MODEL / L ROOFTOP UNITS

ULTIMATE PERFORMANCE, COMFORT, AND CONTROL.

LENNOX

A NEW ERA OF HVAC.

Our most powerful, most advanced rooftop unit in the Lennox Rooftop Series. An ultra-efficient design delivers complete comfort at the lowest total cost of ownership, while also reducing maintenance and service time.

Now, more than ever, commercial buildings, restaurants and classrooms need an HVAC system that is able to adapt to changing loads and increased fresh air requirements.

Model L's variable-speed cooling platform and advanced dehumidification technologies are engineered to deliver energy-efficient HVAC solutions across a wide range of applications and operating conditions—today, tomorrow and every day.

MODEL / L

ENGINEERED TO MOVE THE INDUSTRY FORWARD

The Model L™ rooftop units feature the revolutionary Lennox® CORE Control System and advanced variable-speed technology to maximize energy savings. But that's just the beginning. Premium diagnostic features reduce installation, service and maintenance expenses to provide the lowest total cost of ownership in the industry.

ENERGY OPTIMIZATION

Model L rooftop units deliver the lowest total cost of ownership through variable-speed components and intelligent operation.

• Energy-saving efficiency ratings of up to 14.3 EER2, 21.2 SEER2 and 23.1 IEER are the highest in the industry.
• Optimized humidity control with enhanced dehumidification and optional Humiditrol™+ reduces energy usage over traditional hot-gas reheat systems
• Qualifies for rebate programs, delivering even more ways to save money

ENGINEERED INTELLIGENCE

The Lennox® CORE Control System delivers connected service, open integration, reliable performance, and efficiency optimization to empower all parts of your organization.

• Mobile App interface provides intuitive guided setup, reports and parameter adjustment to optimize unit operation
• Open integration and control with standard BACnet® IP & MS/TP, LonTalk®, thermostats, and wireless sensors allow freedom of choice, custom monitoring, and control
• Diagnostics and sensor system monitors component performance, tracks capacity and efficiency, and alerts when necessary, enabling smart asset management

COMPLETE COMFORT

Advanced technologies deliver premium comfort and indoor air quality in a wide range of applications.

• Humiditrol™+, a modulating hot-gas reheat dehumidification system, provides energy-efficient dehumidification for superior indoor air quality and year-round comfort
• UVC germicidal lights and high-efficiency MERV filter options provide indoor air quality solutions for comfortable air in diverse climate zones
• Modulating compressors and fans optimize efficiency and comfort to meet space demands in both single-zone and multi-zone VAV applications

SIMPLE SERVICE

Model L rooftop units maximize efficiency of maintenance and service operations, reducing operational costs and minimizing downtime.

• Mobile app interface integrates diagnostic, test and troubleshooting functionalities, reducing install times over traditional built-in interfaces
• DirectPlus™ blower standard up to 12.5 tons eliminates traditional belt-drive maintenance and service costs
• The Simple Service System™ offers tool-less filter access, slide-out blower, isolated compressor compartment, and accessible heating compartment, which further reduces service time

ADVANCED HVAC SOLUTIONS

VARIABLE-SPEED TECHNOLOGIES

Model L units feature a lead variable-speed compressor and variable-speed blower to maintain a constant discharge air and room temperature to efficiently deliver complete comfort.

ENHANCED DEHUMIDIFICATION MODE

Model L units are enabled with an enhanced dehumidification (EDH) mode, which is designed to provide additional dehumidification when both cooling and dehumidification demands are present.

