
TECHNICAL SPECIFICATIONS



KG6RA Series

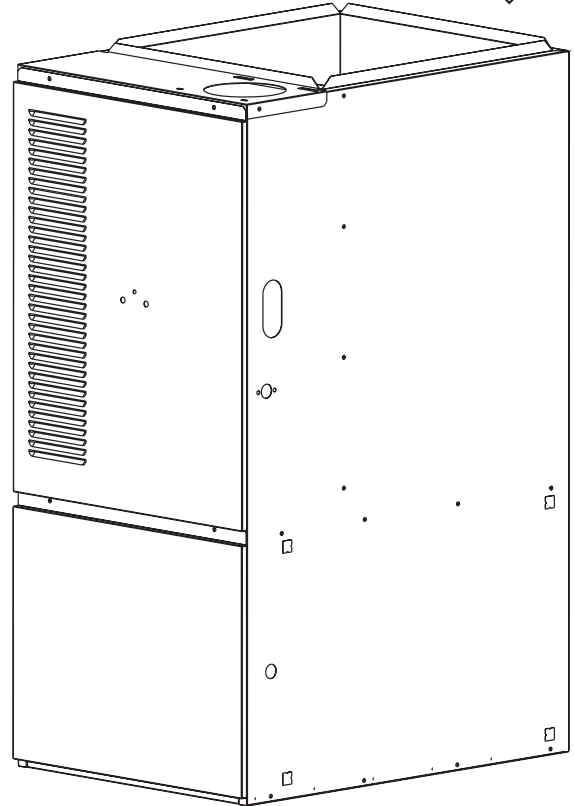
High Efficiency Upflow/Horizontal Gas Furnace

**Induced Draft - 80+ AFUE
Input 45,000 - 144,000 Btuh**

The high efficiency upflow/horizontal gas furnace may be installed free standing in a utility room, basement, or enclosed in an alcove or closet. The extended flush jacket provides a pleasing "appliance appearance." Design certified by the Canadian Standards Association (CSA).

