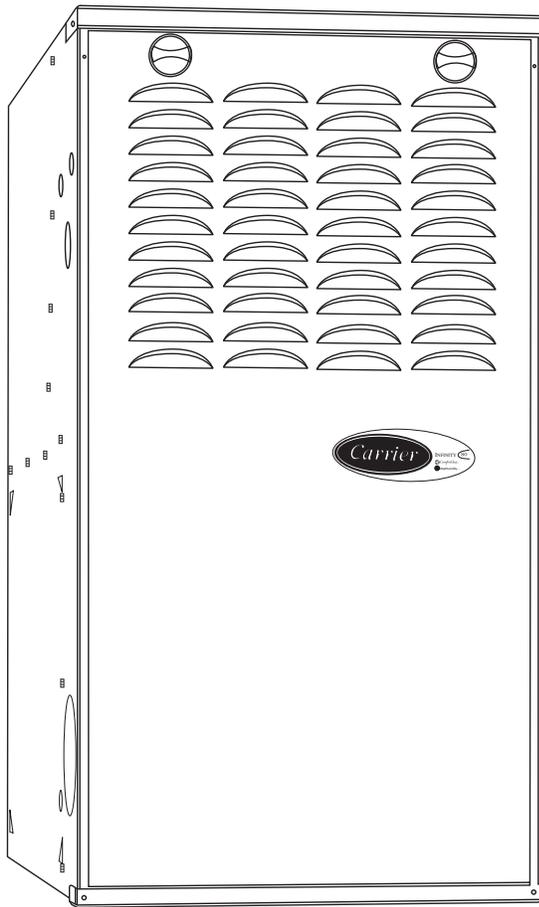


**58CVA/CVX
INFINITY™ 80 VARIABLE SPEED
4-WAY MULTIPOISE GAS FURNACE
Input Capacities: 70,000 thru 155,000 Btuh**



Product Data



A10250

THE INFINITY™ 80 GAS FURNACE

The Infinity™ 80 Variable-Speed, 4-way Multipoise Gas Furnaces offer unmatched comfort with ComfortHeat™ and IdealHumidity™ technologies in an 80% AFUE gas furnace. You get all 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. With the variable speed blower motor, homeowners can now economically run constant fan to help eliminate temperature differences throughout the house and to get better indoor air quality. This furnace with IdealHumidity™ technology also increases comfort in the summer by wringing out extra humidity when needed. The Infinity 80 furnaces are approved for use with natural or propane gas, and the 58CVX – 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.

Carrier Infinity™ System When the Infinity 80 variable-speed gas furnace is matched with the Infinity Control and an air conditioner or heat pump, you will experience the ultimate in ComfortHeat and IdealHumidity through unparalleled control of temperature, humidity, indoor air quality, and zoning. The Carrier Infinity System also provides unprecedented ease of use through on-screen, text-based service reminders and equipment malfunction alerts. For even greater comfort and convenience, match the Infinity 80 furnace with an Infinity air conditioner or heat pump. This will create a fully communicating system, requiring only 4 thermostat wires between system components, and troubleshooting can even be done from the outdoor unit without entering the home.

Optional remote access through telephone or Internet is also available when combined with a remote connectivity kit.

