



GAS FURNACES

EL180UHE

ELITE® SERIES

Upflow / Horizontal - High Efficiency Blower Motor

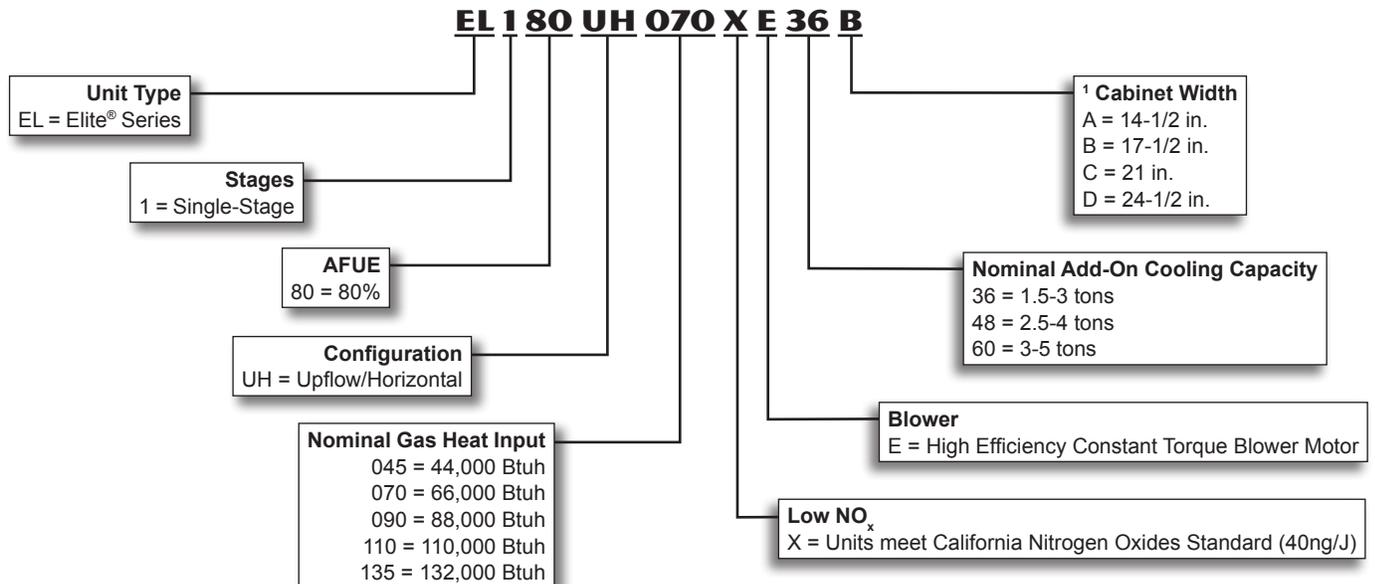
PRODUCT SPECIFICATIONS

Bulletin No. 210660
January 2017
Supersedes August 2015



AFUE - 80%
Input - 44,000 to 132,000 Btuh
Nominal Add-on Cooling - 1.5 to 5 Tons

MODEL NUMBER IDENTIFICATION



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

FEATURES

CONTENTS

| | |
|---------------------------------------------------|----|
| Blower Data | 13 |
| Dimensions - Furnace/Coil Combined Dimensions ... | 12 |
| Dimensions - Horizontal Position | 10 |
| Dimensions - Upflow Position | 9 |
| Features | 2 |
| Gas Heat Accessories | 8 |
| High Altitude Derate | 8 |
| Installation Clearances | 7 |
| Model Number Identification | 1 |
| Optional Accessories | 8 |
| Optional Accessory Dimensions | 11 |
| Specifications | 7 |



NOTE - EL180UHE FURNACES ARE NOT AVAILABLE IN CANADA!

WARRANTY

Duralok™ Aluminized Steel Heat Exchanger - Limited twenty year warranty in residential applications, ten years in non-residential applications.

All other covered components - Limited five year warranty in residential applications, one year in non-residential applications.

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

APPROVALS

Units are Certified by AHRI.

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

Approved by the California Energy Commission and meets California Nitrogen Oxides Standard (NOx) limits of 40 ng/J.

ISO 9001 Registered Manufacturing Quality System.

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

APPLICATIONS

Input capacities of 44,000, 66,000, 88,000, 110,000 and 132,000 Btuh.

Energy efficiency (AFUE) of 80%.

Compact cabinet for upflow, horizontal-left or horizontal-right applications.

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

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

Shipped factory assembled with all controls installed and wired.

Ready for installation in upflow or horizontal right-hand position without any modifications. Horizontal left-hand position requires repositioning of pressure switch. Removable 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.

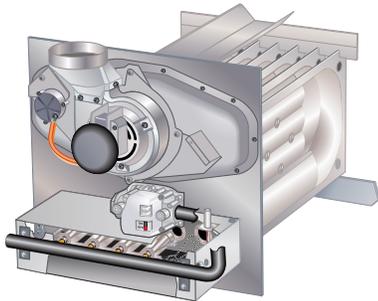
NOTE - FURNACES CANNOT BE TWINNED!

FEATURES

HEATING SYSTEM

1 Lennox Duralok™ Heat Exchanger Assembly

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 in excess of industry standards.
Compact size of heat exchanger permits low overall design of furnace cabinet.

2 Inshot Burners

Aluminized steel inshot burners provide efficient, trouble-free operation.
Burner venturi mixes air and gas in correct proportion for proper combustion.
Burner assembly is removable from the unit as a single component for ease of service.

3 SureLight® Hot Surface Ignitor

Tough, reliable, long-life, trouble-free performance.
Silicon nitride ignitor.
Cemented to steatite block for protection against current leakage.
Ignition leads are constructed of nickel plated copper and are enclosed in high temperature Teflon® insulation for dependable operation.

4 Gas Control Valve

24 volt redundant combination gas control valve combines manual shut off switch (On-Off), automatic electric valve (dual) and gas pressure regulation into a compact combination control.

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 from either side of the cabinet in upflow applications and from the top in horizontal applications.

6 Flame Rollout Switches (2)

Manual reset switches are factory installed on burner box.
Switches provides protection from abnormal operating conditions.

Limit Control

Automatic reset, primary limit is accurately located on vestibule panel on all units.

Optional Accessories

High Altitude Pressure Switch Kit

Required on most units for proper unit operation at altitudes from 4,501 to 7500 ft.

Natural Gas to LPG/Propane Conversion Kit

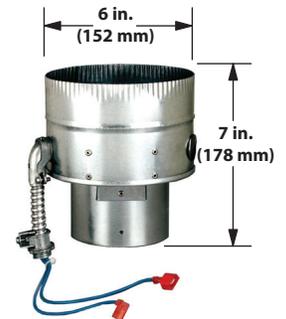
Required for field changeover from natural gas to LPG/Propane.

LPG/Propane to Natural Gas Conversion Kit

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

Vent Adaptor (Upflow Applications Only)

Allows venting through a masonry chimney without the need of a flue liner.
Manual reset temperature sensor protects against abnormal operating conditions.
Sensor wiring may be routed from either side of adaptor.
Minimum winter design temperatures:



-10°F when used with interior masonry chimneys.

+5°F when used with exterior masonry chimneys.

Refer to Winter Design Temperatures Map on page 6 for application information. Also refer to the installation instructions for detailed information.

BLOWER

7 Direct drive blower.

Statically and dynamically balanced.
Resiliently mounted.
Blower assembly easily removed for servicing.