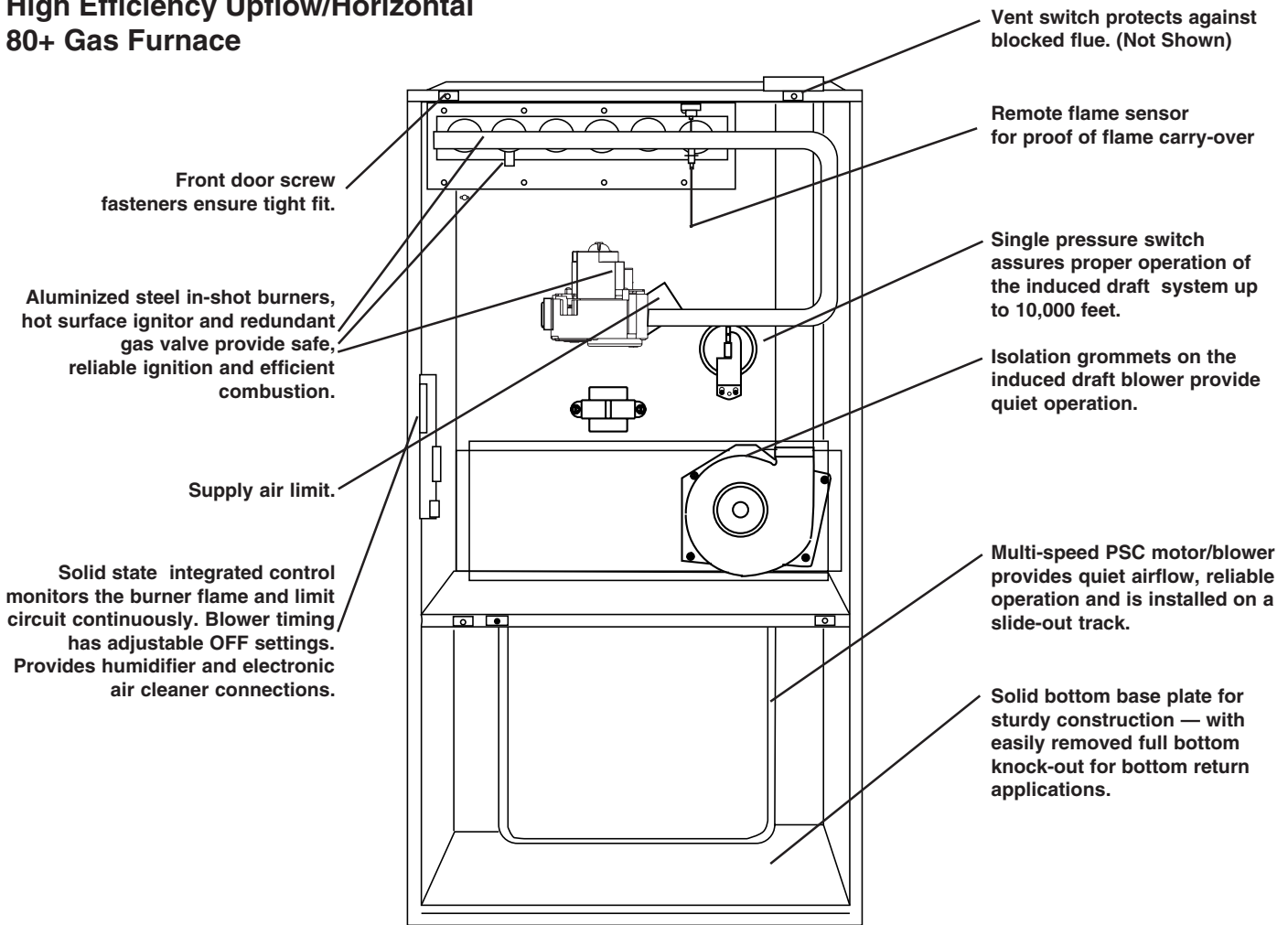
FEATURES and BENEFITS

- **100% fired and tested** — All units and each component (both mechanical and electrical) are tested on the manufacturing line.
- **Best packaging in the industry** — Unique design assures product will arrive to the homeowner dent free.
- **Clean and quiet operation** — Due to the unique design of in-shot burners, location of inducer, return air vents, and use of insulation.
- **Fixed 30 second blower delay** at burner start-up assures a warm duct temperature at furnace start-up. Adjustable blower off settings (60, 90, 120 and 180 seconds).
- **Fixed 30 second post purge** increases life of heat exchanger.
- **Dependable hot surface ignitor** — Innovative application of an appliance type ignitor with a 20 year history of reliability.
- **Color coded wire harness** — Designed to fit the components, all with quick-connect fittings for ease of service and replacement.
- **Approved for category I and III venting systems** — May be common, dedicated, or horizontal vented for maximum flexibility in installation.
- **Tubular primary heat exchanger** — Heavy gauge aluminized steel heat exchanger assures a long life.
- **90 second fixed cooling cycle blower-off delay (TDR)** increases cooling performance when matched with a NORDYNE coil.
- **Variable speed blower kit** is available to maximize air conditioner and heat pump efficiencies. On selected units, SEER ratings up to 14 and HSPF ratings up to 8.5 are ARI listed.
- **Multi-speed direct drive blower** — Designed to give a wide range of cooling capacities. 40VA transformer included.
- **LP convertible** — Simple burner orifice and regulator spring change for ease of convertibility.
- **Diagnostic lights flash to identify limit failure, pressure switch failure, improper ground and polarization, and low flame signal** — for easy troubleshooting.
- **Incorporates integrated control board** with connections for electronic air cleaner, humidifier and twinning.
- **Two piece door design** enhances furnace appearance and uses screw fasteners for easier accessibility.
- **3 amp fuse** protection against low voltage shorts; protects transformer and control board.
- **Low voltage terminal board** for easy field wiring.
- **Components and Controls** — Designing quality into our products means selecting component manufacturers with a reputation for high quality and dependability.
- **Five year limited parts warranty**
- **20 year limited heat exchanger warranty**



FEATURES

High Efficiency Upflow/Horizontal 80+ Gas Furnace



STANDARD EQUIPMENT

Draft inducer; pressure switch; redundant main gas control; hot-surface ignition; timed ON/OFF blower controls (TDR) ; 40VA transformer for air conditioner application; limit controls; solid base plate with knock-out for easy removal; direct drive motor; all models can be converted to use L.P. (propane) gas. Factory approved kits *only* must be used and are available as an optional accessory from your distributor.