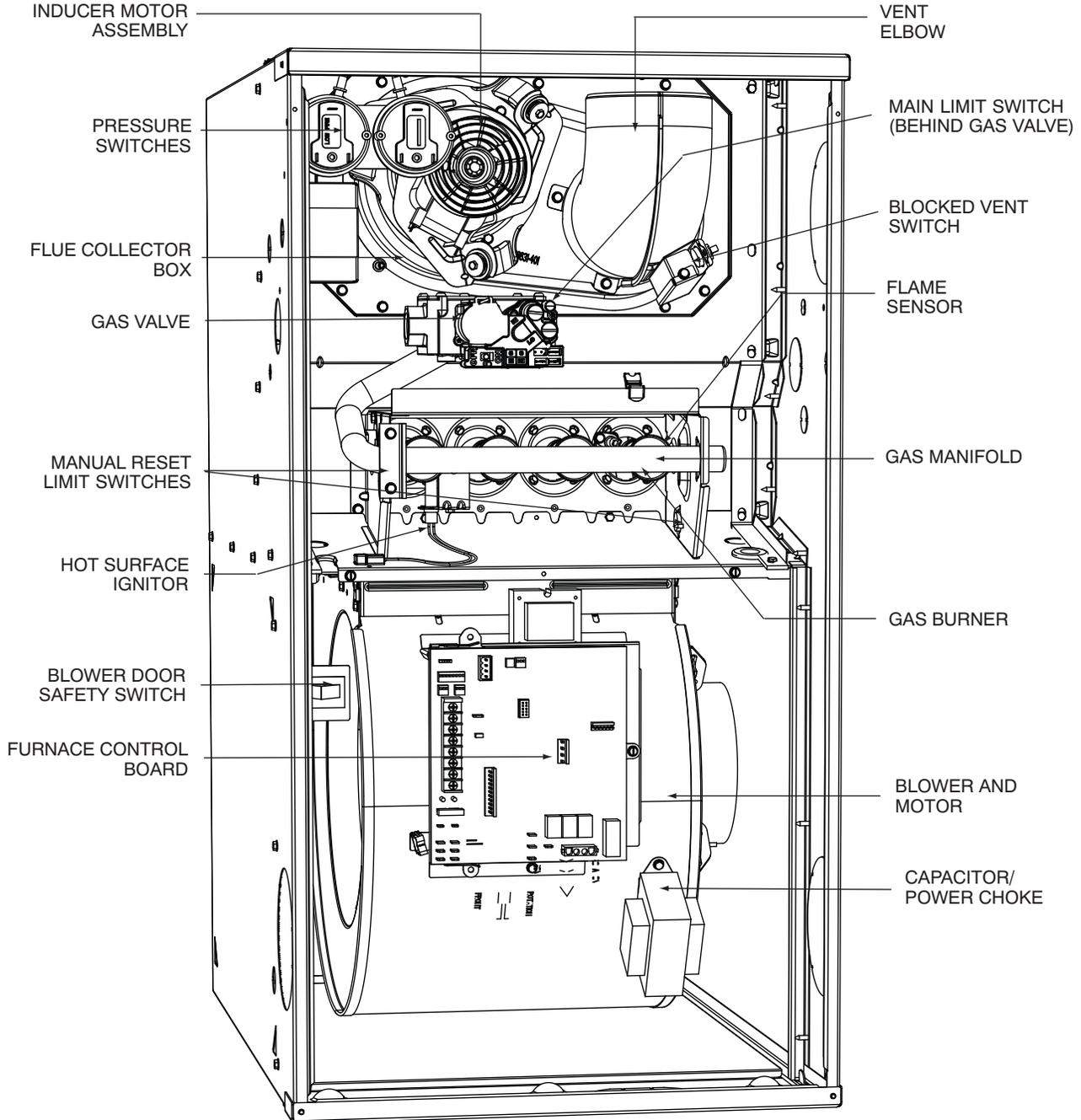
STANDARD FEATURES

- **Infinity System—match with the Infinity Control for Infinity System benefits**
- **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 QuietTech™ system**
- **Integral part of the IdealHumidity System**
Maximum dehumidification selection for summer time cooling
Full IdealHumidity benefits including “Super Dehumidify”
SmartEvap™ –Humidity control when using a Thermidistat™ / Infinity control
- **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
- **Comfort Fan™ –Up to 12 cooling airflow selections from thermostat with a wide range of capability**
- **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
Dehumidification selection for summer-time cooling
- **4-way Multipoise furnace, 13 vent applications**

STANDARD FEATURES (CONTINUED)

- 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
- 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
- HYBRID HEAT® Dual Fuel System compatible
- All models are chimney friendly when used with accessory vent kit
- Residential installations eligible for consumer financing through the Retail Credit Program

FURNACE COMPONENTS



A10312

NOTE: The 58CVA/CVX 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.

MODEL NUMBER NOMENCLATURE

| 58CVA | | 070 | 100 | 12 |
|--|------------------|-----|----------------------|--|
| 58CVA Variable Speed 4-Way Multipoise 58CVX Low NOx Version | | | | Nominal Cooling Size (Airflow at .5 ESP) (400 CFM per 12,000 Btuh) |
| | | | 100 | 12-1200 CFM |
| | | | 110 | 16-1600 CFM |
| | | | 120 | 20-2000 CFM |
| | | | 130 | 22-2200 CFM |
| | | | 140 | |
| | | | 150 | |
| | | | 160 | |
| | | | Series Number | |
| Input Capacity | | | | |
| 070-66,000 Btuh | 135-132,000 Btuh | | | |
| 090-88,000 Btuh | 155-154,000 Btuh | | | |
| 110-110,000 Btuh | | | | |

