabinet</td>
<td>FILCABXL0016</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>FILCABXL0020</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FILCABXL0024</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Cartridge Media Filter</td>
<td>FILCCCAR0016</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>FILCCCAR0020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>FILCCCAR0024</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>EZ Flex Media Filter with End Caps</td>
<td>EXP00UNV0016</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EXP00UNV0020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>EXP00UNV0024</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Replacement EZ Flex Filter Media</td>
<td>EXPXXFIL0016</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EXPXXFIL0020</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EXPXXFIL0024</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>External Bottom Return Filter Rack</td>
<td>KGFR0401B14</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KGFR0501B17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>KGFR0601B21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>KGFR0701B24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>External Side Return Filter Rack</td>
<td>KGAFR201ALL</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>KGAFR2021ALL</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Unframed Filter 3/4-in. (19 mm)</td>
<td>KGAWF1306UFR†</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KGAWF1406UFR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>KGAWF1506UFR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Flue Extension</td>
<td>KGAFE0112UPH</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Combustible Floor Base</td>
<td>KGASB0201ALL</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Downflow Vent Guard</td>
<td>KGVBG0101DFG</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Vent Extension Kit</td>
<td>KGAVE0101DNH</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Chimney Adapter Kit</td>
<td>KGACA02014FC</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>KGACA02015FC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Natural-to-Propane Conversion Kit*</td>
<td>KGCPN5201VSP</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Propane-to-Natural Conversion Kit</td>
<td>KGCPN4401VSP</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Twinning Kit</td>
<td>KGATW0801HSI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Gas Orifice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>See Installation Instructions for model, altitude, and heat value usages</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Factory-authorized and field installed. Fuel conversion kits are CSA (formerly AGA/CGA) recognized.
† Suitable for Side Return Filter Rack
X = Accessory
S = Standard
# CARRIER ACCESSORIES

<table>
<thead>
<tr>
<th>Accessories</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTRONIC AIR CLEANER (EAC)</td>
<td>Model EACB</td>
</tr>
<tr>
<td>MECHANICAL AIR CLEANER</td>
<td>Models EZXCAB, FILCAB</td>
</tr>
<tr>
<td>HUMIDIFIER</td>
<td>Model HUM</td>
</tr>
<tr>
<td>HEAT RECOVERY VENTILATOR</td>
<td>Model HRV</td>
</tr>
<tr>
<td>ENERGY RECOVERY VENTILATOR</td>
<td>Model ERV</td>
</tr>
</tbody>
</table>

**THERMOSTAT – NON–PROGRAMMABLE**

- For use with 1–speed Air Conditioner — deg. F/C, Auto Changeover — TP—NAC, TC—NAC
- For use with 1–speed Heat Pump — deg. F/C, Auto Changeover — TP—NHP, TC—NHP*
- For use with 2–speed Air Conditioner — deg. F/C, Auto Changeover — TP—NRH*
- For use with multi–use / stage configurations — deg. F/C, Auto Changeover/Temperature and Humidity control — TP—PRH†

**THERMOSTAT – PROGRAMMABLE**

- For use with 1–speed Air Conditioner — deg. F/C, Auto Changeover, 7–Day Programmable — TP—PAC
- For use with 1–speed Heat Pump — deg. F/C, Auto Changeover, 7–Day Programmable — TP—PHP*
- For use with 2–speed Air conditioner — deg. F/C, Auto Changeover, 7–Day Programmable — TP—PRH*
- For use with 1–speed Air Conditioner — deg. F/C, 5–2 Day Programmable — TP—PAC
- For use with multi–stage applications — deg. F/C, Auto Changeover, 7–Day Programmable — TC—PRH†
- For multi–use / stage configurations — deg. F/C, Auto Changeover, 7–Day Programmable/ Temperature and Humidity Control — TP—PRH†

* Model HP and 2S thermostat must be field converted to air conditioner operation.
† Thermostat Control can be configured for multiple use and staging, it must be configured for each specific application.

## TYPICAL WIRING SCHEMATIC

![Typical Wiring Schematic](image)

**NOTES:**
1. Connect YY2-terminal as shown for proper operation.
2. Some thermostats require a "C" terminal connection as shown.
3. If any of the original wire, as supplied, must be replaced, use same type or equivalent wire.

A95236
**Venting Notes**


2. Immediately increase to 5-in. (127 mm) vent connector outside furnace casing when 5-in. (127 mm) vent connector required, refer to Note 1.

