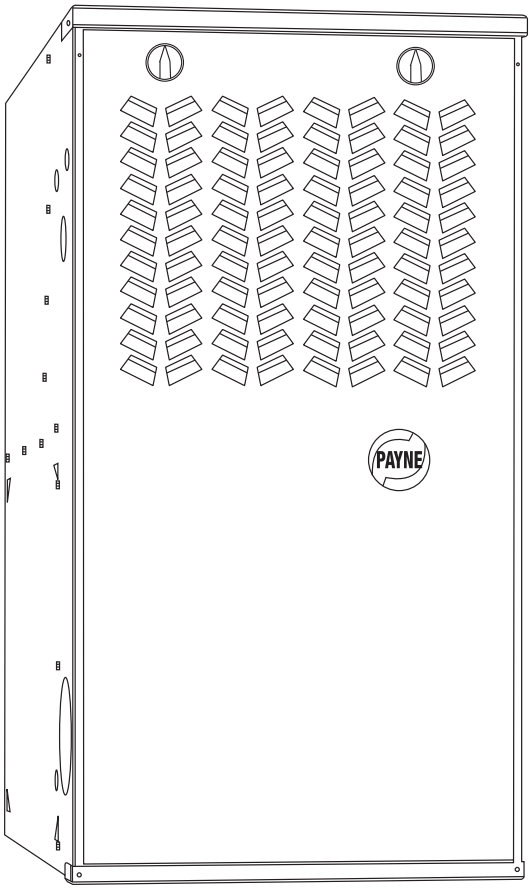
# PG8JEB
# 4–WAY MULTIPOISE
# INDUCED–COMBUSTION GAS FURNACE
# INPUT CAPACITIES: 45,000 THRU 135,000 BTUH

# Product Data




A10257

## THE PAYNE LEGACY™ 80 GAS FURNACE

The PG8JEB 4–way Multipoise Gas Furnaces offer features not found in other single–stage 80% gas furnaces. The highly efficient ECM motor and Payne's control logic combine to provide a SEER increase to your air conditioning unit of up to 1.5 points.*

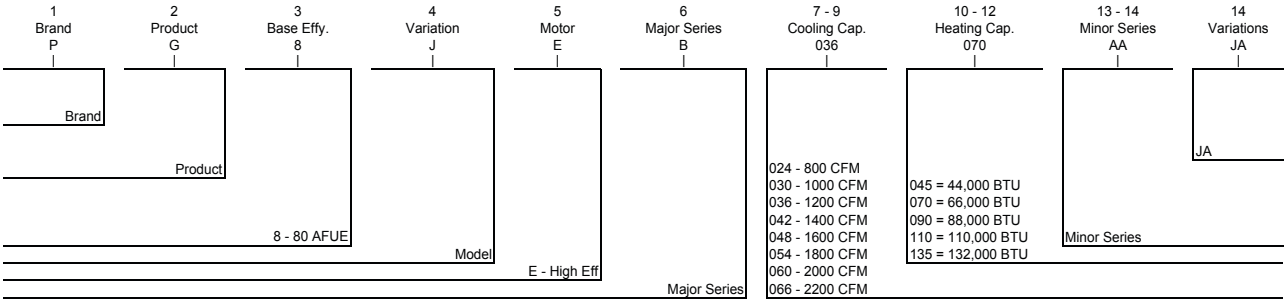
Applications are easy with 4–way multipoise design, through–the–furnace downflow venting, 13 different venting options, and an overall design for easy service access. The PG8JEB furnaces are approved for use with natural or propane gas, and Low NOx units are designed for California installations and meet 40 ng/J NOx emissions. Can be installed in air quality management districts with a 40 ng/J NOx emissions requirement.

## STANDARD FEATURES

- **Cabinet air leakage less than 2.0% at 1.0 in. W.C. and cabinet air leakage less than 1.4% at 0.5 in. W.C. when tested in accordance with ASHRAE standard 193**
- **LED diagnostics and self test feature**
- **Stores fault codes during power outages**
- **Adjustable heating air temperature rise**
- **Adjustable cooling airflow**
- **4–way Multipoise furnace, 13 vent applications**
- **Hot surface ignition**
- **Draft safeguard switch to ensure proper furnace venting**
- **Dual fuel compatible (including 13.0 SEER Heat Pumps)**
- **All models are chimney friendly when used with accessory vent kit**

*As compared to the Air Conditioning Heating and Refrigeration Institute's standard coil–only rating when paired with selected evaporator coils.