DC Brushless Motor

High Efficiency Constant Torque.
ECM (Electronically Commutated Motor).
Motor is programmed to provide constant torque at each of the selectable speeds.
Motor is controlled by the Integrated Furnace Control.
Blower speeds are easily changed on the integrated furnace control. See blower performance tables.

FEATURES

8 CONTROLS

SureLight® Integrated Furnace Control

Control contains all necessary controls and relays to operate furnace.

Combustion air inducer is operated by the integrated furnace control. 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.

Flame sensor assures safe and reliable operation.

Should loss of flame occur the integrated furnace control will initiate 4 re-attempts at 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.

Fan control consists of adjustable blower timed-off delay (60, 90, 120, 180 seconds - factory setting 90 seconds) and fixed blower timed-on delay (30 seconds - heating, 2 seconds - cooling).

For air-conditioning applications, blower is automatically energized on thermostat demand for cooling. Control has low speed continuous blower speed setting for humidifier or air cleaner operation.

Two accessory terminals furnished for additional power supply requirements for 120 volt (less than 1 amp) power humidifiers and powered air cleaners. One additional terminal is furnished for power supply requirements for 24V (less than 0.5 amp) low voltage accessories.

Ignition control has single red LED to indicate status and as an aid in troubleshooting.

Last five codes are stored in non-volatile memory (accessible by recall button on control) for servicing.

24 Volt Transformer

Furnished and factory installed on outside of control box. 40VA transformer has circuit breaker wired in series.

Field Wiring Make-up Box

Furnished for line voltage wiring.

Factory installed internally on left side of furnace.

Box may be installed on right side of furnace.

Optional Accessories

Blower Relay Kit (For Use With Two-Stage Outdoor Units)

Allows furnace blower speed changes when matched with two-stage air conditioners or heat pumps.

Thermostat

Thermostat (programmable/non-programmable) is not furnished with unit.

See Thermostat bulletins in Controls Section and Lennox Price Book for selection.

Night Service Kit

Contains most commonly used service parts:

- Furnace Control
- Ignitor
- Flame sensor
- Gas valve
- Transformer

Universal Service Kit - Switches

Kit contains:

- Primary limits (for each model)
- Pressure switches (for each model)
- Flame rollout switches (for each model)

FILTER (not furnished)

Filter and provisions for external mounting must be field provided.

Optional Accessories

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 Upflow Side Return Air Applications - Not for use with 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.

FEATURES

CABINET

Low-profile, narrow width cabinet allows easy installation.

Heavy-gauge, cold rolled steel construction.

Pre-painted cabinet finish.

Flue outlet on top of cabinet for upflow 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 indoor coil.

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

Sealed blower compartment. Inner blower compartment access panel seals blower compartment from air leakage.

Cabinet door can be removed without any tools.

Complete service access.

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

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

Return Air Entry:

For bottom/end return-air entry for upflow/horizontal applications, remove furnished bottom seal panel from cabinet.

For side return-air entry (upflow applications only), 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. cleanable air filter. Required to maintain proper air velocity.
2. Single side return air with Optional 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.

Coil Match-up

All furnaces exactly match C33, C35, CX34 and CX35 cased upflow indoor coils and CH33 and CH35 horizontal indoor 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.

Low Leakage Cabinet

All models have less than 2% air leakage and meet ANSI/ASHRAE Standard 193-2010 "Method of Test for Determining the Air Tightness of HVAC Equipment".

Optional Accessories

High Performance Economizer (Commercial Applications Only)

Designed for applications requiring outdoor air to be utilized in a commercial HVAC system. Allows the entry of fresh outdoor air for free cooling, reducing the requirement for mechanical cooling.

Heavy gauge galvanized steel cabinet lined with thick fiberglass insulation.

Mixed air sensor, outdoor air sensor and 24VAC transformer furnished.

Approved for California Title 24 building standards.

ASHRAE 90.1-2010 compliant.

See separate Product Specifications bulletin for additional information and available control and sensor options.

Horizontal Suspension Kit

Provides suspension of unit and indoor coil in horizontal applications.

Allows complete service access.

Consists of corner mounted hanging brackets with vibration isolators, return air end support rail and hardware for assembly.

Metal hanging straps must be field provided.

Return Air Base

A field fabricated transition or Return Air Base is required when using an IAQ product higher than 14-3/16 in. installed next to the unit and serviced from the front. IAQ products higher than 20 in. require a field fabricated transition.

Base must be used for 60C and 60D models with air volumes over 1800 cfm in upflow applications when only one side return is required.

Cabinet is shipped flat for easy field assembly and is pre-painted steel to match the furnace.

See Dimension Drawing.

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.

SPECIFICATIONS

| Gas Heating Performance | Model No. Model No. - Low Nox | EL180UH045E36A EL180UH045XE36A | EL180UH070E36B EL180UH070XE36B | EL180UH090E48B EL180UH090XE48B |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|
| | ¹ AFUE | 80% | 80% | 80% |
| | Input - Btuh | 44,000 | 66,000 | 88,000 |
| | Output - Btuh | 36,000 | 53,000 | 72,000 |
| | Temperature rise range - °F | 15 - 45 | 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 |
| High Static - in. w.g. | | 0.50 | 0.50 | 0.50 |
| Connections in. | Flue connection - in. round Gas pipe size IPS | 4 1/2 | 4 1/2 | 4 1/2 |
| Indoor Blower | Wheel nom. dia. x width - in. Motor Type Motor output - hp Tons of add-on cooling Air Volume Range - cfm | 10 x 8 DC Brushless 1/2 1.5 - 3 350 - 1380 | 10 x 10 DC Brushless 1/2 1.5 - 3 395 - 1415 | 10 x 10 DC Brushless 3/4 2.5 - 4 750 - 1785 |
| Electrical Data | Voltage Blower motor full load amps Maximum overcurrent protection | 120 volts - 60 hertz - 1 phase | | |
| | | 6.8 | 6.8 | 8.4 |
| | | 15 | 15 | 15 |
| Shipping Data | lbs. - 1 package | 111 | 127 | 142 |

SPECIFICATIONS

| Gas Heating Performance | Model No. Model No. - Low Nox | EL180UH090E60C --- | EL180UH110E60C EL180UH110XE60C | EL180UH135E60D --- |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------|
| | ¹ AFUE | 80% | 80% | 80% |
| | Input - Btuh | 88,000 | 110,000 | 132,000 |
| | Output - Btuh | 72,000 | 90,000 | 107,000 |
| | Temperature rise range - °F | 30 - 60 | 35 - 65 | 30 - 60 |
| | Gas Manifold Pressure (in. w.g.) Nat. Gas / LPG/Propane | 3.5 / 10.0 | 3.5 / 10.0 | 3.5 / 10.0 |
| High Static - in. w.g. | | 0.50 | 0.50 | 0.50 |
| Connections in. | Flue connection - in. round Gas pipe size IPS | 4 1/2 | 4 1/2 | 4 1/2 |
| Indoor Blower | Wheel nom. dia. x width - in. Motor Type Motor output - hp Tons of add-on cooling Air Volume Range - cfm | 11-1/2 x 10 DC Brushless 1 3 - 5 990 - 2290 | 11-1/2 x 10 DC Brushless 1 3 - 5 920 - 2315 | 11 x 11 DC Brushless 1 3.5 - 5 1140 - 2495 |
| Electrical Data | Voltage Blower motor full load amps Maximum overcurrent protection | 120 volts - 60 hertz - 1 phase | | |
| | | 10.9 | 10.9 | 10.9 |
| | | 15 | 15 | 15 |
| Shipping Data | lbs. - 1 package | 152 | 160 | 178 |

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.

