



GAS FURNACES

G60UH

ELITE® SERIES

Up-Flow / Horizontal - Two-Stage Heat

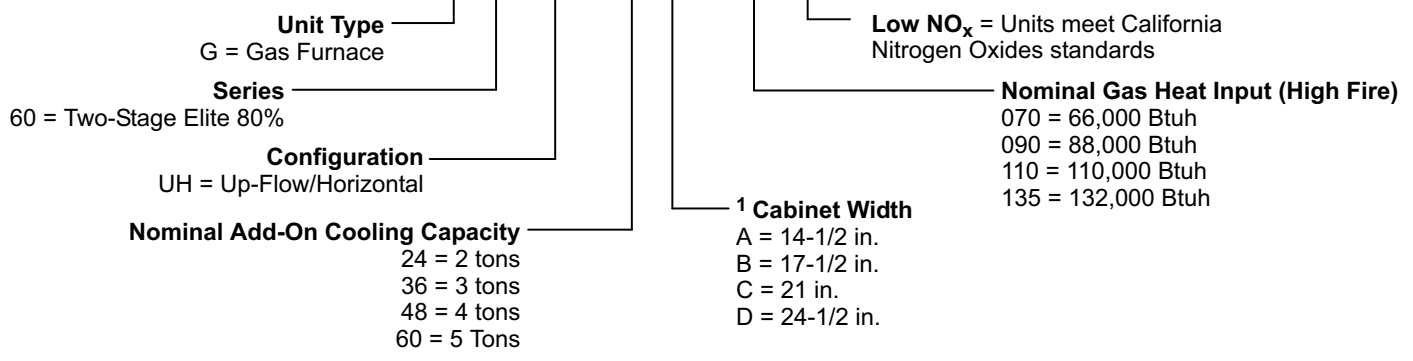
Bulletin No. 210350
 August 2006
 Supersedes October 2004



AFUE - 80%
Input - 66,000 to 132,000 Btuh
Nominal Add-on Cooling - 1.5 to 5 tons

MODEL NUMBER IDENTIFICATION

G 60 UH - 24 A - 070 X



¹ Indoor coils with the same letter designation will physically match the furnace.

FEATURES

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APPLICATIONS

Input capacities (high fire) of 66,000, 88,000, 110,000 and 132,000 Btuh.

Energy efficiency (AFUE) of 80%.

Utility room, alcove, closet, crawl space or attic installation.

Lennox add-on indoor coils, electronic air cleaners and humidifiers can easily be added to furnace.

Shipped factory assembled with all controls installed and wired.

Ready for installation in up-flow or horizontal left or right hand position without any modifications. Removeable bottom seal panel shipped in place for side return air is easily removed for bottom/end return air applications.

Each unit factory test operated to ensure proper operation.

APPROVALS

Units certified by CSA International and ratings are certified by GAMA.

Units tested and rated according to US DOE test procedures and FTC labeling regulations.

Approved by California Energy Commission and meet California Seasonal Efficiency requirements and California Nitrogen Oxides (NO_x) Standards.

"X" models meet California Nitrogen Oxides (NO_x) Standards.

Blower data from unit tests conducted in Lennox Laboratory air test chamber.

ISO 9001 Registered Manufacturing Quality System.

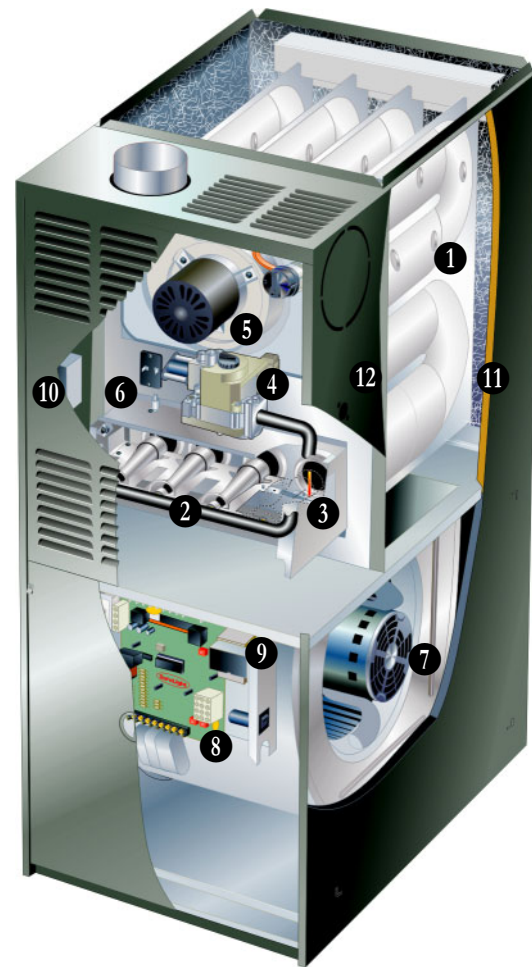
WARRANTY

Duralok[®] Aluminized Steel Heat Exchangers - **twenty year** limited warranty.

SureLight[®] ignition control module - **five year** limited warranty in residential applications, one year in non-residential applications.

All other **covered components** - **five year** limited warranty in residential applications and one year in non-residential applications.

Refer to Lennox Equipment Limited Warranty certificate included with equipment for details.



HEATING SYSTEM

- 1 Lennox Duralok[®] Aluminized Steel Heat Exchanger**
Heavy gauge aluminized steel heat exchanger.
Crimped seam clamshell type design.
Designed for normal expansion and contraction.
Minimum resistance to air flow.
Heat exchanger has been laboratory life cycle tested
- 2 Inshot Burners**
Aluminized steel inshot burners.
Burner venturi mixes air and gas in correct proportion for proper combustion.
Burner assembly is removeable from the unit as a single component for servicing.
- 3 SureLight[®] Hot Surface Ignitor**
Tough, reliable, long-life, trouble-free performance.
Tungsten heater element sandwiched between two plates of silicon nitride.
Cemented to steatite block for protection against current leakage.
Ignition leads constructed of nickel plated copper enclosed in high temperature Teflon insulation for dependable operation.
No electrical noise.
- 4 Two-Stage Gas Control Valve**
24 volt redundant combination two stage gas control valve combines manual shut off valve (On-Off), automatic electric valve (dual) and gas pressure regulation into a compact combination control.

FEATURES

HEATING SYSTEM - CONTINUED

- 5 Combustion Air Inducer**
Shaded pole heavy duty blower prepurges heat exchanger and safely vents flue products.
Pressure switch proves blower operation before allowing gas valve to open.
Operates only during heating cycle.
Direct access allows inducer assembly to be rotated 90° clockwise or counterclockwise to facilitate easy vent attachment in horizontal applications.

- 6 Limit Controls**
Automatic reset, primary and secondary limits are accurately located.
Primary limit factory installed on vestibule panel on all units, secondary limit(s) factory installed on blower housing.

Flame Rollout Switches (2)

Manual reset.
Factory installed on burner box.
Switches provide protection from abnormal operating conditions.

OPTIONS

LPG/Propane Conversion Kit

Required for field changeover from natural gas to LPG/Propane.

Natural Gas Conversion Kit

Required for field changeover from LPG/Propane to natural gas.

High Altitude Orifice Kit - Natural Gas Only

Required for all natural gas models for proper unit operation at altitudes of 7501 to 10,000 feet.

High Altitude Pressure Switch Kit

Required on most units for proper unit operation at altitudes above 4,500 ft.

Vent Adaptor (Up-Flow Applications Only)

Allows venting through a masonry chimney without the need of a flue liner.

Temperature sensor protects against abnormal operating conditions - manual reset.

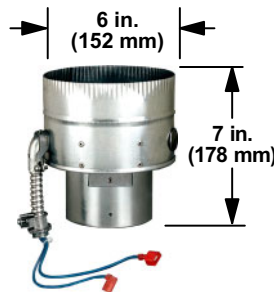
Sensor wiring may be routed from either side of adaptor.

Minimum winter design temperatures:

-10°F for -70, -90, and -135 models.

+5°F for -110 models.

Refer to Winter Design Temperatures Map on next page for application information. Also refer to the installation instructions for detailed information.



BLOWER

- 7 Multi-speed direct drive blower.**
Statically and dynamically balanced.
Resiliently mounted.
Blower assembly easily removed for servicing.
Blower speeds are easily changed on the integrated furnace control board. See blower performance tables.