SPECIFICATIONS

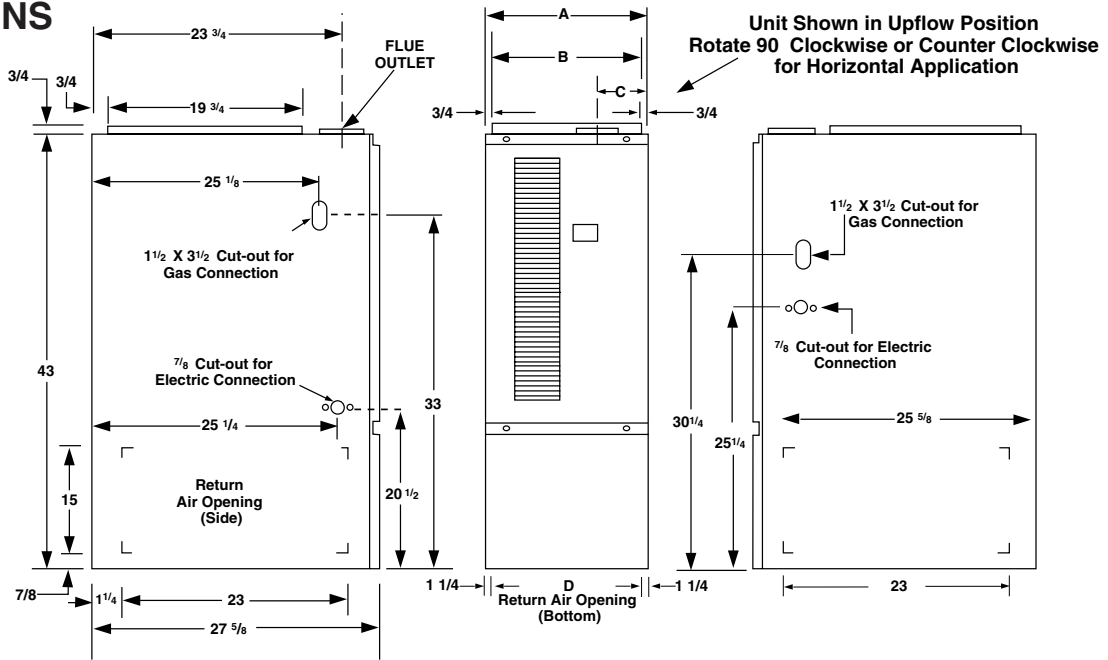
| KG6RA MODEL NUMBERS | -045()08A | -060()12A | -072()12A | -072()17A | -072()16B | -072()17A | -096()12B | -096()16B | -096()20B | -096()20C | -120()16B | -120()20C | -144()20C |
|-----------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Input-Btuh (a) | 45,000 | 60,000 | 72,000 | 72,000 | 72,000 | 72,000 | 96,000 | 96,000 | 96,000 | 96,000 | 120,000 | 120,000 | 144,000 |
| Heating Capacity - Btuh | 36,000 | 48,000 | 57,600 | 57,600 | 57,600 | 58,000 | 76,800 | 76,800 | 76,800 | 76,800 | 96,000 | 96,000 | 115,200 |
| AFUE | 80+ | 80+ | 80+ | 80+ | 80+ | 80+ | 80+ | 80+ | 80+ | 80+ | 80+ | 80+ | 80+ |
| Max. Htg. Ext. St. Press. In W.C. | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| Blower Wheel D x W | 10 x 6 | 10 x 6 | 10 x 6 | 10 x 6 | 10 x 10 | 10 x 6 | 10 x 9 | 10 x 10 | 11 x 10 | 11 x 10 | 10 x 10 | 11 x 10 | 11 x 10 |
| Motor H.P. -Speed -Type | 1/5-3-PSC | 1/3-3-PSC | 1/3-3-PSC | 3/4-4-PSC | 1/2-4-PSC | 3/4-4-PSC | 1/3-3-PSC | 1/2-4-PSC | 3/4-4-PSC | 3/4-4-PSC | 1/2-4-PSC | 3/4-4-PSC | 3/4-4-PSC |
| Motor FLA | 2.8 | 6.0 | 6.0 | 11.1 | 7.9 | 14.0 | 6.0 | 7.9 | 11.1 | 11.1 | 7.9 | 11.1 | 11.1 |
| Temperature Rise Range - °F | 45 - 75 | 45 - 75 | 45 - 75 | 45 - 75 | 40 - 70 | 45 - 75 | 50 - 80 | 50 - 80 | 50 - 80 | 40 - 70 | 50 - 80 | 45 - 75 | 45 - 75 |
| Approximate Shipping Wt. - lbs. | 123 | 134 | 135 | 135 | 152 | 135 | 163 | 163 | 170 | 174 | 174 | 182 | 194 |

