# EL297DFE(K)

**ELITE® SERIES** 

LENNOX

Downflow | Two-Stage Heat | Constant Torque Blower | Refrigerant Detection | 60Hz

RESIDENTIAL PRODUCT SPECIFICATIONS (EHB)

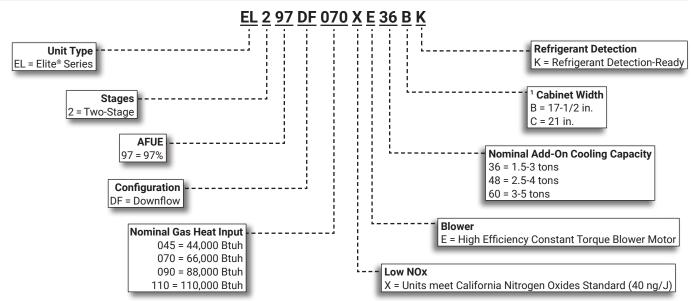
AFUE - 97% Input - 44,000 to 110,000 Btuh Nominal Add-on Cooling - 1.5 to 5 Tons







## MODEL NUMBER IDENTIFICATION



Downflow indoor coils with the same letter designation will physically match the furnace **supply air opening**.

## **FEATURE HIGHLIGHTS**

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



## **CONTENTS**

lower Data	21
pprovals And Warranty	3
ontrol Options	8
imensions	15
- Furnace/Coil Combined Dimensions	20
- Optional Accessories	16
- Optional Accessories - Venting	17
- Unit	
eatures	3
as Heat Accessories	14
ligh Altitude Derate	14
ndoor Air Quality Product Options	8
nstallation Clearances	
odel Number Identification	
ptional Accessories - Order Separately	11
efrigerant Detection System (Rds) Components	14
pecifications	
ent Lengths	
ent Lengths - Exhaust Using Ventilated Attic/Crawlspace Intake Air	
ent Lengths - Uninsulated Exhaust Pipe In Unconditioned Space	

#### **APPROVALS AND WARRANTY**

## **APPROVALS**

- AHRI Certified
- · CSA International Certified
- Tested and rated according to US DOE test procedures and FTC labeling regulations
- Units are approved for installations from 0 4500 ft.
- 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<sup>™</sup> Aluminized Steel Heat Exchanger:
  - Limited lifetime (twenty year transferable) 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 Warrenty at www.Lennox.com for additional details.

#### **FEATURES**

#### **APPLICATIONS**

- Input capacities of 44,000, 66,000, 88,000 and 110,000 Btuh
- Energy efficiency (AFUE) up to 97%
- Compact cabinet for downflow applications without any internal modifications to the unit
- Lennox add-on indoor coils, high-efficiency air cleaners and humidifiers can easily be added to furnace
- Shipped factory assembled with controls installed and wired
- Each unit factory test operated to ensure proper operation

## **HEATING SYSTEM**



- 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



- 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

#### 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

## **HEATING SYSTEM (continued)**

#### Lennox Designed Flue Condensate Trap Assembly

- Field installed outside the conditioned air stream
- Assembly can be mounted on either side of cabinet
- See 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, troublefree 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

#### 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<sup>®</sup> insulation for dependable operation.

## 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.

# Two-Speed Combustion Air Inducer

- Permanent split capacitor (PSC), heavy duty blower prepurges heat exchanger and safely vents flue products
- Operates only during heating cycle
- Dual pressure switches (low fire/high fire) prove blower operation before allowing gas valve to open

#### 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
- Automatic reset

## **Optional Accessories**

#### High Altitude Orifice Kits

- Required on all units for proper unit operation at altitudes from 7501 to 10,000 ft.
- 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

# 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.

Refer to the Installation Instructions for additional details.

## **DIRECT VENT / NON-DIRECT VENT SEALED COMBUSTION SYSTEM (continued)**

#### 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

### **CONTROLS**



## 6 SureLight® Integrated Furnace 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
- Safety Controls Flame sensor utilizes flame rectification for 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
- 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
Two-Stage (Conventional)	Determined by thermostat demand
	2nd-stage heat ON delay (DIP switch setting) OFF - 7 minutes (factory) ON - 12 minutes

- · Display LED Seven segment LED displays alphanumeric 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

## **CONTROLS** (continued)

#### **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
- Second Stage Delay Used with single-stage thermostat only. See Furnace Input Staging Options table for details
- Blower On/Off Time (Heating) Blower on time is fixed at 30 seconds, blower off time is adjustable from 90, 120, 180 and 210 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
- Blower "off" time in cooling mode is adjustable from 2 or 45 seconds (factory setting - 45 seconds)
- For air-conditioning applications, blower is automatically energized on thermostat demand for cooling
- · Heating Speeds Low Heat or High Heat
- Cooling Speeds Low Cool or High Cool
- Continuous Speed Low Heat (factory setting) adjustable
- **Dehumidification** A jumper on the control must be clipped to enable dehumidification
- 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
- 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 twostage compressor
- 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 8

## Furnace Twinning Panel

- Required to operate two identical furnaces simultaneously from a single thermostat
- For single stage conventional (1 heat/1 cool), multistage conventional (2 heat/2 cool) and heat pump (3 heat/2 cool) equipment
- Can be used with common or separate ducted systems
- Contains PC Control Board with terminal strip connections for thermostat and HVAC equipment
- LEDs indicate system operating status
- Uses standard 18-gauge thermostat wire
- Power Supply: 24 VAC, 40VA (transformer not furnished)
- · Mounting base with hardware furnished
- Dimensions (H x W x D): 10 x 5 x 2 in.