58CVA/CVX

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

SPECIFICATIONS

| UNIT SIZE | | 070-12 | 090-16 | 110-20 | 135-22 | 155-22 | |
|--|--------------------------------|----------------------------|-----------------------|------------------------|------------------------|------------------------|---------|
| RATINGS AND PERFORMANCE | | | | | | | |
| Input Btuh* Non-weatherized ICS | 58CVX Upflow; all 58CVA | High | 66,000 | 88,000 | 110,000 | 132,000 | 154,000 |
| | | Low | 43,500 | 58,000 | 72,500 | 87,000 | 101,500 |
| | 58CVX Downflow/Horizontal | High | 63,000 | 84,000 | 105,000 | 126,000 | 147,000 |
| | | Low | 43,500 | 58,000 | 72,500 | 87,000 | 101,500 |
| Output Capacity (Btuh)† Non-weatherized ICS | 58CVX Upflow; all 58CVA | High | 54,000 | 71,000 | 89,000 | 107,000 | 125,000 |
| | | Low | 35,000 | 47,000 | 59,000 | 70,000 | 82,000 |
| | 58CVX Downflow/Horizontal | High | 51,000 | 68,000 | 85,000 | 102,000 | 119,000 |
| | | Low | 35,000 | 47,000 | 59,000 | 70,000 | 82,000 |
| AFUE‡ | | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | |
| Certified Temperature Rise Range – °F (°C) | High | 30-60 (17-33) | 40-70 (22-39) | 40-70 (22-39) | 40-70 (22-39) | 45-75 (25-42) | |
| | Low | 30-60 (17-33) | 30-60 (17-33) | 25-55 (14-30) | 25-55 (14-30) | 30-60 (17-33) | |
| Certified External Static Pressure | Heat/Cool | 0.12/0.50 | 0.15/0.50 | 0.20/0.50 | 0.20/0.50 | 0.20/0.50 | |
| Airflow CFM‡ | Heating High/Low | 1060/615 | 1090/825 | 1330/1110 | 1725/1430 | 1775/1440 | |
| | Cooling | 1225 | 1400 | 2090 | 2100 | 2095 | |
| ELECTRICAL | | | | | | | |
| Unit Volts-Hertz-Phase | | 115-60-1 | | | | | |
| Operating Voltage Range | Min-Max | 104-127 | | | | | |
| Maximum Unit Amps | | 9.0 | 9.6 | 15.1 | 14.9 | 15.0 | |
| Maximum Wire Length (Measure 1 Way in Ft (M)) | | 30 (9.1) | 29 (8.8) | 29 (8.8) | 30 (9.1) | 29 (8.8) | |
| Minimum Wire Size | | 14 | | 12 | | | |
| Maximum Fuse or Ckt Bkr Size (Amps)** | | 15 | | 20 | | | |
| 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) | | 3 | 4 | 5 | 6 | 7 | |
| 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 | 1/2 | 1 | 1 | 1 | |
| Motor Full Load Amps | | 7.7 | 7.7 | 12.8 | 12.8 | 12.8 | |
| RPM (Nominal)-Speeds | | 300-1300 | 300-1300 | 300-1300 | 300-1300 | 300-1300 | |
| Blower Wheel Diameter x Width – In. (mm) | | 10 x 6 (254 x 152) | 10 x 8 (254 x 203) | 11 x 10 (279 x 254) | 11 x 11 (279 x 279) | 11 x 11 (279 x 279) | |

58CVA/CVX

* 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 Z223.1-2012 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

CARRIER ACCESSORIES

58CVA/CVX

| DESCRIPTION | PART NO. | 070—12 | 090—16 | 110—20 | 135—22 | 155—22 |
|------------------------------------|--------------|---|--------|--------|--------|--------|
| Media Filter Cabinet | FILCABXL0016 | X | X | | | |
| | FILCABXL0020 | | | X | | |
| | FILCABXL0024 | | | | X | X |
| Cartridge Media Filter | FILCCCAR0016 | X | X | | | |
| | FILCCCAR0020 | | | X | | |
| | FILCCCAR0024 | | | | X | X |
| EZ Flex Media Filter with End Caps | EXPXXUNV0016 | X | X | | | |
| | EXPXXUNV0020 | | | X | | |
| | EXPXXUNV0024 | | | | X | X |
| Replacement EZ Flex Filter Media | EXPXXFIL0016 | X | X | | | |
| | EXPXXFIL0020 | | | X | | |
| | EXPXXFIL0024 | | | | X | X |
| External Bottom Return Filter Rack | KBBFR0401B14 | X | | | | |
| | KGBFR0501B17 | | X | | | |
| | KGBFR0601B21 | | | X | | |
| | KGBFR0701B24 | | | | X | X |
| Unframed Filter 3/4-in. (19 mm) | KGAWF1306UFR | X | X | | | |
| | KGAWF1406UFR | | | X | | |
| | KGAWF1506UFR | | | | X | X |
| Flue Extension | KGAFE0112UPH | X | X | X | X | X |
| Combustible Floor Base | KGASB0201ALL | X | X | X | X | X |
| Downflow Vent Guard | KGBVG0101DFG | X | X | X | X | X |
| Vent Extension Kit | KGAVE0101DNH | X | X | X | X | X |
| Chimney Adapter Kit | KGACA02014FC | X | X | X | | |
| | KGACA02015FC | | | | X | X |
| Natural-to-Propane Conversion Kit* | KGBNP5201VSP | X | X | X | X | X |
| Propane-to-Natural Conversion Kit | KGBPN4401VSP | X | X | X | X | X |
| Label Kit | KGALB0301KIT | X | X | X | X | X |
| Air Leakage Kit (Qty 10) | KGBAC0110DGK | X | X | X | X | X |
| ECM Motor Simulator | KGBSD0301FMS | X | X | X | X | X |
| Advanced Product Monitor | KGAFP0301APM | X | X | X | X | X |
| Gas Orifice | LH32DB207 | See Installation Instructions for model, altitude, and heat value usages. | | | | |
| | LH32DB202 | | | | | |
| | LH32DB200 | | | | | |
| | LH32DB205 | | | | | |
| | LH32DB208 | | | | | |
| | LH32DB078 | | | | | |
| | LH32DB076 | | | | | |
| | LH32DB203 | | | | | |
| | LH32DB201 | | | | | |
| | LH32DB206 | | | | | |
| | LH32DB209 | | | | | |
| LH32DB210 | | | | | | |

* Factory-authorized and field installed. Fuel conversion kits are CSA (formerly AGA/CGA) recognized.