All models are 115 V, 60 HZ. Gas connections are 1/2" N.P.T.

AFUE= Annual Fuel Utilization Efficiency

(a) Ratings to 2000 ft. Over 2000 ft. reduce 4% for each 1000 ft. above sea level

DIMENSIONS



| MODEL NUMBER KG6RA- | A (in.) | B (in.) | C (in.) | D (in.) | MODEL NUMBER KG6RA- | A (in.) | B (in.) | C (in.) | D (in.) |
|------------------------|------------|------------|------------|------------|------------------------|------------|------------|------------|------------|
| 045(*)-08A | 14 1/4 | 12 3/4 | 3 1/4 | 11 3/4 | 096(*)-16B | 19 3/4 | 18 1/4 | 3 3/4 | 17 1/4 |
| 060(*)-12A | 14 1/4 | 12 3/4 | 3 3/4 | 11 3/4 | 096(*)-20B | 19 3/4 | 18 1/4 | 3 3/4 | 17 1/4 |
| 072(*)-12A | 14 1/4 | 12 3/4 | 3 3/4 | 11 3/4 | 096(*)-20C | 22 1/2 | 21 | 3 3/4 | 20 |
| 072(*)-16B | 19 3/4 | 18 1/4 | 3 3/4 | 17 1/4 | 120(*)-16B | 19 3/4 | 18 1/4 | 3 3/4 | 17 1/4 |
| 072(*)-17A | 14 1/4 | 12 3/4 | 3 3/4 | 11 3/4 | 120(*)-20C | 22 1/2 | 21 | 3 3/4 | 20 |
| 096(*)-12B | 19 3/4 | 18 1/4 | 3 3/4 | 17 1/4 | 144(*)-20C | 22 1/2 | 21 | 4 1/4 | 20 |