3. Side outlet vent for upflow and downflow installations must use Type B vent immediately after exiting the furnace, except when Downflow Vent Guard is used in downflow position.

4. Type B vent where required, refer to Note 1.

5. 4-in. (102 mm) single wall vent must be used inside furnace casing and the Downflow Vent Guard Kit.

6. Accessory Downflow Vent Guard Kit, required in downflow installations with bottom vent configuration.

7. Chimney Adapter Kit required for exterior masonry chimney applications. Refer to Chimney Adapter Kits for sizing and complete application details.

8. Secure vent connector to furnace elbow with (2) corrosion-resistant sheet metal screws, space approximately 180° apart.

9. Secure all other single wall vent connector joints with (3) corrosion-resistant screws spaced approximately 120° apart. Secure Type B vent connectors per vent connector manufacturer’s recommendations.
### AIR DELIVERY—CFM (With Filter)*

**COOLING* AND HEATING AIR DELIVERY - CFM (Bottom Return* With Filter)**

(SW1-5 and SW2-2 set to OFF, except as indicated. See notes 1 and 2.)

<table>
<thead>
<tr>
<th>Unit Size</th>
<th>Cooling Switch Settings</th>
<th>External Static Pressure (ESP)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SW2-8</td>
<td>SW2-7</td>
</tr>
<tr>
<td>045-12</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>070-16</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>090-16</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Nominal 350 CFM/ton cooling airflow is delivered with SW1-5 and SW2-2 set to OFF. Set both SW1-5 and SW2-2 to ON for +7% airflow (nominal 370 CFM/ton). Set SW1-5 to ON and SW2-2 to OFF for +15% airflow (nominal 400 CFM/ton). Set SW2-2 to ON and SW1-5 to OFF for -7% airflow (nominal 325 CFM/ton).

2. Maximum cooling airflow is achieved when switches SW2-6, SW2-7, SW2-8 and SW1-5 are set to ON, and SW2-2 is set to OFF.

3. All heating CFM's are when low heat rise adjustment switch (SW1-3) and comfort/efficiency adjustment switch (SW1-4) are both set to OFF.

4. Ductwork must be sized for high-heating CFM within the operational range of ESP. Operation within the blank areas of the chart is not recommended because high-heat operation will be above 1.0 ESP.

5. All airflows on 21" casing size furnaces are 5% less on side return only installations.

6. Side returns for 24.5" casing sizes require two sides, or side and bottom, to allow sufficient airflow at the return of the furnace.
Always Ask For Use of the AHRI Certified TM Mark indicates a manufacturer’s participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.

**WARNING**

**FIRE, EXPLOSION, ASPHYXIATION HAZARD**

Improper adjustment, alteration, service, maintenance, or installation can cause serious injury or death.

Read and follow instructions and precautions in User’s Information Manual provided with this furnace. Installation and service must be performed by a qualified service agency or the gas supplier.

**CAUTION**

Check entire gas assembly for leaks after lighting this appliance.

**INSTALLATION**

1. This furnace must be installed in accordance with the manufacturer’s instructions and local codes. In the absence of local codes, follow the National Fuel Gas Code ANSI Z223.1 / NFPA54 or CSA B-149.1 Gas Installation Code.

2. This furnace must be installed so there are provisions for combustion and ventilation air. See manufacturer’s installation information provided with this appliance.

**MINIMUM INCHES CLEARANCE TO COMBUSTIBLE CONSTRUCTION**

**DOWNFLOW POSITIONS:**

† Installation on non-combustible floors only.

For installation on combustible flooring only when installed on special base, Part No. KGASB0201ALL or NAHA01101SB, Coil Assembly, Part No. CAR, CAP, CNPV, CNRV, END4X, ENW4X, WENC, WTNC, WENW OR WTNW.

Ø 18 inches front clearance required for alcove.

★ Indicates supply or return sides when furnace is in the horizontal position. Line contact only permissible between lines formed by intersections of the Top and two Sides of the furnace jacket, and building joists, studs or framing.

**OPERATION**

This furnace is equipped with manual reset limit switch(es) in burner compartment to protect against overheating conditions that can result from inadequate combustion air supply or blocked vent conditions.

1. Do not bypass limit switches.
2. If a limit opens, call a qualified serviceman to correct the condition and reset limit switch.

This forced air furnace is equipped for use with natural gas at altitudes 0 - 10,000 ft (0 - 3,050m).

An accessory kit, supplied by the manufacturer, shall be used to convert to propane gas use or may be required for some natural gas applications.

This furnace is for indoor installation in a building constructed on site.

