ML297UHV(K)

MERIT® SERIES

Upflow / Horizontal | Two-Stage Heat | Variable Speed Blower | Refrigerant Detection | 60Hz

RESIDENTIAL
PRODUCT SPECIFICATIONS (EHB)

AFUE - 97%
Input - 44,000 to 132,000 Btuh
Nominal Add-on Cooling - 2 to 5 Tons

MERIT® SERIES

ENERGY STAR



MODEL NUMBER IDENTIFICATION

ML 2 97 UH 070 X V 36 B K

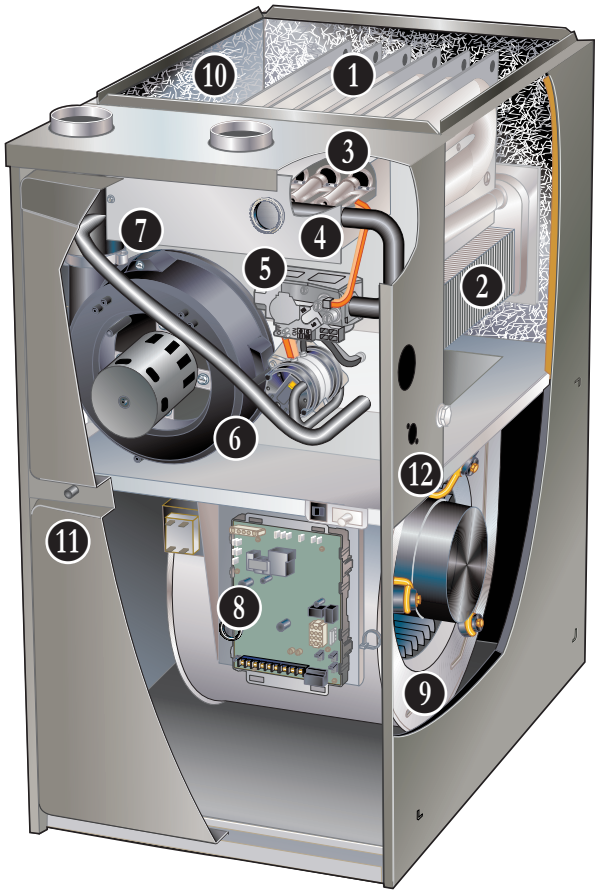
- **Unit Type**: ML = Merit® Series
- **Stages**: 2 = Two-Stage
- **AFUE**: 97= 97%
- **Configuration**: UH = Upflow/Horizontal
- **Nominal Gas Heat Input**: 045 = 44,000 Btuh; 070 = 66,000 Btuh; 090 = 88,000 Btuh; 110 = 110,000 Btuh; 135 = 132,000 Btuh
- **Low NO_x**: X = Units meet California Nitrogen Oxides Standard (40 ng/J)
- **Blower**: V = Variable Speed Blower Motor
- **Nominal Add-On Cooling Capacity**: 36 = 2 - 3 tons; 60 = 3 - 5 tons
- [1] **Cabinet Width**: B = 17-1/2 in.; C = 21 in.; D = 24-1/2 in.
- **Refrigerant Detection**: K = Refrigerant Detection-Ready

[1] Indoor coils with the same letter designation physically matches the furnace.

Form Number 211300 | October 2026
Supersedes all previous versions

FEATURE HIGHLIGHTS

1. Lennox Duralok Plus™ Heat Exchanger
2. Secondary Heat Exchanger
3. Inshot Burners
4. SureLight® Hot Surface Ignitor
5. Two-Stage Gas Control Valve
6. Two-Speed Combustion Air Inducer
7. Flame Rollout Switches
8. SureLight® Integrated Furnace Control
9. Variable Speed Direct Drive Blower
10. Insulated Cabinet
11. Safety Interlock Switch
12. Gas Piping And Electrical Inlets



NOTE - ML297UHV(K) FURNACES CANNOT BE TWINNED!

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APPROVALS AND WARRANTY

APPROVALS

- AHRI Certified
- Certified by CSA International
- Tested and rated according to US DOE test procedures and FTC labeling regulations
- ENERGY STAR® certified units are designed to use less energy, help save money on utility bills, and help protect the environment
- ISO 9001 Registered Manufacturing Quality System
- Blower data from unit tests conducted in Lennox Laboratory air test chamber
- All models meet UL 60335-2-40 Refrigerant Detector Requirements

NOTE - This furnace has not been CSA International design certified for installation in mobile homes, recreational vehicles, or outdoors.

California Only

- These furnaces **do not meet** the South Coast Air Quality Management District (SCAQMD) Rule 1111 and San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4905 NOx emission limit (14 ng/J) and cannot be installed within the SCAQMD, SJVAPCD and Bay Area
- These furnaces are approved by the California Energy Commission and meets California Nitrogen Oxides Standard (NOx) limits of 40 ng/J

WARRANTY

- Duralok Plus™ Aluminized Steel Heat Exchanger:
  - Limited twenty years in residential applications
  - Limited ten years in non-residential applications
- All other covered components:
  - Limited five years in residential installations
  - Limited one year in non-residential installations

NOTE - Refer to Lennox® Basic Limited Warranty at www.Lennox.com for additional details.

FEATURES

APPLICATIONS

- Input capacities of 44,000, 66,000, 88,000, 110,000 and 132,000 Btuh
- Energy efficiency (AFUE) - 97%
- Compact cabinet for upflow, horizontal-left or horizontal-right applications without any modifications
- Variable speed blower is ideal for zoning applications
- Removable bottom seal panel shipped in place for side return air is easily removed for bottom/end return air 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
- Each unit factory test operated to ensure proper operation

ZONING APPLICATIONS

- Units may be used with certain zoning systems
- Zone control panel must be able to interface and communicate with the variable speed blower motor in the unit
- Lennox® LZSV Variable Zoning System has this capability

HEATING SYSTEM

1. Lennox Duralok Plus™ Heat Exchanger Assembly
   - Lennox developed heat exchanger assembly consists of primary heat exchanger and secondary condenser coil assembly
   - Main multi-pass crimped seam design clamshell type
   - Constructed of heavy-gauge, aluminized steel
   - Designed for normal expansion and contraction with maximum efficiency and minimum resistance to air flow
2. Secondary heat exchanger condenser coil constructed of aluminum fins fitted to stainless steel tubes
   - Coil is factory tested for leaks
   - Condensate drain header box assembly located on front of coil
   - Compact size permits low overall design of furnace cabinet
   - Laboratory life cycle tested in excess of industry standards

FEATURES

HEATING SYSTEM (continued)

Lennox Designed Header Box
- Header box on end of condenser coil collects flue condensate for disposal through condensate drains
- Drains are located on each side of the cabinet for easy field installation of condensate drain trap
- Only one drain is used, the other drain is sealed
- Condensate drain trap is included with the unit for field installation

Lennox Designed Flue Condensate Trap Assembly
- Field installed outside the conditioned air stream
- Assembly can be mounted on either side of cabinet in upflow applications
- Assembly is mounted below the cabinet in horizontal applications
- Assembly can be mounted remotely (up to 5 ft. away) from unit
- See Dimension Drawing and Installation Instructions
- 90° street elbow furnished for ease of drain trap installation
- Drain connection can be made with field provided PVC pipe, PVC coupling, or vinyl tubing with hose clamp
- Drain cap on trap allows easy cleaning and winterizing

3 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 can be removed from the unit as a single component for ease of service

4 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

5 Two-Stage Gas Control Valve
- 24 volt redundant combination two-stage gas control valve combines manual shut off switch (On-Off), automatic electric valve (dual) and gas pressure regulation into a compact combination control

6 Two-Speed Combustion Air Inducer
- Permanent split capacitor (PSC) motor
- Heavy duty blower prepurges heat exchanger and safely vents flue products
- Dual pressure switches (low fire/high fire) prove blower operation before allowing gas valve to open
- Operates only during heating cycle

7 Flame Rollout Switches (2)
- Factory installed on burner box
- Switch provides protection from abnormal operating conditions
- Manual reset

Limit Control
- Primary limit is accurately located on vestibule panel on all units
- Automatic reset

Optional Accessories

High Altitude Orifice Kits
- Required on all units for proper unit operation at altitudes from 7501 to 10,000 ft.
- Kits are available for natural gas and LPG/propane

High Altitude Pressure Switch Kit
- Required for proper unit operation on installations above 4500 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

Muffler (US Only)
- Significantly reduces outdoor operating sound levels
- Two-inch diameter muffler is optional for 045 through 110 input models

NOTE - Two-inch muffler is optional for the 110 input model with a maximum vent pipe length of up to 29 ft.
Three-inch diameter muffler is optional for 110 and 135 input models.

NOTE - Three-inch muffler is optional for the 110 input model with a minimum vent pipe length of 30 ft.

- Installed vertically in the exhaust piping
- See Optional Accessory Dimension Drawing

Right-Side Gas Entry Kit
- Converts furnace to right-side gas supply entry when left-side gas entry is restricted or not convenient

FEATURES

DIRECT VENT / NON-DIRECT VENT SEALED COMBUSTION SYSTEM

- Furnace features a "sealed combustion" system and can be installed in either Direct Vent or Non-Direct applications
- In Direct Vent applications, combustion air is supplied from outdoors and flue gases are discharged outdoors
- In Non-Direct Vent applications, combustion air is supplied from indoors and flue gases are discharged outdoors

NOTE - Lennox has approved the use of DuraVent® PolyPro®, Centrotherm InnoFlue® and ECCO Polypropylene Vent™ manufactured vent pipe and terminations as an alternative to PVC vent pipe. Must be ordered separately.
Tested and listed to the ULC S636 standard in Canada.

- Tested and listed to the ULC S636 standard in Canada
- The polypropylene venting system must follow the uninsulated and unconditioned space vent lengths listed in the table on Page 15
- Refer to the Installation Instructions for additional details

Flue Coupling

- Assists with exhaust flue piping connection and servicing
- Includes flexible one 2 inch rubber coupling and two adjustable bands
- Approved for all Lennox 90% furnaces

Termination Kits

- Facilitates installation of combustion air intake pipe and flue exhaust pipe
- Refer to venting table in this bulletin to determine pipe size needed and proper termination kit required
- Certain Termination Kits are certified to ULC S636 standard for use in Canada only
- See Optional Accessories table and dimension drawings

Concentric - Direct Vent Applications

- 2 or 3 inch kit contains concentric termination assembly, reducer bushing and 45 degree elbow
- 2 inch kit for -045-070 models contains an outdoor exhaust accelerator
- Kit requires single hole penetration of roof or wall for installation
- Roof Termination Flashing Kit is available for use with 2 inch Kits
- CSA certified

Flush-Mount

- Kit contains flush-mount termination, accelerator, mounting template and hardware
- Kit may be used with 2, 2-1/2 or 3 in. pipe

Wall Assembly

Close Couple (US Only) - Direct Vent Applications

- 2 or 3 inch kit consists of close-couple, side-by-side PVC piping with galvanized steel wall cover plate for sealing and isolating piping penetration of the wall
- Piping spacing and length is sized for proper wall installations
- CSA certified

Close Couple WTK (Canada Only) - Direct Vent Applications

- 2 or 3 inch kit contains one insulated faceplate, one insulated exhaust pipe, elbow and fittings. Certified to ULC S636 standard

NOTE - Maintain a maximum of 6 inches between the inlet and outlet openings in the installation of the pipes

Roof Termination Flashing Kit

- For vertical venting through a roof
- 2 or 3 inch kit contains two neoprene rubber roof flashings
- Vent pipe and insulation not furnished
- Flashing Kit can also be used with Concentric Vent Termination Kits used in vertical venting rooftop applications

FEATURES

CONTROLS

8 SureLight® Integrated Two-Stage / Variable Speed Blower Furnace Control

- Advanced control communicates information about various operating parameters in the furnace to the optional Lennox® Communicating Thermostat to constantly maintain the highest level of comfort and performance available
- Auto Configuration - On start-up the control automatically sends a description of the unit to the optional Lennox® Communicating Thermostat to automatically configure the number of stages and features available
- Terminals for connecting a conventional heating/cooling thermostat are also provided on the control
- Control also features Innovative AirFlex™ technology which allows custom blower settings based on the application
- Thermostat Control - For optimal performance, the use of a high-quality, digital two-stage thermostat with adjustable settings for first stage/second stage, on/off differentials and adjustable stage timers is recommended

Furnace Input Staging Options

Thermostat Type	Input Staging Available
Lennox® Communicating Thermostat	Two-Stage (65 and 100%)
Two-Stage (Conventional)	
Single-Stage (Conventional)	

- Safety Controls - Flame sensor utilizes flame rectification for safe and reliable operation
- Should flame fail to ignite, control will initiate 4 re-attempts at ignition before locking out unit operation for 60 minutes
- Watchguard type circuit automatically resets ignition control after one hour of continuous thermostat demand after unit lockout, eliminating nuisance calls for service
- Display LED - Seven segment LED displays alpha-numeric information related to diagnostics as well as system operation and status
  - Diagnostic codes are held in non-volatile memory, immune from power interruptions
  - Holds up to ten diagnostic codes in order of occurrence for recall on demand
  - Port on blower door allows for easy viewing