HUMIDITROL™+

Humiditrol™+ is a modulating hot-gas reheat dehumidification system that can vary the sensible and latent capacity of the Model L unit to better match the dehumidification demand of the space.
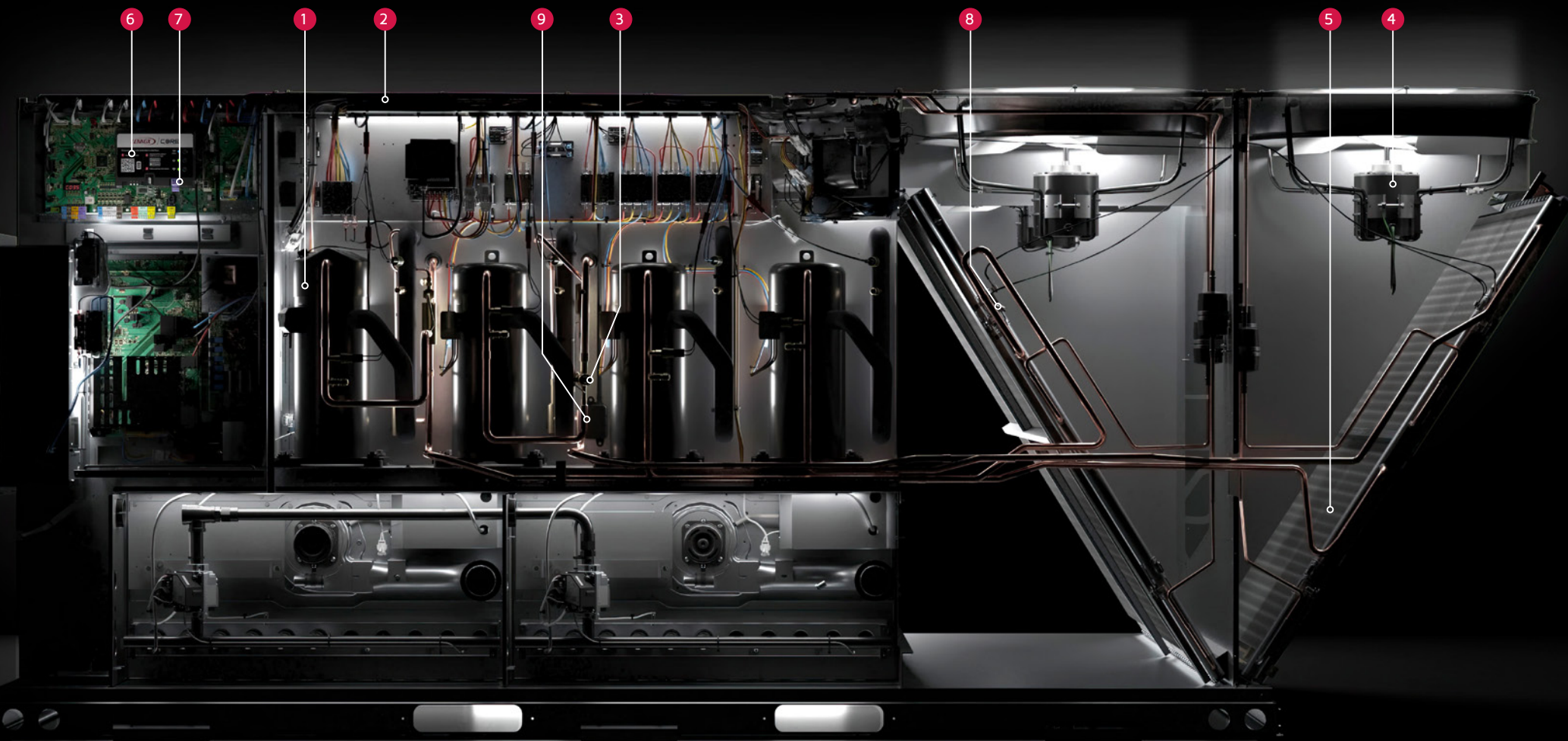
DIRECTPLUS™ BLOWER

3-12.5-ton Model L units are equipped with a direct-drive, variable-speed blower that eliminates maintenance and service costs associated with traditional belt-drive motors.

MODEL // L

MODEL L™ ROOFTOP UNIT

❶ Lead Inverter-Driven, Variable-Speed Compressor ❷ DirectPlus™ Blower System (available 3-12.5 tons) [item is not shown] ❸ Advanced Dehumidification Technologies ❹ Variable-Speed ECM Outdoor Fans ❺ Independent Refrigeration Circuits ❻ Lennox® CORE Unit Controller ❼ Open Integration with Standard BACnet® IP and MS/TP ❽ Diagnostics and Sensor System ❾ Refrigerant Detection System
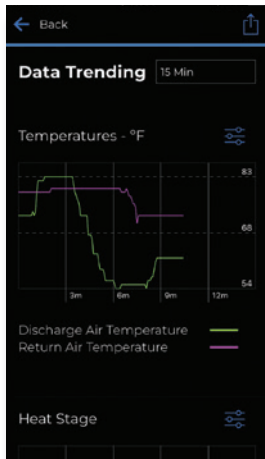
MODEL //L

Providing exceptional performance and efficiency, the Model L™ rooftop units and the Lennox® CORE Control System utilize a mobile service app and a built-in wireless gateway to deliver the lowest cost of ownership.