BLOWER PERFORMANCE

| Model Number *RA- | Heating Input (Btuh) | Motor Speed | Motor HP | External Static Pressure (Inches Water Column) | | | | | | | | | | | | | | | |
|-------------------|----------------------|-------------|----------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | | | 0.1 | | 0.2 | | 0.3 | | 0.4 | | 0.5 | | 0.6 | | 0.7 | | 0.8 | |
| | | | | CFM | Rise | CFM | Rise | CFM | Rise | CFM | Rise | CFM | Rise | CFM | Rise | CFM | Rise | CFM | Rise |
| 045(t)-08A | 45000 | High* | 1/5 | 1000 | 33 | 970 | 34 | 950 | 35 | 920 | 36 | 870 | 38 | 820 | 41 | 770 | 43 | 700 | 48 |
| | | Medium** | | 760 | 44 | 740 | 45 | 730 | 46 | 720 | 46 | 690 | 48 | 670 | 50 | 640 | 52 | 620 | 54 |
| | | Low | | 630 | 53 | 620 | 54 | 610 | 55 | 600 | 56 | 570 | 58 | 540 | 62 | 510 | 65 | 470 | 71 |
| 060(t)-12A | 60000 | High* | 1/3 | 1380 | 32 | 1350 | 33 | 1310 | 34 | 1260 | 35 | 1210 | 37 | 1150 | 39 | 1080 | 41 | 1000 | 44 |
| | | Medium** | | 1220 | 36 | 1190 | 37 | 1160 | 38 | 1120 | 40 | 1070 | 42 | 1020 | 44 | 950 | 47 | 880 | 51 |
| | | Low | | 820 | 54 | 800 | 56 | 780 | 57 | 760 | 58 | 730 | 61 | 700 | 63 | 670 | 66 | 640 | 69 |
| 072(t)-12A | 72000 | High* | 1/3 | 1380 | 39 | 1350 | 40 | 1310 | 41 | 1260 | 42 | 1210 | 44 | 1150 | 46 | 1080 | 49 | 1000 | 53 |
| | | Medium** | | 1220 | 44 | 1190 | 45 | 1160 | 46 | 1120 | 48 | 1070 | 50 | 1020 | 52 | 950 | 56 | 880 | 61 |
| | | Low | | 820 | 65 | 800 | 67 | 780 | 68 | 760 | 70 | 730 | 73 | 700 | 76 | 670 | 80 | 640 | 83 |
| 072(t)-16B | 72000 | High* | 1/2 | 1980 | 27 | 1910 | 28 | 1830 | 29 | 1760 | 30 | 1660 | 32 | 1570 | 34 | 1460 | 37 | 1350 | 40 |
| | | Med-High | | 1710 | 31 | 1660 | 32 | 1610 | 33 | 1540 | 35 | 1470 | 36 | 1390 | 38 | 1300 | 41 | 1200 | 44 |
| | | Med-Low** | | 1490 | 36 | 1470 | 36 | 1420 | 38 | 1380 | 39 | 1320 | 40 | 1250 | 43 | 1170 | 46 | 1090 | 49 |
| 072(t)-17A | 72000 | High* | 3/4 | 1950 | 27 | 1900 | 28 | 1810 | 29 | 1810 | 29 | 1770 | 30 | 1730 | 31 | 1700 | 31 | 1670 | 32 |
| | | Med-High | | 1500 | 36 | 1450 | 37 | 1420 | 38 | 1380 | 39 | 1340 | 40 | 1310 | 41 | 1280 | 42 | 1250 | 43 |
| | | Med-Low** | | 1160 | 46 | 1130 | 47 | 1090 | 49 | 1060 | 50 | 1030 | 52 | 980 | 54 | 940 | 57 | 900 | 59 |
| 096(t)-12B | 96000 | High* | 1/3 | 1530 | 46 | 1450 | 49 | 1390 | 51 | 1300 | 55 | 1220 | 58 | 1130 | 63 | 1040 | 68 | 940 | 76 |
| | | Medium** | | 1380 | 52 | 1320 | 54 | 1250 | 57 | 1190 | 60 | 1100 | 65 | 1020 | 70 | 920 | 77 | 820 | 87 |
| | | Low | | 930 | 76 | 900 | 79 | 870 | 82 | 820 | 87 | 750 | 95 | 670 | 106 | 580 | 123 | 470 | 151 |
| 096(t)-16B | 96000 | High* | 1/2 | 1980 | 36 | 1910 | 37 | 1840 | 39 | 1760 | 40 | 1680 | 42 | 1590 | 45 | 1500 | 47 | 1410 | 50 |
| | | Med-High** | | 1720 | 41 | 1670 | 43 | 1610 | 44 | 1560 | 46 | 1480 | 48 | 1410 | 50 | 1320 | 54 | 1230 | 58 |
| | | Med-Low | | 1470 | 48 | 1440 | 49 | 1410 | 50 | 1370 | 52 | 1320 | 54 | 1270 | 56 | 1200 | 59 | 1130 | 63 |
| 096(t)-20B | 96000 | High* | 3/4 | 2435 | 29 | 2410 | 30 | 2375 | 30 | 2335 | 30 | 2290 | 31 | 2215 | 32 | 2135 | 33 | 2035 | 35 |
| | | Med-High** | | 2015 | 35 | 2015 | 35 | 2005 | 35 | 1975 | 36 | 1945 | 37 | 1905 | 37 | 1895 | 38 | 1865 | 38 |
| | | Med-Low | | 1698 | 42 | 1695 | 42 | 1680 | 42 | 1660 | 43 | 1645 | 43 | 1600 | 44 | 1555 | 46 | 1495 | 48 |
| 096(t)-20C | 96000 | High* | 3/4 | 2340 | 30 | 2290 | 31 | 2280 | 31 | 2180 | 33 | 2150 | 33 | 2060 | 34 | 2000 | 36 | 1920 | 37 |
| | | Med-High | | 1910 | 37 | 1880 | 38 | 1860 | 38 | 1830 | 39 | 1810 | 39 | 1790 | 40 | 1770 | 40 | 1750 | 41 |
| | | Med-Low** | | 1520 | 47 | 1510 | 47 | 1490 | 48 | 1480 | 48 | 1460 | 49 | 1440 | 49 | 1420 | 50 | 1400 | 51 |
| 120(t)-16B | 120000 | High* | 1/2 | 1900 | 47 | 1830 | 49 | 1750 | 51 | 1630 | 55 | 1580 | 56 | 1490 | 60 | 1400 | 63 | 1320 | 67 |
| | | Med-High** | | 1720 | 52 | 1670 | 53 | 1610 | 55 | 1560 | 57 | 1480 | 60 | 1410 | 63 | 1320 | 67 | 1230 | 72 |
| | | Med-Low | | 1450 | 61 | 1420 | 63 | 1380 | 64 | 1340 | 66 | 1280 | 69 | 1220 | 73 | 1150 | 77 | 1070 | 83 |
| 120(t)-20C | 120000 | High* | 3/4 | 2300 | 39 | 2250 | 40 | 2190 | 41 | 2130 | 42 | 2090 | 43 | 2040 | 44 | 2000 | 44 | 1950 | 46 |
| | | Med-High** | | 1910 | 47 | 1880 | 47 | 1860 | 48 | 1830 | 49 | 1800 | 49 | 1770 | 50 | 1740 | 51 | 1700 | 52 |
| | | Med-Low | | 1540 | 58 | 1530 | 58 | 1520 | 58 | 1500 | 59 | 1480 | 60 | 1450 | 61 | 1420 | 63 | 1390 | 64 |
| 144(t)-20C | 144000 | High* | 3/4 | 2240 | 48 | 2190 | 49 | 2130 | 50 | 2070 | 52 | 2020 | 53 | 1960 | 54 | 1910 | 56 | 1850 | 58 |
| | | Med-High** | | 1900 | 56 | 1860 | 57 | 1820 | 59 | 1780 | 60 | 1740 | 61 | 1700 | 63 | 1660 | 64 | 1620 | 66 |
| | | Med-Low | | 1520 | 70 | 1510 | 71 | 1490 | 72 | 1480 | 72 | 1450 | 74 | 1420 | 75 | 1390 | 77 | 1360 | 78 |
| Low | 1330 | 80 | 1310 | 81 | 1290 | 83 | 1280 | 83 | 1250 | 85 | 1230 | 87 | 1210 | 88 | 1180 | 90 | | | |