DIP Switch Settings

- Select Thermostat Used - Single-Stage or Two-Stage
- Two selectable second stage recognition times (7 and 12 minutes) are available on the control 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
- Heating Speeds - A combination of DIP switch settings allow the following motor speed selection settings within the heating speed selected for fine tuning air volume:
  - Factory default
  - 6%, 12%, 18% or 24% increase
  - 6%, 12% or 18% decrease
  - See Blower Performance tables
- Cooling Speeds - A combination of DIP switch settings allow the following motor speed selection settings within the cooling speed selected for fine tuning air volume:
  - Factory default
  - 10% increase
  - 10% decrease
  - See Blower Performance tables
- Blower Speed Ramping (Cooling Mode) - DIP switch settings allow one of four blower speed profiles during cooling operation
  - Profile A (factory setting) - Motor runs at 50% for 30 seconds, then at 82% for 7-1/2 minutes, then at 100% (if needed) until demand is satisfied. Once demand is met, motor runs at 50% for 30 seconds, then ramps down to stop
  - Profile B - Motor runs at 82% for 7-1/2 minutes and then at 100% (if needed) until demand is satisfied. Once demand is met,motor ramps down to stop
  - Profile C - Motor runs at 100% until demand is satisfied. Once demand is met, motor runs at 100% for 60 seconds, then ramps down to stop
  - Profile D - Motor runs at 100% until demand is satisfied. Once demand is met, motor ramps down to stop
- Dehumidification (Active or Humiditrol® Option) - A jumper on the control must be clipped to enable active dehumidification and/or operation with a Humiditrol® Whole-Home Dehumidification System
- A humidity controlling thermostat or device is also required
- During a call for cooling, air volume is automatically reduced, forcing humidity removal by the air conditioner or heat pump system (single stage units or two-stage units running at 2nd stage)
- After the humidity has reached the desired set-point the cooling air volume returns to its designed rate
- A dehumidification signal from the thermostat reduces the cooling cfm to 70% of the requested cooling cfm

FEATURES

CONTROLS (continued)

- Dual-Fuel Operation - A jumper on the control must be clipped to enable operation with a single or two-stage heat pump
- The indoor blower is started without delay when a call for heat is received
- Two-Stage Compressor Operation - A jumper on the control must be clipped to enable operation with a two-stage compressor
- The cooling blower speeds for first and second stage cooling will be dictated by the applicable DIP switch settings
- Lennox System Operations Monitor Connection - Monitors outdoor unit operation (communicating mode)
- Blower On/Off Time (Heating) - Blower on time is fixed at 30 seconds, blower off time is adjustable from 60, 90, 120 and 180 seconds (factory setting - 120 seconds)
- Blower On/Off Time (Cooling) - For air-conditioning applications, blower on time is 2 seconds following thermostat demand for cooling
- See Blower Speed Ramping (Cooling Mode) profiles for various blower off details
- Controls evaporator humidity by controlling blower and compressor speed on two-stage outdoor units when used with the Lennox® Communicating Thermostat or the CS7500 Thermostat
- Continuous Blower Speed - Adjustable continuous blower speed is a percentage of the high cooling speed selection
- Two selectable options (via DIP switch settings) of 28% and 38% (default setting)
- Accessory Terminal - One accessory terminal furnished for additional power supply requirements for 120 volt (less than 1 amp) powered air cleaners
- One un-powered pair of contacts are provided for humidifier connections and may be connected to 24V or 120V
- Control is factory installed in the unit control box

24 Volt Transformer (40VA)

- Furnished and factory installed on outside of control box
- Circuit breaker (furnished) is 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 internally on right side of furnace

Refrigeration Detection System (RDS)

(Part of the SureLight® Integrated Furnace Control)

- Complies with UL 60335-2-40 approved standard
- Required for all systems using R-454B refrigerant
- Plug-in connection to the RDS Coil Sensor
- Supports up to two RDS Coil Sensors (factory setting)
- Used as an interface between indoor unit and thermostat to control system
- Ensures safe operation for systems equipped with R-454B refrigerant
- If R-454B refrigerant is detected, the refrigerant detection system will stop compressor and/or heating operation and operate the blower to reduce concentrations in the conditioned space
- Once safe levels are reached the HVAC system will resume normal operation
- Low GWP test button for troubleshooting
- Alarm/Zone relay interface can trigger an external alarm if R-454B refrigerant is detected and open all zone dampers (if part of a zoning system) if R-454B refrigerant is detected
- Power is disabled to non-communicating thermostats to prevent demand if R-454B refrigerant is detected
- On system start-up blower will run for five minutes and any thermostat demands are disabled

Optional Accessories

Thermostat

- Thermostat is not furnished with unit
- See Page 10

Transformer (75VA)

- Recommended when furnace is used with zoning or defrost thermostats and other 24V accessories requiring a higher VA rating
- Circuit breaker (furnished) is wired in series
- Replaces the standard 40VA transformer

FEATURES

BLOWER

9 Variable Speed Direct Drive Blower
- Each blower assembly statically and dynamically balanced
- Blower assembly easily removed for servicing

Variable Speed Blower Motor
- Variable speed motor maintains specified air volume from 0 though 0.8 in. w.g. (heating) and 0 through 1.0 in. w.g. (Cooling) static range
- Variable speed operation is achieved by the use of an ECM (Electronically Commutated Motor) motor
- Motor is controlled by furnace control
- Change in blower speed is easily accomplished by simple jumper change on the furnace control
- During start-up the blower motor slowly ramps up to normal operating speed to minimize noise and increase comfort
- At the end of a cooling or heating cycle the motor slowly ramps down after a short blower "off" delay
- If continuous blower operation has been selected, the variable speed motor will slowly ramp down until it reaches the airflow for that condition
- Motor is resiliently mounted
- See Blower Data tables

CABINET

- Low-profile, narrow width allows easy installation
- Heavy-gauge, cold rolled steel construction
- Pre-painted cabinet finish
- Flanges provided on supply air opening for ease of plenum connection or alignment with indoor coil
- 10 Insulated with foil faced insulation on sides and back of heating compartment
- Sealed blower compartment
- Cabinet door can be removed without any tools
- Complete service access
- 11 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

Bottom/End Return Air Entry:
- Upflow/horizontal applications:
  - Remove furnished bottom seal panel from cabinet
- 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:
- Single side return air and Optional Return Air Base with transition that must accommodate required 20 x 25 x 1 inch air filter to maintain proper velocity
- Bottom return air
- Return air from both sides
- Bottom and one side return air
- See Blower Performance Tables for additional information

Coil Match-Up
- All furnaces exactly match Lennox cased upflow indoor coils and horizontal indoor coils with same letter designation (A, B, C, D) in model number
- No adaptor required
- Engaging holes furnished on cabinet for alignment
- Lennox uncased coils match furnaces without any overhang but require an optional adaptor base or field fabricated transition to match furnace opening
- See coil bulletin for additional information

Low Leakage Cabinet
- All models have less than 2% air leakage
- Meets ANSI/ASHRAE Standard 193-2010 "Method of Test for Determining the Air Tightness of HVAC Equipment"

FEATURES

Optional Accessories

Condensate Drain Heat Cable Kits
- Self-limiting wattage heat cable prevents condensate drain from freezing in unconditioned areas
- Available in 6 or 24 ft. lengths

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

Crawl Space Vent Drain Kit
- Allows venting through a crawl space for upflow and horizontal applications
- Kit for Canada is certified to ULC S636
- Includes 2 or 3 inch sanitary tee, 2 inch PVC assembly, PVC boot and clamp

Return Air Base

NOTE - On furnaces with side return air and condensate trap on the same side of the cabinet, a field fabricated transition or Return Air Base is required when using an IAQ product higher than 14-3/16 inches installed next to the unit and serviced from the front. IAQ products higher than 20 inches require a field fabricated transition.

NOTE - Must be used for 60C and 60D size 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
- Pre-painted steel to match the furnace
- See Dimension Drawing

Optional Accessories (continued)

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

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
- Rack has filter door for servicing
- Flanges on rack for duct connection
- Field installed
- See dimension drawing

Air Filter and Rack Kit for Upflow Side Return Air
NOTE - 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 servicing
- Flanges on rack for duct connection
- Field installs on either side of unit cabinet
- See dimension drawing

INDOOR AIR QUALITY PRODUCT OPTIONS

Healthy Climate® PureAir® Air Purification System



- Filtration - The Carbon Clean 16® (MERV 16) media filter captures more than 95% of particles 0.3 microns and larger and more than 90% of particles 0.01 microns and larger
- Highest airflow performance and lowest pressure drop when compared to a leading brand.
- Long life filters up to 1 year

Healthy Climate® Media Air Cleaner



- High performance in a narrow 7 in. cabinet
- Available with MERV 11, 13, or 16 rated filters
- Multi-position heavy gauge steel cabinet will support furnace/coil or air handler and associated duct work
- Tool-less entry
- Tool-less assembly for quick installation

Healthy Climate® Whole Home In Duct Air Purifiers



- Compact Duct Mounted Design
- Effective against odors and VOC's
- Certified Ozone free
- UVC lamp and carbon cells

Healthy Climate® Ultraviolet Germicidal Lights



- Compact duct mounted design
- Single or dual applications
- Certified ozone free
- Effective against odors to help keep the system clean
- Safety Interlocks
  (Additional UVC Compliance Kit for UL 60335-2-40 is available for A2L applications)
- Low power consumption
- Available for 24V or 110/230V
- Up to 1340 microwatts /cm² output (dual lamp model)

NOTE - Please refer to the individual Product Specifications for these products for full information.

CONTROL OPTIONS

E40 Smart Wi-Fi Thermostat



- 3 Htg.-2 Clg.
- 7-day, universal, programmable, touchscreen thermostat
- Controls dehumidification during cooling mode and humidification during heating mode
- Smooth Setback Recovery and compressor short-cycle protection
- One-Touch Away Mode, Smart Away™ (geo-fencing), equipment maintenance reminders and scheduling
- Smart home automation compatible with Apple HomeKit™, Amazon Alexa® and Google Assistant
- Lennox® Home App controls temperature, fan operation, set programs/schedules and set Away mode on a smartphone
- Lennox Smart Tech App allows the installer to commission the system and remotely turn the system on and off during setup or service call on a smartphone

M40 Smart Wi-Fi Thermostat



- 3 Htg.-2 Clg.
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NOTE - Please refer to the individual Product Specifications for these products for full information.

INDOOR AIR QUALITY PRODUCT OPTIONS - ORDERING

NOTE - Refer to the individual Product Specifications documents for additional accessories and maintenance items.

Description	Dimensions	Furnace Width	Order Number
PureAir® Air Purification System			
PCO3-16-16	17-1/2 x 8-3/4 x 26-1/2	A/B/C	**Y6598**
PCO3-20-16	21-1/8 x 8-3/4 x 26-1/2	C/D	**Y6595**
Healthy Climate® Media Air Cleaner			
HCC16-28 (Cabinet)	17-1/2 x 28-1/2 x 7	A/B/C	**Y2920**
HCC16-28 (Cabinet) 4-pack	17-1/2 x 28-1/2 x 7	- - -	**Y2921**
HCF16-16 (Filter) MERV 16	16 x 25 x 5	- - -	**X6672**
HCXF16-16 (Expandable Filter) MERV 16	16 x 25 x 5	- - -	**X8306**
HCF16-13 MERV 13	16 x 25 x 5	- - -	**19L16**
HCF16-11 (Filter) MERV 11	16 x 25 x 5	- - -	**X6670**
HCXF16-11 (Expandable Filter) MERV 11	16 x 25 x 5	- - -	**X8303**
HCC20-28 (Cabinet)	21 x 28-1/2 x 7	C/D	**X6661**
HCC20-28 (Cabinet) 4-pack	21 x 28-1/2 x 7	- - -	**X7751**
HCF20-16 (Filter) MERV 16	20 x 25 x 5	- - -	**X6675**
HCXF20-16 (Expandable Filter) MERV 16	20 x 25 x 5	- - -	**X8307**
HCF20-13 MERV 13	20 x 25 x 5	- - -	**19L17**
HCF20-11 (Filter) MERV 11	20 x 25 x 5	- - -	**X6673**
HCXF20-11 (Expandable Filter) MERV 11	20 x 25 x 5	- - -	**X8304**
Healthy Climate® Whole Home In Duct Air Purifiers			
HCWHAP1	8 x 7 x 16.5	- - -	**23V99**
Healthy Climate® Ultraviolet Germicidal Lights			
UVC-24V (24V) 17-1/2 in.	Ballast 4-3/4 x 2-1/4 x 2	- - -	**X9423**
UVC-41W-S (110/230V) 17-1/2 in.	Ballast 11-3/4 x 2-3/4 x 1-5/8	- - -	**X9424**
UVC-41W-D (110/230V) 17-1/2 in.	Ballast 11-3/4 x 2-3/4 x 1-5/8	- - -	**X9425**

CONTROLS - ORDERING

E40 Smart Wi-Fi Thermostat	3-3/8 x 5-3/8 x 1	- - -	**30L26**
Lennox® Smart Room Sensor	4 x 5-1/2 x 3	- - -	**22V25**
Lennox® Smart Air Quality Monitor	3-5/8 x 4-3/8 x 1-3/8	- - -	**21P02**
Lennox® Wireless Extender	4 x 5-1/2 x 2-1/2	- - -	**22V26**
M40 Smart Wi-Fi Thermostat	3-5/16 x 4-5/16 x 7/8	- - -	**30L27**
Thermostat Accessories			
[1] Discharge Air Temperature Sensor (For E40)			**88K38**
[2] Remote Outdoor Air Temperature Sensor (For dual-fuel and Humiditrol®)			**X2658**

[1] Optional for service diagnostics (E40).

[2] Remote Outdoor Temperature Sensor (X2658) is only available with E40 thermostat.
Sensor is used when not connected to the internet to display outdoor temperature.
Weather information is provided by a weather service when connected to the internet to display the outdoor temperature.
Sensor is REQUIRED for dual-fuel applications with heat pump outdoor unit. Also required with Enhanced Dehumidification Accessory (EDA) applications.