CONTROLS

- 8 SureLight® Integrated Two-Stage Furnace Control Board**
Solid-state board contains all necessary controls and relays to operate furnace.
Combustion air inducer is controlled by board. Prior to ignition, a pre-purge cycle for 15 seconds is initiated. After the main burners are turned off, a post-purge cycle for 5 seconds is run.
Adaptive technology of ignition control board continuously monitors and adjusts the ignitor power to operate at minimum ignitor temperature required for ignition, prolonging ignitor life.
Electronic flame sensor control assures safe and reliable operation.
Should loss of flame occur, flame sensor controls will initiate 5 attempts at re-ignition before locking out unit operation for 60 minutes.
Watchguard type circuit automatically resets ignition controls after one hour of continuous thermostat demand after unit lockout, eliminating nuisance calls for service.
Jumper settings for single or two stage thermostat operation.
Two selectable 2nd stage recognition times (10 and 15 minutes) are available on the board when the furnace is used with a single stage thermostat. When used with a two stage thermostat, furnace will only initiate second stage operation with a second stage thermostat demand.
Fan control consists of adjustable blower timed-off delay (60, 90, 120, 180 seconds - factory setting 90 seconds) and fixed blower timed-on delay (45 seconds).
For air-conditioning applications, blower is automatically energized on thermostat demand for cooling. Adjustable blower timed-off delay in cooling mode (2 or 45 seconds - factory setting 45 seconds).
Terminal for continuous low speed blower operation.
Two accessory terminals furnished for additional power supply requirements for 120 volt (less than 1 amp) power humidifiers and powered air cleaners.
Ignition control has two LED's to indicate status and as an aid in troubleshooting.

- 9 24 Volt Transformer**
Furnished and factory installed in control box.
40VA transformer has circuit breaker wired in series.
- 10 Field Wiring Make-up Box**
Furnished for line voltage wiring.
Factory installed internally on left side of furnace.
Box may be installed internally or externally on either side of furnace.

OPTIONS

Thermostat

See Thermostat bulletins in Controls section and Lennox Price Book for a complete list of thermostats.

COIL MATCH-UP

All furnaces exactly match C33 and CX34 cased up-flow and CH33 cased horizontal evaporator coils with same letter designation in model number. No adaptor required. Engaging holes furnished on cabinet for alignment.
C33 uncased coils match furnaces without any overhang but require an optional adaptor base or field fabricated transition to match furnace opening. See C33 coil bulletin for additional information.

FEATURES

CABINET

Low profile, narrow width cabinet allows easy installation. Heavy gauge cold rolled steel constructed.

Pre-painted cabinet finish.

Flue outlet on top of cabinet for up-flow applications, can be relocated to either side of cabinet for horizontal applications.

Flanges provided on supply air opening for ease of plenum connection or alignment with evaporator coil.

Return Air Entry:

Bottom/end entry for up-flow/horizontal applications - remove furnished bottom seal panel from cabinet.

Side return air entry for up-flow applications - corners are marked on either side of cabinet for return air cut-outs. See dimension drawings.

NOTE - 60C and 60D size units that require air volumes over 1800 cfm must have one of the following:

1. Single side return air with transition, to accommodate 20 x 25 x 1 in. air filter. Required to maintain proper air velocity.
2. Single side return air with optional RAB Return Air Base
3. Bottom return air.
4. Return air from both sides.
5. Bottom and one side return air.

See Blower Performance Tables for additional information.

- 11 Fully insulated cabinet with foil faced insulation on sides and back of heating compartment and mat faced insulation in blower compartment.

Complete service access.

Safety interlock switch automatically shuts off power to unit when blower compartment access door is removed.

- 12 Gas piping and electrical inlets are provided in both sides of cabinet.

OPTIONS

Horizontal Support Frame Kit

Provides support of unit in horizontal applications.

Consists of (2) 1 x 1-1/2 x 32-5/8 in. and (2) 1 x 3 x 53-7/8 in. painted heavy gauge cold rolled steel support channels with assembly and suspending holes.

Bolts and nuts furnished for field assembly.

Suspending rods must be field provided.

RAB Return Air Base

Required with 60C and 60D models with air volumes over 1800 cfm in up-flow applications when only one side return is used.

Cabinet is pre-painted steel to match the furnace.

See Dimension Drawing.

FILTER (NOT FURNISHED)

Filter and provisions for external mounting must be field provided.

OPTIONS

Air Filter and Rack Kit for Horizontal Return Air (End) Applications

Washable or vacuum cleanable polyurethane frame type filter and external end return air rack available for field installation.

Rack has filter door for easy filter servicing.

Flanges on rack allow easy duct connection.

See dimension drawing.

Air Filter and Rack Kit for Up-Flow Side Return Air Applications - Not for use with RAB Return Air Base

Washable or vacuum cleanable polyurethane frame type filter and external side return air rack available for field installation.

Available in single and ten pack kits.

Rack has filter door for easy filter servicing.

Flanges on rack allow easy duct connection.

Field installs on either side of unit cabinet. See dimension drawing.

EZ Filter Base for Up-Flow Bottom Return Air Applications

Hinged door with thumbscrew for easy filter access.

Uses standard size filters (field provided).

INSTALLATION CLEARANCES

UP-FLOW POSITION

| Vent Type | Type "B1" | Type "C" |
|------------------------|-----------------|---------------------------|
| Sides | 0 in. (0 mm) | ¹ 0 in. (0 mm) |
| Rear | 0 in. (0 mm) | 0 in. (0 mm) |
| Top | 1 in. (25 mm) | 1 in. (25 mm) |
| Front | 3 in. (76 mm) | 3 in. (76 mm) |
| Front (service/alcove) | 24 in. (610 mm) | 24 in. (610 mm) |
| Floor | Combustible | Combustible |
| Flue | 1 in. (25 mm) | 6 in. (152 mm) |

NOTE—Air for combustion and supply air ventilation must conform to the methods outlined in American National Standard (ANSI-Z223.1) National Fuel Gas Code or National Standard of Canada CAN/CGA-149.1, & CAN/CGA-149.2 "Installation Code for Gas Burning Appliances".

NOTE—In the U.S. flue sizing must conform to the methods outlined in current GAMA/A.G.A. venting tables, American National Standard (ANSI-Z223.1) National Fuel Gas Code or applicable provisions of local building codes. In Canada flue sizing must conform to the methods outlined in National Standard of Canada CAN/CGA-149.1 and .2.

¹ Left side requires 4 in. if single wall vent is used on 14-1/2 in. cabinets, 2 in. on 17-1/2 in. cabinets.

HORIZONTAL POSITION

| Vent Type | Type "B1" | Type "C" |
|-------------------|----------------------------|----------------------------|
| ¹ Ends | ¹ 2 in. (51 mm) | ¹ 2 in. (51 mm) |
| Rear | 0 in. (0 mm) | 0 in. (0 mm) |
| ¹ Top | ¹ 0 in. (0 mm) | ¹ 0 in. (0 mm) |
| Front | 3 in. (76 mm) | 3 in. (76 mm) |
| Front (service) | 24 in. (610 mm) | 24 in. (610 mm) |
| Floor | 0 in. (0 mm) | 0 in. (0 mm) |
| Flue | 1 in. (25 mm) | 6 in. (152 mm) |

NOTE—Air for combustion and supply air ventilation must conform to the methods outlined in American National Standard (ANSI-Z223.1) National Fuel Gas Code or National Standard of Canada CAN/CGA-149.1, & CAN/CGA-149.2 "Installation Code for Gas Burning Appliances".

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¹ Line contact installation permissible between jacket top or sides and building joists.