The CORE Unit Controller openly integrates with multiple control types, extends unit lifetime by reliably operating system components, and optimizes unit efficiency through built-in algorithms, creating ideal space conditions with ease. The CORE Service App provides a better installation and service experience through intuitive guided setup, simplified troubleshooting with, and advanced diagnostic capabilities, reducing installation and service costs.

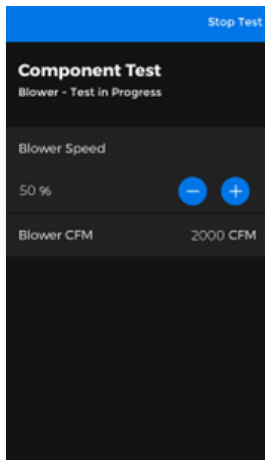MODEL /L

THE LENNOX® CORE SERVICE APP

MAKES SERVICING SIMPLE

The Lennox® CORE Service App replaces a traditional built-in user interface on the CORE Unit Controller and provides guided setup for install, test and balance, and network integration. Reports that detail runtimes and service history can be exported from the app. The app also facilitates seamless commissioning of sensors and sensor networks compatible with the CORE Control System.

REAL-TIME DATA READOUTS

Enhanced test functionality provides real-time sensor readings, data trending and reports that enable easy trouble-shooting.

GUIDED SETUP

Guided setup with progress indicators, detailed help and exportable summaries drives simple and trouble-free setup, reducing commissioning times over similar systems.
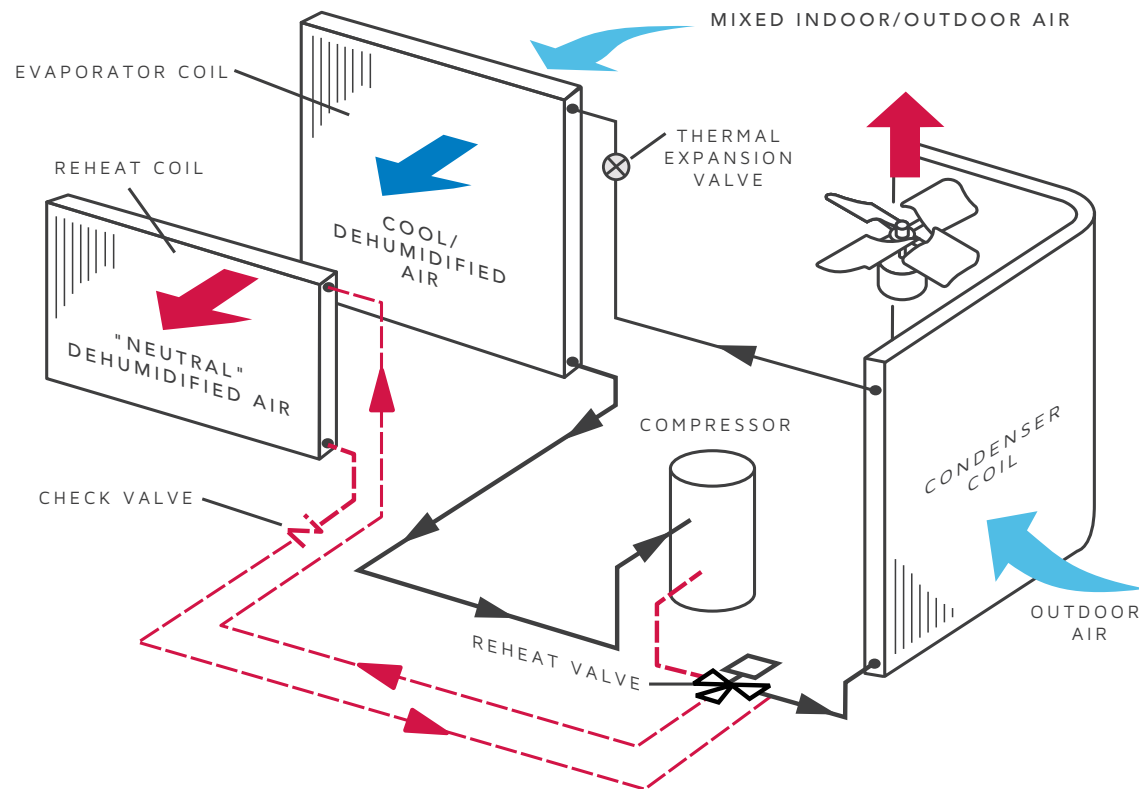
INDUSTRY LEADING TECHNOLOGIES

PATENTED DEHUMIDIFICATION TECHNOLOGIES

The optional Humiditrol™+ hot-gas reheat dehumidification system enhances indoor comfort by removing moisture based on humidity levels rather than temperature. Utilizing modulating hot-gas reheat technology, Humiditrol™+ dynamically adjusts the sensible and latent capacity of the Model L unit to precisely match the dehumidification demands of the space.