INSTALLATION CLEARANCES - INCHES (MM)

UPFLOW POSITION

| Vent Type | Type B1 | Type C |
|------------------------|-------------|--------------------|
| Sides | 0 (0) | ¹ 0 (0) |
| Rear | 0 (0) | 0 (0) |
| Top | 1 (25) | 1 (25) |
| Front | 2-1/4 (57) | 2-1/4 (57) |
| Front (service/alcove) | 24 (610) | 24 (610) |
| Floor | Combustible | Combustible |
| Flue | 1 (25) | 6 (152) |

NOTE - Air for combustion must conform to the methods outlined in the National Fuel Gas Code (NFPA 54/ANSI-Z223.1).

NOTE - In the U.S. flue sizing must conform to the methods outlined in the current National Fuel Gas Code (NFPA 54/ANSI-Z223.1) or applicable provisions of local building codes.

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 |
|-----------------|--------------------|--------------------|
| End | ¹ 2 | ¹ 2 |
| Rear | 0 (0) | 0 (0) |
| Top | ¹ 0 (0) | ¹ 0 (0) |
| Front | 2-1/4 (57) | 2-1/4 (57) |
| Front (service) | 24 (610) | 24 (610) |
| Floor | Combustible | Combustible |
| Flue | 1 (25) | 6 (152) |

NOTE - Air for combustion must conform to the methods outlined in the National Fuel Gas Code (NFPA 54/ANSI-Z223.1).

NOTE - In the U.S. flue sizing must conform to the methods outlined in the current National Fuel Gas Code (NFPA 54/ANSI-Z223.1) or applicable provisions of local building codes.

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

OPTIONAL ACCESSORIES - ORDER SEPARATELY

NOTE - FURNACES CANNOT BE TWINNED!

| | | "A" Width Models | "B" Width Models | "C" Width Models | "D" Width Models |
|----------------------------------------------------------|----------------------|------------------|------------------|------------------|------------------|
| CABINET ACCESSORIES | | | | | |
| Horizontal Suspension Kit - Horizontal only | | 51W10 | 51W10 | 51W10 | 51W10 |
| Return Air Base - Upflow only | | 65W75 | 50W98 | 50W99 | 51W00 |
| High Performance Economizer (Commercial Only) | | 10U53 | 10U53 | 10U53 | 10U53 |
| CONTROLS | | | | | |
| Blower Relay Kit (for two-stage outdoor units) | | 85W66 | 85W66 | 85W66 | 85W66 |
| FILTERS | | | | | |
| ¹ Air Filter and Rack Kit | Horizontal (end) | 87L95 | 87L96 | 87L97 | 87L98 |
| | Size of filter - in. | 14 x 25 x 1 | 18 x 25 x 1 | 20 x 25 x 1 | 25 x 25 x 1 |
| | Side Return Single | 44J22 | 44J22 | 44J22 | 44J22 |
| | Ten Pack | 66K63 | 66K63 | 66K63 | 66K63 |
| | Size of filter - in. | 16 x 25 x 1 |
| SERVICE KITS | | | | | |
| Night Service Kit | | 84W47 | 84W47 | 84W47 | 84W47 |
| Universal Service Kit - Switches | | 89W19 | 89W19 | 89W19 | 89W19 |
| VENTING | | | | | |
| Vent Adaptor - 6 in. conn. size upflow applications only | | 18M79 | 18M79 | 18M79 | 18M79 |

¹ Cleanable polyurethane, frame-type filter.

GAS HEAT ACCESSORIES

| Input | High Altitude Pressure Switch Kit | | | Natural Gas to LPG/Propane Kit | | LPG/Propane to Natural Gas Kit | Natural Gas High Altitude Orifice Kit |
|-------|-----------------------------------|-----------------|-------------------|--------------------------------|-------------------|--------------------------------|---------------------------------------|
| | 0 - 4500 ft. | 4501 - 7500 ft. | 7501 - 10,000 ft. | 0 - 7500 ft. | 7501 - 10,000 ft. | 0 - 7500 ft. | 7501 - 10,000 ft. |
| 045 | No Change | 80W52 | 80W51 | 11K49 | 76W15 | 73W81 | 73W37 |
| 070 | No Change | 80W52 | 80W51 | 11K49 | 76W15 | 73W81 | 73W37 |
| 090 | No Change | 80W52 | 80W51 | 11K49 | 76W15 | 73W81 | 73W37 |
| 110 | No Change | 80W57 | 80W52 | 11K49 | 76W15 | 73W81 | 73W37 |
| 135 | No Change | 80W52 | 80W51 | 11K49 | 76W15 | 73W81 | 73W37 |

HIGH ALTITUDE DERATE

NOTE - Units may be installed at altitudes up to 2000 ft. above sea level without any modifications.

At altitudes above 2000 ft. units must be derated to match information in the shaded areas shown below.

NOTE - This is the only permissible derate for these units.

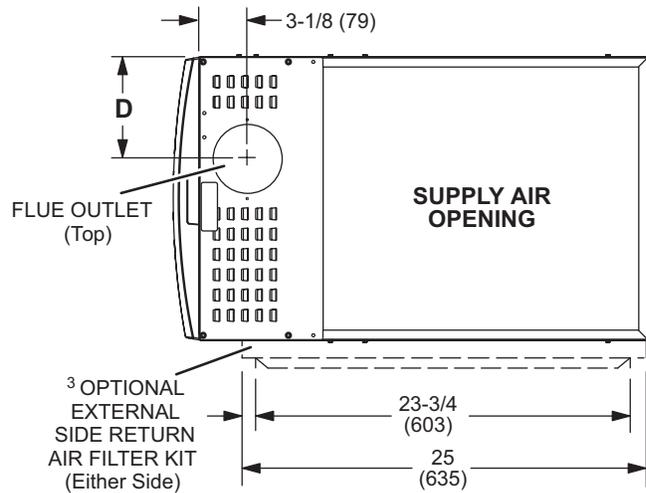
| Input | Gas Manifold Pressure (Outlet) in. w.g. | | | | | | | | Line Pressure - in. w.g. | | |
|-------|-----------------------------------------|-------------|------------------|-------------|------------------|-------------|--------------------------|-------------|--------------------------|-------------|---------|
| | 0 - 2000 Feet | | 2001 - 4500 Feet | | 4501 - 7500 Feet | | 7501 - 10,000 ft. | | Minimum | | Maximum |
| | Natural Gas | LPG/Propane | Natural Gas | LPG/Propane | Natural Gas | LPG/Propane | ¹ Natural Gas | LPG/Propane | Natural Gas | LPG/Propane | |
| 045 | 3.5 | 10 | 3.2 | 10 | 3 | 10 | 3.5 | 10 | 4.5 | 11 | 13 |
| 070 | 3.5 | 10 | 3.2 | 10 | 2.8 | 10 | 3.5 | 10 | 4.5 | 11 | 13 |
| 090 | 3.5 | 10 | 3.2 | 10 | 2.7 | 9.6 | 3.5 | 10 | 4.5 | 11 | 13 |
| 110 | 3.5 | 10 | 3.5 | 10 | 3 | 9.6 | 3.5 | 10 | 4.5 | 11 | 13 |
| 135 | 3.5 | 10 | 3.5 | 10 | 2.9 | 9.6 | 3.5 | 10 | 4.5 | 11 | 13 |

¹ Natural Gas High Altitude Orifice Kit required.