SPECIFICATIONS

| Gas Heating Performance | Model No. Low NOx Model No. | G60UH-24A-070 | G60UH-36A-070 G60UH-36A-070X | G60UH-36B-090 | G60UH-48B-090 G60UH-48B-090X |
|-----------------------------------|---|--|---------------------------------|---------------|---------------------------------|
| | | High Fire | Input - Btuh | 66,000 | 66,000 |
| | Output - Btuh | 54,000 | 54,000 | 72,000 | 72,000 |
| | Temperature rise range - °F | 40 - 70 | 40 - 70 | 40 - 70 | 35 - 65 |
| | Gas Manifold Pressure (in. w.g.) - Nat. Gas / LPG/Propane | 3.5 / 10.0 | 3.5 / 10.0 | 3.5 / 10.0 | 3.5 / 10.0 |
| Low Fire | Input - Btuh | 45,000 | 45,000 | 60,000 | 60,000 |
| | Output - Btuh | 36,000 | 36,000 | 48,000 | 49,000 |
| | Temperature rise range - °F | 20 - 50 | 20 - 50 | 20 - 50 | 15 - 45 |
| | Gas Manifold Pressure (in. w.g.) - Nat. Gas / LPG/Propane | 1.7 / 4.9 | 1.7 / 4.9 | 1.7 / 4.9 | 1.7 / 4.9 |
| | ¹ AFUE | 80.0% | 80.0% | 80.0% | 80.0% |
| | California Seasonal Efficiency | 74.2% | 73.9% | 73.8% | 74.6% |
| | High static (CSA) - in. w.g. | .50 | .50 | .50 | .50 |
| Connections in. | Flue connection - round | 4 | 4 | 4 | 4 |
| | Gas pipe size IPS | 1/2 | 1/2 | 1/2 | 1/2 |
| Indoor Blower | Wheel nom. dia. x width - in. | 10 x 7 | 10 x 8 | 10 x 8 | 10 x 10 |
| | Motor output - hp | 1/5 | 1/3 | 1/3 | 1/2 |
| | Tons of add-on cooling | 1.5 - 2 | 1.5 - 3 | 2 - 3 | 3 - 4 |
| Shipping Data | lbs. - 1 package | 127 | 132 | 146 | 153 |
| Electrical characteristics | | 120 volts - 60 hertz - 1 phase (less than 12 amps) | | | |

SPECIFICATIONS

| Gas Heating Performance | Model No. Low NOx Model No. | G60UH-36C-110 | G60UH-48C-110 | --- G60UH-60C-110X | G60UH-60D-135 --- |
|-----------------------------------|---|--|---------------|-----------------------|----------------------|
| | | High Fire | Input - Btuh | 110,000 | 110,000 |
| | Output - Btuh | 90,000 | 90,000 | 90,000 | 108,000 |
| | Temperature rise range - °F | 50 - 80 | 40 - 70 | 35 - 65 | 45 - 75 |
| | Gas Manifold Pressure (in. w.g.) - Nat. Gas / LPG/Propane | 3.5 / 10.0 | 3.5 / 10.0 | 3.5 / 10.0 | 3.5 / 10.0 |
| Low Fire | Input - Btuh | 75,000 | 75,000 | 75,000 | 90,000 |
| | Output - Btuh | 61,000 | 60,000 | 61,000 | 73,000 |
| | Temperature rise range - °F | 25 - 55 | 20 - 50 | 20 - 50 | 25 - 55 |
| | Gas Manifold Pressure (in. w.g.) - Nat. Gas / LPG/Propane | 1.7 / 4.9 | 1.7 / 4.9 | 1.7 / 4.9 | 1.7 / 4.9 |
| | ¹ AFUE | 80.0% | 80.0% | 80.0% | 80.0% |
| | California Seasonal Efficiency | 74.2% | 75.0% | 73.9% | 74.9% |
| | High static (CSA) - in. w.g. | .50 | .50 | .50 | .50 |
| Connections in. | Flue connection - round | 4 | 4 | 4 | 2 4 |
| | Gas pipe size IPS | 1/2 | 1/2 | 1/2 | 1/2 |
| Indoor Blower | Wheel nom. dia. x width - in. | 10 x 8 | 10 x 10 | 11-1/2 x 10 | 11-1/2 x 10 |
| | Motor output - hp | 1/3 | 1/2 | 1 | 1 |
| | Tons of add-on cooling | 2 - 3 | 2.5 - 4 | 4 - 5 | 4 - 5 |
| Shipping Data | lbs. - 1 package | 166 | 169 | 175 | 195 |
| Electrical characteristics | | 120 volts - 60 hertz - 1 phase (less than 12 amps) | | | |

NOTE - Filters and provisions for mounting are not furnished and must be field provided.

¹ Annual Fuel Utilization Efficiency based on DOE test procedures and according to FTC labeling regulations. Isolated combustion system rating for non-weatherized furnaces.

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

| | | | "A" Width Models | "B" Width Models | "C" Width Models | "D" Width Models |
|---|-------------------------------------|----------------------|------------------|------------------|------------------|------------------|
| FILTER KITS | | | | | | |
| ¹ Air Filter and Rack Kit | Horizontal (end) | Catalog No. | 87L95 | 87L96 | 87L97 | 87L98 |
| | | Size of filter - in. | 14 x 25 x 1 | 18 x 25 x 1 | 20 x 25 x 1 | 25x25 x 1 |
| | Side Return | Single | 44J22 | 44J22 | 44J22 | 44J22 |
| | | Ten Pack | 66K63 | 66K63 | 66K63 | 66K63 |
| | | Size of filter - in. | 16 x 25 x 1 | 16 x 25 x 1 | 16 x 25 x 1 | 16 x 25 x 1 |
| EZ Filter Base Up-Flow Only | Catalog No. - Ship. Wt. - lbs. | | 73P55 - 7 | 73P56 - 7 | 73P57 - 8 | 73P58 - 10 |
| | Size of field provided filter - in. | | 14 x 25 x 1 | 16 x 25 x 1 | 20 x 25 x 1 | 24 x 24 x 1 |
| CABINET ACCESSORIES | | | | | | |
| Horizontal Support Frame Kit - Horizontal Only | | | 56J18 | 56J18 | 56J18 | 56J18 |
| Return Air Base - Up-Flow Only | | | - - - | 98M60 | 98M58 | 98M59 |
| VENTING | | | | | | |
| Vent Adaptor - 6 in. conn. size up-flow applications only | | | 18M79 - 2 lbs. | 18M79 - 2 lbs. | 18M79 - 2 lbs. | 18M79 - 2 lbs. |

¹ Cleanable polyurethane frame type filter.

GAS HEAT ACCESSORIES

| Input | High Altitude Orifice Kit Natural Gas | High Altitude Pressure Switch Kit - Order two each | | LPG/Propane Kit | | LPG/Propane to Natural Gas Kit | |
|-------|---------------------------------------|--|-----------------|-----------------|-----------------|--------------------------------|-----------------|
| | 7501-10,000 ft. | 4501-7500 ft. | 7501-10,000 ft. | 0-7500 ft. | 7501-10,000 ft. | 0-7500 ft. | 7501-10,000 ft. |
| -070 | 59M17 | - - - | 18M64 | 59M13 | 59M14 | 59M87 | 59M87 + 59M17 |
| -090 | 59M17 | 18M61 | 18M64 | 59M13 | 59M14 | 59M87 | 59M87 + 59M17 |
| -110 | 59M17 | 18M63 | 18M61 | 59M13 | 59M14 | 59M87 | 59M87 + 59M17 |
| -135 | | | | | | | |

99% WINTER DESIGN TEMPERATURES FOR THE CONTIGUOUS UNITED STATES



This map is a necessarily generalized guide to temperatures in the contiguous United States. Temperatures shown for areas such as mountainous regions and large urban centers may not be accurate. The data used to develop this map was taken from the 1993 ASHRAE Fundamentals Handbook (Chapter 24, Table 1: Climate Conditions for the United States).

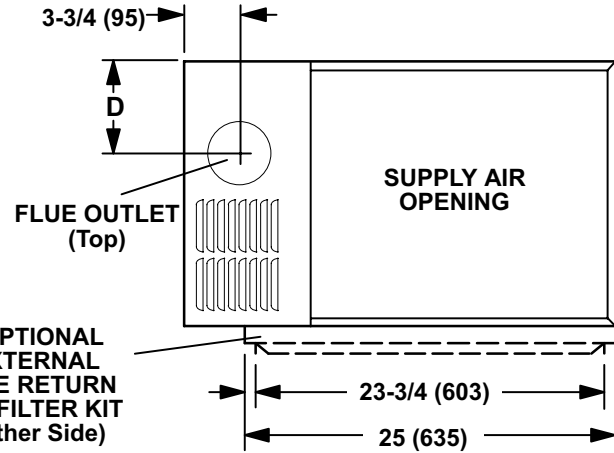
Reprinted with permission from NFPA 54: *National Fuel Gas Code* ©1999, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association on the referenced subject, which is represented only by the standard in its entirety.