## **CONTROLS** (continued)

NOTE - Only identical furnaces should be twinned in order to ensure that both furnace blowers start at the same time. If furnaces are not identical, back draft dampers can be installed in either the supply or return duct.

Up to four identical furnaces can be twinned. Requires two panels that are wired together.

#### 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

## 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

#### **BLOWER**

- · Direct drive blower
- Statically and dynamically balanced
- · Resiliently mounted
- · Blower assembly easily removed for servicing

# Power Saver™ Constant Torque Blower Motor

- 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 SureLight® Integrated Furnace Control
- Blower speeds are easily changed on the integrated furnace control. 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
- 8 Insulated 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
- Safety interlock switch automatically shuts off power to unit when blower compartment access door is removed
- Gas piping and electrical inlets are provided in both sides of cabinet

## Coil Match-Up

• All Lennox downflow indoor coils will physically match the furnace **supply air opening** with the same letter designation (A, B, C, D) as in the furnace model number

#### 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**

#### 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

#### Crawl Space Vent Drain Kit

- Allows venting through a crawl space for downflow applications
- Includes 2 or 3 in. sanitary tee, 2 in. PVC assembly, PVC boot and clamp
- · Kit for Canada is certified to ULC S636

#### **Downflow Combustible Flooring Base**

- Required for heating only units installed on combustible floors
- Not required in add-on cooling applications
- · See Dimension Drawing

#### FILTER (not furnished)

• Filter and provisions for external mounting must be field provided

## **Optional Accessories**

## **Downflow Filter Cabinet**

- Filter cabinet mounts directly on top of furnace
- · "B and "C" width cabinets have two filters
- · Filter rails are furnished
- · Front access for servicing
- · Cleanable filter(s) are furnished

## 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**

#### E30 Smart Wi-Fi Thermostat

- 4 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<sup>™</sup> (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



## M30 Smart Wi-Fi Thermostat

- 4 Htg.-2 Clg.
- 7-day, universal, programmable, touchscreen thermostat
- Humidification / dehumidification / dewpoint measurement and control, Humiditrol ® control
- Smooth Setback Recovery and compressor short-cycle protection
- One-Touch Away Mode, Smart Away<sup>™</sup> (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

**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	<u>'</u>		
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 Ai	r Purifiers		
HCWHAP1	8 x 7 x 16.5		23V99
Healthy Climate® Ultraviolet Germicidal L	ights		
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			
E30 Smart Wi-Fi Thermostat	5 x 7-1/2 x 1		20A65
M30 Smart Wi-Fi Thermostat	3-5/16 x 4-5/16 x 7/8		15Z69
Thermostat Accessories			
<sup>1</sup> Discharge Air Temperature Sensor (For S4	10, E30)		88K38
<sup>2</sup> Remote Outdoor Air Temperature Sensor (	(For dual-fuel and Humiditrol®)		X2658

<sup>&</sup>lt;sup>1</sup> Optional for service diagnostics (E30).

<sup>&</sup>lt;sup>2</sup> Remote Outdoor Air Temperature Sensor is used with conventional (non-Lennox® Communicating) outdoor units (sensor is furnished with Lennox® Communicating outdoor units). Allows the thermostat to display outdoor temperature. Required in dual-fuel and Humiditrol® applications.

SPECIFIC	AIIU			I			
Gas Heating		Model	EL297DF 045XE36BK	EL297DF 070XE48BK	EL297DF 090XE48CK	EL297DF 110XE60CK	
Performance		<sup>1</sup> AFUE	97%	97%	97%	97%	
	High	Input - Btuh	44,000	66,000	88,000	110,000	
	Fire	Output - Btuh	43,000	65,000	86,000	108,000	
		Temperature rise range - °F	35-65	35-65	40-70	45-75	
	Gas	Manifold Pressure (in. w.g.) Nat. Gas / LPG/Propane	3.5 / 10.0	3.5 / 10.0	3.5 / 10.0	3.5 / 10.0	
	Low	Input - Btuh	29,000	43,000	57,000	72,000	
	Fire	Output - Btuh	28,000	42,000	56,000	70,000	
		Temperature rise range - °F	20 - 50	25 - 55	30 - 60	35 - 65	
	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.		0.5	0.5	0.5	0.5	
Connections	I	ntake / Exhaust Pipe (PVC)	2/2	2/2	2/2	2/2	
		Gas pipe size IPS	1/2	1/2	1/2	1/2	
Cond	densate	Drain Trap (PVC pipe) - i.d.	3/4	3/4	3/4	3/4	
	wit	h furnished 90° street elbow	3/4 slip x 3/4 MIPT				
with	field su	pplied (PVC coupling) - o.d.	3/4 slip x 3/4 MPT				
Indoor	,	Wheel diameter x width - in.	10 x 8	11-1/2 x 10	10 x 10	11 x 11	
Blower		Motor Type	DC Brushless	DC Brushless	DC Brushless	DC Brushless	
		Motor output - hp	1/2	3/4	3/4	1	
		Tons of add-on cooling	1.5 - 3	2 - 4	2 - 4	3 - 5	
		Air Volume Range - cfm	485 - 1395	520 - 1770	760 - 1765	1045 - 2285	
Electrical		Voltage		120 volts - 60 l	nertz - 1 phase		
Data		Blower motor full load amps	6.4	9.3	9.3	12.3	
	Maxi	mum overcurrent protection	15	15	15	15	
Shipping Dat	а	lbs 1 package	128	142	158	169	

 $<sup>\</sup>ensuremath{\mathsf{NOTE}}$  - Filters and provisions for mounting are not furnished and must be field provided.