This furnace may be installed on combustible flooring in alcove or closet at minimum clearance as indicated by the diagram from combustible material.

This furnace may be used with a Type B-1 Vent and may be vented in common with other gas fired appliances.

This furnace is approved for UPFLOW, DOWNFLOW, and HORIZONTAL installations.

Clearance arrows do not change with furnace orientation.

Vent Clearance to combustibles:

- For Single Wall vents 6 inches (6 po).
- For Type B-1 vent type 1 inch (1 po).
GUIDE SPECIFICATIONS

Gas Furnace
58CTW/58CTY

General
SYSTEM DESCRIPTION
Furnish a ______________ fixed capacity gas-fired furnace for use with natural gas or propane (factory authorized conversion kit required for propane); furnish cold air return plenum.

QUALITY ASSURANCE
Unit will be designed, tested and constructed to the current ANSI Z21.47/CSA 2.3 design standard for gas-fired central furnaces. Unit will be 3rd party certified by CSA to the current ANSI Z21.47/CSA 2.3 design standard for gas-fired central furnaces. Unit will carry the CSA Blue Star® label. Unit efficiency testing will be performed per the current DOE test procedure as listed in the Federal Register. Unit will be certified for capacity and efficiency and listed in the latest AHRI Consumer’s Directory of Certified Efficiency Ratings. Unit shall carry the current Federal Trade Commission Energy Guide efficiency label.

DELIVERY, STORAGE AND HANDLING
Unit shall be shipped as single package only and is stored and handled per unit manufacturer’s recommendations.

WARRANTY (for inclusion by specifying engineer)
U.S. only. Warranty certificate available upon request.

Products
EQUIPMENT
Components shall include: slow-opening two stage gas valve to reduce ignition noise, regulate gas flow, with electric switch gas shut-off; flame proving sensor, hot surface igniter, pressure switch assembly, flame rollout switch, blower and inducer assembly, 40va transformer; low-voltage (heating) (heating/cooling) thermostat.

Blower Wheel and Blower Motor
Galvanized blower wheel shall be centrifugal type, statically and dynamically balanced. Blower motor of ECM type shall be permanently lubricated with sealed bearings, of ______hp, and shall be multiple-speed direct drive. Blower motor shall be soft mounted to the blower scroll to reduce vibration transmission.

Filters
Furnace may have reusable-type filters. Filter shall be ______(x) _______in. (mm). An accessory high efficiency Media Filter is available as an option. ______________ Media Filter.

Casing
Casing shall be of .030 in. (.76 mm) thickness minimum, pre-painted steel.

Two Speed Inducer Motor
Two Speed Inducer motor shall be soft mounted to reduce vibration transmission.

Draft Safeguard Switch
Draft Safeguard Switch (blocked vent safeguard) shall be factory installed to reduce the possibility of vent gas infiltration due to a blocked or restricted vent pipe.

Heat Exchangers
Heat exchangers shall be a 4-Pass 20 gage aluminized steel of fold-and-crimp sectional design when applied operating under negative pressure.

Controls
Control shall include a micro-processor based integrated electronic control board with at least 11 service troubleshooting codes displayed via diagnostic flashing enhanced LED light on the control, a self-test feature that checks all major functions of the furnace within one minute, and a replaceable automotive-type circuit protection fuse. Multiple operational settings available including, separate blower speeds for low heat, high heat, low cooling, high cooling and continuous fan. Continuous fan speed may be adjusted from the thermostat. Cooling airflow will be selectable between 350 or 400 CFM per ton of air conditioning. Features will also include temporary reduced airflow in the cooling mode for improved dehumidification when a control or Thermidistat™ is selected as the thermostat.

OPERATING CHARACTERISTICS
Heating Capacity shall be __________ Btuh input; __________ Btuh output capacity.

Fuel Gas Efficiency shall be 80% AFUE.

Air delivery shall be __________ CFM minimum at 0.50 in. W.C. external static pressure.

Dimensions shall be: depth _______ in. (mm); width _______ in. (mm); height _______ in. (mm). (casing only).

Height shall be _______ in. (mm). with A/C coil and _______in. (mm) overall with plenum.

ELECTRICAL REQUIREMENTS
Electrical supply shall be 115 volts, 60 Hz, single-phase (nominal). Minimum wire size shall be _______ AWG; maximum fuse size or circuit breaker shall be _______Amps.

SPECIAL FEATURES
Refer to section of the product data sheet identifying accessories and descriptions for specific features and available enhancements.