DIMENSIONS - INCHES (MM) - UP-FLOW POSITION

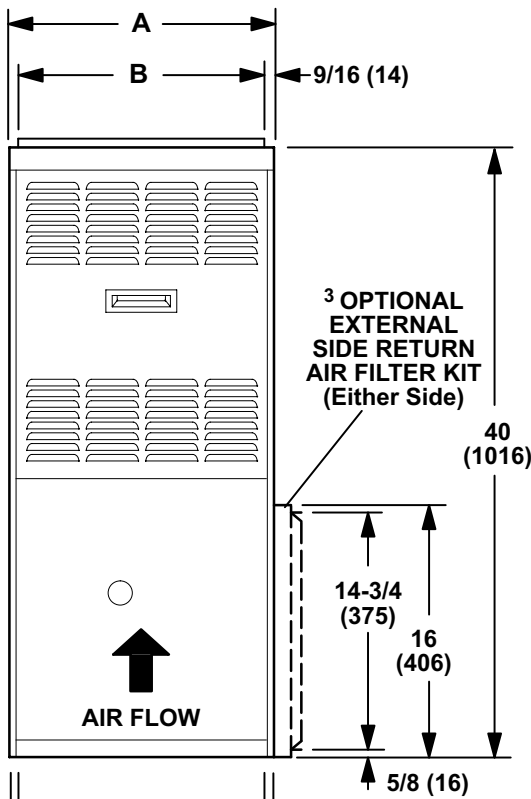
¹ NOTE - 60C and 60D size units that require air volumes over 1800 cfm (850 L/s) must have one of the following:
 1. Single side return air with transition, to accommodate 20 x 25 x 1 in. (508 x 635 x 25 mm) air filter. Required to maintain proper air velocity across the filter.
 2. Single side return air with optional RAB Return Air Base
 3. Bottom return air.
 4. Return air from both sides.
 5. Bottom and one side return air.
 See Blower Performance Tables for additional information.

² Flue outlet may be horizontal but furnace must be vented vertically

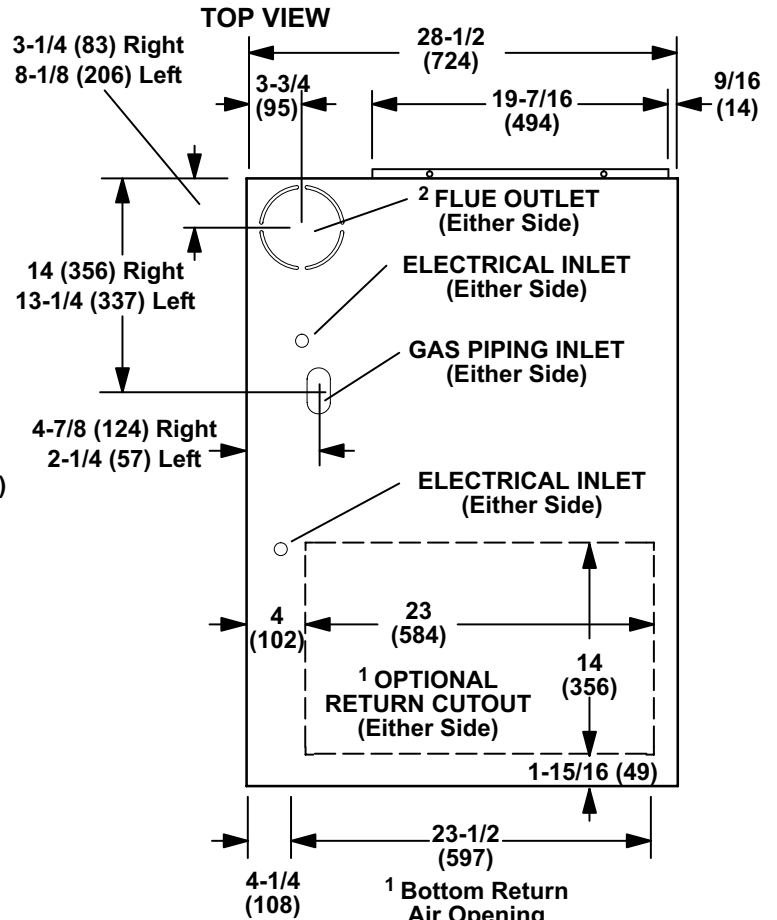
³ Optional External Side Return Air Filter Kit is not for use with the optional RAB Return Air Base.



TOP VIEW



¹ Bottom Return Air Opening
FRONT VIEW



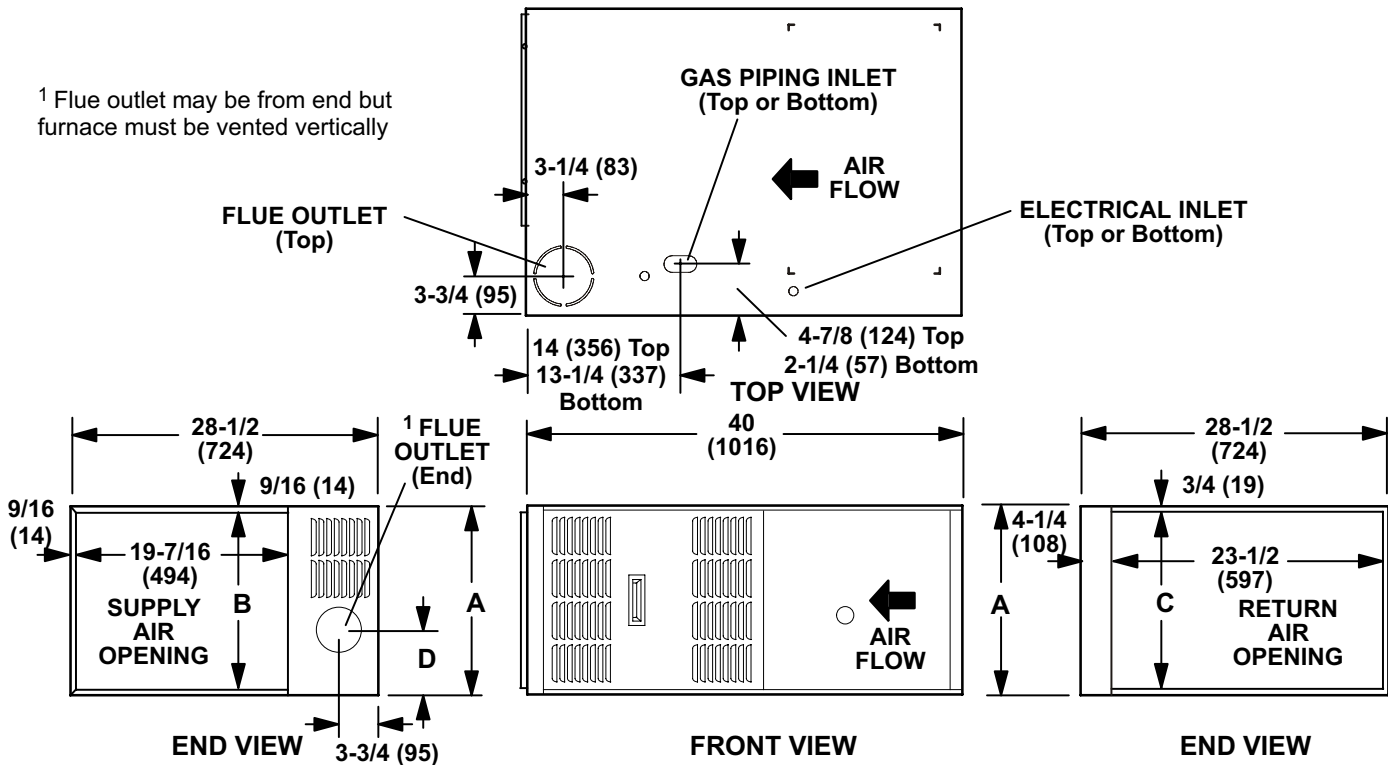
¹ Bottom Return Air Opening
SIDE VIEW

| Model No. | A | | B | | C | | D | |
|--|--------|-----|--------|-----|--------|-----|-------|-----|
| | in. | mm | in. | mm | in. | mm | in. | mm |
| G60UH-24A-070 G60UH-36A-070 | 14-1/2 | 368 | 13-3/8 | 340 | 13 | 330 | 4-1/2 | 114 |
| G60UH-36B-090 G60UH-48B-090 | 17-1/2 | 446 | 16-3/8 | 416 | 16 | 406 | 6 | 152 |
| G60UH-36C-110 G60UH-48C-110 G60UH-60C-110X | 21 | 533 | 19-7/8 | 504 | 19-1/2 | 495 | 7-3/4 | 197 |
| G60UH-60D-135 | 24-1/2 | 622 | 23-3/8 | 546 | 23 | 584 | 9-1/2 | 241 |