CARRIER ACCESSORIES

| DESCRIPTION | |
|--|---|
| ELECTRONIC AIR CLEANER (EAC) | Model EACB |
| MECHANICAL AIR CLEANER | Models EZXCAB, FILCAB |
| HUMIDIFIER | Model HUM |
| HEAT RECOVERY VENTILATOR | Model HRV |
| ENERGY RECOVERY VENTILATOR | Model ERV |
| UV LIGHTS | Model UVL |
| 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–PHP‡ |
| | For multi-use / stage configurations – deg. F/C, Auto Changeover, 7-Day Programmable/Temperature and Humidity Control –TP–PRH† |
| ZONING CONTROL | Comfort™ Series 3-Zone Kit – ZONECC3ZAC01, ZONECC3ZHP01 |
| | 2 Performance™ Series ComfortZone™ II Zoning/Temperature and Humidity Control – ZONECC2KIT01–B |
| | 4 Performance™ Series ComfortZone™ II Zoning/Temperature and Humidity Control – ZONECC4KIT01–B |
| | 8 Performance™ Series ComfortZone™ II Zoning/Temperature and Humidity Control – ZONECC8KIT01–B |
| | Infinity™ Control Deluxe 7-Day Programmable (Wall-mounted system control.) – SYSTXCCUID01 |
| | Infinity™ Control Deluxe Zoning 7-Day Programmable (Wall-mounted control for a multi-zone system.) – SYSTXCCUIZ01 |
| | Infinity™ 4-Zone Damper Control Module (Wall-mounted for a 4-zone system.) – SYSTXCC4ZC02 |
| | Infinity™ Smart Sensor (Optional wall control used to monitor temperature and/or fan control in an individual zone.) – SYSTXCCSMS01 |
| | Infinity™ Remote Room Sensor (Monitors temperature in an individual zone.) – SYSTXCCRRS01 |
| | Infinity™ System Access Module (Hardware for wireless access and control via phone or internet.) – SYSTXCCSAM01 |
| Infinity™ Network Interface Module (Connects Heat Recovery and Energy Recovery Ventilators or older two-speed outdoor models to system.) – SYSTCCNIM01†† | |
| Decorative Back Plate for Infinity Control (Decorative wall plate.) SYSTXXXBPU01 | |

* 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.

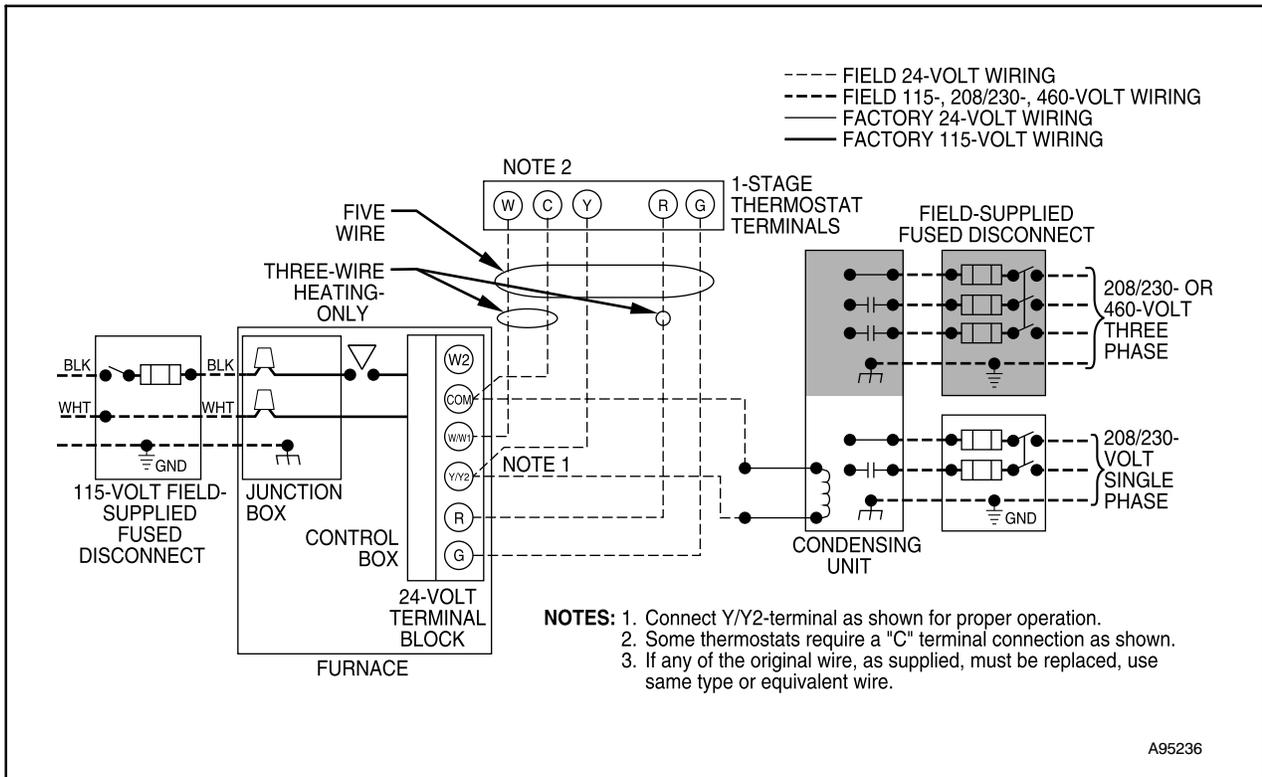
‡ Dual Fuel thermostat is used with furnace and heat pump application.