INSTALLATION CLEARANCE	S
Sides	<sup>1</sup> 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	<sup>2</sup> 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.

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

<sup>&</sup>lt;sup>1</sup> Allow proper clearances to accommodate condensate trap and vent pipe installation.

<sup>&</sup>lt;sup>2</sup> Clearance for installation on combustible floor if Optional Downflow Combustible Flooring Base is installed between furnace and combustible floor. Not required in add-on cooling applications if installed in accordance with local codes or National Fuel Gas Code ANSI-Z223.1 or CAN/CGA-149.1,.2. Do not install the furnace directly on carpeting, tile, or other combustible materials other than wood flooring.

OPTIONAL	ACCESSORIES - ORDER S	SEPARATELY						
			"B" Width Models	"C" Width Models				
CABINET ACCE	SSORIES							
Downflow Com	bustible Flooring Base		11M60	11M61				
CONTROLS								
Blower Relay K	it (for two-stage outdoor units)		85W66	85W66				
Furnace Twinni	ng Panel		Y3653	Y3653				
Transformer (75	SVA)		27J32	27J32				
CONDENSATE I	DRAIN KITS	'		'				
Condensate Dra	ain Heat Cable	6 ft.	26K68	26K68				
		24 ft.	26K69	26K69				
Crawl Space Ve	nt Drain Kit	US	51W18	51W18				
		Canada	15Z70	15Z70				
ILTERS		'		'				
Downflow Filte	er Cabinet		51W07	51W08				
		No. and Size of filter - in.	(2) 16 x 20 x 1	(2) 16 x 20 x 1				
<b>TERMINATION</b>	KITS	·		'				
See Installation I	nstructions for specific venting inforr	nation.						
Direct Vent	Concentric	US - 2 in.	71M80	69M29				
		3 in.		60L46				
		Canada - 2 in.	44W92	44W92				
		3 in.		44W93				
	Flush-Mount	US - 2, 2-1/2 or 3 in.	51W11	51W11				
		Canada - 2, 2-1/2 or 3 in.	51W12	51W12				
	Wall - Close Couple	US - 2 in.	22G44					
		3 in.	44J40	44J40				
	Wall - Close Couple WTK	Canada - 2 in.	30G28					
		3 in.	81J20	81J20				
	Roof Termination Flashing Kit	2 in.	15F75	15F75				
	(no vent pipe - 2 flashings)	3 in.	44J41	44J41				
/ENTING		,						
Flue Coupling		2 in.	17H92	17H92				
Left Side Vent	Kit	2 or 3 in.	. 87W73 87W73					

<sup>&</sup>lt;sup>1</sup> Cleanable polyurethane, frame-type filter.

<sup>&</sup>lt;sup>2</sup> NOTE - The curved exhaust pipe furnished with the Left Side Vent Kit counts as one additional 2 in. diameter 90° elbow. When using 3 in. diameter pipe, the furnished curved exhaust pipe and field provided fittings to transition from 2 in. to 3 in. count as 20 feet of equivalent pipe on all units.

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.

OUTDO	OOR TERM	INATION K	IT USAGE								
			Standard Te	erminations		Concentric Terminations					
lmmut	Vent	Flush Mount	Wal	l Kit	Field		Concentric Kit				
Input Size	Pipe Diameter	Kit	2 inch	3 inch	Fabricated Exhaust	1-1/2 inch	2 inch	3 inch			
	(in.)	51W11 (US) 51W12 (CA)	22G44 (US) 5 30G28 (CA)	44J40 (US) 5 81J20 (CA)	Accelerator Size Required	71M80 (US) 5 44W92 (CA)	69M29 (US) 5 44W92 (CA)	60L46 (US) 5 44W93 (CA)			
	¹ 1-1/2	<sup>4</sup> YES	YES	<sup>2</sup> YES	1-1/2 in.	<sup>3</sup> YES					
045	2	<sup>4</sup> YES	YES	<sup>2</sup> YES	1-1/2 in.	<sup>3</sup> YES					
045	2-1/2	<sup>4</sup> YES	YES	<sup>2</sup> YES	1-1/2 in.	<sup>3</sup> YES					
	3	<sup>4</sup> YES	YES	<sup>2</sup> YES	1-1/2 in.	<sup>3</sup> YES					
	¹ 1-1/2	<sup>4</sup> YES	YES	<sup>2</sup> YES	1-1/2 in.	<sup>3</sup> YES					
070	2	<sup>4</sup> YES	YES	<sup>2</sup> YES	1-1/2 in.	<sup>3</sup> YES					
070	2-1/2	<sup>4</sup> YES	YES	<sup>2</sup> YES	1-1/2 in.	³ YES					
	3	<sup>4</sup> YES	YES	<sup>2</sup> YES	1-1/2 in.	<sup>3</sup> YES					
	2	<sup>4</sup> YES		YES	2 in.		YES	YES			
090	2-1/2	<sup>4</sup> YES		YES	2 in.		YES	YES			
	3	<sup>4</sup> YES		YES	2 in.		YES	YES			
	2	YES		YES	2 in.		YES	YES			
110	2-1/2	YES		YES	2 in.		YES	YES			

NOTE - Standard Terminations do not include any vent pipe or elbows external to the structure.

YES

Any vent pipe or elbows external to the structure must be included in total vent length calculations. See Vent Length Tables.

3

YES

2 in.