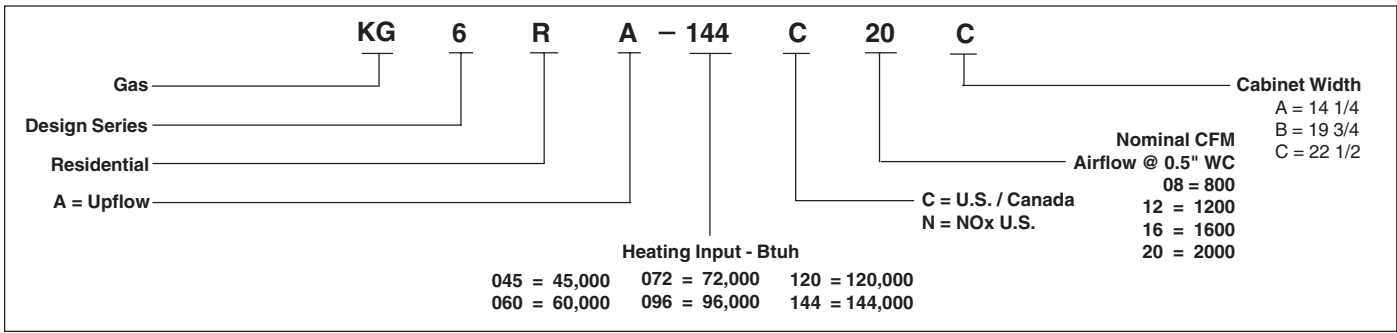
† Can be C or N.