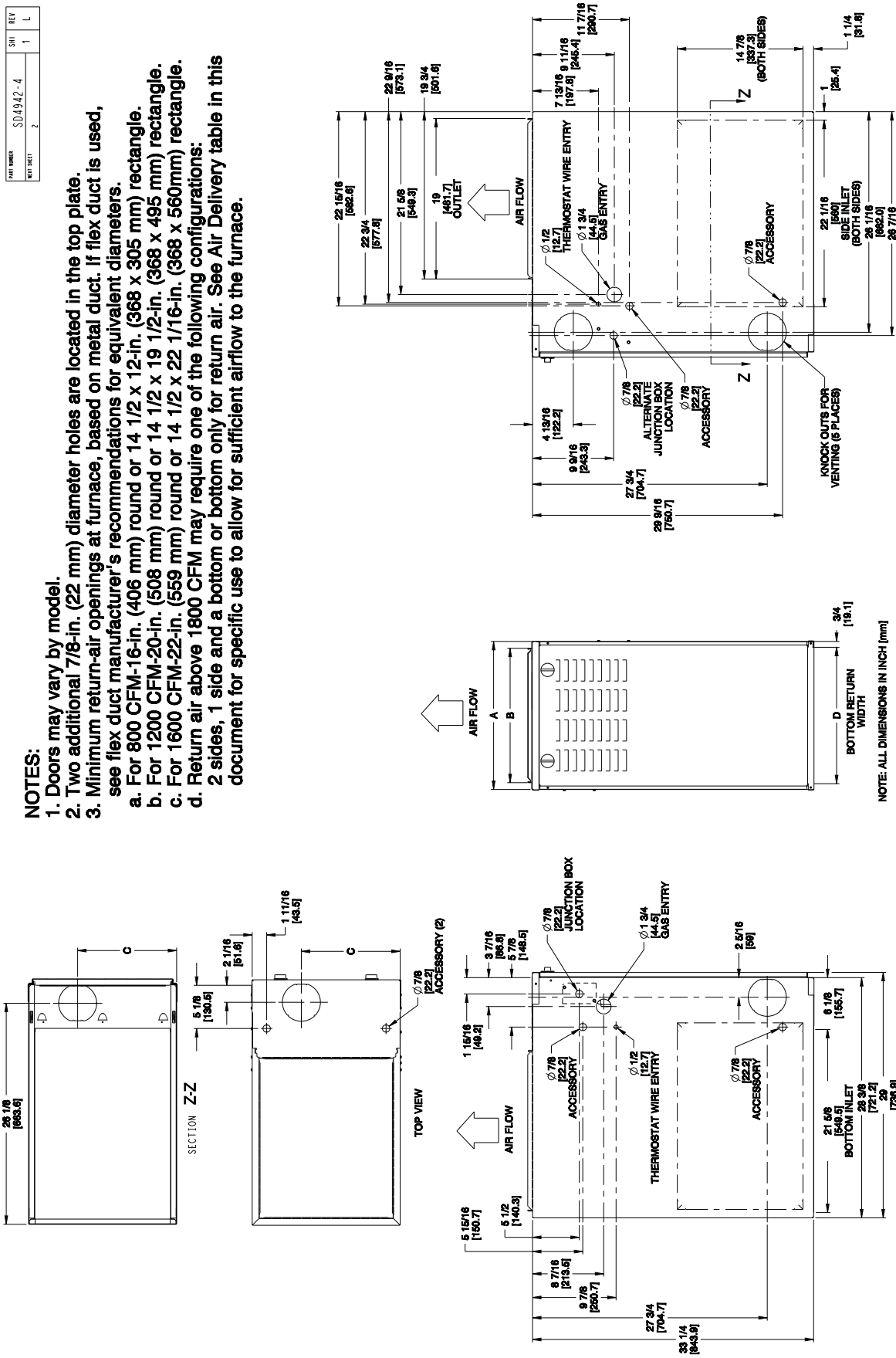
# MODEL NUMBER NOMENCLATURE




A180075

**For California Residents:**
For installation in SCAQMD only: This furnace does not meet the SCAQMD Rule 1111 14 ng/J NOx emission limit, and thus is subject to a mitigation fee of up to $450. This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com

# DIMENSIONS


PART NUMBER SD4942-4 SH 1 REV L
NEXT SHEET 2
NOTES:
1. Doors may vary by model.
2. Two additional 7/8-in. (22 mm) diameter holes are located in the top plate.
3. Minimum return-air openings at furnace, based on metal duct. If flex duct is used, see flex duct manufacturer's recommendations for equivalent diameters.
a. For 800 CFM-16-in. (406 mm) round or 14 1/2 x 12-in. (368 x 305 mm) rectangle.
b. For 1200 CFM-20-in. (508 mm) round or 14 1/2 x 19 1/2-in. (368 x 495 mm) rectangle.
c. For 1600 CFM-22-in. (559 mm) round or 14 1/2 x 22 1/16-in. (368 x 560mm) rectangle.
d. Return air above 1800 CFM may require one of the following configurations:
2 sides, 1 side and a bottom or bottom only for return air. See Air Delivery table in this document for specific use to allow for sufficient airflow to the furnace.
AIR FLOW
A
B
D
BOTTOM RETURN WIDTH
3/4 [19.1]
NOTE: ALL DIMENSIONS IN INCH [mm]
22 15/16 [582.6]
22 3/4 [577.8]
22 9/16 [573.1]
21 5/8 [549.3]
19 3/4 [501.6]
19 [481.7] OUTLET
AIR FLOW
7 13/16 [197.8]
9 11/16 [245.4]
11 7/16 [290.7]
14 7/8 [377.3] (BOTH SIDES)
1 1/4 [31.8]
1 [25.4]
Z
Z
Ø 1/2 [12.7] THERMOSTAT WIRE ENTRY
Ø 1 3/4 [44.5] GAS ENTRY
Ø 7/8 [22.2] ACCESSORY
22 1/16 [560] SIDE INLET (BOTH SIDES)
26 1/16 [662.0]
26 7/16 [671.5]
4 13/16 [122.2]
9 9/16 [243.3]
27 3/4 [704.7]
29 9/16 [750.7]
Ø 7/8 [22.2] ALTERNATE JUNCTION BOX LOCATION
Ø 7/8 [22.2] ACCESSORY
KNOCK OUTS FOR VENTING (6 PLACES)
26 1/8 [663.6]
C
SECTION Z-Z
5 1/8 [130.5]
2 1/16 [51.6]
1 11/16 [43.5]
C
Ø 7/8 [22.2] ACCESSORY (2)
TOP VIEW
3 7/16 [86.8]
5 7/8 [149.5]
Ø 7/8 [22.2] JUNCTION BOX LOCATION
Ø 1 3/4 [44.5] GAS ENTRY
2 5/16 [59]
1 15/16 [49.2]
Ø 7/8 [22.2] ACCESSORY
Ø 1/2 [12.7] THERMOSTAT WIRE ENTRY
Ø 7/8 [22.2] ACCESSORY
6 1/8 [155.7]
AIR FLOW
5 15/16 [150.7]
5 1/2 [140.3]
8 7/16 [213.5]
9 7/8 [250.7]
27 3/4 [704.7]
33 1/4 [843.9]
21 5/8 [549.5] BOTTOM INLET
28 3/8 [721.2]
29 [736.9]
A180207