YES

YES

<sup>&</sup>lt;sup>5</sup> Termination Kits 30G28, 44W92, 44W93, 51W12 and 81J20 are certified to ULC S636 standard for use in Canada only.

VENT LENG	THS - UN	IINSULA'	TED EXH	AUST PIF	PE IN UNG	CONDITIO	ONED SP	ACE		
					Unit Inp	out Size				
		04	45	0.	70	0:	90	110		
<sup>1</sup> Winter Design	Vent Pipe		2	Maximum l	Jninsulated I	Exhaust Ver	t Length (ft.	)		
Temperatures	Diameter	PVC	<sup>3</sup> PolyPro/ InnoFlue/ ECCO	PVC	<sup>3</sup> PolyPro/ InnoFlue/ ECCO	PVC	<sup>3</sup> PolyPro/ InnoFlue/ ECCO	PVC	<sup>3</sup> PolyPro/ InnoFlue/ ECCO	
	1-1/2 in.	22	N/A	20	N/A	N/A	N/A	N/A	N/A	
32 to 21°F	2 in.	21	18	33	30	46	42	30	30	
32 10 21 F	2-1/2 in.	16	N/A	26	N/A	37	N/A	36	N/A	
	3 in.	12	12	21	21	30	30	29	29	
	1-1/2 in.	12	N/A	20	N/A	N/A	N/A	N/A	N/A	
20 to 1°F	2 in.	11	9	19	17	28	25	27	24	
20 to 1 F	2-1/2 in.	7	N/A	14	N/A	21	N/A	20	N/A	
	3 in.	N/A	N/A	9	9	16	16	14	14	
	1-1/2 in.	8	N/A	13	N/A	N/A	N/A	N/A	N/A	
0 to -20°F	2 in.	6	4	12	10	19	16	18	15	
0 10 –20 F	2-1/2 in.	N/A	N/A	7	N/A	13	N/A	12	N/A	
	3 in.	N/A	N/A	N/A	N/A	8	8	7	7	

<sup>1</sup> Refer to 99% Minimum Design Temperature table provided in the current edition of the ASHRAE Handbook-Fundamentals.

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  $45^{\circ}$  elbows are equal to one  $90^{\circ}$  elbow.

One 45° elbow is equivalent to 2.5 feet of straight vent pipe.

 ${\sf ECCO\ Polypropylene\ Vent^{TM}} is\ a\ registered\ trademark\ of\ {\sf ECCO\ Manufacturing^{TM}}.$ 

<sup>&</sup>lt;sup>1</sup> 2 inch to 1-1/2 inch reducer required, must be field provided.

<sup>&</sup>lt;sup>2</sup> Requires field provided 1-1/2 in. outdoor exhaust accelerator.

<sup>&</sup>lt;sup>3</sup> 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.

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.

<sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> PolyPro® poly-propylene vent pipe is a registered trademark of DuraVent®. Innoflue® is a registered trademark of Centrotherm Eco Systems.

## **VENT LENGTHS**

## STANDARD TERMINATION AT ELEVATION 0 - 4500 ft.

Pip	e Size		1-1/2	2 in.			2 i	n.		2-1/2 in.				3 in.			
	Input	045	070	090	110	045	070	090	110	045	070	090	110	045	070	090	110
	1	20	15	N/A	N/A	71	56	34	14	105	105	83	48	128	127	108	108
	2	15	10	N/A	N/A	66	51	29	9	100	100	78	43	123	122	103	103
	3	10	N/A	N/A	N/A	61	46	24	4	95	95	73	38	118	117	98	98
	4	N/A	N/A	N/A	N/A	56	41	19	N/A	90	90	68	33	113	112	93	93
No. of	5	N/A	N/A	N/A	N/A	51	36	14	N/A	85	85	63	28	108	107	88	88
90 ELL	6	N/A	N/A	N/A	N/A	46	31	9	N/A	80	80	58	23	101	102	83	83
	7	N/A	N/A	N/A	N/A	41	26	4	N/A	75	75	53	18	98	97	78	78
	8	N/A	N/A	N/A	N/A	36	21	N/A	N/A	70	70	48	13	93	92	73	73
	9	N/A	N/A	N/A	N/A	31	16	N/A	N/A	65	65	43	8	88	87	68	68
	10	N/A	N/A	N/A	N/A	26	11	N/A	N/A	60	60	38	3	83	82	63	63

## STANDARD TERMINATION ELEVATION 4501 - 10,000 ft.

Pip	e Size		1-1/2	2 in.			2 i	n.		2-1/2 in.				3 in.			
	Input	045	070	090	110	045	070	090	110	045	070	090	110	045	070	090	110
	1	20	15	N/A	N/A	71	56	34	N/A	105	105	83	48	128	127	108	108
	2	15	10	N/A	N/A	66	51	29	N/A	100	100	78	43	123	122	103	103
	3	10	N/A	N/A	N/A	61	46	24	N/A	95	95	73	38	118	117	98	98
	4	N/A	N/A	N/A	N/A	56	41	19	N/A	90	90	68	33	113	112	93	93
No. of	5	N/A	N/A	N/A	N/A	51	36	14	N/A	85	85	63	28	108	107	88	88
90 ELL	6	N/A	N/A	N/A	N/A	46	31	9	N/A	80	80	58	23	103	102	83	83
	7	N/A	N/A	N/A	N/A	41	26	4	N/A	75	75	53	18	98	97	78	78
	8	N/A	N/A	N/A	N/A	36	21	N/A	N/A	70	70	48	13	93	92	73	73
	9	N/A	N/A	N/A	N/A	31	16	N/A	N/A	65	65	43	8	88	87	68	68
	10	N/A	N/A	N/A	N/A	26	11	N/A	N/A	60	60	38	3	83	82	63	63