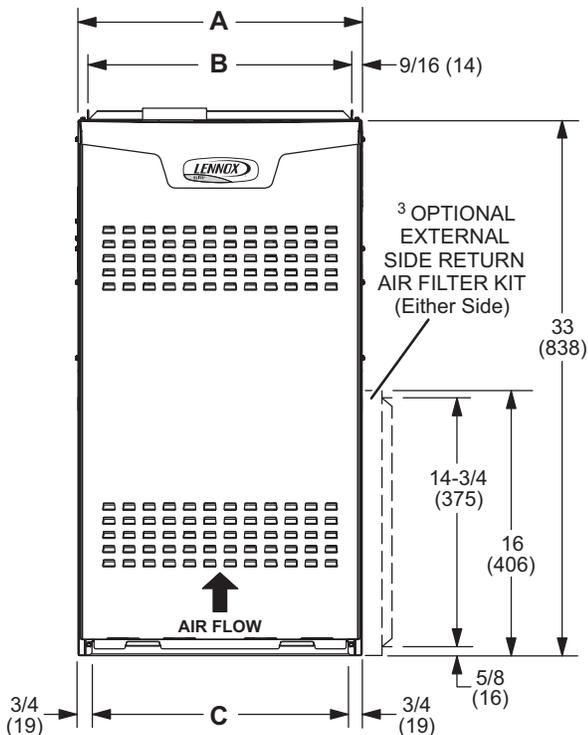
DIMENSIONS - INCHES (MM) - UPFLOW POSITION

- 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) cleanable air filter. Required to maintain proper air velocity.
 2. Single side return air with optional 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.

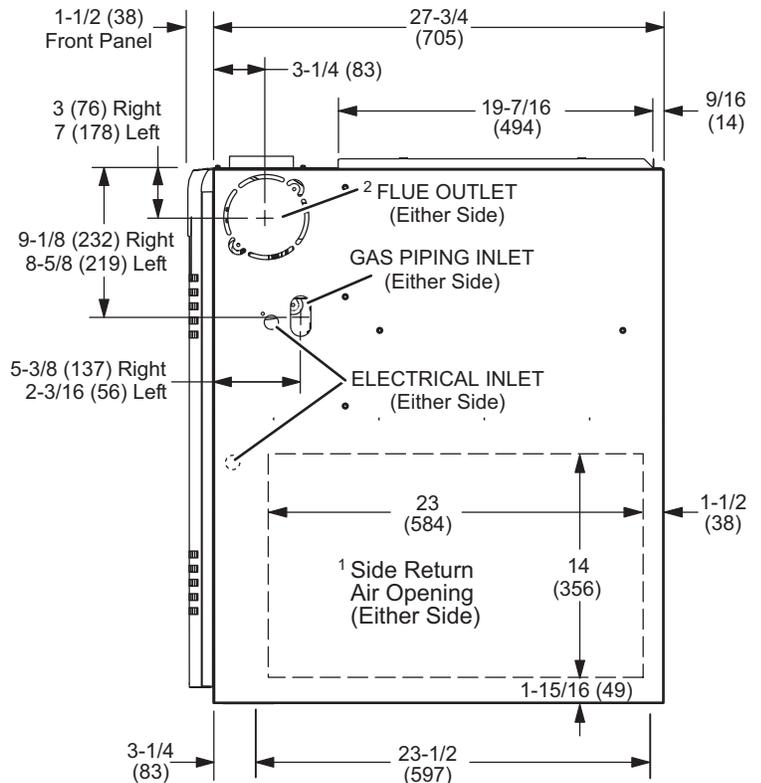
- ² Flue outlet may be horizontal but furnace must be vented vertically
- ³ Optional External Side Return Air Filter Kit is not for use with the optional Return Air Base.



TOP VIEW



FRONT VIEW



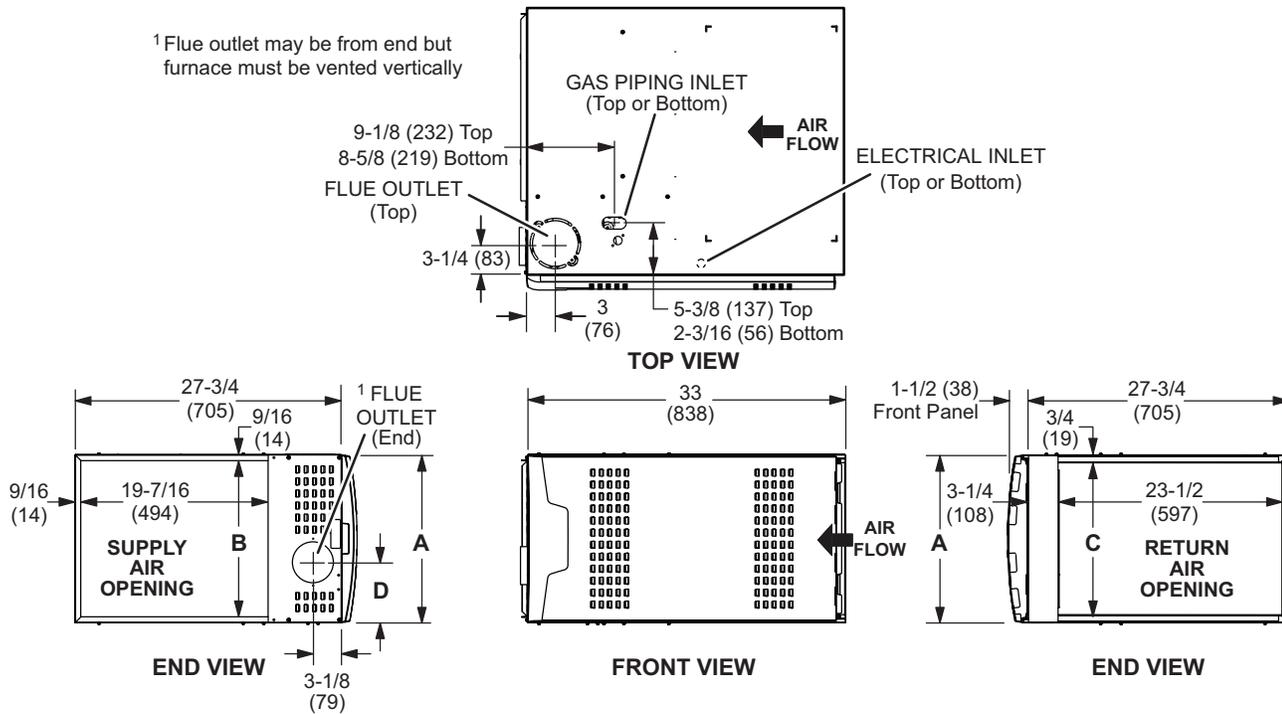
SIDE VIEW

| Model No. | A | | B | | C | | D | |
|----------------------------------|--------|-----|--------|-----|--------|-----|-------|-----|
| | in. | mm | in. | mm | in. | mm | in. | mm |
| EL180UH045E36A | 14-1/2 | 368 | 13-3/8 | 340 | 13 | 330 | 4-3/4 | 121 |
| EL180UH070E36B EL180UH090E48B | 17-1/2 | 446 | 16-3/8 | 416 | 16 | 406 | 6-1/4 | 159 |
| EL180UH090E60C EL180UH110E60C | 21 | 533 | 19-7/8 | 504 | 19-1/2 | 495 | 8 | 203 |
| EL180UH135E60D | 24-1/2 | 622 | 23-3/8 | 594 | 23 | 584 | 9-3/4 | 248 |