| FURNACE SIZE | A CABINET WIDTH | B OUTLET WIDTH | C TOP AND BOTTOM FLUE COLLAR | D BOTTOM INLET WIDTH | VENT CONNECTION SIZE | SHIP WT. LB. (KG) | ACCESSORY FILTER MEDIA CABINET SIZE IN. (MM) |
|---|---|---|---|---|---|---|---|
| 036045 | 14–3/16 (360) | 12–9/16 (319) | 9–5/16 (237) | 12–11/16 (322) | 4 (102) | 104 (47) | 16 (406) |
| 042045 | 17–1/2 (445) | 15–7/8 (403) | 11–9/16 (294) | 16 (406) | 4 (102) | 119 (54) | 16 (406) |
| 036070 | 17–1/2 (445) | 15–7/8 (403) | 11–9/16 (294) | 16 (406) | 4 (102) | 126 (57) | 16 (406) |
| 048070 | 17–1/2 (445) | 15–7/8 (403) | 11–9/16 (294) | 16 (406) | 4 (102) | 126 (57) | 16 (406) |
| 054070 | 21 (533) | 19–3/8 (492) | 13–5/16 (338) | 19–1/2 (495) | 4 (102) | 142 (64) | 20 (508) |
| 042090 | 17–1/2 (445) | 15–7/8 (403) | 11–9/16 (294) | 16 (406) | 4 (102) | 126 (57) | 16 (406) |
| 048090 | 21 (533) | 19–3/8 (492) | 13–5/16 (338) | 19–1/2 (495) | 4 (102) | 140 (64) | 20 (508) |
| 060090 | 21 (533) | 19–3/8 (492) | 13–5/16 (338) | 19–1/2 (495) | 4 (102) | 140 (64) | 20 (508) |
| 066090 | 24–1/2 (622) | 22–7/8 (581) | 15–1/16 (383) | 23 (584) | 4 (102) | 146 (66) | 24 (610) |
| 060110 | 21 (533) | 19–3/8 (492) | 13–5/16 (338) | 19–1/2 (495) | 4 (102) | 152 (69) | 20 (508) |
| 066110 | 24–1/2 (622) | 22–7/8 (581) | 15–1/16 (383) | 23 (584) | 4 (102)* | 161 (73) | 24 (610) |
| 060135 | 24–1/2 (622) | 22–7/8 (581) | 15–1/16 (383) | 23 (584) | 4 (102)* | 163 (74) | 24 (610) |

*135 size furnace requires a 5 or 6–in. (127 or 152 mm) vent. Use a vent adapter between furnace and vent stack. See Installation Instructions for complete installation requirements.

## ⚠ 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.

## OPERATION

This furnace is equipped with manual reset limit switch(es) in burner compartment to protect against overheat 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 quallified serviceman to correct the condition and reset limit switch.

## INSTALLATION

### MINIMUM INCHES CLEARANCE TO COMBUSTIBLE CONSTRUCTION

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

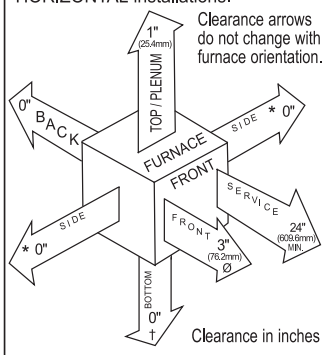
An accessory kit, supplied by the manufacturer, shall be used to convert to propane gas use or may be required for some natural gas applications.

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.




**Vent Clearance to combustibles:**
For Single Wall vents 6 inches (6 po).
For Type B-1 vent type 1 inch (1 po).

### 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.

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Certified System ISO 9001 QMI-SAI Global

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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.

DESIGN CERTIFIED

EASE OF INSTALLATION FACTORY AUTHORIZED PARTS ENGINEERED QUALITY

# SPECIFICATIONS

| UNIT SIZE | | 036045 | 042045 | 036070 | 048070 | 054070 | 042090 |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| Input Btuh* | Upflow | 44,000 | 44,000 | 66,000 | 66,000 | 66,000 | 88,000 |
| Nonweatherized ICS | Downflow/ Horizontal | 42,000 | 42,000 | 63,000 | 63,000 | 63,000 | 84,000 |
| Output Capacity (Btuh)† | Upflow; | 36,000 | 35,000 | 54,000 | 54,000 | 53,000 | 71,000 |
| Nonweatherized ICS | Downflow/ Horizontal | 34,000 | 34,000 | 51,000 | 51,000 | 51,000 | 68,000 |
| AFUE† | | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |
| Certified Temperature Rise Range – °F (°C) | | 30-60 (17–33) | 30–60 (17–35) | 35–65 (19–36) | 25–55 (14–31) | 25–55 (14–31) | 40-70 (22–39) |
| External Static Pressure | Heating | 0.10 | 0.10 | 0.12 | 0.12 | .12 | 0.15 |
| | Cooling | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Airflow CFM‡ | Heating | 710 | 760 | 982 | 1205 | 1305 | 1203 |
| | Cooling | 1080 | 1215 | 1005 | 1435 | 1545 | 1210 |
| | | | | | | | |
| Unit Volts–Hertz–Phase | | 115-60-1 | | | | | |
| Operating Voltage Range | Min-Max | 104-127 | | | | | |
| Maximum Unit Amps | | 5.6 | 7.6 | 5.6 | 10.0 | 10.0 | 8.2 |
| Unit Ampacity | | 7.8 | 10.3 | 7.8 | 13.3 | 13.3 | 11.0 |
| Maximum Wire Length (Measure one way in Ft (M) | | 47 (14.3) | 36 (11.0) | 47 (14.3) | 27 (8.2) | 27 (8.2) | 33 (10.1) |
| Minimum Wire Size | | 14 | | | | | |
| Maximum Fuse or Ckt Bkr Size (Amps)** | | 15 | | | | | |
| Transformer (24v) | | 40va | | | | | |
| External Control | Heating | 12va | | | | | |
| Power Available | Cooling | 35va | | | | | |
| Air Conditioning Blower Relay | | Standard | | | | | |
| | | | | | | | |
| Limit Control | | SPST | | | | | |
| Heating Blower Control | | Solid-State Time Operation | | | | | |
| Burners (Monoport) | | 2 | 2 | 3 | 3 | 3 | 4 |
| Gas Connection Size | | 1/2-in. NPT | | | | | |
| | | | | | | | |
| Gas Valve (Redundant) | Mfr. | White-Rodgers | | | | | |
| | Min. inlet pressure (In. W.C.) | 4.5/1.21 (Natural Gas) | | | | | |
| | Max. inlet pressure (In. W.C.) | 13.6/3.386 (Natural Gas) | | | | | |
| Ignition Device | | Hot Surface | | | | | |
| Factory-installed orifice | | Size 43 | | | | | |
| | | | | | | | |
| Direct-Drive Motor HP (ECM) | | 1/3 | 1/2 | 1/3 | 3/4 | 3/4 | 1/2 |
| Motor Full Load Amps | | 4.4 | 6.4 | 4.4 | 8.8 | 8.8 | 6.8 |
| RPM (Nominal)-Speeds | | 1050–5 | | | | | |
| Blower Wheel Diameter x Width – In. (mm) | | 10 x 6 (254 x 152) | 10 x 8 (254 x 203) | 11 x 8 (279 x 203) | 11 x 8 (279 x 203) | 10 x 10 (254 x 254) | 11 x 8 (279 x 203) |