#### **CONCENTRIC TERMINATION AT ELEVATION 0 - 4500 ft.**

Pip	e Size		1-1/2	2 in.			2 i	n.		2-1/2 in.				3 in.			
	Input	045	070	090	110	045	070	090	110	045	070	090	110	045	070	090	110
	1	15	10	N/A	N/A	63	48	32	12	95	95	79	44	111	111	104	104
	2	10	N/A	N/A	N/A	58	43	27	7	90	90	74	39	106	106	99	99
	3	N/A	N/A	N/A	N/A	53	38	22	2	85	85	69	34	101	91	94	94
	4	N/A	N/A	N/A	N/A	48	33	17	N/A	80	80	64	29	96	96	89	89
No. of	5	N/A	N/A	N/A	N/A	43	28	12	N/A	75	75	59	24	91	91	84	84
90 ELL	6	N/A	N/A	N/A	N/A	38	23	7	N/A	70	70	54	19	96	86	79	79
	7	N/A	N/A	N/A	N/A	33	18	2	N/A	65	65	49	14	81	81	74	74
	8	N/A	N/A	N/A	N/A	28	13	N/A	N/A	60	60	44	9	76	76	69	69
	9	N/A	N/A	N/A	N/A	23	8	N/A	N/A	55	55	39	4	71	71	64	64
	10	N/A	N/A	N/A	N/A	18	3	N/A	N/A	50	50	34	N/A	66	66	59	59

## **CONCENTRIC TERMINATION ELEVATION 4501 - 10,000 ft.**

Pip	e Size		1-1/2	2 in.		2 in.				2-1/2 in.					3 in.			
	Input	045	070	090	110	045	070	090	110	045	070	090	110	045	070	090	110	
	1	15	10	N/A	N/A	63	48	32	N/A	95	95	79	44	111	111	104	94	
	2	10	N/A	N/A	N/A	58	43	27	N/A	90	90	74	39	106	106	99	99	
	3	N/A	N/A	N/A	N/A	53	38	22	N/A	85	85	69	34	101	101	94	94	
	4	N/A	N/A	N/A	N/A	48	33	17	N/A	80	80	64	29	96	96	89	89	
No. of	5	N/A	N/A	N/A	N/A	43	28	12	N/A	75	75	59	24	91	91	84	84	
90 ELL	6	N/A	N/A	N/A	N/A	38	23	7	N/A	70	70	54	19	86	86	79	79	
	7	N/A	N/A	N/A	N/A	33	18	2	N/A	65	65	49	14	81	81	74	74	
	8	N/A	N/A	N/A	N/A	28	13	N/A	N/A	60	60	44	9	76	76	69	69	
	9	N/A	N/A	N/A	N/A	23	8	N/A	N/A	55	55	39	4	71	71	64	64	
	10	N/A	N/A	N/A	N/A	18	3	N/A	N/A	50	50	34	N/A	66	66	59	59	

### VENT LENGTHS - EXHAUST USING VENTILATED ATTIC/CRAWLSPACE INTAKE AIR

STANDARD TERMINATION AT ELEVATION 0 - 10,000 ft.

Pip	Pipe Size 1-1/2 in.			2 in.			2-1/2 in.			3 in.							
	Input	045	070	090	110	045	070	090	110	045	070	090	110	045	070	090	110
	1	15	10	N/A	N/A	61	46	24	4	90	90	68	33	108	107	88	88
	2	10	N/A	N/A	N/A	56	41	19	N/A	85	85	63	28	103	102	83	83
	3	N/A	N/A	N/A	N/A	51	36	14	N/A	80	80	58	23	98	97	78	78
	4	N/A	N/A	N/A	N/A	46	31	9	N/A	85	75	63	18	93	92	73	73
No. of	5	N/A	N/A	N/A	N/A	41	26	4	N/A	70	70	48	13	88	87	68	68
90 ELL	6	N/A	N/A	N/A	N/A	36	21	N/A	N/A	65	65	43	8	83	82	63	63
	7	N/A	N/A	N/A	N/A	31	16	N/A	N/A	60	60	38	3	78	77	58	58
	8	N/A	N/A	N/A	N/A	26	11	N/A	N/A	55	55	33	N/A	73	72	53	53
	9	N/A	N/A	N/A	N/A	21	6	N/A	N/A	50	50	28	N/A	68	67	48	48
	10	N/A	N/A	N/A	N/A	16	1	N/A	N/A	45	45	23	N/A	63	62	43	43

## **GAS HEAT ACCESSORIES**

Input	_	Altitude Switch Kit	Natural Gas to LPG/Propane Kit	LPG/Propane to Natural Gas Kit	Natural Gas High Altitude Orifice Kit	LPG/Propane High Altitude Orifice Kit	
	4501 - 7500 ft.	7501 - 10,000 ft.	0 - 7500 ft.	0 - 7500 ft.	7501- 10,000 ft.	7501- 10,000 ft.	
045	14A51	14A53	11K51	77W09	73W37	11K46	
070	14A48	14A54	11K51	77W09	73W37	11K46	
090	14A54	14A53	11K51	77W09	73W37	11K46	
110	25B93	14A45	11K51	77W09	73W37	11K46	

REFRIGERANT DETECTION SYSTEM (RDS) COMPONENTS									
Description									
Refrigerant Detection System (RDS) Coil Sensor Kit									
Refrigerant Detection System (RDS)  Blower Control Board  Any Lennox® Communicating Furnace or any Non-Communicating 24V Furnace (Universal)									
Any Non-Communicating 24V Furnace									

NOTE - Communicating Blower Control Board and Sensor can be used universally with Lennox® communicating furnace or any non-communicating 24 volt furnace. Non-Communicating Blower Control Board and Sensor can be used with any non-communicating 24 volt furnace.