DIMENSIONS - INCHES (MM) - HORIZONTAL POSITION

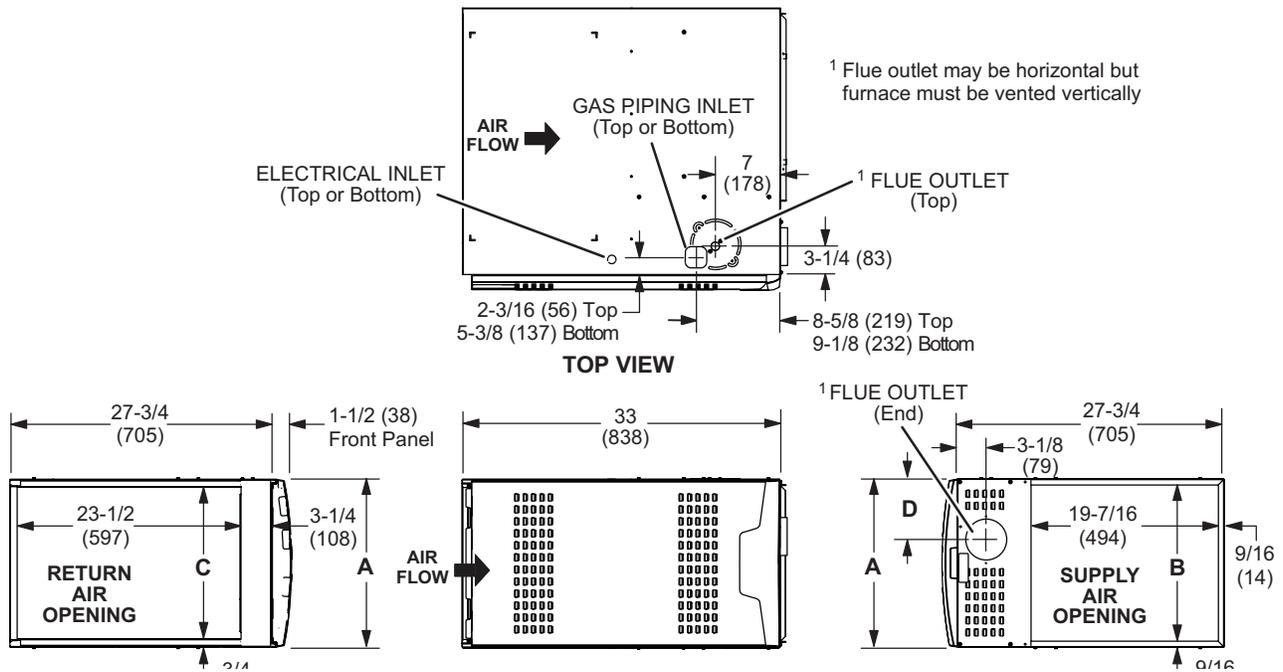
LEFT-HAND AIR DISCHARGE

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



RIGHT-HAND AIR DISCHARGE

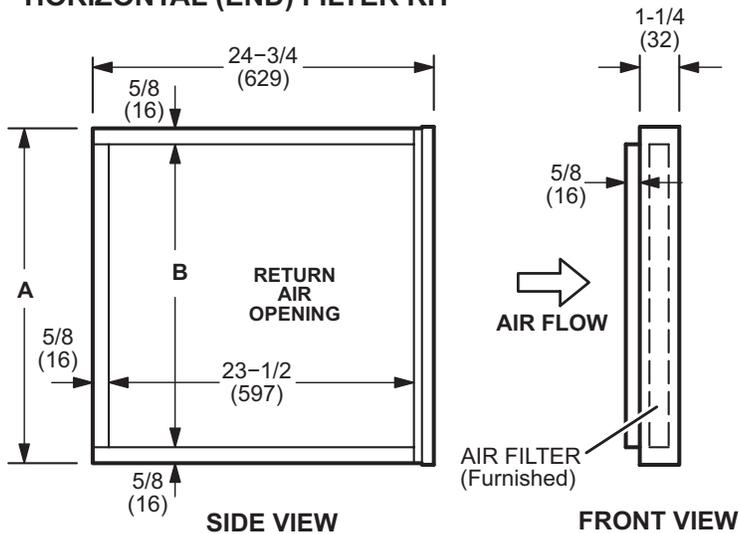
¹ Flue outlet may be horizontal but furnace must be vented vertically



| Model No. | A | | B | | C | | D | |
|----------------------------------|--------|-----|--------|-----|--------|-----|-------|-----|
| | in. | mm | in. | mm | in. | mm | in. | mm |
| EL180UH045E36A | 14-1/2 | 368 | 13-3/8 | 340 | 13 | 330 | 4-3/4 | 121 |
| EL180UH070E36B EL180UH090E48B | 17-1/2 | 446 | 16-3/8 | 416 | 16 | 406 | 6-1/4 | 159 |
| EL180UH090E60C EL180UH110E60C | 21 | 533 | 19-7/8 | 504 | 19-1/2 | 495 | 8 | 203 |
| EL180UH135E60D | 24-1/2 | 622 | 23-3/8 | 594 | 23 | 584 | 9-3/4 | 248 |

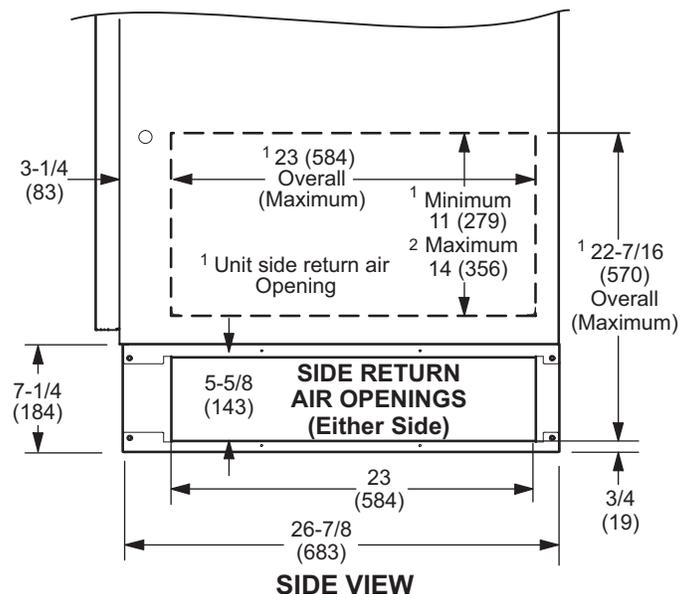
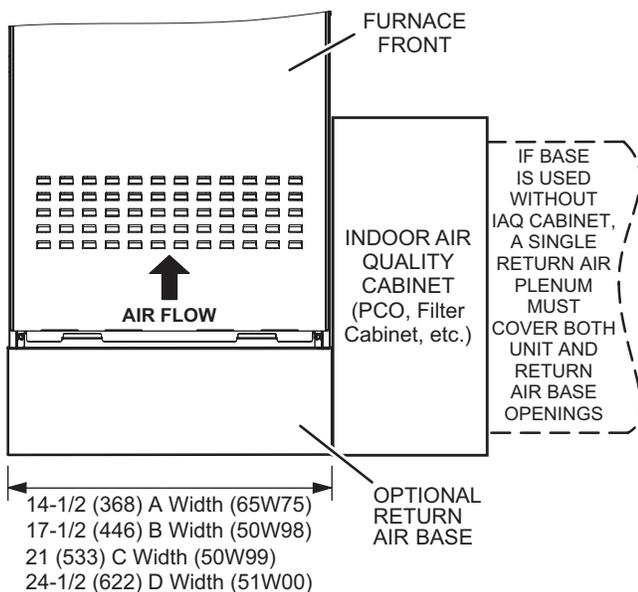
OPTIONAL ACCESSORY DIMENSIONS - INCHES (MM)