* Gas input ratings are certified for elevations to 2000 ft. (610 M). In USA, 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 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. wide, high efficiency media filter.

** Time–delay type is recommended.

ICS Isolated Combustion System

## SPECIFICATIONS (CONT.)

| UNIT SIZE | | 048090 | 060090 | 066090 | 060110 | 066110 | 060135 |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| Input Btuh* | Upflow | 88,000 | 88,000 | 88,000 | 110,000 | 110,000 | 132,000 |
| Nonweatherized ICS | Downflow/ Horizontal | 84,000 | 84,000 | 84,000 | 105,000 | 105,000 | 126,000 |
| Output Capacity (Btuh)† | Upflow; | 72,000 | 71,000 | 72,000 | 90.000 | 90,000 | 107.000 |
| Nonweatherized ICS | Downflow/ Horizontal | 68,000 | 68,000 | 69,000 | 85,000 | 86,000 | 102,000 |
| AFUE† | | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |
| Certified Temperature Rise Range – °F (°C) | | 35–65 (19–36) | 25–55 (14–31) | 30-60 (17–33) | 30-60 (17–33) | 30-60 (17–33) | 40-70 (22–39) |
| External Static Pressure | Heating | 0.15 | 0.15 | 0.12 | 0.20 | 0.20 | 0.20 |
| | Cooling | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Airflow CFM‡ | Heating | 1418 | 1650 | 1565 | 1890 | 1930 | 1760 |
| | Cooling | 1445 | 1980 | 1960 | 2040 | 2005 | 1810 |
| | | | | | | | |
| Unit Volts–Hertz–Phase | | 115-60-1 | | | | | |
| Operating Voltage Range | Min-Max | 104-127 | | | | | |
| Maximum Unit Amps | | 8.2 | 12.9 | 10.2 | 13.4 | 10.9 | 10.7 |
| Unit Ampacity | | 11.0 | 16.9 | 13.6 | 17.4 | 14.2 | 14.0 |
| Maximum Wire Length (Measure one way in Ft (M) | | 33 (10.1) | 33.0 (10.1) | 27 (8.2) | 33 (10.1) | 26.0 (7.9) | 26.0 (7.9) |
| Minimum Wire Size | | 14 | 12 | 14 | 12 | 14 | 14 |
| Maximum Fuse or Ckt Bkr Size (Amps)** | | 15 | 20 | 15 | 20 | 15 | 15 |
| Transformer (24v) | | 40va | | | | | |
| External Control | Heating | 12va | | | | | |
| Power Available | Cooling | 35va | | | | | |
| Air Conditioning Blower Relay | | Standard | | | | | |
| | | | | | | | |
| Limit Control | | SPST | | | | | |
| Heating Blower Control | | Solid-State Time Operation | | | | | |
| Burners (Monoport) | | 4 | 4 | 4 | 5 | 5 | 6 |
| Gas Connection Size | | 1/2-in. NPT | | | | | |
| | | | | | | | |
| Gas Valve (Redundant) | Mfr. | White-Rodgers | | | | | |
| | Min. inlet pressure (In. W.C.) | 4.5/1.21 (Natural Gas) | | | | | |
| | Max. inlet pressure (In. W.C.) | 13.6/3.386 (Natural Gas) | | | | | |
| Ignition Device | | Hot Surface | | | | | |
| Factory-installed orifice | | Size 43 | | | | | |
| | | | | | | | |
| Direct-Drive Motor HP (ECM) | | 1/2 | 1 | 3/4 | 1 | 3/4 | 3/4 |
| Motor Full Load Amps | | 6.8 | 11.5 | 8.8 | 11.5 | 8.8 | 8.8 |
| RPM (Nominal)-Speeds | | 1050–5 | | | | | |
| Blower Wheel Diameter x Width – In. (mm) | | 10 x 10 (254 x 254) | 11 x 11 (279 x 279) | 11 x 11 (279 x 279) | 11 x 11 (279 x 279) | 11 x 11 (279 x 279) | 11 x 11 (279 x 279) |

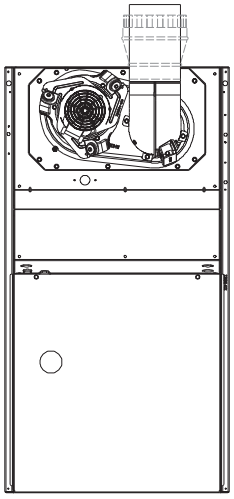
* Gas input ratings are certified for elevations to 2000 ft. (610 M). In USA, for elevations above 2000 ft. (610 M), reduce ratings 4 percent for each 1000 ft. (305 M) above sea level. Refer to National Fuel Gas Code NFPA 54/ANSI Z223.1 Table F.4 or furnace installation instructions.