SPECIFICATIONS

Gas Heating Performance		**Model**	**ML297UH045XV36BK**	**ML297UH070XV36BK**	**ML297UH090XV36CK**
		[1] AFUE	97%	97%	97%
	High Fire	Input - Btuh	44,000	66,000	88,000
		Output - Btuh	43,000	64,000	85,000
		Temperature rise range - °F	35 - 65	50 - 80	60 - 90
		Gas Manifold Pressure (in. w.g.) Nat. Gas / LPG/Propane	3.5 / 10.0	3.5 / 10.0	3.5 / 10.0
	Low Fire	Input - Btuh	29,000	43,000	57,000
		Output - Btuh	28,000	42,000	56,000
		Temperature rise range - °F	20 - 50	25 - 55	30 - 60
		Gas Manifold Pressure (in. w.g.) Nat. Gas / LPG/Propane	1.7 / 4.5	1.7 / 4.5	1.7 / 4.5
High static - in. w.g.		Heating	0.8	0.8	0.8
		Cooling	1.0	1.0	1.0
Connections		Intake / Exhaust Pipe (PVC)	2 / 2	2 / 2	2 / 2
		Gas pipe size IPS	1/2	1/2	1/2
		Condensate Drain Trap (PVC pipe) - i.d.	3/4	3/4	3/4
		with furnished 90° street elbow	3/4 slip x 3/4 MIPT	3/4 slip x 3/4 MIPT	3/4 slip x 3/4 MIPT
		with field supplied (PVC coupling) - o.d.	3/4 slip x 3/4 MPT	3/4 slip x 3/4 MPT	3/4 slip x 3/4 MPT
Indoor Blower		Wheel diameter x width - in.	10 x 9	10 x 9	10 x 9
		Motor output - hp	1/2	1/2	1/2
		Tons of add-on cooling	2 - 3	2 - 3	2 - 3
		Air Volume Range - cfm	485 - 1370	500 - 1365	520 - 1360
Electrical Data		Voltage	120 volts - 60 hertz - 1 phase		
		Blower motor full load amps	7.7	7.7	7.7
		Maximum overcurrent protection	15	15	15
Shipping Data		lbs. - 1 package	120	124	144

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.

SPECIFICATIONS

Gas Heating Performance		**Model**	**ML297UH090XV60CK**	**ML297UH110XV60CK**	**ML297UH135XV60DK**
		[1] AFUE	97%	97%	97%
	High Fire	Input - Btuh	88,000	110,000	132,000
		Output - Btuh	86,000	107,000	127,000
		Temperature rise range - °F	40 - 70	45 - 75	55 - 85
		Gas Manifold Pressure (in. w.g.) Nat. Gas / LPG/Propane	3.5 / 10.0	3.5 / 10.0	3.5 / 10.0
	Low Fire	Input - Btuh	57,000	72,000	86,000
		Output - Btuh	56,000	70,000	84,000
		Temperature rise range - °F	25 - 55	35 - 65	40 - 70
		Gas Manifold Pressure (in. w.g.) Nat. Gas / LPG/Propane	1.7 / 4.5	1.7 / 4.5	1.7 / 4.5
High static - in. w.g.		Heating	0.8	0.8	0.8
		Cooling	1.0	1.0	1.0
Connections		Intake / Exhaust Pipe (PVC)	2 / 2	2 / 2	2 / 2
		Gas pipe size IPS	1/2	1/2	1/2
		Condensate Drain Trap (PVC pipe) - i.d.	3/4	3/4	3/4
		with furnished 90° street elbow	3/4 slip x 3/4 MIPT	3/4 slip x 3/4 MIPT	3/4 slip x 3/4 MIPT
		with field supplied (PVC coupling) - o.d.	3/4 slip x 3/4 MPT	3/4 slip x 3/4 MPT	3/4 slip x 3/4 MIPT
Indoor Blower		Wheel diameter x width - in.	11 x 11	11 x 11	11 x 11
		Motor output - hp	3/4	1	1
		Tons of add-on cooling	3 - 5	3 - 5	3 - 5
		Air Volume Range - cfm	740 - 2020	790 - 1955	870 - 2055
Electrical Data		Voltage	120 volts - 60 hertz - 1 phase		
		Blower motor full load amps	12.8	12.8	12.8
		Maximum overcurrent protection	20	15	20
Shipping Data		lbs. - 1 package	153	159	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.

OPTIONAL ACCESSORIES

NOTE - FURNACES CANNOT BE TWINNED!

			"B" Width Models	"C" Width Models	"D" Width Models
CABINET ACCESSORIES					
Horizontal Suspension Kit - Horizontal only			**51W10**	**51W10**	**51W10**
Return Air Base - Upflow only			**50W98**	**50W99**	**51W00**
High Performance Economizer (Commercial Only)			**10U53**	**10U53**	**10U53**
CONDENSATE DRAIN KITS					
Condensate Drain Heat Cable		6 ft.	**26K68**	**26K68**	**26K68**
		24 ft.	**26K69**	**26K69**	**26K69**
Crawl Space Vent Drain Kit		US	**51W18**	**51W18**	**51W18**
		Canada	**15Z70**	**15Z70**	**15Z70**
CONTROLS					
Transformer (75VA)			**27J32**	**27J32**	**27J32**
FILTER KITS					
[1] **Air Filter and Rack Kit**	**Horizontal (end)**		**87L96**	**87L97**	**87L98**
		Size of filter - in.	18 x 25 x 1	20 x 25 x 1	25 x 25 x 1
	Side Return	Single	**44J22**	**44J22**	**44J22**
		Ten Pack	**66K63**	**66K63**	**66K63**
		Size of filter - in.	16 x 25 x 1	16 x 25 x 1	16 x 25 x 1
TERMINATION KITS					
See Installation Instructions for specific venting information.					
Direct Vent	Concentric	US - 2 in.	**71M80**	**69M29**	**- - -**
		3 in.	**- - -**	**60L46**	**60L46**
		Canada - 2 in.	**44W92**	**44W92**	**- - -**
		3 in.	**- - -**	**44W93**	**44W93**
	Flush-Mount	US - 2, 2-1/2 or 3 in.	**51W11**	**51W11**	**51W11**
		Canada - 2, 2-1/2 or 3 in.	**51W12**	**51W12**	**51W12**
	Wall - Close Couple	US - 2 in.	**22G44**	**- - -**	**- - -**
		3 in.	**44J40**	**44J40**	**44J40**
	Wall - Close Couple WTK	Canada - 2 in.	**30G28**	**- - -**	**- - -**
		3 in.	**81J20**	**81J20**	**81J20**
	Roof Termination Flashing Kit (no vent pipe - 2 flashings)	2 in.	**15F75**	**15F75**	**- - -**
		3 in.	**44J41**	**44J41**	**44J41**
VENTING					
Flue Coupling		2 in.	**17H92**	**17H92**	**17H92**

[1] Allows the thermostat to display outdoor temperature. Required in dual-fuel and EDA applications.

NOTE - Termination Kits (**44W92**, **44W93**, **30G28**, **51W12**, **81J20**) and Crawl Space Vent Drain Kit (**15Z70**) are certified to ULC S636 standard for use in Canada only.

INSTALLATION CLEARANCES

Sides	[1] 0 inches (0 mm)
Rear	0 inches (0 mm)
Top/Plenum	1 inch (25 mm)
Front	0 inches (0 mm)
Front (service/alcove)	24 inches (610 mm)
Floor	[2] Combustible

NOTE − Air for combustion must conform to the methods outlined in the National Fuel Gas Code (NFPA 54/ANSI−Z223.1) or the National Standard of Canada CAN/CSA−B149.1 Natural Gas and Propane Installation Code".

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. In Canada flue sizing must conform to the methods outlined in National Standard of Canada CAN/CSA−B149.1.

[1] Allow proper clearances to accommodate condensate trap and vent pipe installation.

[2] Do not install the furnace directly on carpeting, tile, or other combustible materials other than wood flooring.

GAS HEAT ACCESSORIES - ORDER SEPARATELY

Description	Altitude	Input				
		045	070	090	110	135
High Altitude Pressure Switch Kit	4501 - 7500 ft.	**32C80**	**32C78**	**14A54**	**32L29**	**25B94**
	7501 - 10,000 ft.	**32C81**	**14A54**	**32C81**	**32L30**	**25B95**
Natural Gas to LPG/Propane Kit	0 - 7500 ft.	**11K51**	**11K51**	**11K51**	**11K51**	**11K51**
LPG/Propane to Natural Gas Kit	0 - 7500 ft.	**77W09**	**77W09**	**77W09**	**77W09**	**77W09**
LPG/Propane High Altitude Orifice Kit	7501 - 10,000 ft.	**11K46**	**11K46**	**11K46**	**11K46**	**11K46**
Natural Gas High Altitude Orifice Kit	7501 - 10,000 ft.	**73W37**	**73W37**	**73W37**	**73W37**	**73W37**
Muffler (US Only)	- - -	**15Y66 (2-inch)**	**15Y66 (2-inch)**	**15Y66 (2-inch)**	**[1] 15Y66 (2-inch) 16A56 (3-inch)**	**16A56 (3-inch)**
Right-Side Gas Entry Kit	- - -	**27U29**	**27U29**	**27U29**	**27U29**	**27U29**

[1] Two-inch diameter muffler (**15Y66**) is optional for 110 input model with a maximum vent pipe length of up to 29 ft.
Three-inch diameter muffler (**16A56**) is optional for 110 input model with a minimum vent pipe length of 30 ft.

HIGH ALTITUDE DERATE

NOTE - Units may be installed at altitudes up to 10,000 ft.
At altitudes above 4501 ft. the unit must be derated to match the manifold pressure information shown below.
Units installed at altitudes of 4501 to 10,000 ft. require a pressure switch change.
Units installed at altitudes of 7501 to 10,000 ft. require an orifice change.
See the Gas Heat Accessories table for ordering information.

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

NOTE - In Canada, certification for installations at elevations over 4500 feet is the jurisdiction of local authorities.

Input	Gas	Manifold Pressure in. w.g.										Supply Line Pressure in. w.g. 0 - 10,000 ft.	
		0 - 4500 ft.		4501 - 5500 ft.		5501 - 6500 ft.		6501 - 7500 ft.		7501 - 10,000 ft.			
		Low Fire	High Fire	Low Fire	High Fire	Low Fire	High Fire	Low Fire	High Fire	Low Fire	High Fire	Min.	Max.
All Sizes	Natural	1.7	3.5	1.6	3.3	1.5	3.2	1.5	3.1	1.7	3.5	4.5	13.0
	LPG/Propane	4.5	10.0	4.2	9.4	4.0	9.1	3.9	8.9	4.5	10.0	11.0	13.0

OUTDOOR TERMINATION KIT USAGE

Input Size	Vent Pipe Diameter (in.)	Standard Terminations				Concentric Terminations		
		Flush Mount Kit	Wall Kit		Field Fabricated Exhaust Accelerator Size Required	Concentric Kit		
			2 inch	3 inch		1-1/2 inch	2 inch	3 inch
		51W11 (US) [5] 51W12 (CA)	22G44 (US) [5] 30G28 (CA)	44J40 (US) [5] 81J20 (CA)		71M80 (US) [5] 44W92 (CA)	69M29 (US) [5] 44W92 (CA)	60L46 (US) [5] 44W93 (CA)
045	[1] 1-1/2	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
	2	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
	2-1/2	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
	3	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
070	[1] 1-1/2	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
	2	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
	2-1/2	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
	3	[4] YES	YES	[2] YES	1-1/2 in.	[3] YES	- - -	- - -
090	2	[4] YES	- - -	YES	2 in.	- - -	YES	YES
	2-1/2	[4] YES	- - -	YES	2 in.	- - -	YES	YES
	3	[4] YES	- - -	YES	2 in.	- - -	YES	YES
110	2	YES	- - -	YES	2 in.	- - -	YES	YES
	2-1/2	YES	- - -	YES	2 in.	- - -	YES	YES
	3	YES	- - -	YES	2 in.	- - -	YES	YES
135	3	YES	- - -	YES	2 in.	- - -	- - -	YES

NOTE - Standard Terminations do not include any vent pipe or elbows external to the structure.
Any vent pipe or elbows external to the structure must be included in total vent length calculations. See Vent Length Tables.

[1] 2 in. to 1-1/2 in. reducer required, must be field provided.

[2] Requires field provided 1-1/2 in. outdoor exhaust accelerator.

[3] Concentric Kits **71M80** and **44W92** include 1-1/2 in. outdoor exhaust accelerator, required when used with 045 and 070 input models. Accelerator is not used with 090, 110, 135 input models. When using 1-1/2 in. piping, the pipe must be transitioned to 2 in. pipe when used with the Concentric Kit.

[4] Flush Mount Kit **51W11** and **51W12** includes 1-1/2 in. outdoor exhaust accelerator, required when used with 045, 070 and 090 input models. Accelerator is not used with 110 or 135 input models. When using 1-1/2 in. piping, the pipe must be transitioned to 2 in. pipe when used with the Flush Mount Kit.

[5] Termination Kits 30G28, **44W92**, **44W93**, **51W12** and **81J20** are certified to ULC S636 standard for use in Canada only.