HORIZONTAL (END) FILTER KIT



| Furnace Cabinet Width | Catalog Number | A | | B | |
|-----------------------|----------------|-----|-----|--------|-----|
| | | in. | mm | in. | mm |
| A | 87L95 | 14 | 356 | 12-3/4 | 324 |
| B | 87L96 | 18 | 457 | 16-3/4 | 425 |
| C | 87L97 | 21 | 533 | 18-3/4 | 476 |
| D | 87L98 | 25 | 635 | 23-3/4 | 603 |

Optional Return Air Base (Upflow Applications Only - For use with A, B, C and D cabinets)



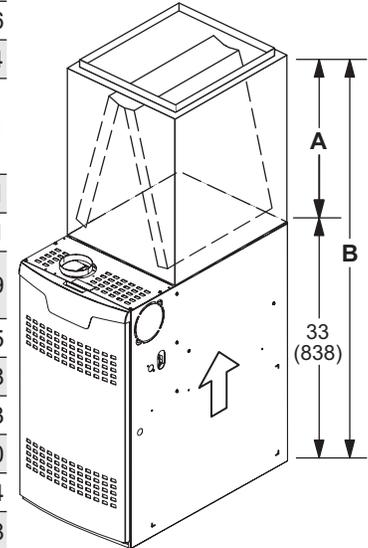
NOTE- Optional Side Return Air Filter Kits are not for use with Optional Return Air Base.

- 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.
- To minimize pressure drop, the largest opening height possible, up to 14 in. (356 mm), is preferred.

DIMENSIONS - INCHES (MM) - FURNACE/COIL COMBINED DIMENSIONS

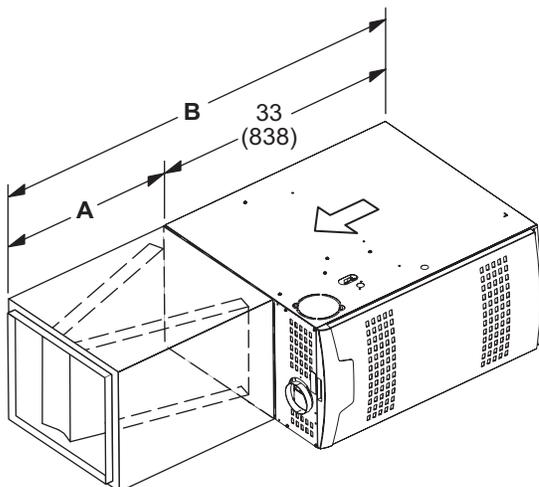
UPFLOW POSITION

| Model No | | | Cased | | | | Uncased (C33 only) | | | |
|----------------|--------------------|--------------------|--------|-----|--------|------|-----------------------|-----|--------|------|
| | | | A | | B | | A | | B | |
| CX34 | C35/CX35 | C33 | in. | mm | in. | mm | in. | mm | in. | mm |
| --- | --- | C33-18A | 12-1/2 | 318 | 45-1/2 | 1156 | 9-3/4 | 248 | 42-3/4 | 1086 |
| CX34-19A-6F | --- | C33-19A | 16-1/2 | 419 | 49-1/2 | 1257 | 9-3/4 | 248 | 42-3/4 | 1086 |
| --- | --- | C33-24A | 16-1/2 | 419 | 49-1/2 | 1257 | 14 | 356 | 47 | 1194 |
| CX34-18/24A-6F | C35/CX35-18/24A-6F | C33-24B C33-24C | 16-1/2 | 419 | 49-1/2 | 1257 | 13-7/8 | 352 | 46-7/8 | 1191 |
| CX34-18/24B-6F | C35/CX35-18/24B-6F | | | | | | | | | |
| CX34-18/24C-6F | C35/CX35-18/24C-6F | | | | | | | | | |
| CX34-25A-6F | C35/CX35-24A-6F | C33-25A | 18-1/2 | 470 | 51-1/2 | 1308 | 16-1/4 | 413 | 49-1/4 | 1251 |
| CX34-25B-6F | C35/CX35-24B-6F | C33-25B | 18-1/2 | 470 | 51-1/2 | 1308 | 15-7/8 | 403 | 48-7/8 | 1241 |
| CX34-30B-6F | --- | C33-30B | 20-1/2 | 521 | 53-1/2 | 1359 | 17-3/4 | 451 | 50-3/4 | 1289 |
| CX34-30C-6F | --- | C33-30C | | | | | | | | |
| CX34-30A-6F | --- | C33-30A | 20-1/2 | 521 | 53-1/2 | 1359 | 18 | 457 | 51 | 1295 |
| CX34-31A-6F | C35/CX35-30A-6F | C33-31A | 22-1/2 | 572 | 55-1/2 | 1410 | 21-1/4 | 540 | 54-1/4 | 1378 |
| CX34-31B-6F | C35/CX35-30B-6F | C33-31B | 22-1/2 | 572 | 55-1/2 | 1410 | 20-1/4 | 514 | 53-1/4 | 1353 |
| CX34-36A-6F | C35/CX35-30/36A-6F | C33-36A | 24-1/2 | 622 | 57-1/2 | 1461 | 22-1/8 | 562 | 55-1/8 | 1400 |
| CX34-36B-6F | C35/CX35-30/36B-6F | C33-36B | 24-1/2 | 622 | 57-1/2 | 1461 | 21-7/8 | 556 | 54-7/8 | 1394 |
| CX34-36C-6F | C35/CX35-30/36C-6F | C33-36C | 24-1/2 | 622 | 57-1/2 | 1461 | 21-1/4 | 540 | 54-1/4 | 1378 |
| CX34-38A-6F | C35/CX35-36A-6F | C33-38A | 24-1/2 | 622 | 57-1/2 | 1461 | 22-1/4 | 565 | 55-1/4 | 1403 |
| CX34-38B-6F | C35/CX35-36B-6F | C33-38B | 24-1/2 | 622 | 57-1/2 | 1461 | 22 | 559 | 55 | 1397 |
| CX34-42B-6F | --- | C33-42B | 24-1/2 | 622 | 57-1/2 | 1461 | 21-7/8 | 556 | 54-7/8 | 1394 |
| CX34-43B-6F | C35/CX35-48B-6F | C33-43B | 27-1/2 | 699 | 60-1/2 | 1537 | 26-1/4 | 667 | 59-1/4 | 1505 |
| CX34-43C-6F | C35/CX35-48C-6F | C33-43C | 27-1/2 | 699 | 60-1/2 | 1537 | 25-3/4 | 654 | 58-3/4 | 1492 |
| --- | --- | C33-44C | 24-1/2 | 622 | 57-1/2 | 1461 | 21-1/2 | 546 | 54-1/2 | 1384 |
| CX34-44/48B-6F | --- | C33-48B | 24-1/2 | 622 | 57-1/2 | 1461 | 22-1/8 | 562 | 55-1/8 | 1400 |
| CX34-44/48C-6F | --- | C33-48C | 24-1/2 | 622 | 57-1/2 | 1461 | 21-1/2 | 546 | 54-1/2 | 1384 |
| CX34-49C-6F | C35/CX35-49C-6F | C33-49C | 29-1/2 | 749 | 62-1/2 | 1588 | 28-1/2 | 724 | 61-1/2 | 1562 |
| CX34-50/60C-6F | C35/CX35-50/60C-6F | C33-50/60C | 27-1/2 | 699 | 60-1/2 | 1537 | 24-3/4 | 629 | 57-3/4 | 1467 |
| CX34-60D-6F | --- | C33-60D | 25-1/2 | 648 | 58-1/2 | 1486 | 24-3/4 | 629 | 57-3/4 | 1467 |
| CX34-62C-6F | CX35-60C-6F | C33-62C | 31-1/2 | 800 | 64-1/2 | 1638 | 30-5/8 | 778 | 63-5/8 | 1616 |
| CX34-62D-6F | CX35-60D-6F | C33-62D | 29-1/2 | 749 | 62-1/2 | 1588 | 28-3/4 | 730 | 61-3/4 | 1568 |