DIMENSIONS - INCHES (MM) - HORIZONTAL POSITION

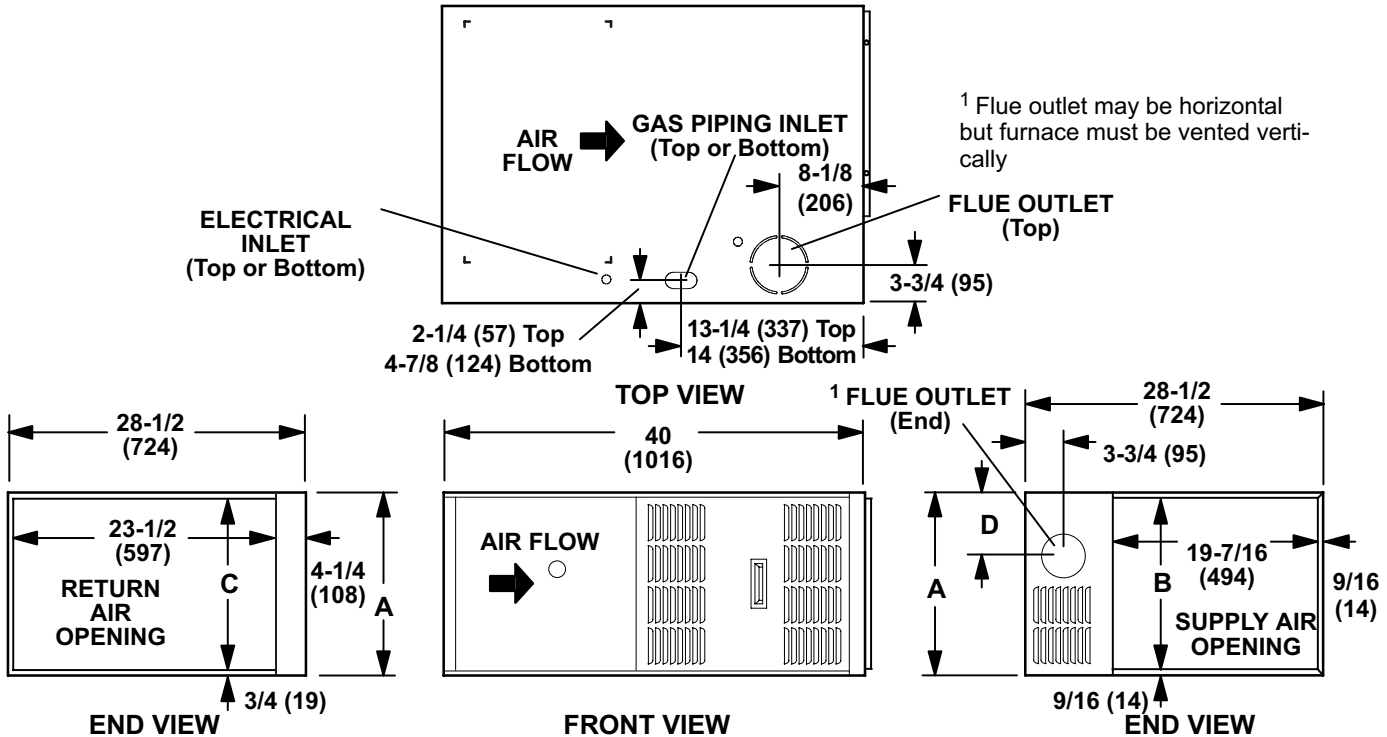
LEFT-HAND AIR DISCHARGE

¹ Flue outlet may be from end but furnace must be vented vertically



RIGHT-HAND AIR DISCHARGE

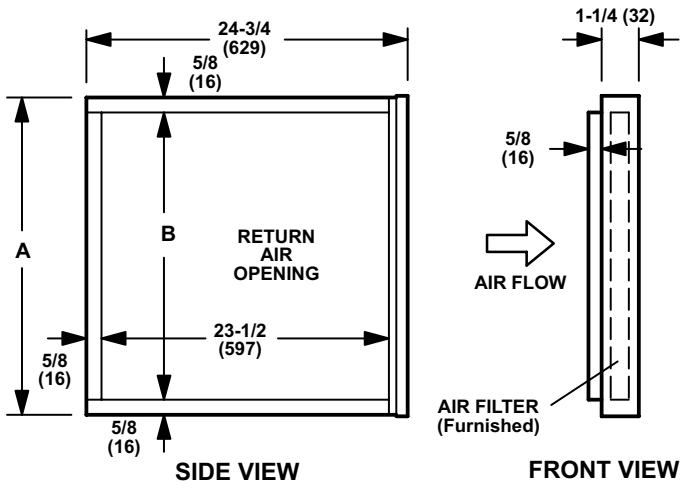
¹ Flue outlet may be horizontal but furnace must be vented vertically



| Model No. | A | | B | | C | | D | |
|--|--------|-----|--------|-----|--------|-----|-------|-----|
| | in. | mm | in. | mm | in. | mm | in. | mm |
| G60UH-24A-070 G60UH-36A-070 | 14-1/2 | 368 | 13-3/8 | 340 | 13 | 330 | 4-1/2 | 114 |
| G60UH-36B-090 G60UH-48B-090 | 17-1/2 | 446 | 16-3/8 | 416 | 16 | 406 | 6 | 152 |
| G60UH-36C-110 G60UH-48C-110 G60UH-60C-110X | 21 | 533 | 19-7/8 | 504 | 19-1/2 | 495 | 7-3/4 | 197 |
| G60UH-60D-135 | 24-1/2 | 622 | 23-3/8 | 546 | 23 | 584 | 9-1/2 | 241 |

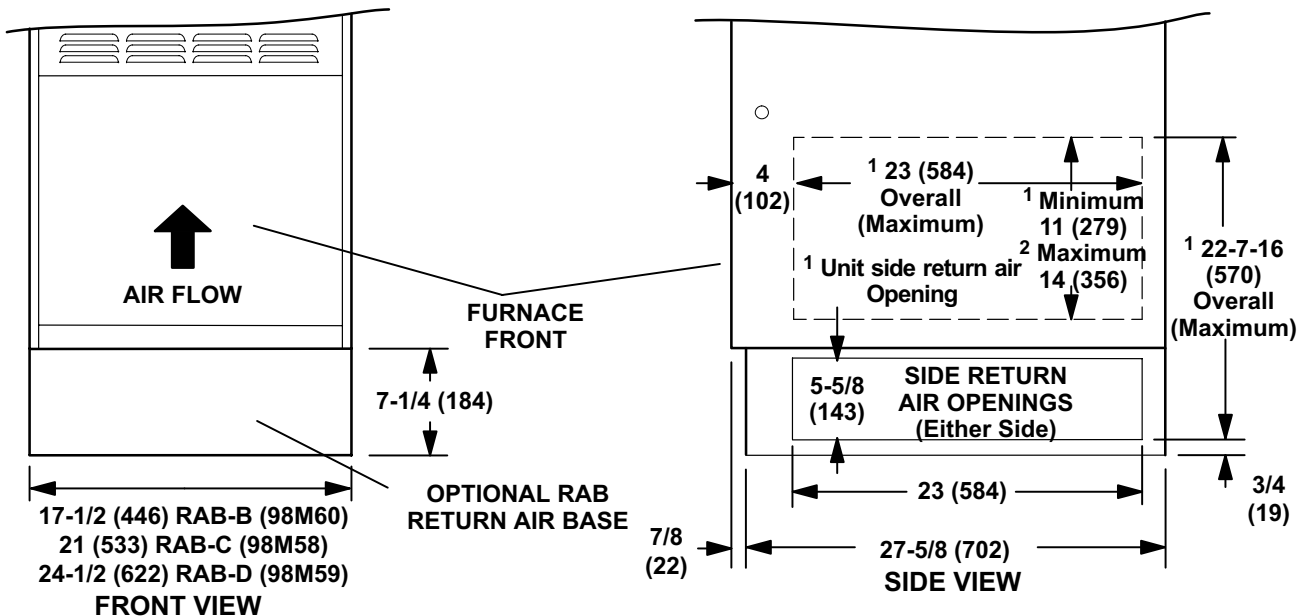
OPTIONAL ACCESSORY DIMENSIONS - INCHES (MM)

HORIZONTAL FILTER KIT



| Catalog Number | A | | B | |
|----------------|------|-----|--------|-----|
| | inch | mm | inch | mm |
| 87L95 | 14 | 356 | 12-3/4 | 324 |
| 87L96 | 18 | 457 | 16-3/4 | 425 |
| 87L97 | 21 | 533 | 18-3/4 | 476 |
| 87L98 | 25 | 635 | 23-3/4 | 603 |

RAB RETURN AIR BASE (Up-Flow Applications Only) For use with B, C, and D size furnaces only



17-1/2 (446) RAB-B (98M60)
21 (533) RAB-C (98M58)
24-1/2 (622) RAB-D (98M59)

FRONT VIEW

NOTE- Optional Side Return Air Filter Kits are not for use with RAB Return Air Base.