## 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.

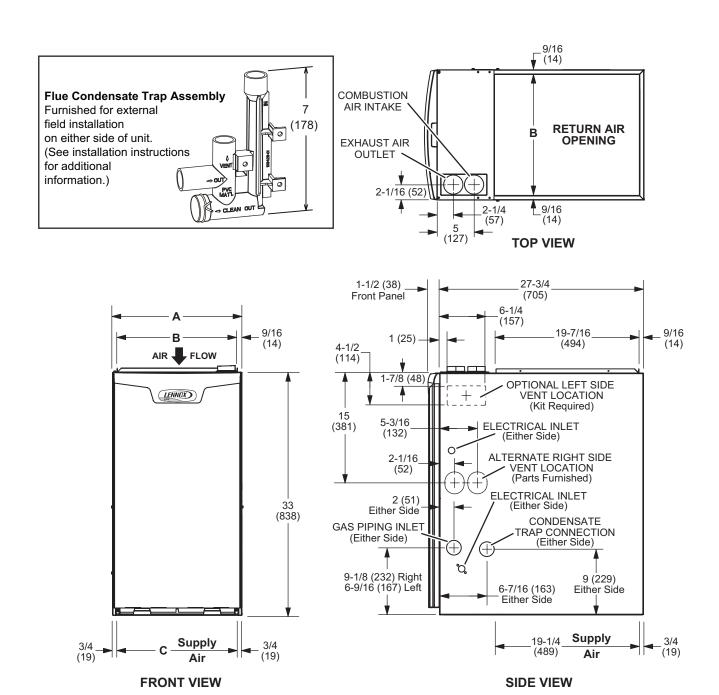
See the Gas Heat Accessories table for ordering information.

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.

		Manifold Pressure in. w.g.										Supply Line	
Input	Gas	0 - 4500 ft. 4501 -		5500 ft. 5501 - 6500 ft.		6501 - 7500 ft.		7501 - 10,000 ft.		Pressure in. w.g. 0 - 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 Sizon	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
All Sizes –	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

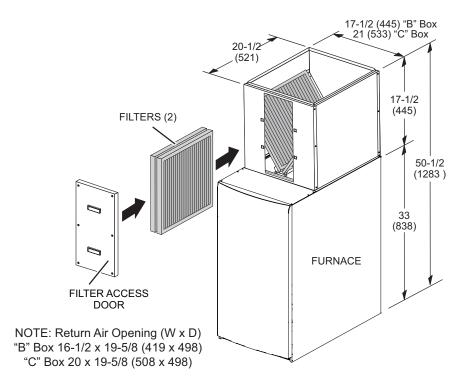
DIMENSIONS UNIT



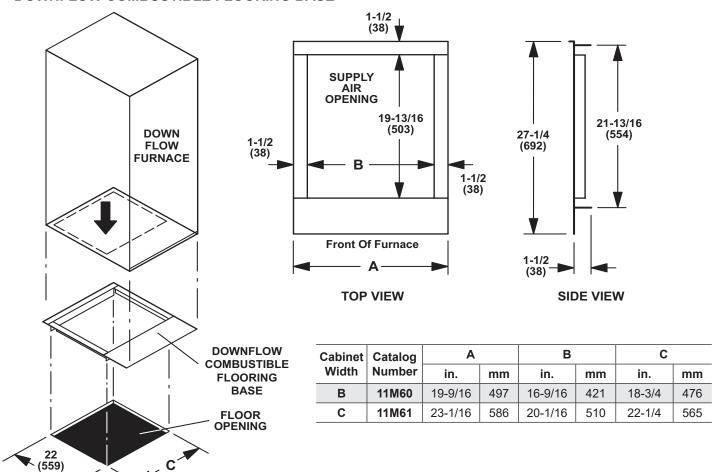
Model No.	Α		E	3	С		
	in.	mm	in.	mm	in.	mm	
EL297DF045XE36BK EL297DF070XE48BK	17-1/2	446	16-3/8	416	16	406	
EL297DF090XE48CK EL297DF110XE60CK	21	533	19-7/8	505	19-1/2	495	