VENT LENGTHS - UNINSULATED EXHAUST PIPE IN UNCONDITIONED SPACE

[1] Winter Design Temperatures	Vent Pipe Diameter	Unit Input Size									
		045		070		090		110		135	
		[2] Maximum Uninsulated Exhaust Vent Length (ft.)									
		PVC	[3] PolyPro/ InnoFlue/ ECCO	PVC	[3] PolyPro/ InnoFlue/ ECCO	PVC	[3] PolyPro/ InnoFlue/ ECCO	PVC	[3] PolyPro/ InnoFlue/ ECCO	PVC	[3] PolyPro/ InnoFlue/ ECCO
32 to 21°F	1-1/2 in.	22	N/A	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2 in.	21	18	33	30	46	42	30	30	N/A	N/A
	2-1/2 in.	16	N/A	26	N/A	37	N/A	36	N/A	N/A	N/A
	3 in.	12	12	21	21	30	30	29	29	42	42
20 to 1°F	1-1/2 in.	12	N/A	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2 in.	11	9	19	17	28	25	27	24	N/A	N/A
	2-1/2 in.	7	N/A	14	N/A	21	N/A	20	N/A	N/A	N/A
	3 in.	N/A	N/A	9	9	16	16	14	14	23	23
0 to –20°F	1-1/2 in.	8	N/A	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2 in.	6	4	12	10	19	16	18	15	N/A	N/A
	2-1/2 in.	N/A	N/A	7	N/A	13	N/A	12	N/A	N/A	N/A
	3 in.	N/A	N/A	N/A	N/A	8	8	7	7	13	13

[1] Refer to 99% Minimum Design Temperature table provided in the current edition of the ASHRAE Handbook-Fundamentals.

[2] Maximum Equivalent Vent Length permitted is defined as Total Length (linear feet) of vent pipe, plus equivalent length (ft.) of fittings, plus equivalent length (ft.) of termination.

VENTING NOTES - Concentric Terminations are equivalent to 5 ft. of straight pipe and should be included when measuring total pipe length.
One 90° elbow is equivalent to 5 feet of straight vent pipe.
Two 45° elbows are equal to one 90° elbow.
One 45° elbow is equivalent to 2.5 feet of straight vent pipe.

[3] PolyPro® poly-propylene vent pipe is a registered trademark of DuraVent®.
Innoflue® is a registered trademark of Centrotherm Eco Systems.
ECCO Polypropylene Vent™is a registered trademark of ECCO Manufacturing™.

VENT LENGTHS

STANDARD TERMINATION AT ELEVATION 0 - 4500 ft.

Pipe Size		1-1/2 in.					2 in.					2-1/2 in.					3 in.				
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	25	20	N/A	N/A	N/A	81	66	44	24	N/A	115	115	93	58	N/A	138	137	118	118	114
	2	20	15	N/A	N/A	N/A	76	61	39	19	N/A	110	110	88	53	N/A	133	132	113	113	109
	3	15	10	N/A	N/A	N/A	71	56	34	14	N/A	105	105	83	48	N/A	128	127	108	108	104
	4	10	N/A	N/A	N/A	N/A	66	51	29	N/A	N/A	100	100	78	43	N/A	123	122	103	103	99
	5	N/A	N/A	N/A	N/A	N/A	61	46	24	N/A	N/A	95	95	73	38	N/A	118	117	98	98	94
	6	N/A	N/A	N/A	N/A	N/A	56	41	19	N/A	N/A	90	90	68	33	N/A	113	112	93	93	89
	7	N/A	N/A	N/A	N/A	N/A	51	36	14	N/A	N/A	85	85	63	28	N/A	108	107	88	88	84
	8	N/A	N/A	N/A	N/A	N/A	46	31	N/A	N/A	N/A	80	80	58	23	N/A	103	102	83	83	79
	9	N/A	N/A	N/A	N/A	N/A	41	26	N/A	N/A	N/A	75	75	53	18	N/A	98	97	78	78	74
	10	N/A	N/A	N/A	N/A	N/A	36	21	N/A	N/A	N/A	70	70	48	13	N/A	93	92	73	73	69

STANDARD TERMINATION ELEVATION 4501 - 10,000 ft.

Pipe Size		1-1/2 in.					2 in.					2-1/2 in.					3 in.				
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	25	20	N/A	N/A	N/A	81	66	44	N/A	N/A	115	115	93	58	N/A	138	137	118	118	114
	2	20	15	N/A	N/A	N/A	76	61	39	N/A	N/A	110	110	88	53	N/A	133	132	113	113	109
	3	15	10	N/A	N/A	N/A	71	56	34	N/A	N/A	105	105	83	48	N/A	128	127	108	108	104
	4	10	N/A	N/A	N/A	N/A	66	51	29	N/A	N/A	100	100	78	43	N/A	123	122	103	103	99
	5	N/A	N/A	N/A	N/A	N/A	61	46	24	N/A	N/A	95	95	73	38	N/A	118	117	98	98	94
	6	N/A	N/A	N/A	N/A	N/A	56	41	19	N/A	N/A	90	90	68	33	N/A	113	112	93	93	89
	7	N/A	N/A	N/A	N/A	N/A	51	36	14	N/A	N/A	85	85	63	28	N/A	108	107	88	88	84
	8	N/A	N/A	N/A	N/A	N/A	46	31	N/A	N/A	N/A	80	80	58	23	N/A	103	102	83	83	79
	9	N/A	N/A	N/A	N/A	N/A	41	26	N/A	N/A	N/A	75	75	53	18	N/A	98	97	78	78	74
	10	N/A	N/A	N/A	N/A	N/A	36	21	N/A	N/A	N/A	70	70	48	13	N/A	93	92	73	73	69

CONCENTRIC TERMINATION AT ELEVATION 0 - 4500 ft.

Pipe Size		1-1/2 in.					2 in.					2-1/2 in.					3 in.				
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	20	15	N/A	N/A	N/A	73	58	42	22	N/A	105	105	89	54	N/A	121	121	114	114	105
	2	15	10	N/A	N/A	N/A	68	53	37	17	N/A	100	100	84	49	N/A	116	116	109	109	100
	3	10	N/A	N/A	N/A	N/A	63	48	32	12	N/A	95	95	79	44	N/A	111	111	104	104	95
	4	N/A	N/A	N/A	N/A	N/A	58	43	27	N/A	N/A	90	90	74	39	N/A	106	106	99	99	90
	5	N/A	N/A	N/A	N/A	N/A	53	38	22	N/A	N/A	85	85	69	34	N/A	101	101	94	94	85
	6	N/A	N/A	N/A	N/A	N/A	48	33	17	N/A	N/A	80	80	64	29	N/A	96	96	89	89	80
	7	N/A	N/A	N/A	N/A	N/A	43	28	12	N/A	N/A	75	75	59	24	N/A	91	91	84	84	75
	8	N/A	N/A	N/A	N/A	N/A	38	23	N/A	N/A	N/A	70	70	54	19	N/A	86	86	79	79	70
	9	N/A	N/A	N/A	N/A	N/A	33	18	N/A	N/A	N/A	65	65	49	14	N/A	81	81	74	74	65
	10	N/A	N/A	N/A	N/A	N/A	28	13	N/A	N/A	N/A	60	60	44	N/A	N/A	76	76	69	69	60

CONCENTRIC TERMINATION ELEVATION 4501 - 10,000 ft.

Pipe Size		1-1/2 in.					2 in.					2-1/2 in.					3 in.				
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	20	15	N/A	N/A	N/A	73	58	42	N/A	N/A	105	105	89	54	N/A	121	121	114	114	105
	2	15	10	N/A	N/A	N/A	68	53	37	N/A	N/A	100	100	84	49	N/A	116	116	109	109	100
	3	10	N/A	N/A	N/A	N/A	63	48	32	N/A	N/A	95	95	79	44	N/A	111	111	104	104	95
	4	N/A	N/A	N/A	N/A	N/A	58	43	27	N/A	N/A	90	90	74	39	N/A	106	106	99	99	90
	5	N/A	N/A	N/A	N/A	N/A	53	38	22	N/A	N/A	85	85	69	34	N/A	101	101	94	94	85
	6	N/A	N/A	N/A	N/A	N/A	48	33	17	N/A	N/A	80	80	64	29	N/A	96	96	89	89	80
	7	N/A	N/A	N/A	N/A	N/A	43	28	12	N/A	N/A	75	75	59	24	N/A	91	91	84	84	75
	8	N/A	N/A	N/A	N/A	N/A	38	23	N/A	N/A	N/A	70	70	54	19	N/A	86	86	79	79	70
	9	N/A	N/A	N/A	N/A	N/A	33	18	N/A	N/A	N/A	65	65	49	14	N/A	81	81	74	74	65
	10	N/A	N/A	N/A	N/A	N/A	28	13	N/A	N/A	N/A	60	60	44	N/A	N/A	76	76	69	69	60

VENT LENGTHS (EXHAUST) - VENTILATED ATTIC OR CRAWLSPACE INTAKE AIR

STANDARD TERMINATION AT ELEVATION 0 - 4500 ft.

Pipe Size		1-1/2 in.					2 in.					2-1/2 in.					3 in.				
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	20	15	N/A	N/A	N/A	71	56	34	14	N/A	100	100	78	43	N/A	118	117	98	98	94
	2	15	10	N/A	N/A	N/A	66	51	29	9	N/A	95	95	73	38	N/A	113	112	93	93	89
	3	10	N/A	N/A	N/A	N/A	61	46	24	4	N/A	90	90	68	33	N/A	108	107	88	88	84
	4	N/A	N/A	N/A	N/A	N/A	56	41	19	N/A	N/A	85	85	63	28	N/A	103	102	83	83	79
	5	N/A	N/A	N/A	N/A	N/A	51	36	14	N/A	N/A	80	80	58	23	N/A	98	97	78	78	74
	6	N/A	N/A	N/A	N/A	N/A	46	31	9	N/A	N/A	85	75	63	18	N/A	93	92	73	73	69
	7	N/A	N/A	N/A	N/A	N/A	41	26	4	N/A	N/A	70	70	48	13	N/A	88	87	68	68	64
	8	N/A	N/A	N/A	N/A	N/A	36	21	N/A	N/A	N/A	65	65	43	8	N/A	83	82	63	63	59
	9	N/A	N/A	N/A	N/A	N/A	31	16	N/A	N/A	N/A	60	60	38	3	N/A	78	77	58	58	54
	10	N/A	N/A	N/A	N/A	N/A	26	11	N/A	N/A	N/A	55	55	33	N/A	N/A	73	72	53	53	49

STANDARD TERMINATION ELEVATION 4501 - 10,000 ft.

Pipe Size		1-1/2 in.					2 in.					2-1/2 in.					3 in.				
	Input	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135	045	070	090	110	135
No. of 90 ELL	1	20	15	N/A	N/A	N/A	71	56	34	N/A	N/A	100	100	78	43	N/A	118	117	98	98	94
	2	15	10	N/A	N/A	N/A	66	51	29	N/A	N/A	95	95	73	38	N/A	113	112	93	93	89
	3	10	N/A	N/A	N/A	N/A	61	46	24	N/A	N/A	90	90	68	33	N/A	118	107	88	88	84
	4	N/A	N/A	N/A	N/A	N/A	56	41	19	N/A	N/A	85	85	63	28	N/A	113	102	83	83	79
	5	N/A	N/A	N/A	N/A	N/A	51	36	14	N/A	N/A	80	80	58	23	N/A	98	97	78	78	74
	6	N/A	N/A	N/A	N/A	N/A	46	31	9	N/A	N/A	85	85	53	18	N/A	93	92	73	73	69
	7	N/A	N/A	N/A	N/A	N/A	41	26	4	N/A	N/A	70	70	48	13	N/A	98	87	68	68	64
	8	N/A	N/A	N/A	N/A	N/A	36	21	N/A	N/A	N/A	65	65	43	8	N/A	93	82	63	63	59
	9	N/A	N/A	N/A	N/A	N/A	31	16	N/A	N/A	N/A	60	60	38	3	N/A	78	77	58	58	54
	10	N/A	N/A	N/A	N/A	N/A	26	11	N/A	N/A	N/A	55	55	33	N/A	N/A	73	72	53	53	49

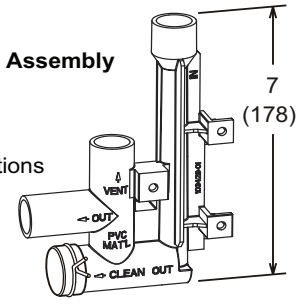
DIMENSIONS - UNIT - UPFLOW POSITION

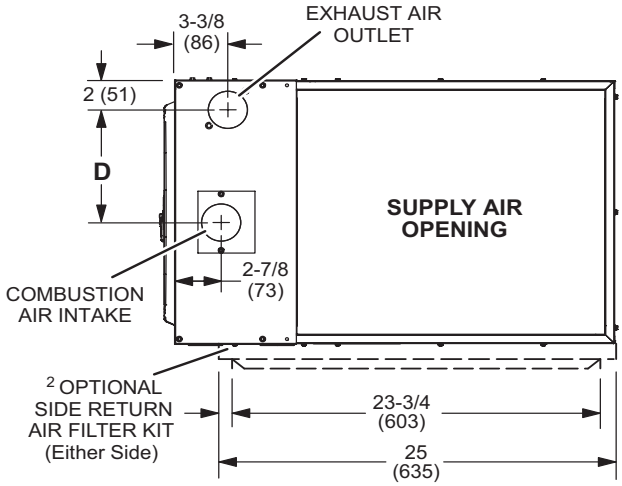
[1] NOTE - 60C size units that require air volumes over 1800 cfm must have one of the following:
1. Single side return air and Optional Return Air Base with transition that must accommodate required 20 x 25 x 1 inch (508 x 635 x 25 mm) air filter to maintain proper velocity.
2. Bottom return air.
3. Return air from both sides.
4. Bottom and one side return air.