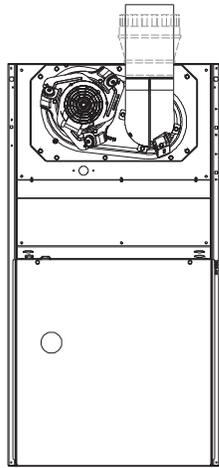
** When applied with Carrier's IdealHumidity™ series 58CVA/CVX and FE Indoor Models

†† Must be installed in Dual–Fuel Infinity system applications

TYPICAL WIRING SCHEMATIC

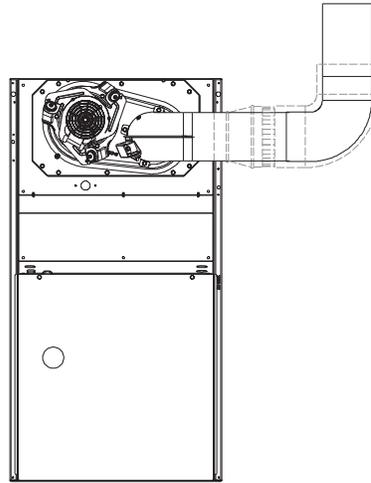
58CVA/CVX





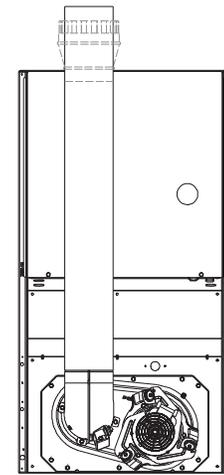
SEE NOTES: 1,2,4,7,8,9
UPFLOW

A02058



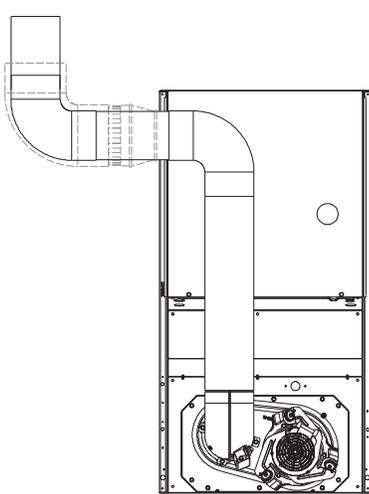
SEE NOTES: 1,2,3,4,7,8,9
UPFLOW

A02059



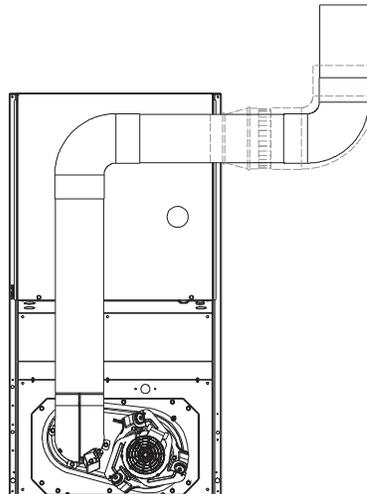
SEE NOTES: 1,2,4,5,7,8,9
DOWNFLOW

A02061



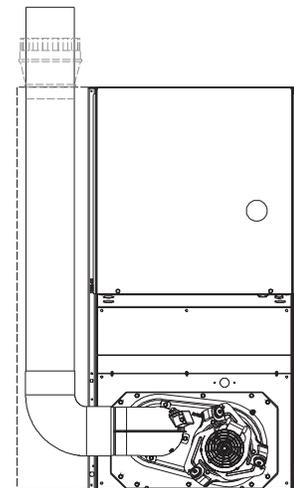
SEE NOTES: 1,2,3,4,5,7,8,9
DOWNFLOW

A02060



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

A02063

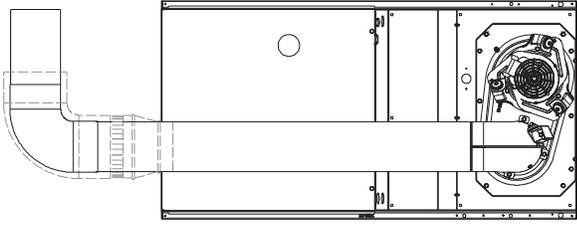


SEE NOTES: 1,2,4,5,6,7,8,9
DOWNFLOW

A02062

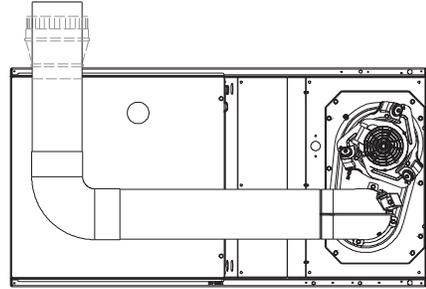
Venting Notes

1. For common vent, vent connector sizing and vent material: United States, latest edition of the National Fuel Gas Code (NFPA), ANSI Z223.1/NFPA 54.
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.