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

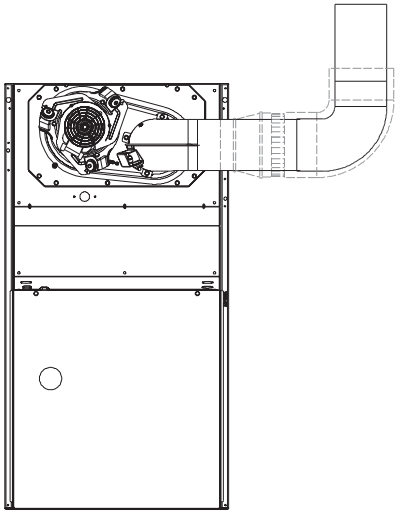
‡ Airflow shown is for bottom only return-air supply for the as-shipped speed tap. For air delivery above 1800 CFM, see Air Delivery table for other options. A filter is required for each return-air supply. An airflow reduction of up to 7 percent may occur when using the factory-specified 4-5/16 in.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

** Time–delay type is recommended.

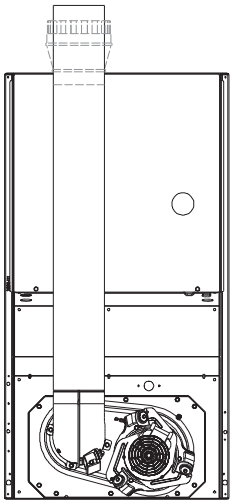
ICS Isolated Combustion System



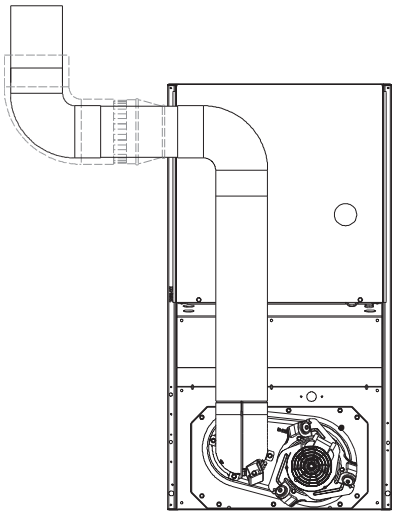
SEE NOTES: 1,2,4,7,8,9
UPFLOW
A02058



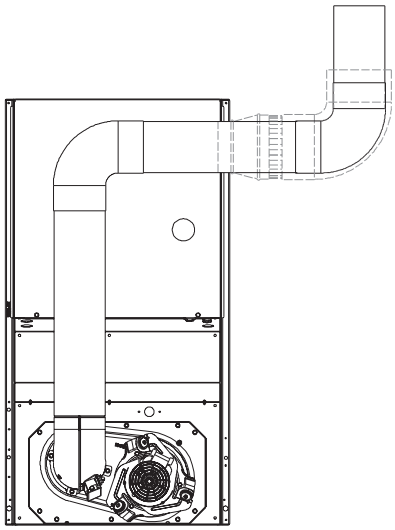
SEE NOTES: 1,2,3,4,7,8,9
UPFLOW
A02059



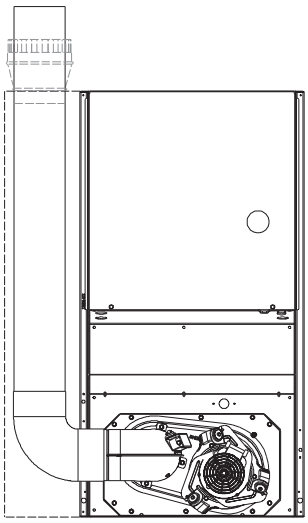
SEE NOTES: 1,2,4,5,7,8,9
DOWNFLOW
A02061



SEE NOTES:1,2,3,4,5,7,8,9
DOWNFLOW
A02060



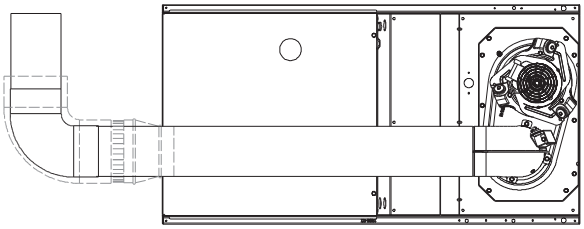
SEE NOTES: 1,2,3,4,7,8,9
DOWNFLOW
A02063



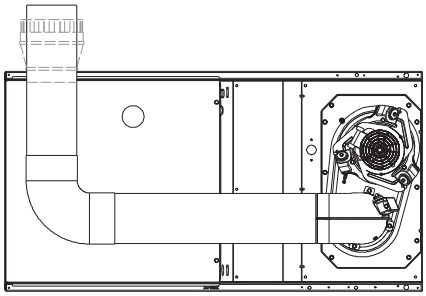
SEE NOTES: 1,2,4,5,6,7,8,9
DOWNFLOW
A02062

## Venting Notes

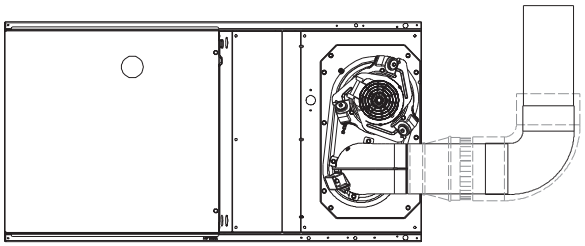
1. For common vent, vent connector sizing and vent material: United States, latest edition of the National Fuel Gas Code (NFGC), NFPA54/ANSI Z223.1.
2. Immediately increase to 5−in. (127 mm) vent connector outside furnace casing when 5−in. (127 mm) vent connector required, refer to Note 1.
3. Side outlet vent for upflow and downflow installations must use Type B vent immediately after exiting the furnace, except when accessory 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.