See Blower Performance Tables for additional information.

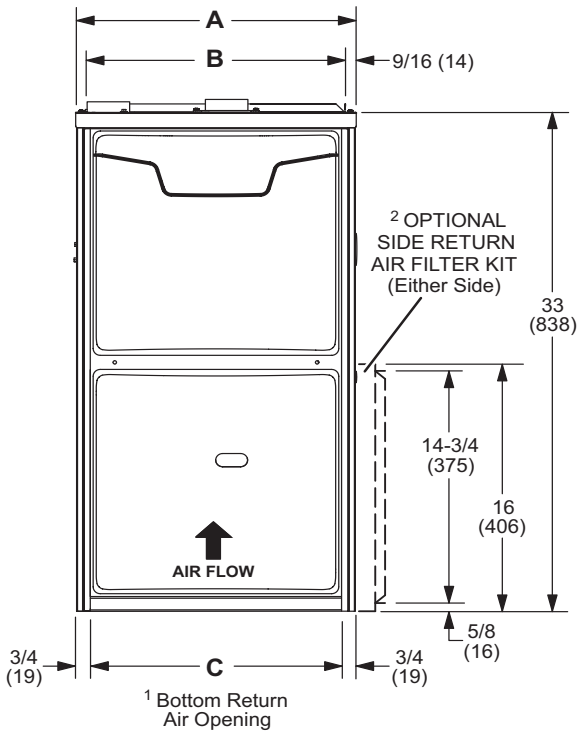
[2] Optional Side Return Air Filter Kit is not for use with the Optional Return Air Base.

Flue Condensate Trap Assembly
Furnished for external field installation on either side of unit. (See installation instructions for additional information.)

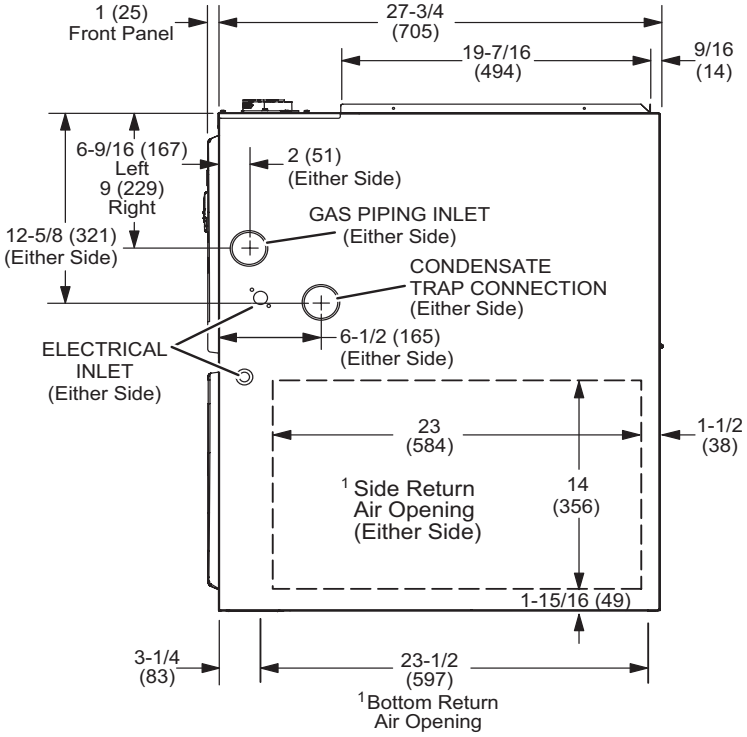




TOP VIEW



FRONT VIEW

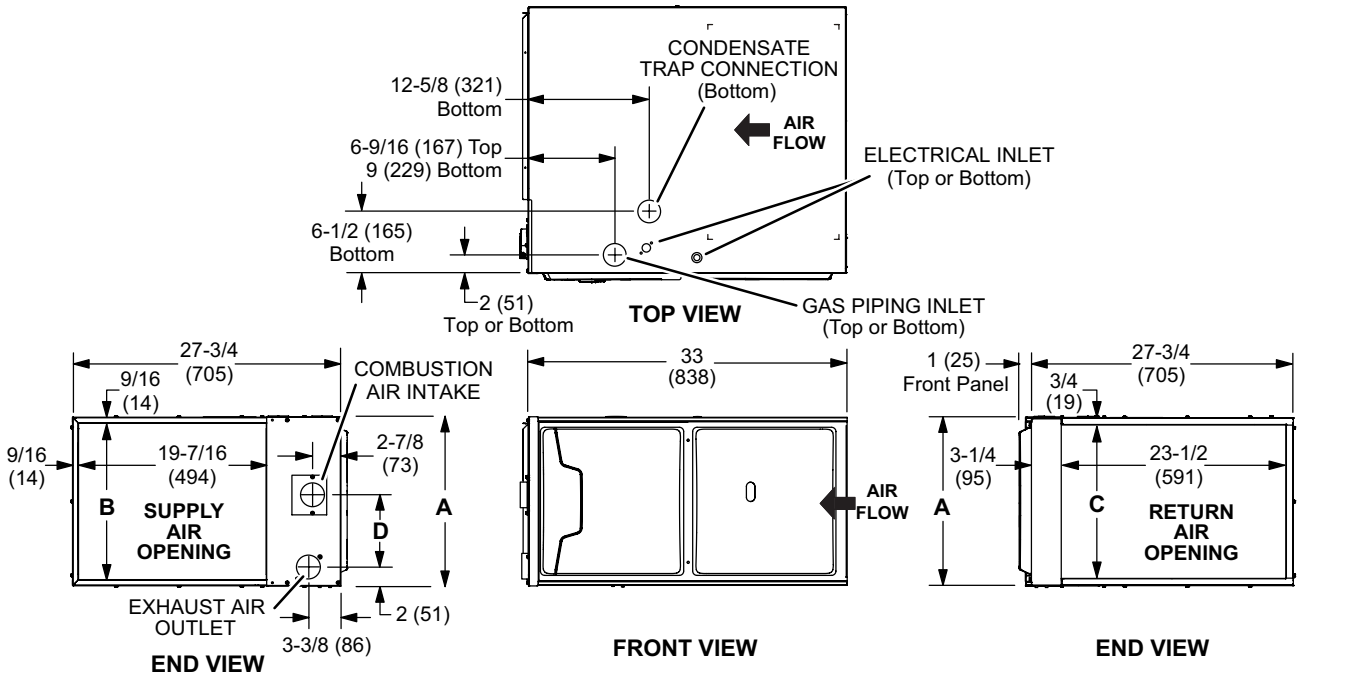


SIDE VIEW

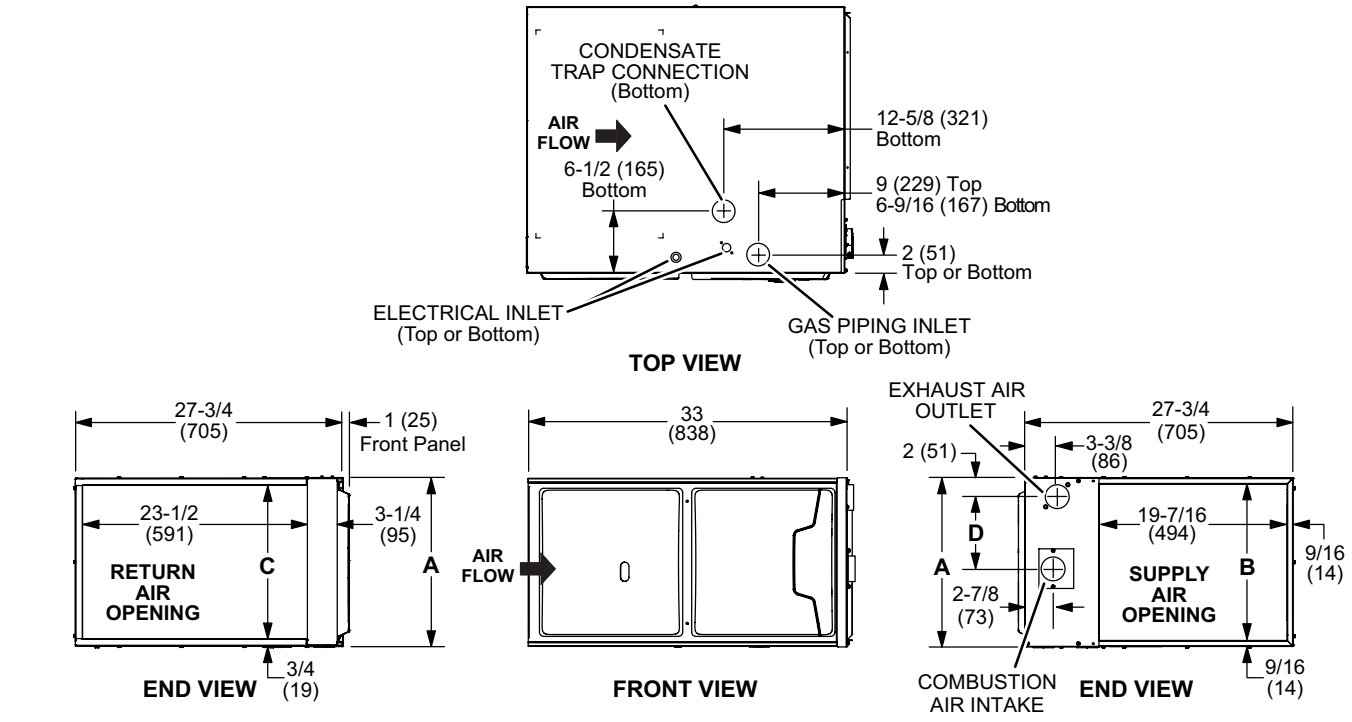
Model	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
ML297UH045XV36BK ML297UH070XV36BK	17-1/2	446	16-3/8	416	16	406	7-5/8	194
ML297UH090XV36CK ML297UH090XV60CK ML297UH110XV60CK	21	533	19-7/8	505	19-1/2	495	9-3/8	238
ML297UH135XV60DK	24-1/2	622	23-3/8	594	23	584	11-1/8	283

DIMENSIONS - UNIT - HORIZONTAL POSITION

LEFT-HAND AIR DISCHARGE

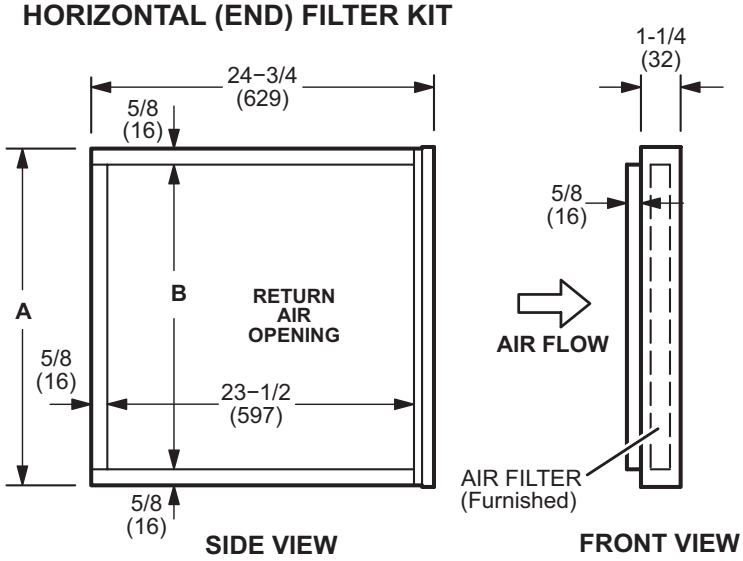


RIGHT-HAND AIR DISCHARGE



Model	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
ML297UH045XV36BK ML297UH070XV36BK	17-1/2	446	16-3/8	416	16	406	7-5/8	194
ML297UH090XV36CK ML297UH090XV60CK ML297UH110XV60CK	21	533	19-7/8	505	19-1/2	495	9-3/8	238
ML297UH135XV60DK	24-1/2	622	23-3/8	594	23	584	11-1/8	283

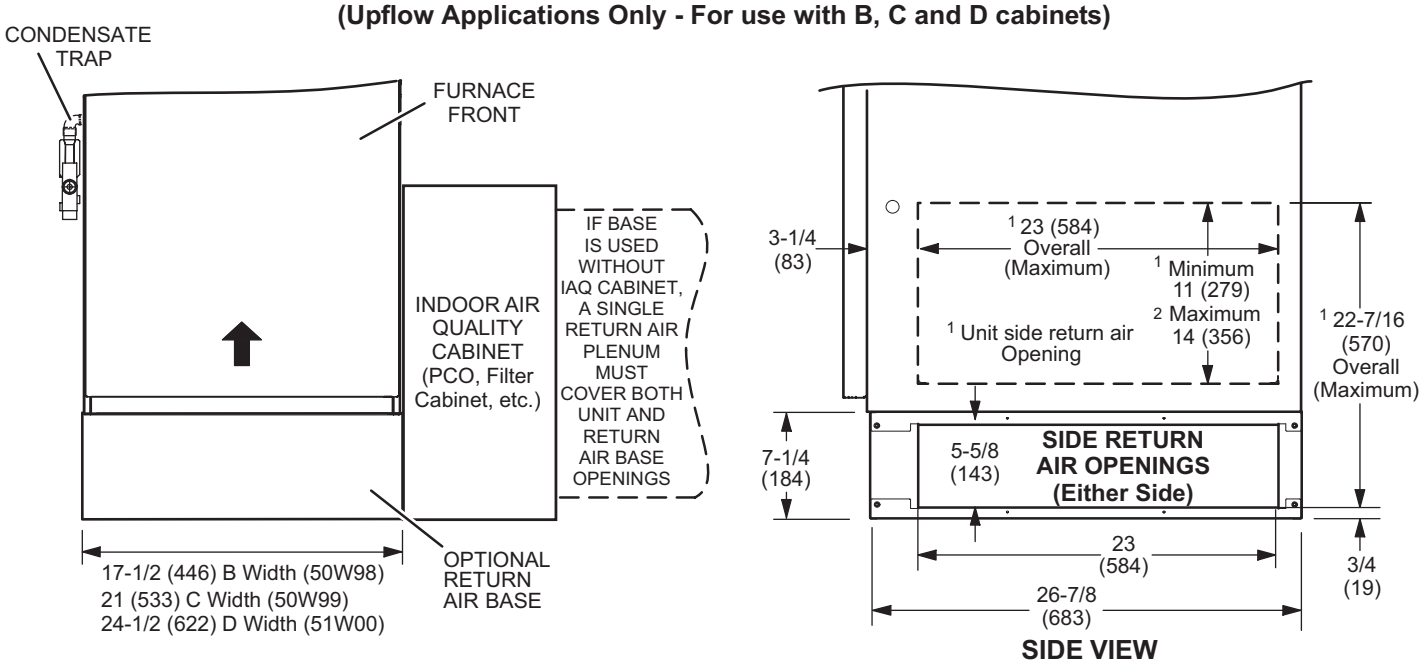
HORIZONTAL (END) FILTER KIT



Furnace Cabinet Width	Catalog Number	A		B	
		in.	mm	in.	mm
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 B, C and D cabinets)