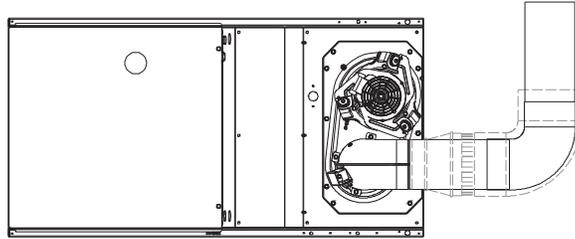
SEE NOTES: 1,2,4,5,7,8,9
HORIZONTAL RIGHT

A02068



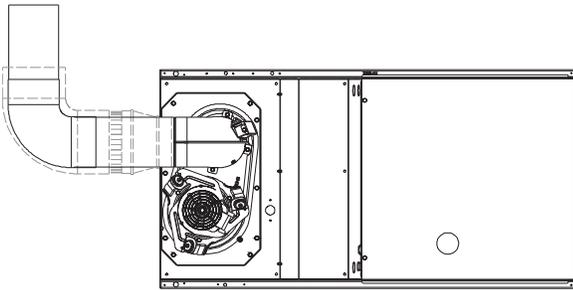
SEE NOTES: 1,2,4,5,7,8,9
HORIZONTAL RIGHT

A02070



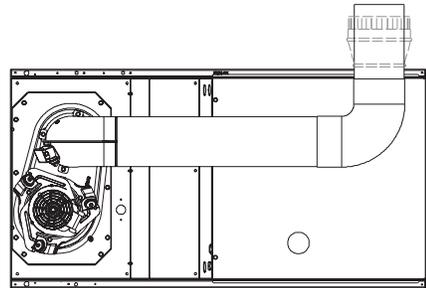
SEE NOTES: 1,2,4,7,8,9
HORIZONTAL RIGHT

A02069



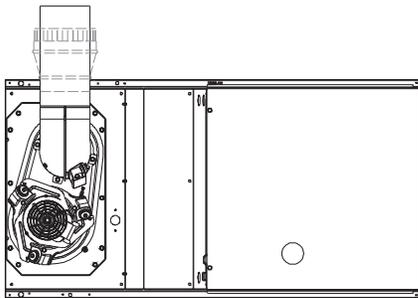
SEE NOTES: 1,2,4,7,8,9
HORIZONTAL LEFT

A02064



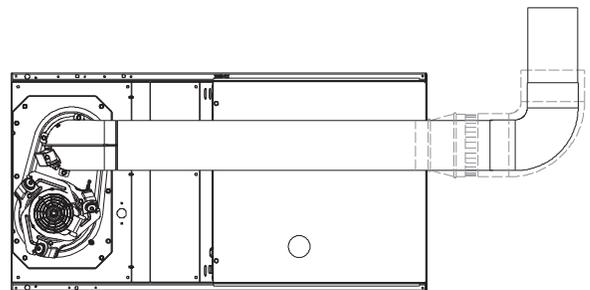
SEE NOTES: 1,2,4,5,7,8,9
HORIZONTAL LEFT