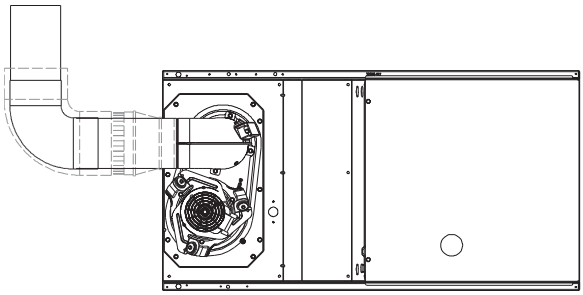
SEE NOTES: 1,2,4,5,7,8,9
HORIZONTAL RIGHT
A02068



SEE NOTES: 1,2,4,5,7,8,9
HORIZONTAL RIGHT
A02070



SEE NOTES: 1,2,4,7,8,9
HORIZONTAL RIGHT
A02069



SEE NOTES: 1,2,4,7,8,9
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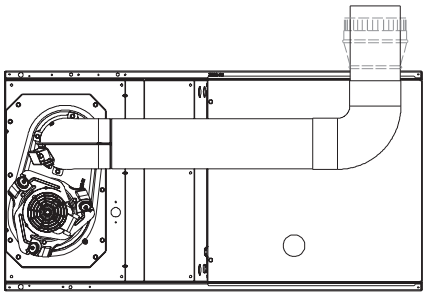
A02064



SEE NOTES: 1,2,4,5,7,8,9
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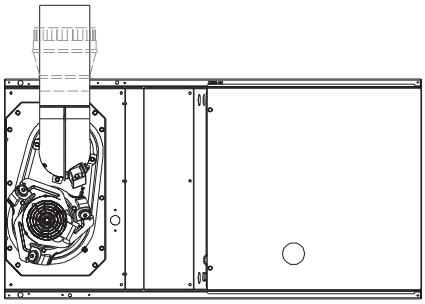

SEE NOTES: 1,2,4,5,7,8,9
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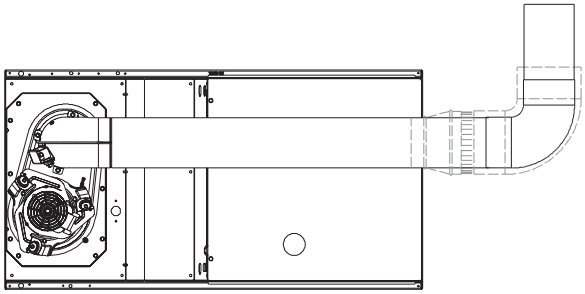
A02066



SEE NOTES: 1,2,4,5,7,8,9
HORIZONTAL LEFT
A02067

# ACCESSORIES

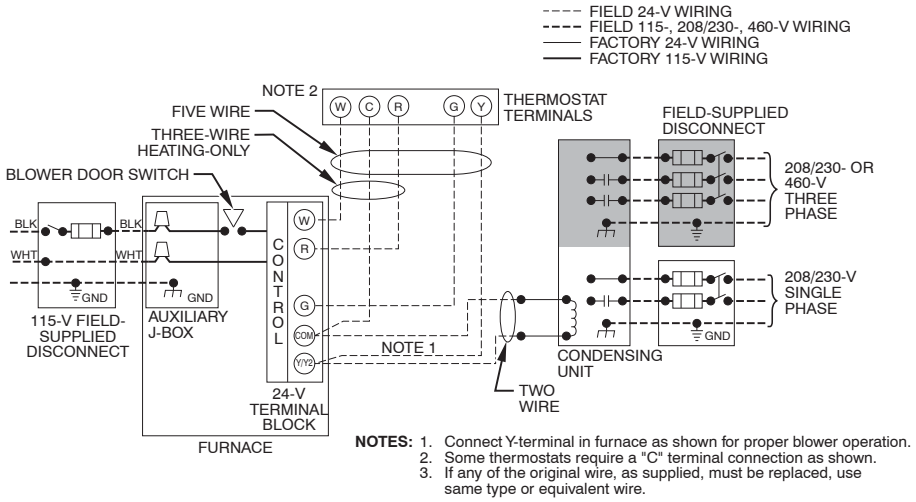
| DESCRIPTION | PART NO. | 036045 | 042045 | 036070 | 048070 | 054070 | 042090 |
|---|---|---|---|---|---|---|---|
| External Bottom Return Filter Rack | KGBFR0401B14 | X | | | | | |
| | KGBFR0501B17 | | X | X | X | | X |
| | KGBFR0601B21 | | | | | X | |
| | KGBFR0701B24 | | | | | | |
| Unframed Filter 3/4—in. (19 mm) | KGAWF1306UFR | X | X | X | X | | X |
| | KGAWF1406UFR | | | | | X | |
| | KGAWF1506UFR | | | | | | |
| Flue Extension | KGAFE0112UPH | X | X | X | X | X | X |
| Combustible Floor Base | KGASB0201ALL | X | X | X | X | X | X |
| Downflow Vent Guard | KGBVG0101DFG | X | X | X | X | X | X |
| Vent Extension Kit | KGAVE0101DNH | X | X | X | X | X | X |
| Chimney Adapter Kit | KGACA02014FC | X | X | X | X | X | X |
| Chimney Adapter Kit | KGACA02015FC | | | | | | |
| Natural—to—Propane Conversion Kit* | KGBNP50011SP | X | X | X | X | X | X |
| Propane—to—Natural Conversion Kit* | KGBPN42011SP | X | X | X | X | X | X |