¹ Both the unit return air opening and the base return air opening must be covered by a single plenum or IAQ cabinet.

Minimum unit side return air opening dimensions for units requiring 1800 cfm or more of air (W x H): 23 x 11 in. (584 x 279 mm).

The opening can be cut as needed to accommodate plenum or IAQ cabinet while maintaining dimensions shown.

Side return air openings must be cut in the field. There are cutting guides stenciled on the cabinet for the side return air opening. The size of the opening must not extend beyond the markings on the furnace cabinet.

² To minimize pressure drop, the largest opening height possible (up to 14 inches) is preferred.

NOTE- Optional Side Return Air Filter Kits are not for use with RAB Return Air Base.

FILTER AIR RESISTANCE

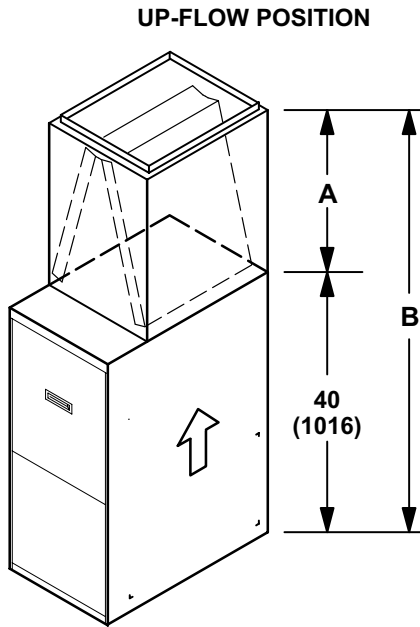
For 1 Inch Filter (Field Provided)

| cfm | in. w.g. |
|------|----------|
| 0 | 0.00 |
| 200 | 0.01 |
| 400 | 0.03 |
| 600 | 0.04 |
| 800 | 0.06 |
| 1000 | 0.09 |
| 1200 | 0.12 |

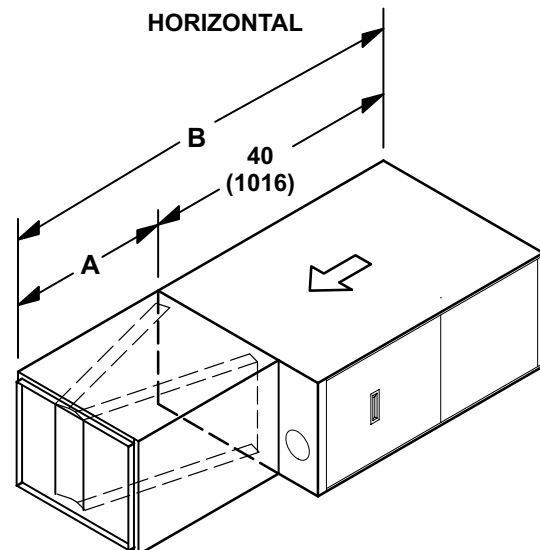
| cfm | in. w.g. |
|------|----------|
| 1400 | 0.15 |
| 1600 | 0.19 |
| 1800 | 0.23 |
| 2000 | 0.27 |
| 2200 | 0.33 |
| 2400 | 0.38 |
| 2600 | 0.44 |

DIMENSIONS - INCHES (MM) - FURNACE/COIL COMBINATIONS

| Model No | Cased | | | | Uncased (CX34 - cased only) | | | | |
|----------------|------------|--------|--------|--------|-----------------------------|--------|--------|--------|------|
| | A | | B | | A | | B | | |
| | in. | mm | in. | mm | in. | mm | in. | mm | |
| C33-18A | 12-1/2 | 318 | 52-1/2 | 1334 | 9-3/4 | 248 | 49-3/4 | 1264 | |
| CX34-19A-6F | C33-19A | 17-1/2 | 445 | 57-1/2 | 1461 | 9-3/4 | 248 | 49-3/4 | 1264 |
| C33-24A | 16-1/2 | 419 | 56-1/2 | 1435 | 14 | 356 | 54 | 1372 | |
| CX34-18/24A-6F | C33-24B | 16-1/2 | 419 | 56-1/2 | 1435 | 13-7/8 | 352 | 53-7/8 | 1368 |
| CX34-18/24B-6F | C33-24C | | | | | | | | |
| CX34-18/24C-6F | | | | | | | | | |
| CX34-25A-6F | C33-25A | 19-1/2 | 495 | 59-1/2 | 1511 | 16-1/4 | 413 | 56-1/4 | 1429 |
| CX34-25B-6F | C33-25B | 19-1/2 | 495 | 59-1/2 | 1511 | 15-7/8 | 403 | 55-7/8 | 1419 |
| CX34-30B-6F | C33-30B | 20-1/2 | 521 | 60-1/2 | 1537 | 17-3/4 | 451 | 59-3/4 | 1467 |
| CX34-30C-6F | C33-30C | | | | | | | | |
| CX34-30A-6F | C33-30A | 20-1/2 | 521 | 60-1/2 | 1537 | 18 | 457 | 58 | 1473 |
| CX34-31A-6F | C33-31A | 23-1/2 | 597 | 63-1/2 | 1613 | 21-1/4 | 540 | 61-1/4 | 1556 |
| CX34-31B-6F | C33-31B | 23-1/2 | 597 | 63-1/2 | 1613 | 20-1/4 | 514 | 60-1/4 | 1530 |
| CX34-36A-6F | C33-36A | 24-1/2 | 622 | 64-1/2 | 1638 | 22-1/8 | 562 | 62-1/8 | 1578 |
| CX34-36B-6F | C33-36B | 24-1/2 | 622 | 64-1/2 | 1638 | 21-7/8 | 556 | 61-7/8 | 1572 |
| CX34-36C-6F | C33-36C | 24-1/2 | 622 | 64-1/2 | 1638 | 21-1/4 | 540 | 61-1/4 | 1556 |
| CX34-38A-6F | C33-38A | 24-1/2 | 622 | 64-1/2 | 1638 | 22-1/4 | 565 | 62-1/4 | 1581 |
| CX34-38B-6F | C33-38B | 24-1/2 | 622 | 64-1/2 | 1638 | 22 | 559 | 62 | 1575 |
| CX34-42B-6F | C33-42B | 24-1/2 | 622 | 64-1/2 | 1638 | 21-7/8 | 556 | 61-7/8 | 1572 |
| CX34-43B-6F | C33-43B | 28-1/2 | 724 | 68-1/2 | 1740 | 26-1/4 | 667 | 66-1/4 | 1683 |
| CX34-43C-6F | C33-43C | 28-1/2 | 724 | 68-1/2 | 1740 | 25-3/4 | 654 | 65-3/4 | 1670 |
| | C33-44C | 24-1/2 | 622 | 64-1/2 | 1638 | 21-1/2 | 546 | 61-1/2 | 1562 |
| CX34-44/48B-6F | C33-48B | 24-1/2 | 622 | 64-1/2 | 1638 | 22-1/8 | 562 | 62-1/8 | 1578 |
| CX34-44/48C-6F | C33-48C | 24-1/2 | 622 | 64-1/2 | 1638 | 21-1/2 | 546 | 61-1/2 | 1562 |
| CX34-49C-6F | C33-49C | 30-1/2 | 775 | 70-1/2 | 1791 | 28-1/2 | 724 | 68-1/2 | 1740 |
| CX34-50/60C-6F | C33-50/60C | 27-1/2 | 699 | 67-1/2 | 1715 | 24-3/4 | 629 | 64-3/4 | 1645 |
| CX34-60D-6F | C33-60D | 25-1/2 | 648 | 65-1/2 | 1664 | 24-3/4 | 629 | 64-3/4 | 1645 |
| CX34-62C-6F | C33-62C | 32-1/2 | 826 | 72-1/2 | 1842 | 30-5/8 | 778 | 70-5/8 | 1793 |
| CX34-62D-6F | C33-62D | 29-1/2 | 749 | 69-1/2 | 1765 | 28-3/4 | 730 | 68-3/4 | 1746 |



| Model Number | A | | B | |
|----------------|--------|-----|--------|------|
| | in. | mm | in. | mm |
| CH33-18A-2F | 21-1/2 | 546 | 61-1/2 | 1562 |
| CH33-24/30A-2F | 26-1/2 | 673 | 66-1/2 | 1689 |
| CH33-36A-2F | | | | |
| CH33-36B-2F | | | | |
| CH33-36C-2F | | | | |
| CH33-44/48B-2F | 31-1/2 | 800 | 71-1/2 | 1816 |
| CH33-50/60C-2F | | | | |



BLOWER/WATTS DATA

NOTES - All air data is measured external to unit with 1 in. cleanable filter (not furnished - field provided) in place. Also see Filter Air Resistance table.
Air volume based on bottom air return air. Actual air volume may vary on side return air applications.