A02065



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

A02066



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

A02067

AIR DELIVERY – CFM (With Filter)*

| Unit Size | Operating Mode | CFM Airflow Setting | External Static Pressure Range* (In. W.C.) | External Static Pressure (ESP) (IN W.C.) | | | | | | | | | | | |
|------------------|-----------------------|---------------------|--|--|------|------|------|------|------|------|------|------|---------------|------|--|
| | | | | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1 | | |
| 070–12 | | | | | | | | | | | | | AIRFLOW (CFM) | | |
| †† | Low Heat | 735 (615)† | 0–0.50 | 735 | 735 | 735 | 735 | 725 | | | | | | | |
| | High Heat | 1180 (1060)† | 0–1.0 | 1160 | 1165 | 1175 | 1180 | 1180 | 1180 | 1180 | 1180 | 1180 | 1180 | 1175 | |
| †† | 1–1/2–Ton Cooling | 525 | 0–0.50‡ | 515 | 500 | 500 | 490 | 485 | | | | | | | |
| †† | 2–Ton A/C Cooling | 700 | 0–0.50‡ | 690 | 680 | 675 | 680 | 675 | | | | | | | |
| | 2–1/2–Ton A/C Cooling | 875 | 0–1.0‡ | 875 | 875 | 875 | 870 | 865 | 855 | 850 | 835 | 825 | 820 | | |
| | 3–Ton A/C Cooling | 1050 | 0–1.0‡ | 1050 | 1050 | 1050 | 1050 | 1050 | 1050 | 1045 | 1035 | 1020 | 1000 | | |
| | 3–1/2–Ton A/C Cooling | 1225 | 0–1.0 | 1220 | 1225 | 1225 | 1225 | 1225 | 1220 | 1205 | 1190 | 1185 | 1170 | | |
| | Maximum | 1400 | 0–1.0 | 1395 | 1400 | 1400 | 1400 | 1395 | 1385 | 1370 | 1340 | 1300 | 1245 | | |
| 090–16 | | | | | | | | | | | | | | | |
| | Low Heat | 985 (825)† | 0–1.0 | 950 | 970 | 985 | 985 | 985 | 985 | 985 | 985 | 985 | 980 | | |
| | High Heat | 1210 (1090)† | 0–1.0 | 1190 | 1205 | 1210 | 1210 | 1210 | 1210 | 1210 | 1210 | 1210 | 1200 | | |
| †† | 1–1/2–Ton A/C Cooling | 525 | 0–0.50‡ | 525 | 520 | 525 | 495 | 475 | | | | | | | |
| †† | 2–Ton A/C Cooling | 700 | 0–0.50‡ | 680 | 680 | 680 | 675 | 670 | | | | | | | |
| | 2–1/2–Ton A/C Cooling | 875 | 0–1.0‡ | 815 | 845 | 845 | 855 | 850 | 850 | 845 | 835 | 820 | 805 | | |
| | 3–Ton A/C Cooling | 1050 | 0–1.0‡ | 1005 | 1005 | 1015 | 1035 | 1040 | 1040 | 1035 | 1030 | 1025 | 1010 | | |
| | 3–1/2–Ton A/C Cooling | 1225 | 0–1.0 | 1190 | 1200 | 1200 | 1205 | 1205 | 1215 | 1205 | 1200 | 1185 | 1170 | | |
| | 4–Ton A/C Cooling | 1400 | 0–1.0 | 1350 | 1370 | 1390 | 1390 | 1400 | 1390 | 1380 | 1380 | 1360 | 1340 | | |
| | Maximum | 1600 | 0–1.0 | 1595 | 1600 | 1600 | 1600 | 1595 | 1555 | 1505 | 1465 | 1430 | 1390 | | |
| 110–20*** | | | | | | | | | | | | | | | |
| | Low Heat | 1320 (1110)† | 0–1.0 | 1275 | 1295 | 1315 | 1320 | 1320 | 1320 | 1320 | 1320 | 1320 | 1315 | | |
| | High Heat | 1475 (1330)† | 0–1.0 | 1460 | 1465 | 1475 | 1475 | 1475 | 1475 | 1475 | 1475 | 1465 | 1465 | | |
| †† | 2–Ton A/C Cooling | 700 | 0–0.50‡ | 700 | 700 | 700 | 700 | 700 | | | | | | | |
| †† | 2–1/2–Ton A/C Cooling | 875 | 0–0.50‡ | 875 | 875 | 875 | 875 | 875 | | | | | | | |
| †† | 3–Ton A/C Cooling | 1050 | 0–0.50‡ | 1050 | 1050 | 1050 | 1050 | 1050 | | | | | | | |
| | 3–1/2–Ton A/C Cooling | 1225 | 0–1.0‡ | 1225 | 1225 | 1225 | 1225 | 1225 | 1225 | 1225 | 1225 | 1225 | 1225 | | |
| | 4–Ton A/C Cooling | 1400 | 0–1.0‡ | 1400 | 1400 | 1400 | 1400 | 1400 | 1400 | 1400 | 1400 | 1400 | 1400 | | |
| | 5–Ton A/C Cooling | 1750 | 0–1.0‡ | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1740 | 1725 | | |
| | 6–Ton A/C Cooling | 2100 | 0–1.0 | 2100 | 2100 | 2100 | 2100 | 2090 | 2075 | 2055 | 2040 | 2005 | 1970 | | |
| | Maximum | 2200 | 0–1.0 | 2200 | 2190 | 2190 | 2180 | 2155 | 2145 | 2125 | 2100 | 2080 | 2020 | | |
| 135–22 | | | | | | | | | | | | | | | |
| | Low Heat | 1700 (1430)† | 0–1.0 | 1700 | 1700 | 1700 | 1700 | 1700 | 1695 | 1700 | 1695 | 1685 | 1670 | | |
| | High Heat | 1915 (1725)† | 0–1.0 | 1900 | 1905 | 1915 | 1915 | 1915 | 1915 | 1915 | 1915 | 1915 | 1915 | | |
| †† | 2–Ton A/C Cooling | 700 | 0–0.50‡ | 700 | 700 | 700 | 700 | 665 | | | | | | | |
| †† | 2–1/2–Ton A/C Cooling | 875 | 0–0.50‡ | 870 | 870 | 865 | 865 | 865 | | | | | | | |
| †† | 3–Ton A/C Cooling | 1050 | 0–0.50‡ | 1010 | 1030 | 1050 | 1050 | 1050 | | | | | | | |
| | 3–1/2–Ton A/C Cooling | 1225 | 0–1.0‡ | 1155 | 1180 | 1200 | 1210 | 1220 | 1225 | 1225 | 1225 | 1225 | 1225 | | |
| | 4–Ton A/C Cooling | 1400 | 0–1.0‡ | 1395 | 1400 | 1400 | 1400 | 1400 | 1400 | 1400 | 1390 | 1375 | 1355 | | |
| | 5–Ton A/C Cooling | 1750 | 0–1.0‡ | 1740 | 1750 | 1750 | 1750 | 1735 | 1740 | 1735 | 1730 | 1715 | 1700 | | |
| | 6–Ton A/C Cooling | 2100 | 0–1.0 | 2075 | 2085 | 2090 | 2100 | 2100 | 2100 | 2090 | 2080 | 2055 | 2025 | | |
| | Maximum | 2200 | 0–1.0 | 2180 | 2195 | 2200 | 2200 | 2200 | 2200 | 2185 | 2165 | 2140 | 2095 | | |
| 155–22 | | | | | | | | | | | | | | | |
| | Low Heat | 1715 (1440)† | 0–1.0 | 1715 | 1715 | 1715 | 1715 | 1715 | 1705 | 1710 | 1705 | 1705 | 1695 | | |
| | High Heat | 1970 (1775)† | 0–1.0 | 1955 | 1965 | 1965 | 1970 | 1970 | 1970 | 1970 | 1970 | 1970 | 1960 | | |
| †† | 2–Ton A/C Cooling | 700 | 0–0.50‡ | 700 | 700 | 700 | 700 | 680 | | | | | | | |
| †† | 2–1/2–Ton A/C Cooling | 875 | 0–0.50‡ | 865 | 875 | 875 | 865 | 865 | | | | | | | |
| †† | 3–Ton A/C Cooling | 1050 | 0–0.50‡ | 1015 | 1020 | 1035 | 1045 | 1050 | | | | | | | |
| | 3–1/2–Ton A/C Cooling | 1225 | 0–1.0‡ | 1160 | 1185 | 1215 | 1225 | 1225 | 1225 | 1225 | 1225 | 1225 | 1225 | | |
| | 4–Ton A/C Cooling | 1400 | 0–1.0‡ | 1385 | 1400 | 1400 | 1400 | 1400 | 1400 | 1395 | 1395 | 1380 | 1360 | | |
| | 5–Ton A/C Cooling | 1750 | 0–1.0‡ | 1745 | 1750 | 1750 | 1750 | 1745 | 1740 | 1745 | 1745 | 1740 | 1735 | | |
| | 6–Ton A/C Cooling | 2100 | 0–1.0 | 2055 | 2070 | 2080 | 2085 | 2095 | 2100 | 2100 | 2100 | 2090 | 2065 | | |
| | Maximum | 2200 | 0–1.0 | 2175 | 2190 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2180 | 2160 | | |