| DESCRIPTION | PART NO. | 048090 | 060090 | 066090 | 060110 | 066110 | 060135 |
|---|---|---|---|---|---|---|---|
| External Bottom Return Filter Rack | KGBFR0401B14 | | | | | | |
| | KGBFR0501B17 | | | | | | |
| | KGBFR0601B21 | X | X | | X | | |
| | KGBFR0701B24 | | | X | | X | X |
| Unframed Filter 3/4—in. (19 mm) | KGAWF1306UFR | | | | | | |
| | KGAWF1406UFR | X | X | | X | | |
| | KGAWF1506UFR | | | X | | X | X |
| Flue Extension | KGAFE0112UPH | X | X | X | X | X | X |
| Combustible Floor Base | KGASB0201ALL | X | X | X | X | X | X |
| Downflow Vent Guard | KGBVG0101DFG | X | X | X | X | X | X |
| Vent Extension Kit | KGAVE0101DNH | X | X | X | X | X | X |
| Chimney Adapter Kit | KGACA02014FC | X | X | X | X | X | |
| Chimney Adapter Kit | KGACA02015FC | | | | | | X |
| Natural—to—Propane Conversion Kit* | KGBNP50011SP | X | X | X | X | X | X |
| Propane—to—Natural Conversion Kit* | KGBPN42011SP | X | X | X | X | X | X |

*Factory—authorized and field—installed. Gas conversion kits are CSA (AGA/CGA) recognized.
X — Accessory

| | | |
|---|---|---|
| Gas Orifice | LH32DB207 | See Installation Instructions for model, altitude, and heat value usages. |
| | LH32DB202 | |
| | LH32DB200 | |
| | LH32DB205 | |
| | LH32DB208 | |
| | LH32DB078 | |
| | LH32DB076 | |
| | LH32DB203 | |
| | LH32DB201 | |
| | LH32DB206 | |
| | LH32DB209 | |
| | LH32DB210 | |

# TYPICAL WIRING SCHEMATIC




**NOTES:** 1. Connect Y-terminal in furnace as shown for proper blower 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.

A99440

*Model HP and 2S thermostat must be field converted to air conditioner operation.
†Thermidistat™ Control control can be configured for multiple use and staging. It must be configured for each specific application.
‡Dual Fuel thermostat is used with furnace and heat pump application.