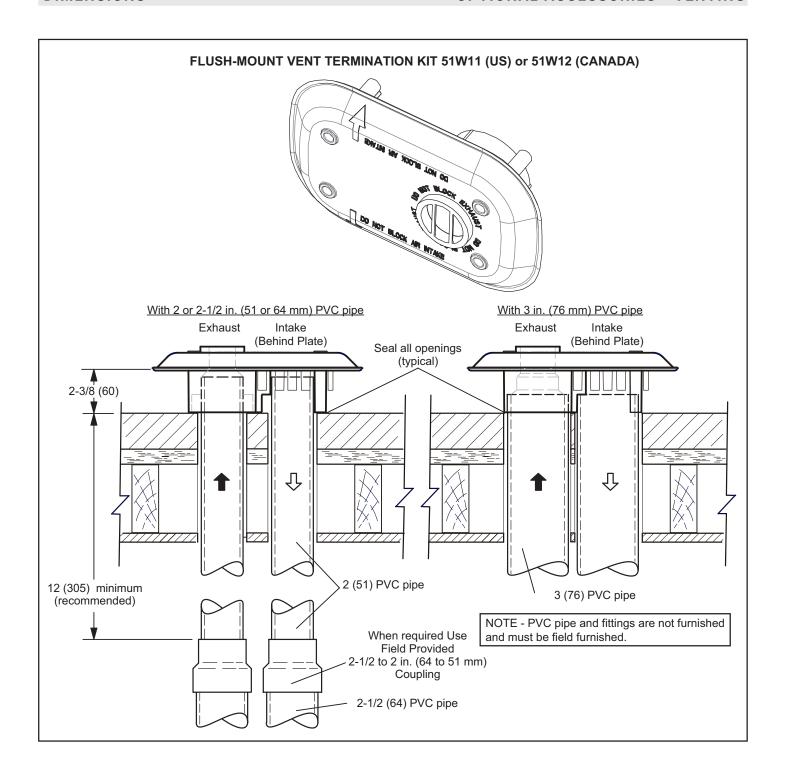
#### **DOWNFLOW FILTER CABINET**

# "B AND "C" WIDTH FURNACES (Two Filters)

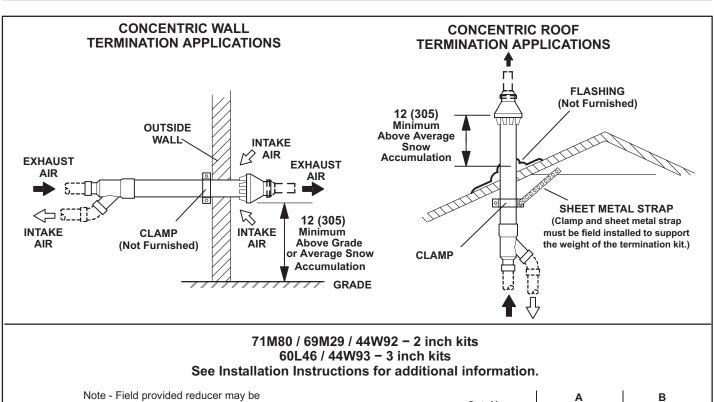


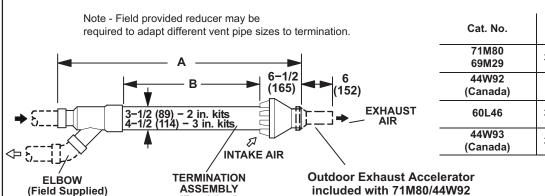
### DOWNFLOW COMBUSTIBLE FLOORING BASE





#### **DIMENSIONS - OPTIONAL ACCESSORIES - VENTING**



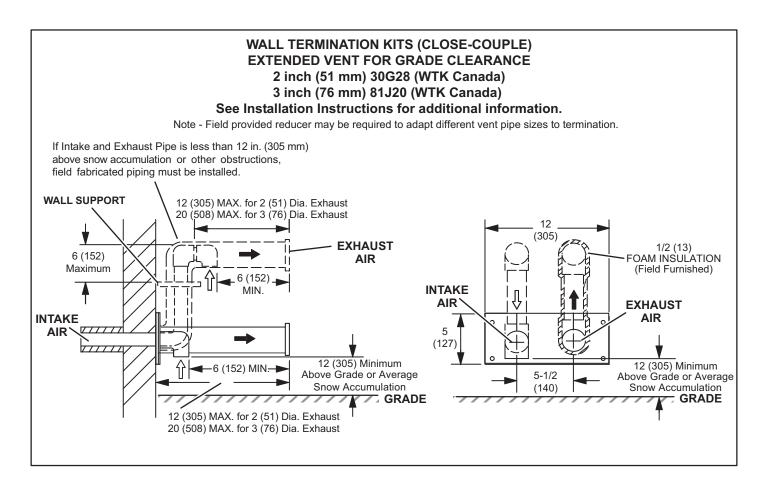


(Furnished)

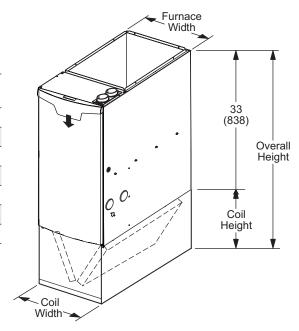
C-4 N-			_			
Cat. No.	in.	mm	in.	mm		
71M80 69M29	33-3/8	848	16-3/4	425		
44W92 (Canada)	29	737	15-1/2	394		
60L46	38-7/8	987	21-3/16	538		
44W93 (Canada)	36-1/8	918	19-1/2	495		

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. If Intake and Exhaust Pipe is less than 12 in. (305 mm) above snow accumulation or other obstructions, field fabricated piping must be installed. 8 (203) MIN. Between Ends of Exhaust and Intake Pipe 12 (305) MAX. for 2 (51) Dia. Exhaust WALL SUPPORT 20 (508) MAX. for 3 (76) Dia. Exhaust 12 (305)**EXHAUST** 1/2 (13) 6 (152) FOAM INSULATION AIR Maximum (Field Furnished) INTAKE **AIR EXHAUST** INTAKE **AIR AIR** 5 (127)12 (305) Minimum 12 (305) Minimum ·8 (203) MIN. Above Grade or Average Above Grade or Average 5-1/2 Snow Accumulation Snow Accumulation **GRADE** GRADE 12 (305) MAX. for 2 (51) Dia. Exhaust 20 (508) MAX. for 3 (76) Dia. Exhaust