Humiditrol™+ provides dehumidification on demand using ASHRAE 90.1 recommended method for comfort conditioning humidity control.

MODEL L ROOFTOP UNIT OPTIONS & ACCESSORIES

COOLING	
Condensate Drain Trap (PVC and Copper)	Factory, Field
Drain Pan Overflow Switch	Factory, Field
Refrigerant Type (R-454B)	Factory
BLOWER	
DirectPlus Direct Drive ECM Blower with SZVAV	Factory
DirectPlus Direct Drive ECM Blower with VAV	Factory
SZVAV - With/Without VFD Bypass Control **	Factory
VAV - Without VFD Bypass Control **	Factory
Supply Fan Drive Kits **	Factory
HEATING	
Bottom Gas Piping Kit	Field
Combustion Air Intake Extensions	Field
Gas Heating	Factory
Low-Temperature Vestibule Heater	Field
LPG/Propane Conversion Kits	Field
Stainless Steel Heat Exchanger	Factory
Vertical Vent Extension	Field
DEHUMIDIFICATION	
Humiditrol™+ Hot-Gas Reheat Dehumidification System	Factory
Enhanced Dehumidification	Standard
CONTROLS	
Lennox® CORE Unit Controller	Standard
BACnet® IP & MS/TP	Standard
Commercial Controls - Novar LSE	Factory
Commerical Controls - L Connection BAS	Field
Blowing Proving	Standard
Dirty Filter Switch	Factory, Field
Fresh Air Tempering	Factory, Field
Smoke Detection Supply and/or Return	Factory, Field
LonTalk® Gateway	Factory, Field
After-Market DDC and/or Thermostats	Field
Outdoor Air CFM Control	Field

INDOOR AIR QUALITY	
MERV 8, 13, and 16 Filters	Factory, Field
Replacement Media Filter With Metal Mesh	Field
Demand Control Ventilation - IAQ (CO_2) Sensors	Field
Needlepoint Bipolar Ionization (NPBI) Kit	Field
UVC Germicial Light Kit	Field
ELECTRICAL	
208/230, 460V, 575V - 3ph, 60Hz	Factory
HACR Circuit Breakers	Factory
Disconnect Switch	Factory, Field
SCCR up to 100kA	Factory
GFI Service Outlets	Factory
Weatherproof Cover For GFI	Field
Electric Heat	Factory, Field
OUTDOOR AIR	
High Performance Economizer - (AMCA Class 1A Certified)	Factory, Field
Economizer Controls - Single and/or Differential Enthalpy	Factory, Field
Economizer Controls - Sensible	Factory, Field
Downflow Barometric Relief Dampers	Factory, Field
Horizontal Barometric Relief Dampers	Field
Manual Outdoor Air Dampers	Field
Motorized Outdoor Air Dampers	Factory, Field
Power Exhaust Fan Standard Static	Factory, Field
ROOF CURBS/CEILING DIFFUSERS	
Roof Curbs - Hybrid	Field
Roof Curbs - Standard, Adjustable	Field
Insulation Kit - Standard	Field
Transition Curb	Field
Ceiling Diffusers	Field
CABINETS	
Combination Coil/Hail Guards	Factory, Field
Corrosion Protection (indoor coil/outdoor coil)	Factory, Field