## AIR DELIVERY – CFM (WITH FILTER)*

| Furnace | Wire Lead Color | Speed | Test Airflow Delivery @ Various External Static Pressures | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1 |
| 036045 | Gray | 5 | 1230 | 1190 | 1155 | 1120 | 1080 | 1045 | 1010 | 975 | 935 | 895 |
| | Yellow | 4 | 980 | 945 | 920 | 890 | 855 | 815 | 770 | 735 | 690 | 645 |
| | Orange | 3 | 770 | 720 | 685 | 640 | 600 | 560 | 520 | 475 | 430 | 385 |
| | Blue | 2 | 710 | 660 | 620 | 580 | 540 | 490 | 455 | 415 | 375 | 335 |
| | Red | 1 | 600 | 540 | 500 | 455 | 415 | 385 | 345 | 305 | 235 | -- |
| 042045 | Gray | 5 | 1370 | 1335 | 1295 | 1255 | 1215 | 1175 | 1135 | 1095 | 1055 | 1020 |
| | Yellow | 4 | 1130 | 1085 | 1040 | 995 | 955 | 910 | 865 | 825 | 780 | 730 |
| | Blue | 3 | 760 | 720 | 670 | 625 | 580 | 515 | 460 | 410 | 355 | 300 |
| | Orange | 2 | 930 | 885 | 835 | 795 | 745 | 700 | 655 | 600 | 545 | 495 |
| | Red | 1 [3] | 610 | 500 | 445 | 375 | 320 | 260 | 200 | 135 | – | – |
| 036070 | Gray | 5 | 1185 | 1140 | 1095 | 1055 | 1005 | 960 | 915 | 865 | 820 | 780 |
| | Yellow | 4 | 1000 | 940 | 895 | 850 | 800 | 750 | 695 | 650 | 600 | 555 |
| | Blue | 3 | 990 | 935 | 895 | 845 | 790 | 740 | 690 | 640 | 590 | 535 |
| | Orange | 2 | 855 | 775 | 720 | 660 | 605 | 560 | 495 | 435 | 385 | 335 |
| | Red | 1 | 860 | 685 | 515 | 445 | 385 | 340 | 275 | 205 | -- | -- |
| 048070 | Gray | 5 | 1610 | 1565 | 1525 | 1475 | 1435 | 1395 | 1350 | 1305 | 1260 | 1215 |
| | Yellow | 4 | 1385 | 1335 | 1290 | 1250 | 1205 | 1165 | 1125 | 1075 | 1025 | 980 |
| | Blue | 3 | 1215 | 1165 | 1120 | 1075 | 1035 | 985 | 940 | 895 | 845 | 840 |
| | Orange | 2 | 1175 | 1130 | 1085 | 1035 | 990 | 945 | 900 | 855 | 805 | 760 |
| | Red | 1 | 1080 | 1015 | 955 | 920 | 875 | 820 | 780 | 725 | 670 | 620 |
| 054070 | Gray | 5 | 1735 | 1685 | 1640 | 1595 | 1545 | 1495 | 1450 | 1405 | 1360 | 1310 |
| | Yellow | 4 | 1480 | 1435 | 1395 | 1340 | 1290 | 1240 | 1190 | 1135 | 1085 | 1030 |
| | Blue | 3 | 1315 | 1275 | 1225 | 1180 | 1135 | 1085 | 1030 | 975 | 915 | 860 |
| | Orange | 2 | 1135 | 1080 | 1030 | 985 | 935 | 885 | 835 | 770 | 705 | 645 |
| | Red | 1 [3] | 980 | 930 | 875 | 820 | 775 | 715 | 665 | 595 | 530 | 455 |
| 042090 | Gray | 5 | 1355 | 1320 | 1285 | 1245 | 1210 | 1165 | 1125 | 1080 | 1025 | 815 |
| | Yellow | 4 | 1295 | 1255 | 1220 | 1185 | 1140 | 1100 | 1055 | 1005 | 955 | 815 |
| | Blue | 3 | 1220 | 1185 | 1150 | 1105 | 1065 | 1025 | 975 | 915 | 840 | 740 |
| | Orange | 2 | 1030 | 985 | 940 | 900 | 845 | 790 | 715 | 655 | 590 | 535 |
| | Red | 1 [3] | 945 | 905 | 855 | 800 | 750 | 670 | 600 | 540 | 490 | 435 |
| 048090 | Gray | 5 | 1625 | 1580 | 1535 | 1490 | 1445 | 1395 | 1340 | 1260 | 1135 | 995 |
| | Blue | 4 | 1440 | 1395 | 1350 | 1305 | 1255 | 1200 | 1145 | 1090 | 1040 | 950 |
| | Yellow | 3 | 1425 | 1380 | 1335 | 1290 | 1235 | 1185 | 1125 | 1075 | 1020 | 940 |
| | Orange | 2 | 1260 | 1210 | 1160 | 1105 | 1050 | 990 | 935 | 880 | 820 | 755 |
| | Red | 1 [3] | 1095 | 1040 | 980 | 905 | 845 | 780 | 720 | 650 | 585 | 520 |
| 060090 | Gray | 5 | 2180 | 2130 | 2080 | 2030 | 1980 | 1925 | 1870 | 1805 | 1745 | 1680 |
| | Yellow | 4 | 1900 | 1845 | 1795 | 1740 | 1685 | 1635 | 1570 | 1500 | 1435 | 1375 |
| | Blue | 3 | 1685 | 1620 | 1565 | 1505 | 1455 | 1385 | 1320 | 1260 | 1200 | 1140 |
| | Orange | 2 | 1390 | 1315 | 1240 | 1175 | 1095 | 1030 | 970 | 900 | 825 | 760 |
| | Red | 1 [3] | 1240 | 1155 | 1075 | 990 | 915 | 835 | 765 | 690 | 615 | 555 |
| 066090 | Gray | 5 | 2190 | 2135 | 2075 | 2015 | 1960 | 1900 | 1835 | 1775 | 1705 | 1630 |
| | Yellow | 4 | 1870 | 1810 | 1745 | 1685 | 1625 | 1565 | 1495 | 1420 | 1345 | 1280 |
| | Blue | 3 | 1580 | 1510 | 1445 | 1385 | 1320 | 1240 | 1175 | 1115 | 1050 | 970 |
| | Orange | 2 | 1305 | 1220 | 1160 | 1075 | 1000 | 930 | 865 | 770 | 690 | 610 |
| | Red | 1 [3] | 1210 | 1075 | 1000 | 915 | 845 | 765 | 675 | 595 | 515 | 425 |
| 060110 | Gray | 5 | 2255 | 2205 | 2150 | 2100 | 2040 | 1985 | 1920 | 1835 | 1735 | 1615 |
| | Blue | 4 | 1945 | 1890 | 1830 | 1770 | 1715 | 1655 | 1600 | 1545 | 1480 | 1430 |
| | Yellow | 3 | 1600 | 1525 | 1465 | 1400 | 1335 | 1275 | 1210 | 1150 | 1080 | 1015 |
| | Orange | 2 | 1420 | 1340 | 1280 | 1200 | 1140 | 1065 | 1005 | 925 | 865 | 790 |
| | Red | 1 | 1280 | 1205 | 1140 | 1055 | 990 | 910 | 840 | 760 | 695 | 630 |
| 066110 | Gray | 5 | 2250 | 2190 | 2130 | 2070 | 2005 | 1950 | 1885 | 1820 | 1755 | 1685 |
| | Yellow | 4 | 1540 | 1460 | 1385 | 1305 | 1235 | 1165 | 1095 | 1035 | 955 | 890 |
| | Blue | 3 | 1995 | 1930 | 1865 | 1800 | 1740 | 1670 | 1605 | 1535 | 1465 | 1400 |
| | Orange | 2 | 1345 | 1195 | 1135 | 1055 | 980 | 920 | 845 | 770 | 695 | 620 |
| | Red | 1 [3] | 1335 | 1075 | 965 | 890 | 820 | 735 | 660 | 580 | 505 | 440 |
| 060135 | Gray | 5 | 2065 | 2005 | 1940 | 1875 | 1810 | 1740 | 1670 | 1600 | 1530 | 1470 |
| | Blue | 4 | 1825 | 1760 | 1695 | 1630 | 1560 | 1490 | 1420 | 1350 | 1275 | 1205 |
| | Yellow | 3 | 1760 | 1690 | 1625 | 1555 | 1485 | 1415 | 1345 | 1275 | 1200 | 1130 |
| | Orange | 2 | 1620 | 1550 | 1480 | 1405 | 1335 | 1260 | 1195 | 1130 | 1065 | 995 |
| | Red | 1 [3] | 1325 | 1260 | 1185 | 1100 | 1025 | 955 | 885 | 805 | 735 | 670 |

1. 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 without this filter, assume an additional 0.1 In. W.C. available external static pressure.
2. **Adjust the blower speed tabs as necessary for the proper air temperature rise for each installation.**
3. Highlighted areas indicate airflow range is beyond the range allowed for heating. **THESE AIRFLOW RANGES MAY ONLY BE USED FOR COOLING.**
4. –– Indicates unstable operating conditions.

**GUIDE SPECIFICATIONS**

**Gas Furnace**

**PG8JEB**

# 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 Z 21.47/CSA 2.3 design standard for gas−fired central furnaces.

Unit will be 3rd party certified by CSA to the current ANSI Z 21.47/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 will 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 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 _____ in (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.

## Inducer Motor

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 enhanced flashing LED diagnostic 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 heating and cooling.

## 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.; width _____ in; 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.

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**Catalog No: SS−PG8JEB−06**

**Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.**

Replaces: SS−PG8JEB−05