G60UH-24A-070 PERFORMANCE

| External Static Pressure in. w.g. | Air Volume / Watts at Various Blower Speeds | | | | | |
|-----------------------------------|---|-------|--------|-------|-----|-------|
| | High | | Medium | | Low | |
| | cfm | Watts | cfm | Watts | cfm | Watts |
| 0.00 | 1075 | 445 | 905 | 375 | 730 | 290 |
| 0.05 | 1070 | 445 | 900 | 375 | 725 | 290 |
| 0.10 | 1065 | 440 | 895 | 370 | 720 | 285 |
| 0.15 | 1060 | 435 | 890 | 365 | 715 | 285 |
| 0.20 | 1055 | 430 | 885 | 360 | 710 | 280 |
| 0.25 | 1045 | 425 | 880 | 360 | 700 | 280 |
| 0.30 | 1030 | 415 | 875 | 355 | 690 | 270 |
| 0.40 | 1010 | 400 | 860 | 350 | 675 | 270 |
| 0.50 | 975 | 390 | 840 | 340 | 660 | 265 |
| 0.60 | 940 | 375 | 805 | 325 | 640 | 255 |
| 0.70 | 890 | 360 | 755 | 305 | 605 | 240 |
| 0.80 | 830 | 340 | 700 | 285 | 565 | 225 |
| 0.90 | 765 | 305 | 640 | 265 | 515 | 205 |

G60UH-36A-070 PERFORMANCE

| External Static Pressure in. w.g. | Air Volume / Watts at Various Blower Speeds | | | | | | | |
|-----------------------------------|---|-------|-------------|-------|------------|-------|-----|-------|
| | High | | Medium-High | | Medium-Low | | Low | |
| | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts |
| 0.00 | 1500 | 705 | 1290 | 565 | 985 | 455 | 830 | 375 |
| 0.05 | 1475 | 695 | 1275 | 555 | 980 | 445 | 820 | 365 |
| 0.10 | 1450 | 680 | 1255 | 545 | 970 | 440 | 810 | 360 |
| 0.15 | 1425 | 670 | 1240 | 535 | 965 | 430 | 805 | 355 |
| 0.20 | 1400 | 655 | 1225 | 525 | 955 | 425 | 795 | 350 |
| 0.25 | 1370 | 645 | 1205 | 510 | 945 | 415 | 790 | 345 |
| 0.30 | 1340 | 630 | 1180 | 500 | 930 | 405 | 780 | 335 |
| 0.40 | 1285 | 610 | 1140 | 475 | 900 | 390 | 745 | 325 |
| 0.50 | 1215 | 580 | 1080 | 450 | 865 | 375 | 705 | 310 |
| 0.60 | 1150 | 560 | 1015 | 430 | 810 | 355 | 655 | 290 |
| 0.70 | 1060 | 535 | 940 | 405 | 730 | 330 | 585 | 270 |
| 0.80 | 955 | 515 | 800 | 370 | 655 | 305 | 480 | 260 |
| 0.90 | 785 | 475 | 605 | 325 | 585 | 270 | 410 | 255 |

G60UH-36B-090 PERFORMANCE

| External Static Pressure in. w.g. | Air Volume / Watts at Various Blower Speeds | | | | | | | |
|-----------------------------------|---|-------|-------------|-------|------|-------|-----|-----|
| | High | | Medium-High | | Low | | | |
| | cfm | Watts | cfm | Watts | cfm | Watts | | |
| 0.00 | 1500 | 720 | 1255 | 595 | 1040 | 460 | 900 | 370 |
| 0.05 | 1485 | 705 | 1250 | 580 | 1040 | 450 | 895 | 365 |
| 0.10 | 1465 | 685 | 1240 | 570 | 1035 | 445 | 890 | 360 |
| 0.15 | 1450 | 675 | 1235 | 555 | 1035 | 440 | 885 | 355 |
| 0.20 | 1435 | 660 | 1225 | 545 | 1030 | 435 | 880 | 350 |
| 0.25 | 1420 | 645 | 1215 | 530 | 1025 | 425 | 875 | 345 |
| 0.30 | 1400 | 630 | 1200 | 520 | 1020 | 415 | 870 | 340 |
| 0.40 | 1345 | 595 | 1170 | 495 | 1000 | 400 | 855 | 330 |
| 0.50 | 1300 | 575 | 1135 | 475 | 965 | 380 | 830 | 300 |
| 0.60 | 1235 | 545 | 1080 | 445 | 930 | 360 | 780 | 290 |
| 0.70 | 1165 | 510 | 1020 | 415 | 870 | 340 | 740 | 280 |
| 0.80 | 1080 | 480 | 940 | 385 | 800 | 315 | 670 | 260 |
| 0.90 | 985 | 445 | 840 | 355 | 710 | 290 | 600 | 245 |

G60UH-36C-110 PERFORMANCE

| External Static Pressure in. w.g. | Air Volume / Watts at Various Blower Speeds | | | | | | | |
|-----------------------------------|---|-------|-------------|-------|------------|-------|-----|-------|
| | High | | Medium-High | | Medium-Low | | Low | |
| | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts |
| 0.00 | 1555 | 715 | 1335 | 575 | 1085 | 460 | 925 | 365 |
| 0.05 | 1540 | 705 | 1330 | 555 | 1080 | 450 | 920 | 360 |
| 0.10 | 1525 | 690 | 1320 | 545 | 1075 | 440 | 915 | 355 |
| 0.15 | 1510 | 680 | 1310 | 535 | 1070 | 430 | 910 | 350 |
| 0.20 | 1490 | 670 | 1295 | 525 | 1065 | 420 | 900 | 340 |
| 0.25 | 1465 | 655 | 1280 | 510 | 1060 | 415 | 890 | 335 |
| 0.30 | 1440 | 645 | 1260 | 495 | 1050 | 405 | 880 | 330 |
| 0.40 | 1385 | 615 | 1230 | 485 | 1030 | 390 | 865 | 320 |
| 0.50 | 1320 | 590 | 1190 | 460 | 995 | 375 | 835 | 300 |
| 0.60 | 1260 | 570 | 1135 | 430 | 960 | 355 | 815 | 295 |
| 0.70 | 1190 | 545 | 1075 | 410 | 915 | 345 | 775 | 285 |
| 0.80 | 1090 | 515 | 970 | 385 | 860 | 325 | 760 | 280 |
| 0.90 | 975 | 485 | 880 | 360 | 790 | 305 | 705 | 275 |

G60UH-48B-090 PERFORMANCE

| External Static Pressure in. w.g. | Air Volume / Watts at Various Blower Speeds | | | | | | | |
|-----------------------------------|---|-------|-------------|-------|------|-------|------|-----|
| | High | | Medium-High | | Low | | | |
| | cfm | Watts | cfm | Watts | cfm | Watts | | |
| 0.00 | 1970 | 790 | 1810 | 735 | 1585 | 670 | 1340 | 565 |
| 0.05 | 1940 | 780 | 1785 | 715 | 1580 | 650 | 1335 | 555 |
| 0.10 | 1915 | 765 | 1760 | 695 | 1570 | 630 | 1325 | 540 |
| 0.15 | 1880 | 745 | 1730 | 660 | 1560 | 615 | 1325 | 530 |
| 0.20 | 1840 | 730 | 1700 | 620 | 1545 | 600 | 1320 | 520 |
| 0.25 | 1805 | 715 | 1670 | 625 | 1520 | 585 | 1310 | 510 |
| 0.30 | 1765 | 695 | 1640 | 625 | 1490 | 565 | 1295 | 500 |
| 0.40 | 1695 | 670 | 1570 | 595 | 1440 | 540 | 1260 | 480 |
| 0.50 | 1600 | 635 | 1490 | 560 | 1360 | 505 | 1195 | 450 |
| 0.60 | 1505 | 600 | 1400 | 530 | 1285 | 480 | 1140 | 425 |
| 0.70 | 1395 | 565 | 1265 | 485 | 1170 | 440 | 990 | 380 |
| 0.80 | 1250 | 520 | 1100 | 445 | 975 | 390 | 905 | 355 |
| 0.90 | 1005 | 460 | 870 | 385 | 900 | 365 | 810 | 325 |