** Factory Set Cooling Speed

** Factory Set Heating Speed

- NOTES: 1. Airflow rates of 1800 CFM or more require two return air connections. Data is for operation with filter(s).
 2. Temperature rises in the table are approximate. Actual temperature rises may vary.
 3. Temperature rises and airflows for external static pressures greater than 0.5 are for reference only. These conditions are not recommended.

MODEL IDENTIFICATION CODE



Through-the-Wall VENTING Venting Requirements

These furnaces are approved to use with 3" single wall AL29-4C stainless steel vent pipe in horizontal vent applications, and with the required horizontal vent kit listed below. The pipe is available from the following manufacturers:

- Z-Flex Inc.** - vent brand name (**Z-VENT**)
- Heat-fab Inc.** - vent brand name (**Saf-T Vent**)
- Flex-L International** - vent brand name (**STAR-34 Vent**)

When venting horizontal, this is a Category III furnace, the vent pressure is positive, and the venting system must be sealed in both horizontal and vertical runs.

| Model Number KG6RA- | Min. Pipe Size | Reducer Needed | Flue Outlet (in.) | Max. # Elbows | Max. Ft. Vent Pipe |
|------------------------|----------------|----------------|-------------------|---------------|--------------------|
| 045(-)08A | 3" | None | 3 | 4 | 35 |
| 060(-)12A | 3" | 4" to 3" | 4 | 4 | 35 |
| 072(-)12A | 3" | 4" to 3" | 4 | 4 | 35 |
| 072(-)16B | 3" | 4" to 3" | 4 | 4 | 35 |
| 072(-)17A | 3" | 4" to 3" | 4 | 4 | 35 |
| 096(-)12B | 3" | 4" to 3" | 4 | 4 | 35 |
| 096(-)16B | 3" | 4" to 3" | 4 | 4 | 35 |
| 096(-)20B | 3" | 4" to 3" | 4 | 4 | 35 |
| 096(-)20C | 3" | 4" to 3" | 4 | 4 | 35 |
| 120(-)16B | 3" | 4" to 3" | 4 | 4 | 35 |
| 120(-)20C | 3" | 4" to 3" | 4 | 4 | 35 |
| 144(-)20C* | 3" | 4" to 3" | 5 | 3 | 30 |

* NOTE: Field supplied special 5" to 4" Reducer Kit required for model KG6RA144C-120.

ACCESSORIES

| Kit | Order Number |
|--|---|
| U.S. LP Conversion Kit (0 to 10,000 ft.) | 904090A |
| Canadian LP Gas Conversion Kit (0 to 4,500 ft.) | 904091A |
| Fossil Fuel Kit | 914762 |
| Side Return Filter Kit | 541036 |
| Bottom Return Filter (20/Box) | A Cabinet: 903088 B Cabinet: 903089 C Cabinet: 903090 |
| Internal Side Return Filter Wire | 903152 |
| Variable Speed Blower Kit for "B" & "C" Cabinets | 904075 |
| Variable Speed Blower Kit for "A" Cabinets | 904231 |

VENTING

All models, with the exception of the reduced NOx models, are approved for vertical and horizontal venting applications (see table above). All models may be common vented with a gas water heater. Type B gas vent materials may be used when connected to a vertical vent system. The installation must be in accordance with the venting instructions supplied with the furnace.

GENERAL TERMS OF LIMITED WARRANTY

NORDYNE will furnish a replacement for any part of this product which fails in normal use and service within the first five years of installation, in accordance with the terms of the warranty.

For complete details of the Limited Warranty, including applicable terms and conditions, see your local installer or contact the factory for a copy.