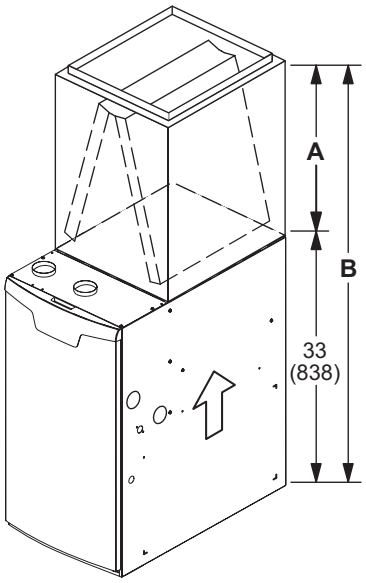


NOTE- Optional Side Return Air Filter Kits are not for use with Optional Return Air Base.

[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 in. (356 mm), is preferred.

DIMENSIONS - FURNACE/COIL COMBINED DIMENSIONS

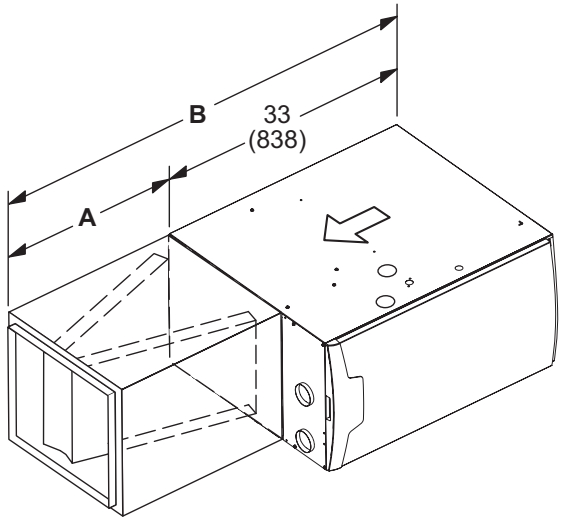


UPFLOW POSITION - CASED

Model	A		B	
CK40CT	**in.**	**mm**	**in.**	**mm**
CK40CT-18/24B	16-1/2	419	49-1/2	1257
CK40CT-24B	18-1/2	470	51-1/2	1308
CK40CT-30B	22-1/2	572	55-1/2	1410
CK40CT-30/36B CK40CT-30/36C	24-1/2	622	57-1/2	1461
CK40CT-36B CK40CT-36C	24-1/2	622	57-1/2	1461
CK40CT-48B CK40CT-48C	27-1/2	699	60-1/2	1537
CK40CT-49C	29-1/2	749	62-1/2	1588
CK40CT-50/60C	27-1/2	699	60-1/2	1537
CK40CT-60C	31-1/2	800	64-1/2	1638
CK40CT-60D	29-1/2	749	62-1/2	1588

UPFLOW POSITION - UNCASED

Model	A		B	
CK40UT	**in.**	**mm**	**in.**	**mm**
CK40UT-18/24B	14-1/8	359	47-1/8	1197
CK40UT-24B	16-3/8	416	49-3/8	1254
CK40UT-30B	20-3/4	527	53-3/4	1365
CK40UT-30/36B CK40UT-30/36C CK40UT-36C	22-1/4	565	55-1/4	1403
CK40UT-36B	22-3/8	568	55-3/8	1407
CK40UT-48B CK40UT-48C	26-1/4	667	59-1/4	1505
CK40UT-49C	28-1/2	724	61-1/2	1562
CK40UT-50/60C	25-7/8	657	58-7/8	1495
CK40UT-60C	30-5/8	778	63-5/8	1616
CK40UT-60D	28	711	61	1549

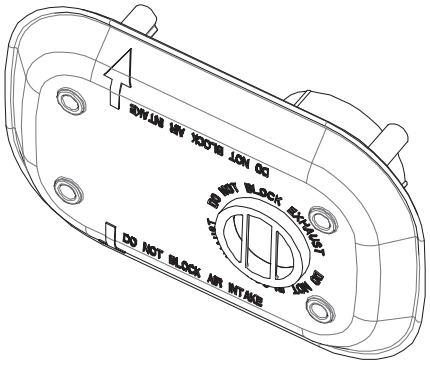


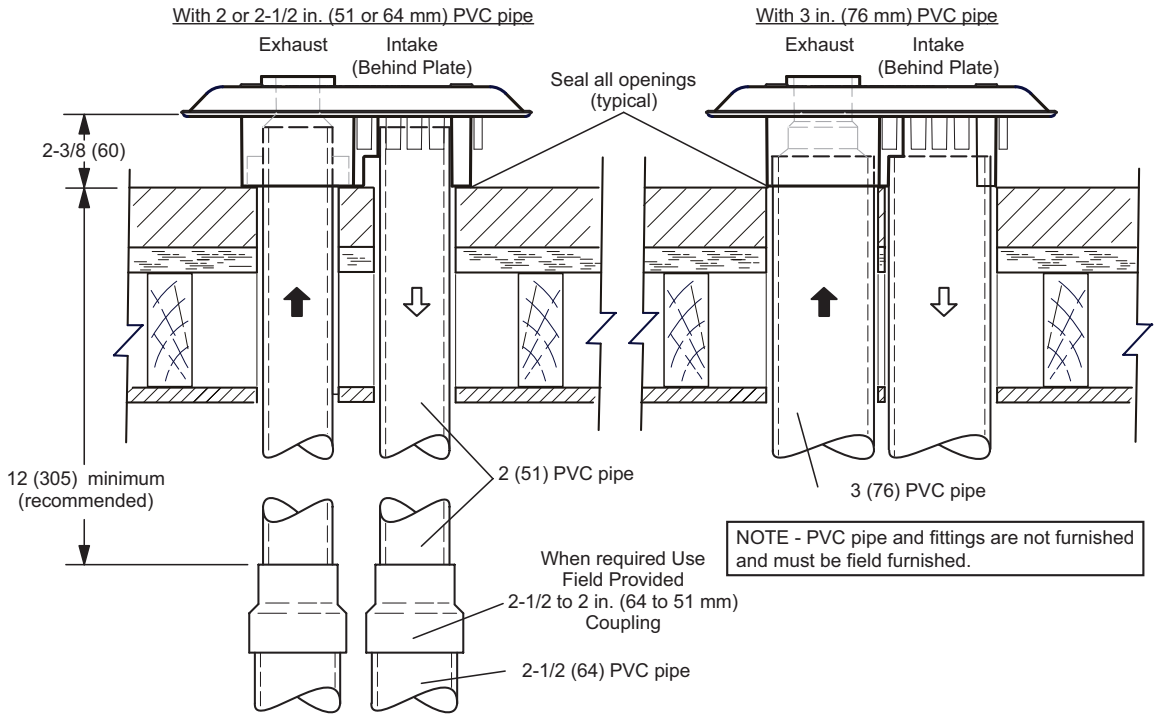
HORIZONTAL POSITION

Model	A		B	
CK40HT	**in.**	**mm**	**in.**	**mm**
CK40HT-24B CK40HT-30B CK40HT-36A CK40HT-36B CK40HT-36C CK40HT-42C CK40HT-48C	26-1/2	673	59-1/2	1511
CK40CT-42B CK40CT-48B CK40CT-51/61C CK40CT-60D	31-1/2	880	64-1/2	1638

DIMENSIONS - OPTIONAL ACCESSORIES - VENTING

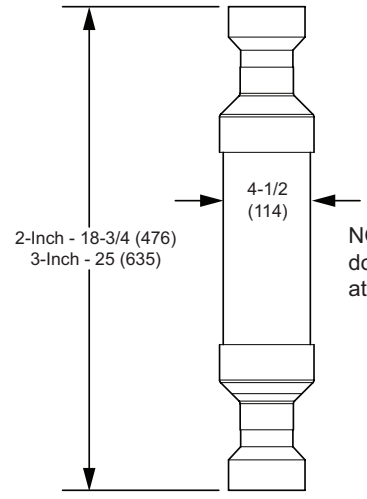
FLUSH-MOUNT VENT TERMINATION KIT 51W11 (US) or 51W12 (CANADA)





NOTE - PVC pipe and fittings are not furnished and must be field furnished.

MUFFLERS
15Y66 - 2-inch
16A56 - 3-inch

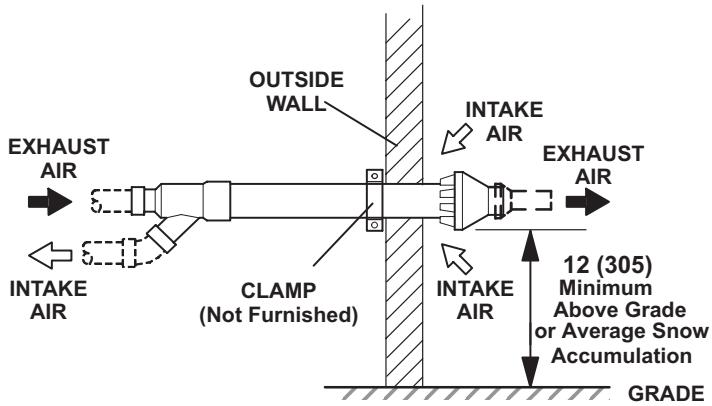


(Installed Vertically in the Exhaust Pipe)

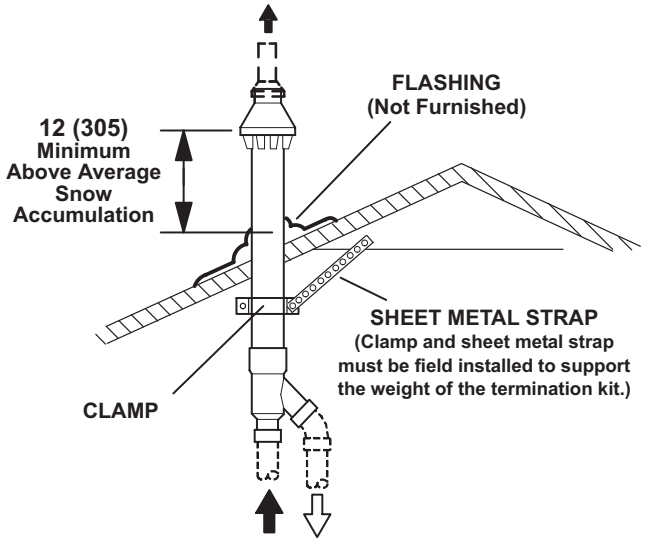
NOTE - Two-inch mufflers do not have reducers at each end.

DIMENSIONS - OPTIONAL ACCESSORIES - VENTING

CONCENTRIC WALL TERMINATION APPLICATIONS

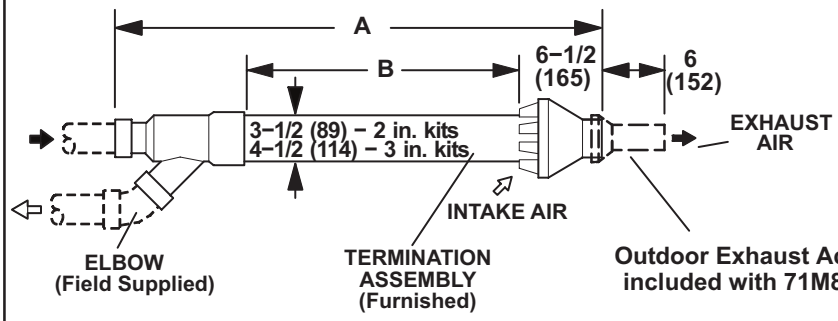


CONCENTRIC ROOF TERMINATION APPLICATIONS



71M80 / 69M29 / 44W92 − 2 inch kits
60L46 / 44W93 − 3 inch kits
See Installation Instructions for additional information.

Note - Field provided reducer may be required to adapt different vent pipe sizes to termination.