HORIZONTAL POSITION

| Model Number | A | | B | |
|-----------------------------------------------------------------------------------------------|--------|-----|--------|------|
| | in. | mm | in. | mm |
| CH33 | | | | |
| CH33-18A-2F | 21-1/2 | 546 | 54-1/2 | 1384 |
| CH33-24/30A-2F, CH33-42B-2F, CH33-36A-2F, CH33-48C-2F, CH33-36B-2F, CH33-60D-2F, CH33-36C-2F, | 26-1/2 | 673 | 59-1/2 | 1511 |
| CH33-44/48B-2F, CH33-62D-2F, CH33-50/60C-2F, | 31-1/2 | 800 | 64-1/2 | 1638 |
| CH35 | | | | |
| CH35-18A-2F, CH35-24A-2F, CH35-24B-2F, CH35-30B-2F, | 26-1/2 | 673 | 59-1/2 | 1511 |
| CH35-36A-2F, CH35-36B-2F, CH35-36C-2F, CH35-42C-2F, CH35-48C-2F, | | | | |
| CH35-30A-2F, CH35-42B-2F, CH35-48B-2F, | 31-1/2 | 880 | 64-1/2 | 1638 |



BLOWER DATA

EL180UH045E36A PERFORMANCE (Less Filter)

| External Static Pressure in. w.g. | Air Volume / Watts at Various Blower Speeds | | | | | | | | | |
|--------------------------------------|---------------------------------------------|-------|-------------|-------|--------|-------|------------|-------|-----|-------|
| | High | | Medium-High | | Medium | | Medium-Low | | Low | |
| | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts |
| 0.00 | 1380 | 265 | 1155 | 165 | 995 | 120 | 975 | 115 | 945 | 105 |
| 0.10 | 1345 | 270 | 1120 | 175 | 950 | 120 | 880 | 105 | 865 | 100 |
| 0.20 | 1320 | 285 | 1080 | 190 | 900 | 125 | 805 | 105 | 700 | 85 |
| 0.30 | 1290 | 295 | 1055 | 200 | 875 | 135 | 750 | 110 | 640 | 90 |
| 0.40 | 1265 | 310 | 1010 | 205 | 825 | 145 | 710 | 120 | 595 | 95 |
| 0.50 | 1230 | 315 | 990 | 215 | 790 | 155 | 660 | 125 | 535 | 100 |
| 0.60 | 1190 | 330 | 945 | 230 | 750 | 165 | 630 | 135 | 500 | 110 |
| 0.70 | 1165 | 340 | 915 | 235 | 705 | 170 | 570 | 140 | 435 | 115 |
| 0.80 | 1130 | 350 | 880 | 245 | 670 | 180 | 535 | 150 | 380 | 120 |

EL180UH070E36B PERFORMANCE (Less Filter)

| External Static Pressure in. w.g. | Air Volume / Watts at Various Blower Speeds | | | | | | | | | |
|--------------------------------------|---------------------------------------------|-------|-------------|-------|--------|-------|------------|-------|------|-------|
| | High | | Medium-High | | Medium | | Medium-Low | | Low | |
| | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts |
| 0.00 | 1415 | 265 | 1330 | 170 | 1215 | 135 | 1175 | 125 | 1075 | 85 |
| 0.10 | 1415 | 280 | 1295 | 170 | 1145 | 145 | 1130 | 130 | 955 | 95 |
| 0.20 | 1355 | 290 | 1225 | 185 | 1110 | 150 | 1080 | 140 | 885 | 100 |
| 0.30 | 1330 | 300 | 1190 | 200 | 1060 | 160 | 1035 | 155 | 825 | 110 |
| 0.40 | 1290 | 310 | 1155 | 205 | 1015 | 175 | 970 | 160 | 770 | 120 |
| 0.50 | 1245 | 325 | 1115 | 215 | 980 | 180 | 930 | 170 | 695 | 125 |
| 0.60 | 1225 | 335 | 1045 | 230 | 920 | 190 | 865 | 180 | 625 | 135 |
| 0.70 | 1190 | 350 | 1000 | 235 | 855 | 205 | 790 | 190 | 540 | 140 |
| 0.80 | 1160 | 365 | 925 | 245 | 790 | 205 | 735 | 200 | 445 | 145 |

EL180UH090E48B PERFORMANCE (Less Filter)

| External Static Pressure in. w.g. | Air Volume / Watts at Various Blower Speeds | | | | | | | | | |
|--------------------------------------|---------------------------------------------|-------|-------------|-------|--------|-------|------------|-------|------|-------|
| | High | | Medium-High | | Medium | | Medium-Low | | Low | |
| | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts |
| 0.00 | 1785 | 380 | 1570 | 270 | 1440 | 220 | 1395 | 190 | 1190 | 120 |
| 0.10 | 1755 | 395 | 1535 | 275 | 1420 | 230 | 1350 | 205 | 1140 | 130 |
| 0.20 | 1730 | 415 | 1505 | 290 | 1380 | 245 | 1310 | 215 | 1110 | 145 |
| 0.30 | 1690 | 435 | 1460 | 305 | 1345 | 260 | 1275 | 230 | 1065 | 155 |
| 0.40 | 1645 | 440 | 1435 | 320 | 1310 | 270 | 1240 | 240 | 1010 | 165 |
| 0.50 | 1615 | 455 | 1395 | 335 | 1265 | 285 | 1180 | 255 | 955 | 180 |
| 0.60 | 1590 | 470 | 1350 | 350 | 1210 | 290 | 1150 | 265 | 915 | 185 |
| 0.70 | 1545 | 475 | 1300 | 360 | 1175 | 305 | 1095 | 275 | 860 | 200 |
| 0.80 | N/A | N/A | 1270 | 370 | 1140 | 310 | 1040 | 285 | 820 | 210 |