58CVA/CVX

*Actual external static pressure (ESP) can be determined by using the fan laws (CFM 2 proportional to ESP); such as, a system with 1180 CFM at 0.5 ESP would operate at cooling airflow of 1050 CFM at 0.4 ESP and low–heating airflow of 735 CFM at 0.19 ESP.

†Comfort airflow values are shown in parenthesis. Comfort airflow is selected when the low–heat rise adjustment switch (SW1–3) is OFF and the comfort/efficiency switch (SW1–4) is ON.

‡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.

***All airflow on 110 size furnace are 5% less on side return only installations.

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 qualified 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).

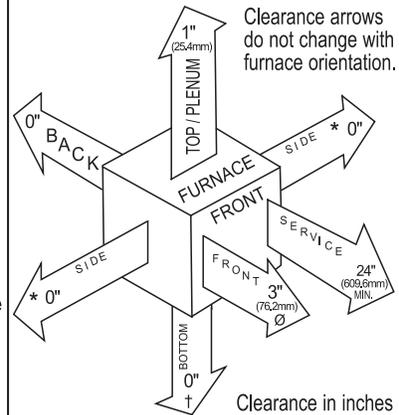
An accessory kit, supplied by the manufacturer, shall be used to convert to propane gas use or may be required for some natural gas applications.

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.



336996-101 REV. C

58CVA/CVX



ISO 9001
QMI-SAI Global



Use of the AHRI Certified™ Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.



Always Ask For
**FACTORY
AUTHORIZED
PARTS**

A10269

GUIDE SPECIFICATIONS

Gas Furnace

58CVA/CVX

General

SYSTEM DESCRIPTION

Furnish a _____ Variable speed 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 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 dual fuel gas valve to reduce ignition noise, regulate gas flow, with electric switch gas shut-off; flame proving sensor, hot surface igniter, dual pressure switch assembly, flame rollout switch, ICM blower and two speed inducer assembly, 40va transformer; low-voltage (heating) (heating/cooling) thermostat.

Blower Wheel and ECM Blower Motor

Galvanized blower wheel shall be centrifugal type, statically and dynamically balanced. Blower motor of variable speed ECM type shall be permanently lubricated with sealed ball bearings, of _____ hp, and supplies delivers requested airflow CFM as defined by signals received from furnace control. Blower motor shall be direct drive and soft mounted to the blower scroll to reduce variation transmission.

Filters

Furnace may have reusable-type filters. Filter shall be _____ in. (mm) (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.

Flame Rollout Switch

Flame Rollout Switch shall be factory installed near burner area to further reduce the possibility of a stuck gas valve or failed inducer motor.

Heat Exchangers

Heat exchangers shall be a 4-Pass 20 gage corrosion resistant 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 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 an Infinity™ 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.; 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.

58CVA/CVX