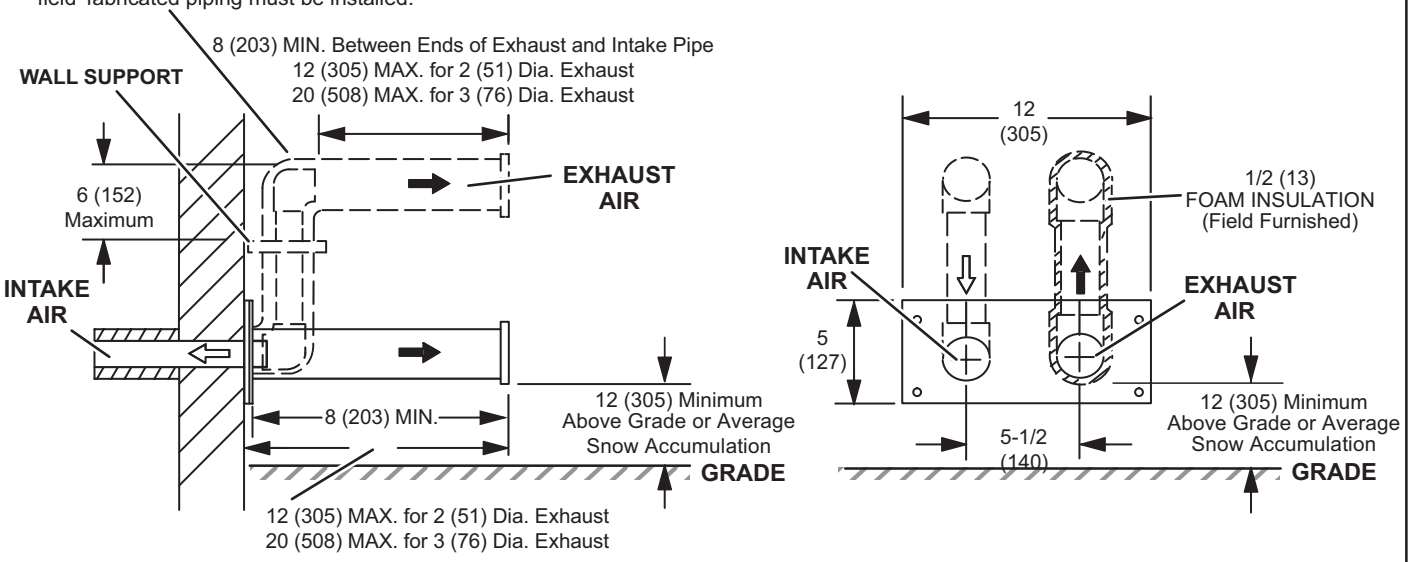


Cat. No.	A		B	
	in.	mm	in.	mm
71M80 69M29	33−3/8	848	16−3/4	425
44W92 (Canada)	29	737	15−1/2	394
60L46	38−7/8	987	21−3/16	538
44W93 (Canada)	36−1/8	918	19−1/2	495

NOTE − Typical illustration for dimensions only. Design may vary depending on kit ordered.

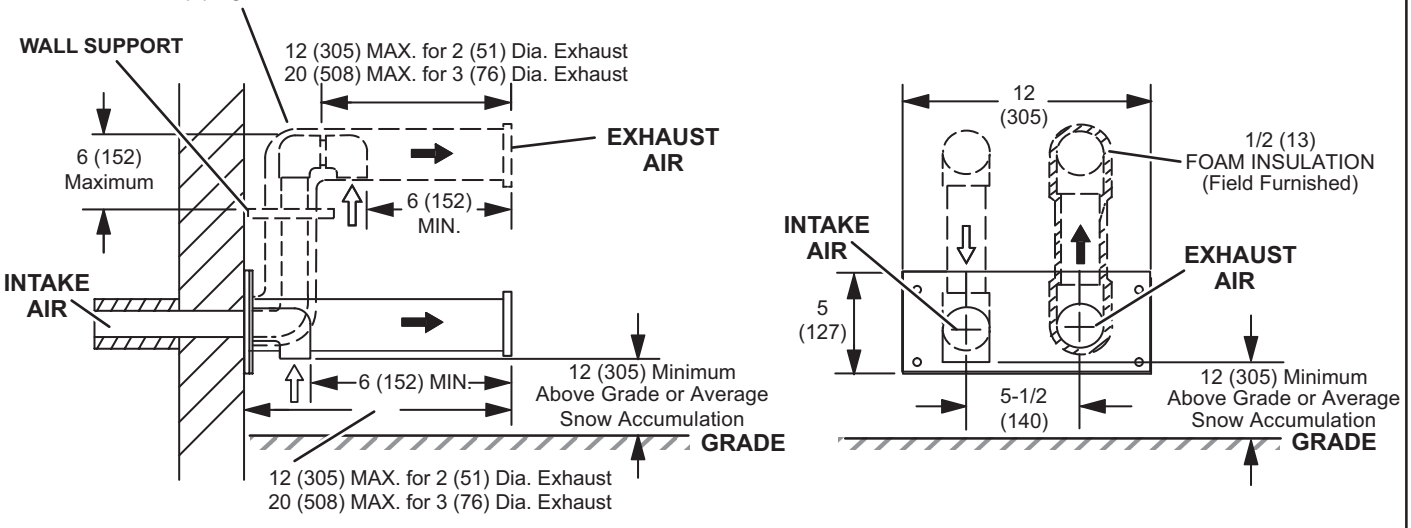
WALL TERMINATION KITS (CLOSE-COUPLE)
EXTENDED VENT FOR GRADE CLEARANCE
2 inch (51 mm) 22G44 (US)
3 inch (76 mm) 44J40 (US)
See Installation Instructions for additional information.

Note - Field provided reducer may be required to adapt different vent pipe sizes to termination.



WALL TERMINATION KITS (CLOSE-COUPLE)
EXTENDED VENT FOR GRADE CLEARANCE
2 inch (51 mm) 30G28 (WTK Canada)
3 inch (76 mm) 81J20 (WTK Canada)
See Installation Instructions for additional information.

Note - Field provided reducer may be required to adapt different vent pipe sizes to termination.



BLOWER DATA

ML297UH045XV36BK BLOWER PERFORMANCE (less filter)

BOTTOM RETURN AIR, SINGLE SIDE RETURN AIR OR SIDE RETURN AIR WITH OPTIONAL RETURN AIR BASE

0 through 0.8 in. w.g. (Heating) and 0 through 1.0 in. w.g. (Cooling) External Static Pressure Range

"ADJUST" Switch Positions	Speed Switch Positions							
	Second Stage "HEAT" Speed - cfm				Second Stage "COOL" Speed - cfm			
	Low	Med-Low	[1] Med-High	High	Low	Med-Low	Med-High	[1] High
+	745	875	990	1005	905	1075	1210	1370
[1] NORM	685	765	895	910	815	980	1120	1255
—	610	695	785	810	720	885	1020	1135
"ADJUST" Switch Positions	First Stage "HEAT" Speed - cfm				First Stage "COOL" Speed - cfm			
	Low	Med-Low	[1] Med-High	High	Low	Med-Low	Med-High	[1] High
+	685	765	895	910	595	760	865	980
[1] NORM	620	705	800	820	540	660	785	890
—	545	625	715	725	485	600	695	790

[1] Factory default jumper setting.

NOTES - The effect of static pressure is included in air volumes shown.
First stage HEAT is approximately **91%** of the same second stage HEAT speed position.
First stage COOL (two-stage air conditioning units only) is approximately **70%** of the same second stage COOL speed position.
Continuous Fan Only speed is approximately **38%** of the same second stage COOL speed position.
Lennox® LZSV Variable Zoning System Applications - Minimum blower speed is 300 cfm.

ML297UH045XV36BK BLOWER MOTOR WATTS (COOLING)

Jumper Speed Positions		Motor Watts @ Various External Static Pressures - in. wg.																	
		First Stage								Second Stage									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
"+" (Plus) SETTING ("Adjust" Jumper at "+" Setting)																			
"COOL" Speed	Low	33	54	73	88	107	124	144	158	87	112	140	171	196	225	243	267	297	317
	Med-Low	58	82	100	120	141	166	182	211	138	185	214	237	271	296	326	348	369	390
	Med-High	86	103	128	159	187	210	233	255	219	250	280	305	340	377	411	439	464	483
	High	114	142	177	217	235	259	285	311	281	322	363	400	433	468	502	521	552	549
"NORM" (Normal) SETTING ("Adjust" Jumper at "NORM" Setting)																			
"COOL" Speed	Low	34	52	67	86	98	120	138	155	69	91	115	142	167	188	206	232	260	280
	Med-Low	35	65	85	110	125	140	155	180	110	138	173	209	230	255	280	304	325	343
	Med-High	66	87	106	129	154	178	195	223	166	206	238	264	293	320	349	376	399	420
	High	87	110	138	169	194	222	241	265	245	269	300	334	368	399	431	460	480	513
"—" (Minus) SETTING ("Adjust" Jumper at "—" Setting)																			
"COOL" Speed	Low	28	40	56	76	89	106	122	137	52	78	97	116	132	159	174	202	224	238
	Med-Low	34	55	73	89	108	124	145	159	86	104	129	160	187	211	234	256	282	303
	Med-High	45	72	92	114	129	151	166	193	122	157	188	221	247	273	302	324	343	361
	High	67	89	111	135	160	183	200	227	185	214	246	277	302	335	364	391	414	435

BLOWER DATA

ML297UH070XV36BK BLOWER PERFORMANCE (less filter)

BOTTOM RETURN AIR, SINGLE SIDE RETURN AIR OR SIDE RETURN AIR WITH OPTIONAL RETURN AIR BASE

0 through 0.8 in. w.g. (Heating) and 0 through 1.0 in. w.g. (Cooling) External Static Pressure Range

"ADJUST" Switch Positions	Speed Switch Positions							
	Second Stage "HEAT" Speed - cfm				Second Stage "COOL" Speed - cfm			
	Low	Med-Low	[1] Med-High	High	Low	Med-Low	Med-High	[1] High
+	965	1060	1130	1255	860	1060	1215	1365
[1] NORM	880	960	990	1140	810	960	1130	1265
—	810	840	890	1030	705	840	1005	1140
"ADJUST" Switch Positions	First Stage "HEAT" Speed - cfm				First Stage "COOL" Speed - cfm			
	Low	Med-Low	[1] Med-High	High	Low	Med-Low	Med-High	[1] High
+	940	990	1070	1195	600	740	840	970
[1] NORM	830	895	965	1100	555	665	770	855
—	755	825	840	975	500	600	680	790

[1] Factory default jumper setting.

NOTES - The effect of static pressure is included in air volumes shown.
First stage HEAT is approximately **90%** of the same second stage HEAT speed position.
First stage COOL (two-stage air conditioning units only) is approximately **70%** of the same second stage COOL speed position.
Continuous Fan Only speed is approximately **38%** of the same second stage COOL speed position.
Lennox® LZSV Variable Zoning System Applications - Minimum blower speed is 300 cfm.

ML297UH070XV36BK BLOWER MOTOR WATTS (COOLING)

Jumper Speed Positions		Motor Watts @ Various External Static Pressures - in. wg.																	
		First Stage								Second Stage									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
"+" (Plus) SETTING ("Adjust" Jumper at "+" Setting)																			
"COOL" Speed	Low	36	51	60	80	95	101	117	138	88	105	129	152	169	198	214	231	244	274
	Med-Low	57	75	89	106	127	148	168	182	144	168	192	211	243	262	287	305	329	358
	Med-High	85	97	122	144	164	180	203	220	231	259	285	311	328	357	374	397	419	445
	High	115	132	155	176	203	233	240	274	322	359	379	411	442	458	486	502	527	554
"NORM" (Normal) SETTING ("Adjust" Jumper at "NORM" Setting)																			
"COOL" Speed	Low	29	42	55	71	82	98	112	120	69	86	107	122	146	165	183	199	212	229
	Med-Low	41	63	79	88	112	128	145	159	108	135	151	174	198	223	247	268	288	298
	Med-High	62	77	96	117	140	156	180	196	173	201	225	243	266	289	313	339	368	383
	High	84	104	125	148	166	178	206	225	256	284	303	328	343	374	395	421	435	454
"—" (Minus) SETTING ("Adjust" Jumper at "—" Setting)																			
"COOL" Speed	Low	21	35	53	64	75	82	95	113	50	67	86	106	121	141	159	174	186	201
	Med-Low	36	51	66	81	92	107	127	141	85	100	114	145	160	182	206	219	237	251
	Med-High	48	66	82	104	118	137	146	159	125	143	171	193	211	242	258	282	304	330
	High	60	82	100	123	144	159	174	197	188	211	229	258	277	307	327	354	379	404

BLOWER DATA

ML297UH090XV36CK BLOWER PERFORMANCE (less filter)

BOTTOM RETURN AIR, SINGLE SIDE RETURN AIR OR SIDE RETURN AIR WITH OPTIONAL RETURN AIR BASE

0 through 0.8 in. w.g. (Heating) and 0 through 1.0 in. w.g. (Cooling) External Static Pressure Range

"ADJUST" Switch Positions	Speed Switch Positions							
	Second Stage "HEAT" Speed - cfm				Second Stage "COOL" Speed - cfm			
	Low	Med-Low	[1] Med-High	High	Low	Med-Low	Med-High	[1] High
+	1060	1135	1240	1315	875	1040	1210	1360
[1] NORM	960	1040	1120	1199	800	945	1100	1245
—	830	935	980	1084	720	840	970	1115
"ADJUST" Switch Positions	First Stage "HEAT" Speed - cfm				First Stage "COOL" Speed - cfm			
	Low	Med-Low	[1] Med-High	High	Low	Med-Low	Med-High	[1] High
+	960	1040	1120	1206	625	710	830	950
[1] NORM	875	945	995	1100	565	670	760	860
—	790	840	920	950	520	610	685	785

[1] Factory default jumper setting.