Model	Coil/Fu	ırnace dth	Co Hei		Overall Height		
CK40DT	CRX35	in.	mm	in.	mm	in.	mm
CK40DT-24B	CRX35-24B	17-1/2	445	18	457	51	1295
CK40DT-30/36B	CRX35-30/36B	17-1/2	445	23-1/2	597	56-1/2	1435
CK40DT-30/36C	CRX35-30/36C	21	533	23-1/2	597	56-1/2	1435
CK40DT-42B	CRX35-42B	17-1/2	445	23-1/2	597	56-1/2	1435
CK40DT-48C	CRX35-48C	21	533	27-1/2	699	60-1/2	1537
CK40CT-50/60C	CRX35-50/60C	21	533	27-1/2	699	60-1/2	1537



# **BLOWER DATA**

# EL297DF045XE36BK PERFORMANCE (Less Filter)

External		Air Volume / Watts at Various Blower Speeds												
Static Pressure		<b>gh</b> ack)	<b>Medium-High</b> (Brown)		<b>Medium</b> (Blue)			<b>m-Low</b> low)	Low (Red)					
in. w.g.	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts				
0.00	1466	371	1313	266	1198	207	963	119	902	97				
0.10	1434	383	1275	277	1169	217	921	126	860	106				
0.20	1401	395	1237	288	1140	227	879	134	817	115				
0.30	1363	398	1211	297	1101	238	833	140	773	122				
0.40	1300	383	1179	308	1070	243	798	151	733	131				
0.50	1228	367	1151	316	1036	256	755	156	692	136				
0.60	1146	343	1105	319	1005	263	710	163	645	144				
0.70	1058	318	1038	309	971	272	672	170	598	154				
0.80	930	286	942	284	909	272	614	179	557	158				
0.90	807	251	811	251	799	251	569	184	518	163				
1.00	645	222	669	224	630	216	532	189	473	169				

## EL297DF070XE48BK PERFORMANCE (Less Filter)

External				Air Volume	/ Watts at \	arious Blo	wer Speeds	•		
Static Pressure	<b>High</b> (Black)		Medium-High (Brown)		<b>Medium</b> (Blue)		Medium-Low (Yellow)		Low (Red)	
in. w.g.	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.00	1743	468	1546	327	1377	231	1271	187	1055	105
0.10	1709	485	1510	339	1336	240	1226	196	991	114
0.20	1675	501	1474	350	1294	249	1180	204	927	122
0.30	1638	513	1437	362	1244	261	1127	215	863	130
0.40	1601	529	1386	376	1187	270	1082	226	797	139
0.50	1563	541	1353	388	1139	282	1033	232	727	147
0.60	1511	539	1310	401	1100	293	979	245	661	155
0.70	1445	525	1272	410	1048	304	940	255	604	159
0.80	1339	499	1234	421	1013	313	862	264	531	174
0.90	1243	470	1161	424	952	326	811	272	481	182
1.00	1119	439	1092	414	907	330	763	281	435	192

### EL297DF090XE48CK PERFORMANCE (Less Filter)

External				Air Volume	/ Watts at \	arious Blo	wer Speeds	•		
Static Pressure in. w.g.	<b>High</b> (Black)		Medium-High (Brown)			<b>lium</b> ue)		<b>m-Low</b> low)	Low (Red)	
	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.00	1792	429	1553	294	1420	225	1348	194	1228	146
0.10	1750	446	1520	308	1389	240	1306	206	1179	158
0.20	1708	463	1487	323	1359	254	1265	217	1130	171
0.30	1685	477	1456	339	1326	264	1228	230	1090	182
0.40	1630	478	1421	350	1274	281	1192	239	1046	192
0.50	1558	462	1394	363	1246	291	1157	251	989	202
0.60	1458	432	1354	373	1209	300	1114	264	952	210
0.70	1371	408	1312	381	1177	314	1079	271	913	220
0.80	1231	368	1234	366	1138	324	1038	282	861	230
0.90	1118	343	1093	336	1093	327	997	291	843	237
1.00	1008	315	976	309	987	306	952	292	794	242

# **BLOWER DATA**

## EL297DF110XE60CK PERFORMANCE (Less Filter)

External			-	Air Volume	/ Watts at \	/arious Blo	wer Speeds	;		
Static Pressure	<b>High</b> (Black)		Medium-High (Brown)		<b>Medium</b> (Blue)		Medium-Low (Yellow)		Low (Red)	
in. w.g.	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.00	2211	681	1962	459	1799	351	1679	302	1494	214
0.10	2174	694	1920	474	1754	365	1631	312	1441	225
0.20	2136	706	1877	488	1709	379	1583	322	1387	237
0.30	2095	718	1832	500	1658	391	1530	332	1323	247
0.40	2058	734	1792	512	1617	403	1487	345	1276	256
0.50	2006	742	1745	525	1570	413	1433	354	1223	265
0.60	1940	727	1704	538	1523	426	1379	368	1168	276
0.70	1863	702	1665	550	1479	436	1340	377	1110	290
0.80	1765	669	1622	563	1439	445	1288	388	1061	293
0.90	1673	642	1582	572	1398	454	1254	397	1013	304
1.00	1559	599	1522	568	1354	466	1214	407	949	311

REVISIONS	
Sections	Description of Change
Vent Lengths	Added ECCO Polypropylene Vent™ as an approved source.











Visit us at <a href="https://www.lennox.com">www.lennox.com</a>
For the latest technical information, <a href="https://www.LennoxPros.com">www.LennoxPros.com</a>
Contact us at 1-800-4-LENNOX