MODEL L™ ULTRA-HIGH-EFFICIENCY ROOFTOP UNIT R-454B PERFORMANCE SPECIFICATIONS

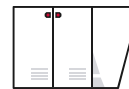|	NOM. TON	MODEL	EER/EER2*	SEER2 OR IEER	NET COOLING CAPACITY	LOW	STD.	MED.	HIGH	DIMENSIONS H X W X L [IN.]	NET WT. [LBS.]
			COOLING DATA			HEATING DATA (KBTUH)				PHYSICAL DATA	
GAS/ELECTRIC UNITS	3	LGM036U5E/P	14.3	21.2	35,000	—	65	108	—	47 X 47 X 86	618
	4	LGM048U5E/P	13.2	19.9	48,000	—	65	108	150	47 X 47 X 86	636
	5	LGM060U5E/P	12.5	19.5	58,000	—	65	108	150	47 X 47 X 86	636
	6	LGM074U5E/P	12.2	23.1	69,000	—	65	108	150	47 X 47 X 86	636
	7.5	LGM092U5E/P	12.5	21.0	88,000	—	130	180	240	47 X 61 X 102	1,115
	8.5	LGM102U5E/P	12.5	21.0	97,000	—	130	180	240	47 X 61 X 102	1,115
	10	LGM120U5E/P	12.0	20.7	114,000	—	130	180	240	47 X 61 X 102	1,150
	12.5	LGM150U5E/P	10.8	19.5	136,000	—	130	180	240	47 X 61 X 102	1,170
	13	LGM156U5M/V	12.0	19.0/18.5	150,000	169	260	360	—	55 X 92 X 133	2,200
	15	LGM180U5M/V	12.0	19.0/17.5	172,000	169	260	360	480	55 X 92 X 133	2,204
	17.5	LGM210U5M/V	12.0	18.8/18.0	200,000	169	260	360	480	55 X 92 X 133	2,643
	20	LGM240U5M/V	12.0	18.4/17.5	228,000	—	260	360	480	55 X 92 X 133	2,669
	25	LGM300U5M/V	10.6	17.5/16.5	270,000	—	260	360	480	55 X 92 X 133	2,710
						ELECTRIC HEAT SIZES – [KW]					
ELECTRIC/ELECTRIC UNITS	3	LCM036U5E/P	14.3	21.2	35,000	—	7.5	15	—	—	47 X 47 X 86	598
	4	LCM048U5E/P	13.2	19.9	48,000	—	7.5	15	—	—	47 X 47 X 86	616
	5	LCM060U5E/P	12.5	19.5	58,000	—	7.5	15	22.5	—	47 X 47 X 86	616
	6	LCM074U5E/P	12.2	23.1	69,000	—	7.5	15	22.5	30	47 X 47 X 86	616
	7.5	LCM092U5E/P	12.7	21.0	88,000	7.5	15	22.5	30	45	47 X 61 X 102	1,067
	8.5	LCM102U5E/P	12.7	21.0	97,000	7.5	15	22.5	30	45	47 X 61 X 102	1,067
	10	LCM120U5E/P	12.2	20.7	114,000	15	22.5	30	45	60	47 X 61 X 102	1,102
	12.5	LCM150U5E/P	11.0	19.5	136,000	15	22.5	30	45	60	47 X 61 X 102	1,122
	13	LCM156U5M/V	12.2	19.0/18.5	150,000	15	30	45	60	—	55 X 92 X 133	2,051
	15	LCM180U5M/V	12.2	19.0/17.5	172,000	15	30	45	60	—	55 X 92 X 133	2,054
	17.5	LCM210U5M/V	12.2	18.8/18.0	200,000	15	30	45	60	90	55 X 92 X 133	2,498
	20	LCM240U5M/V	12.2	18.4/17.5	228,000	15	30	45	60	90	55 X 92 X 133	2,524
	25	LCM300U5M/V	10.8	17.5/16.5	270,000	15	30	45	60	90	55 X 92 X 133	2,565

COMPLETE COMMERCIAL CLIMATE SOLUTIONS

Create your ideal building environment with the comprehensive Lennox Commercial portfolio. Each solution is engineered to optimize performance, energy-efficiency, serviceability and environmental impact. From Varix™ VRF Systems working alongside rooftop units to complete custom turnkey solutions, we'll help you find the perfect system for your needs.

Contact us to discuss your project and request a quote.
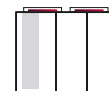Lennox.com/Commercial/Connect

PACKAGED UNITS
Model L™, Enlight, Xion™, Raider®, LRP

VRF
Outdoor and Indoor Units,
Controls, Accessories

SPLIT SYSTEMS
Elite® Series Large, Merit® Series Small,
Air Handlers, Indoor Coils

COMMERCIAL CONTROLS
Lennox® CORE Control System, Lennox
Commercial Thermostats and Sensors

MINI-SPLIT SYSTEMS
Outdoor and Indoor Units,
Controls, Accessories

HEATING
Unit Heaters, Furnaces, Duct Furnaces

INDOOR AIR QUALITY
Dehumidification, Filtration, Purification

MODEL // L

WITH YOU EVERY STEP OF THE WAY

Get fast, direct access to commercial HVAC expertise and equipment—straight from the source. Your Lennox team is here to help you be more efficient, informed and effective at every stage of your projects.