BLOWER DATA

EL180UH090E60C PERFORMANCE (Less Filter)

| External Static Pressure in. w.g. | Air Volume / Watts at Different Blower Speeds | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------|----------|-------|--------|-------|---------|-------|------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|------------|--------|-------|---------|-------|------|-------|
| | Bottom Return Air, Side Return Air with Optional 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 | | Med-High | | Medium | | Med-Low | | Low | | High | | Med-High | | Medium | | Med-Low | | Low | |
| | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts |
| 0.00 | 2255 | 640 | 1940 | 420 | 1750 | 310 | 1580 | 230 | 1485 | 185 | 2290 | 655 | 1980 | 425 | 1775 | 310 | 1605 | 235 | 1495 | 195 |
| 0.10 | 2200 | 655 | 1910 | 440 | 1705 | 315 | 1535 | 240 | 1385 | 190 | 2250 | 675 | 1945 | 445 | 1730 | 320 | 1555 | 245 | 1400 | 190 |
| 0.20 | 2150 | 675 | 1865 | 450 | 1655 | 340 | 1490 | 260 | 1340 | 205 | 2210 | 695 | 1885 | 465 | 1680 | 340 | 1510 | 265 | 1350 | 205 |
| 0.30 | 2125 | 695 | 1835 | 475 | 1635 | 355 | 1450 | 275 | 1285 | 215 | 2165 | 715 | 1850 | 475 | 1645 | 355 | 1470 | 275 | 1285 | 215 |
| 0.40 | 2090 | 715 | 1800 | 495 | 1585 | 370 | 1405 | 285 | 1235 | 230 | 2135 | 720 | 1810 | 490 | 1595 | 370 | 1410 | 290 | 1225 | 230 |
| 0.50 | 2060 | 735 | 1760 | 510 | 1545 | 385 | 1370 | 305 | 1200 | 245 | 2070 | 735 | 1765 | 515 | 1545 | 390 | 1370 | 305 | 1180 | 245 |
| 0.60 | 2020 | 750 | 1725 | 525 | 1515 | 405 | 1320 | 320 | 1145 | 255 | 2030 | 760 | 1715 | 530 | 1495 | 405 | 1325 | 320 | 1140 | 255 |
| 0.70 | 1980 | 765 | 1680 | 540 | 1465 | 420 | 1265 | 330 | 1105 | 270 | 1990 | 775 | 1685 | 540 | 1450 | 425 | 1265 | 330 | 1095 | 270 |
| 0.80 | 1935 | 785 | 1635 | 560 | 1420 | 435 | 1225 | 350 | 1055 | 285 | 1950 | 795 | 1645 | 560 | 1415 | 435 | 1225 | 345 | 1040 | 285 |

EL180UH110E60C PERFORMANCE (Less Filter)

| External Static Pressure in. w.g. | Air Volume / Watts at Different Blower Speeds | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------|----------|-------|--------|-------|---------|-------|------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|------------|--------|-------|---------|-------|------|-------|
| | Bottom Return Air, Side Return Air with Optional 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 | | Med-High | | Medium | | Med-Low | | Low | | High | | Med-High | | Medium | | Med-Low | | Low | |
| | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts |
| 0.00 | 2230 | 635 | 1945 | 430 | 1715 | 295 | 1555 | 230 | 1470 | 185 | 2315 | 645 | 1990 | 415 | 1780 | 300 | 1610 | 230 | 1510 | 200 |
| 0.10 | 2180 | 655 | 1905 | 445 | 1690 | 305 | 1510 | 240 | 1340 | 175 | 2260 | 655 | 1945 | 425 | 1740 | 315 | 1550 | 240 | 1400 | 185 |
| 0.20 | 2135 | 680 | 1865 | 465 | 1630 | 330 | 1470 | 260 | 1280 | 190 | 2210 | 680 | 1895 | 450 | 1680 | 335 | 1510 | 255 | 1350 | 200 |
| 0.30 | 2090 | 695 | 1830 | 480 | 1595 | 345 | 1440 | 275 | 1235 | 200 | 2165 | 700 | 1850 | 465 | 1650 | 355 | 1455 | 275 | 1285 | 210 |
| 0.40 | 2050 | 715 | 1785 | 495 | 1550 | 360 | 1385 | 285 | 1175 | 210 | 2130 | 715 | 1830 | 485 | 1585 | 365 | 1395 | 285 | 1230 | 225 |
| 0.50 | 2025 | 730 | 1740 | 520 | 1500 | 375 | 1340 | 300 | 1130 | 225 | 2095 | 730 | 1770 | 500 | 1535 | 385 | 1365 | 300 | 1175 | 235 |
| 0.60 | 2010 | 750 | 1710 | 535 | 1470 | 390 | 1305 | 320 | 1080 | 240 | 2055 | 755 | 1725 | 515 | 1495 | 400 | 1305 | 315 | 1135 | 250 |
| 0.70 | 1965 | 755 | 1670 | 555 | 1420 | 410 | 1255 | 330 | 1015 | 255 | 2000 | 765 | 1675 | 535 | 1465 | 410 | 1255 | 325 | 1080 | 265 |
| 0.80 | 1905 | 785 | 1635 | 560 | 1380 | 425 | 1215 | 350 | 975 | 270 | 1965 | 785 | 1640 | 555 | 1400 | 425 | 1210 | 345 | 1025 | 275 |

EL180UH135E60D PERFORMANCE (Less Filter)

| External Static Pressure in. w.g. | Air Volume / Watts at Different Blower Speeds | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------|----------|-------|--------|-------|---------|-------|------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|------------|-------------|------------|-------------|------------|------|-------|
| | Bottom Return Air, Side Return Air with Optional 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 | | Med-High | | Medium | | Med-Low | | Low | | High | | Med-High | | Medium | | Med-Low | | Low | |
| | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts | cfm | Watts |
| 0.00 | 2495 | 755 | 2295 | 590 | 2045 | 435 | 1845 | 315 | 1650 | 230 | 2365 | 725 | 2295 | 575 | 2005 | 410 | 1820 | 300 | 1635 | 235 |
| 0.10 | 2440 | 780 | 2220 | 620 | 2015 | 445 | 1820 | 330 | 1615 | 245 | 2350 | 745 | 2210 | 595 | 2000 | 435 | 1745 | 320 | 1530 | 230 |
| 0.20 | 2390 | 790 | 2175 | 640 | 1935 | 470 | 1735 | 350 | 1550 | 255 | 2330 | 775 | 2175 | 625 | 1945 | 455 | 1730 | 330 | 1490 | 250 |
| 0.30 | 2360 | 805 | 2140 | 655 | 1895 | 490 | 1720 | 370 | 1485 | 275 | 2245 | 785 | 2135 | 645 | 1895 | 475 | 1655 | 355 | 1425 | 265 |
| 0.40 | 2285 | 835 | 2125 | 675 | 1850 | 510 | 1660 | 380 | 1455 | 290 | 2215 | 810 | 2085 | 660 | 1840 | 495 | 1600 | 375 | 1385 | 285 |
| 0.50 | 2240 | 860 | 2060 | 690 | 1815 | 535 | 1610 | 400 | 1415 | 310 | 2175 | 825 | 2045 | 680 | 1815 | 505 | 1590 | 390 | 1340 | 290 |
| 0.60 | 2225 | 865 | 2015 | 715 | 1785 | 550 | 1535 | 420 | 1330 | 320 | 2125 | 845 | 1995 | 700 | 1765 | 530 | 1525 | 405 | 1300 | 310 |
| 0.70 | 2160 | 895 | 1955 | 735 | 1755 | 570 | 1500 | 440 | 1265 | 340 | 2095 | 865 | 1950 | 710 | 1700 | 545 | 1485 | 420 | 1260 | 325 |
| 0.80 | 2105 | 905 | 1925 | 750 | 1715 | 580 | 1435 | 450 | 1215 | 345 | 2065 | 880 | 1890 | 725 | 1680 | 565 | 1415 | 445 | 1205 | 345 |

REVISIONS

| Sections | Description of Change |
|----------|------------------------------------|
| Features | Added High Performance Economizer. |



Visit us at www.lennox.com

For the latest technical information, www.LennoxPROs.com

Contact us at 1-800-4-LENNOX

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

©2017 Lennox Industries, Inc.