G60UH-48C-110 PERFORMANCE

| External Static Pressure in. w.g. | Air Volume / Watts at Various Blower Speeds | | | | | | | |
|-----------------------------------|---|-------|-------------|-------|------------|-------|------|-------|
| | High | | Medium-High | | Medium-Low | | Low | |
| | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts |
| 0.00 | 2015 | 895 | 1620 | 780 | 1340 | 640 | 1150 | 525 |
| 0.05 | 1990 | 870 | 1615 | 760 | 1340 | 640 | 1150 | 525 |
| 0.10 | 1965 | 850 | 1610 | 745 | 1340 | 640 | 1150 | 525 |
| 0.15 | 1930 | 825 | 1605 | 725 | 1335 | 630 | 1150 | 525 |
| 0.20 | 1895 | 805 | 1600 | 710 | 1335 | 615 | 1150 | 525 |
| 0.25 | 1860 | 785 | 1590 | 695 | 1330 | 605 | 1150 | 520 |
| 0.30 | 1820 | 765 | 1580 | 675 | 1330 | 590 | 1145 | 515 |
| 0.40 | 1740 | 725 | 1530 | 635 | 1320 | 560 | 1140 | 490 |
| 0.50 | 1665 | 695 | 1475 | 600 | 1285 | 525 | 1120 | 470 |
| 0.60 | 1575 | 650 | 1405 | 555 | 1230 | 490 | 1075 | 445 |
| 0.70 | 1475 | 610 | 1310 | 515 | 1165 | 470 | 1015 | 415 |
| 0.80 | 1350 | 560 | 1210 | 485 | 1080 | 430 | 930 | 380 |
| 0.90 | 1210 | 520 | 1070 | 430 | 870 | 365 | 740 | 325 |

BLOWER/WATTS DATA

G60UH-60C-100X PERFORMANCE

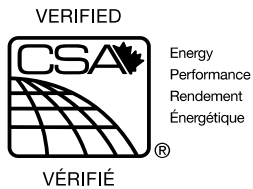
| External Static Pressure in. w.g. | Air Volume / Watts at Different Blower Speeds | | | | | | | | | | | | | | | |
|-----------------------------------|--|-------|-------------|-------|------------|-------|--|-------|-------------|-------------|-------------|------------|-------------|------------|------|-------|
| | Bottom Return Air, Side Return Air with Optional RAB Return Air Base, Return Air from Both Sides or Return Air from Bottom and One Side. | | | | | | Single Side Return Air - Air volumes in bold require field fabricated transition to accommodate 20 x 25 x 1 in. air filter in order to maintain proper air velocity. | | | | | | | | | |
| | High | | Medium-High | | Medium-Low | | Low | | High | | Medium-High | | Medium-Low | | Low | |
| | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts |
| .00 | 2555 | 1378 | 2300 | 1027 | 1985 | 863 | 1655 | 678 | 2385 | 1296 | 2185 | 981 | 1915 | 836 | 1650 | 686 |
| .10 | 2490 | 1354 | 2265 | 1002 | 1980 | 839 | 1640 | 667 | 2330 | 1274 | 2150 | 961 | 1900 | 815 | 1635 | 677 |
| .20 | 2420 | 1330 | 2225 | 980 | 1975 | 832 | 1635 | 660 | 2255 | 1234 | 2095 | 930 | 1885 | 794 | 1625 | 664 |
| .30 | 2355 | 1300 | 2175 | 957 | 1945 | 810 | 1625 | 653 | 2190 | 1207 | 2035 | 902 | 1855 | 769 | 1620 | 651 |
| .40 | 2275 | 1265 | 2115 | 934 | 1915 | 785 | 1620 | 639 | 2115 | 1179 | 1970 | 876 | 1820 | 751 | 1605 | 639 |
| .50 | 2175 | 1229 | 2040 | 903 | 1860 | 762 | 1595 | 623 | 2055 | 1156 | 1905 | 853 | 1760 | 725 | 1575 | 622 |
| .60 | 2085 | 1199 | 1965 | 873 | 1800 | 733 | 1565 | 608 | 1985 | 1141 | 1830 | 827 | 1705 | 704 | 1525 | 602 |
| .70 | 1990 | 1140 | 1870 | 843 | 1730 | 714 | 1525 | 590 | 1910 | 1119 | 1745 | 797 | 1635 | 680 | 1475 | 582 |
| .80 | 1890 | 1105 | 1770 | 807 | 1630 | 676 | 1455 | 567 | 1810 | 1088 | 1650 | 772 | 1560 | 659 | 1430 | 571 |
| .90 | 1760 | 1067 | 1655 | 777 | 1535 | 649 | 1370 | 541 | 1715 | 1058 | 1570 | 751 | 1485 | 638 | 1355 | 549 |

NOTE - All air data is measured external to unit with 1 in. (25 mm) cleanable filter (not furnished - field provided) in place. Also see Filter Air Resistance table.

G60UH-60D-135 PERFORMANCE

| External Static Pressure in. w.g. | Air Volume / Watts at Different Blower Speeds | | | | | | | | | | | | | | | |
|-----------------------------------|--|-------|-------------|-------|------------|-------|--|-------|-------------|-------------|-------------|-------------|-------------|------------|------|-------|
| | Bottom Return Air, Side Return Air with Optional RAB Return Air Base, Return Air from Both Sides or Return Air from Bottom and One Side. | | | | | | Single Side Return Air - Air volumes in bold require field fabricated transition to accommodate 20 x 25 x 1 in. air filter in order to maintain proper air velocity. | | | | | | | | | |
| | High | | Medium-High | | Medium-Low | | Low | | High | | Medium-High | | Medium-Low | | Low | |
| | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts |
| .00 | 2715 | 1407 | 2255 | 1070 | 1910 | 850 | 1660 | 674 | 2455 | 1336 | 2170 | 1019 | 1850 | 829 | 1555 | 673 |
| .10 | 2640 | 1403 | 2250 | 1030 | 1900 | 834 | 1645 | 668 | 2380 | 1299 | 2140 | 974 | 1840 | 812 | 1550 | 664 |
| .20 | 2540 | 1355 | 2245 | 1006 | 1890 | 821 | 1630 | 665 | 2305 | 1266 | 2105 | 947 | 1830 | 791 | 1545 | 656 |
| .30 | 2480 | 1319 | 2200 | 975 | 1890 | 781 | 1625 | 656 | 2235 | 1234 | 2045 | 914 | 1820 | 774 | 1540 | 642 |
| .40 | 2390 | 1282 | 2155 | 940 | 1885 | 775 | 1615 | 642 | 2160 | 1240 | 1985 | 886 | 1800 | 755 | 1540 | 628 |
| .50 | 2320 | 1251 | 2085 | 904 | 1860 | 758 | 1605 | 631 | 2065 | 1170 | 1925 | 863 | 1745 | 726 | 1535 | 614 |
| .60 | 2205 | 1210 | 2020 | 876 | 1815 | 731 | 1595 | 611 | 1990 | 1146 | 1870 | 844 | 1700 | 706 | 1505 | 599 |
| .70 | 2080 | 1161 | 1935 | 839 | 1760 | 707 | 1545 | 588 | 1895 | 1111 | 1775 | 808 | 1655 | 689 | 1465 | 573 |
| .80 | 2010 | 1122 | 1855 | 810 | 1690 | 679 | 1495 | 568 | 1805 | 1074 | 1680 | 779 | 1565 | 656 | 1425 | 562 |
| .90 | 1880 | 1071 | 1755 | 781 | 1585 | 646 | 1430 | 545 | 1695 | 1042 | 1590 | 752 | 1480 | 630 | 1335 | 533 |

NOTE - All air data is measured external to unit with 1 in. (25 mm) cleanable filter (not furnished - field provided) in place. Also see Filter Air Resistance table.



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