NOTES - The effect of static pressure is included in air volumes shown.
First stage HEAT is approximately **95%** of the same second stage HEAT speed position.
First stage COOL (two-stage air conditioning units only) is approximately **70%** of the same second stage COOL speed position.
Continuous Fan Only speed is approximately **38%** of the same second stage COOL speed position.
Lennox® LZSV Variable Zoning System Applications - Minimum blower speed is 380 cfm.

ML297UH090XV36CK BLOWER MOTOR WATTS (COOLING)

Jumper Speed Positions		Motor Watts @ Various External Static Pressures - in. wg.																	
		First Stage								Second Stage									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
"+" (Plus) SETTING ("Adjust" Jumper at "+" Setting)																			
"COOL" Speed	Low	33	51	67	81	97	113	128	144	64	90	111	127	153	174	193	215	234	250
	Med-Low	52	76	90	108	130	146	166	185	114	130	158	184	205	227	252	278	301	321
	Med-High	70	92	117	138	155	181	199	219	170	199	223	246	277	303	329	357	379	399
	High	94	113	133	152	177	194	222	246	250	277	308	329	362	391	411	442	465	489
"NORM" (Normal) SETTING ("Adjust" Jumper at "NORM" Setting)																			
"COOL" Speed	Low	31	44	59	75	88	104	125	137	54	74	94	114	135	152	175	187	209	223
	Med-Low	46	63	80	95	114	133	146	164	87	108	130	152	173	196	222	236	262	283
	Med-High	56	78	97	117	137	155	175	192	127	152	175	202	228	246	279	306	328	345
	High	68	86	111	126	154	174	194	214	184	218	253	272	301	332	360	381	402	421
"—" (Minus) SETTING ("Adjust" Jumper at "—" Setting)																			
"COOL" Speed	Low	27	39	57	70	84	99	113	131	45	61	81	96	118	134	152	169	189	205
	Med-Low	39	53	71	87	103	118	133	148	60	85	107	127	150	169	186	207	226	247
	Med-High	43	56	79	97	111	129	149	165	101	117	140	160	182	215	235	255	275	296
	High	51	69	94	111	131	150	170	186	134	160	186	220	236	264	293	311	335	363

BLOWER DATA

ML297UH090XV60CK BLOWER PERFORMANCE (less filter)

BOTTOM RETURN AIR, SINGLE SIDE RETURN AIR OR SIDE RETURN AIR WITH OPTIONAL RETURN AIR BASE

NOTE - Air volumes in **bold** (over 1800 cfm) must have one of the following:

- Single side return air and Optional Return Air Base with transition that must accommodate required 20 x 25 x 1 inch air filter to maintain proper velocity
- Bottom return air
- Return air from both sides
- Bottom and one side return air

0 through 0.8 in. w.g. (Heating) and 0 through 1.0 in. w.g. (Cooling) External Static Pressure Range

"ADJUST" Switch Positions	Speed Switch Positions							
	Second Stage "HEAT" Speed - cfm				Second Stage "COOL" Speed - cfm			
	Low	Med-Low	[1] Med-High	High	Low	Med-Low	Med-High	[1] High
+	1450	1565	1725	**1865**	1385	1595	**1820**	**2020**
[1] NORM	1310	1450	1585	1690	1225	1465	1645	**1885**
—	1155	1305	1450	1545	1065	1320	1504	1675
"ADJUST" Switch Positions	First Stage "HEAT" Speed - cfm				First Stage "COOL" Speed - cfm			
	Low	Med-Low	[1] Med-High	High	Low	Med-Low	Med-High	[1] High
+	1120	1265	1420	1520	935	1055	1275	1465
[1] NORM	965	1120	1285	1395	835	980	1120	1335
—	865	950	1120	1235	740	870	1010	1150

[1] Factory default jumper setting.

NOTES - The effect of static pressure is included in air volumes shown.
First stage HEAT is approximately **75%** of the same second stage HEAT speed position.
First stage COOL (two-stage air conditioning units only) is approximately **70%** of the same second stage COOL speed position.
Continuous Fan Only speed is approximately **38%** of the same second stage COOL speed position.
Lennox® LZSV Variable Zoning System Applications - Minimum blower speed is 460 cfm.

ML297UH090XV60CK BLOWER MOTOR WATTS (COOLING)

Jumper Speed Positions		Motor Watts @ Various External Static Pressures - in. wg.																	
		First Stage								Second Stage									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
"+" (Plus) SETTING ("Adjust" Jumper at "+" Setting)																			
"COOL" Speed	Low	76	101	120	144	166	187	210	231	196	244	276	310	343	382	414	446	519	541
	Med-Low	107	135	157	188	215	245	273	293	284	346	390	425	453	503	538	580	607	640
	Med-High	152	188	220	264	298	328	365	389	422	484	554	582	629	690	737	778	805	859
	High	220	272	316	353	389	421	454	480	600	658	737	798	832	905	934	982	1037	1067
"NORM" (Normal) SETTING ("Adjust" Jumper at "NORM" Setting)																			
"COOL" Speed	Low	55	77	101	126	140	156	164	187	148	181	212	250	278	310	340	373	406	459
	Med-Low	86	112	129	152	179	202	232	252	218	270	315	351	387	419	452	479	512	546
	Med-High	123	149	174	209	235	264	293	331	340	389	378	430	503	553	580	636	661	699
	High	175	220	254	291	320	357	383	418	486	540	594	652	695	741	788	831	871	902
"—" (Minus) SETTING ("Adjust" Jumper at "—" Setting)																			
"COOL" Speed	Low	34	52	82	108	113	124	117	143	109	137	160	191	218	247	276	298	328	356
	Med-Low	62	85	107	132	148	166	179	201	168	212	247	285	313	348	373	409	450	472
	Med-High	97	119	139	165	189	214	244	265	245	295	339	374	410	451	474	497	549	566
	High	129	157	183	221	248	277	308	343	349	401	450	489	530	579	629	656	698	737

BLOWER DATA

ML297UH110XV60CK BLOWER PERFORMANCE (less filter)

BOTTOM RETURN AIR, SINGLE SIDE RETURN AIR OR SIDE RETURN AIR WITH OPTIONAL RETURN AIR BASE

NOTE - Air volumes in **bold** (over 1800 cfm) must have one of the following:

- Single side return air and Optional Return Air Base with transition that must accommodate required 20 x 25 x 1 inch air filter to maintain proper velocity
- Bottom return air
- Return air from both sides
- Bottom and one side return air

0 through 0.8 in. w.g. (Heating) and 0 through 1.0 in. w.g. (Cooling) External Static Pressure Range

"ADJUST" Switch Positions	Speed Switch Positions							
	Second Stage "HEAT" Speed - cfm				Second Stage "COOL" Speed - cfm			
	Low	Med-Low	[1] Med-High	High	Low	Med-Low	Med-High	[1] High
+	1560	1760	**1905**	**1955**	1310	1560	1745	**1955**
[1] NORM	1415	1610	1740	1795	1220	1405	1570	1795
—	1285	1485	1560	1635	1075	1270	1430	1635
"ADJUST" Switch Positions	First Stage "HEAT" Speed - cfm				First Stage "COOL" Speed - cfm			
	Low	Med-Low	[1] Med-High	High	Low	Med-Low	Med-High	[1] High
+	1155	1325	1420	1500	935	1065	1245	1405
[1] NORM	1055	1200	1310	1360	865	970	1145	1280
—	935	1075	1170	1245	790	890	1025	1165

[1] Factory default jumper setting.

NOTES - The effect of static pressure is included in air volumes shown.
First stage HEAT is approximately **75%** of the same second stage HEAT speed position.
First stage COOL (two-stage air conditioning units only) is approximately **70%** of the same second stage COOL speed position.
Continuous Fan Only speed is approximately **38%** of the same second stage COOL speed position.
Lennox® LZSV Variable Zoning System Applications - Minimum blower speed is 460 cfm.

ML297UH110XV60CK BLOWER MOTOR WATTS (COOLING)

Jumper Speed Positions		Motor Watts @ Various External Static Pressures - in. wg.																	
		First Stage								Second Stage									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
"+" (Plus) SETTING ("Adjust" Jumper at "+" Setting)																			
"COOL" Speed	Low	78	107	128	153	173	203	225	256	170	208	241	276	306	348	370	405	446	482
	Med-Low	113	135	165	200	228	251	280	315	254	300	346	385	432	472	511	560	600	610
	Med-High	147	179	210	241	273	309	331	358	386	414	475	516	547	594	637	681	714	748
	High	196	232	267	309	348	389	420	453	545	586	654	689	741	781	825	860	913	964
"NORM" (Normal) SETTING ("Adjust" Jumper at "NORM" Setting)																			
"COOL" Speed	Low	54	91	110	121	144	167	185	213	131	168	198	225	263	287	315	347	378	427
	Med-Low	88	114	137	167	187	219	244	276	196	231	266	309	348	388	421	451	489	512
	Med-High	108	147	173	195	231	257	288	326	263	314	353	412	445	490	516	557	596	649
	High	152	193	222	252	286	324	341	381	420	466	516	558	596	659	691	715	764	786
"—" (Minus) SETTING ("Adjust" Jumper at "—" Setting)																			
"COOL" Speed	Low	31	76	92	90	114	132	146	170	112	136	166	199	228	251	281	316	342	371
	Med-Low	62	96	116	132	153	179	199	227	146	189	215	245	279	316	331	373	396	423
	Med-High	85	115	134	159	185	215	251	270	195	243	270	314	353	397	414	470	496	535
	High	116	154	181	204	240	267	297	333	293	339	401	432	483	511	555	599	636	667

BLOWER DATA

ML297UH135XV60DK BLOWER PERFORMANCE (less filter)

BOTTOM RETURN AIR, SINGLE SIDE RETURN AIR OR SIDE RETURN AIR WITH OPTIONAL RETURN AIR BASE

NOTE - Air volumes in **bold** (over 1800 cfm) must have one of the following:

- Single side return air and Optional Return Air Base with transition that must accommodate required 20 x 25 x 1 inch air filter to maintain proper velocity
- Bottom return air
- Return air from both sides
- Bottom and one side return air

0 through 0.8 in. w.g. (Heating) and 0 through 1.0 in. w.g. (Cooling) External Static Pressure Range

"ADJUST" Switch Positions	Speed Switch Positions							
	Second Stage "HEAT" Speed - cfm				Second Stage "COOL" Speed - cfm			
	Low	Med-Low	[1] Med-High	High	Low	Med-Low	Med-High	[1] High
+	1650	**1845**	**2000**	**2055**	1395	1640	**1840**	**2055**
[1] NORM	1495	1660	**1880**	**1905**	1290	1480	1660	**1905**
—	1360	1500	1670	1705	1170	1330	1500	1705
"ADJUST" Switch Positions	First Stage "HEAT" Speed - cfm				First Stage "COOL" Speed - cfm			
	Low	Med-Low	[1] Med-High	High	Low	Med-Low	Med-High	[1] High
+	1300	1435	1630	1652	1015	1160	1330	1480
[1] NORM	1190	1325	1465	1491	940	1085	1200	1345
—	1095	1190	1340	1343	870	965	1110	1225

[1] Factory default jumper setting.

NOTES - The effect of static pressure is included in air volumes shown.
First stage HEAT is approximately **75%** of the same second stage HEAT speed position.
First stage COOL (two-stage air conditioning units only) is approximately **70%** of the same second stage COOL speed position.
Continuous Fan Only speed is approximately **38%** of the same second stage COOL speed position.
Lennox® LZSV Variable Zoning System Applications - Minimum blower speed is 460 cfm.

ML297UH135XV60DK BLOWER MOTOR WATTS (COOLING)

Jumper Speed Positions		Motor Watts @ Various External Static Pressures - in. wg.																	
		First Stage								Second Stage									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
"+" (Plus) SETTING ("Adjust" Jumper at "+" Setting)																			
"COOL" Speed	Low	70	100	125	140	170	190	215	245	175	215	240	280	320	360	390	420	460	495
	Med-Low	105	140	170	200	230	265	290	325	250	310	365	395	450	485	525	555	595	635
	Med-High	155	190	220	260	295	325	355	390	385	430	480	530	570	625	655	700	735	790
	High	210	245	275	325	360	395	445	465	560	615	665	720	760	810	865	900	950	1000
"NORM" (Normal) SETTING ("Adjust" Jumper at "NORM" Setting)																			
"COOL" Speed	Low	70	95	120	140	165	190	215	245	140	175	210	245	280	310	340	370	405	440
	Med-Low	90	115	140	170	195	230	255	280	210	245	275	325	360	390	440	465	510	545
	Med-High	115	150	190	210	245	275	310	340	155	190	220	260	295	325	355	390	425	455
	High	160	195	220	265	300	335	360	390	440	495	535	595	635	680	715	755	805	840
"—" (Minus) SETTING ("Adjust" Jumper at "—" Setting)																			
"COOL" Speed	Low	55	70	100	115	140	165	185	215	105	140	170	200	230	265	290	325	355	385
	Med-Low	75	105	125	145	175	200	225	255	150	190	215	260	295	330	350	380	420	455
	Med-High	95	120	150	180	205	240	265	290	210	240	285	330	365	405	450	490	530	570
	High	125	155	195	220	255	285	320	350	310	365	415	455	505	550	590	620	670	715

REVISIONS

Sections	Description of Change
Optional Accessories	Added Right Side Gas Entry Kit

Visit us at www.Lennox.com
For the latest technical information, www.LennoxPros.com
Contact us at 1-800-9-LENNOX

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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.

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