

**ENERGENCE**  
Saving Energy with Intelligence



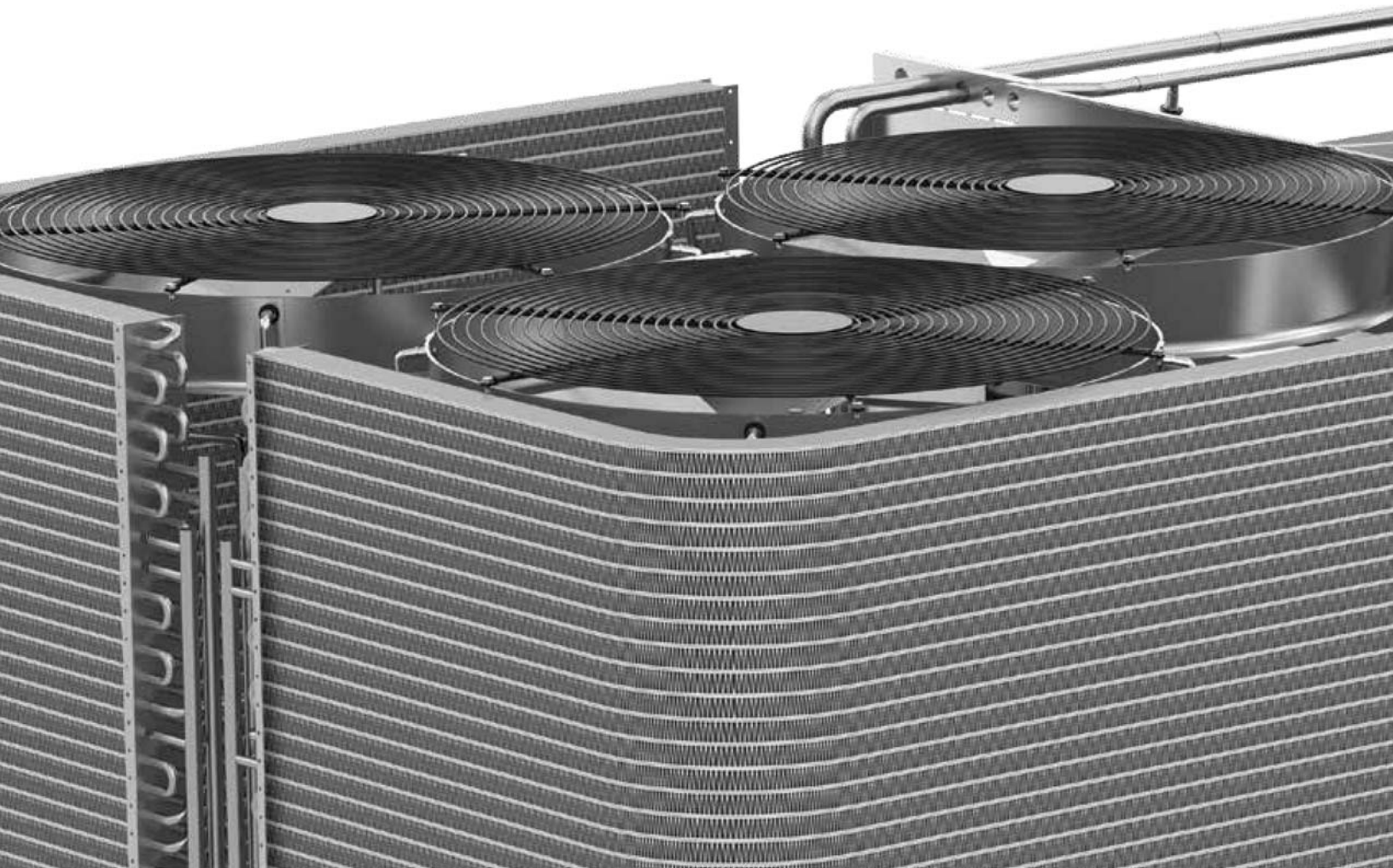
WELCOME TO A NEW ERA OF ULTRA.



**ENERGENCE® ADVANCES  
COMMERCIAL HVAC INTO  
A WHOLE NEW ERA.**

**A NEW ERA DOESN'T JUST COME  
OUT OF NOWHERE. IT'S THE RESULT  
OF EVOLUTION.**

We've expanded our industry-leading Energence® line to include ultra-high-efficiency rooftop units to deliver ultra innovation on every count. Advanced blower and compressor technologies allow these new units to perform at optimal levels throughout the year, even in extreme weather conditions. This can translate to substantial operational cost savings over the life of the system.



**ULTRA EFFICIENT.**

Achieves efficiency ratings of up to 21.5 IEER and 13.9 EER—the highest on the market today.\*

**ULTRA QUIET.**

Operates at outdoor sound levels as low as 81 dBA, making the unit the quietest in its class.\*

**ULTRA LIGHT.**

Up to 42% lighter in weight than leading competitors' units, even with a substantial array of customizable features.\*

**ULTRA INTELLIGENT.**

Engineered with the newly enhanced Prodigy® Control System, which has more than 250 adjustable parameters to meet almost any design specification.

*\*Claim pertains to 7.5- to 12.5-ton units listed in the AHRI ratings directory and available manufacturer data as of May 2014.*



## ULTRA EFFICIENT

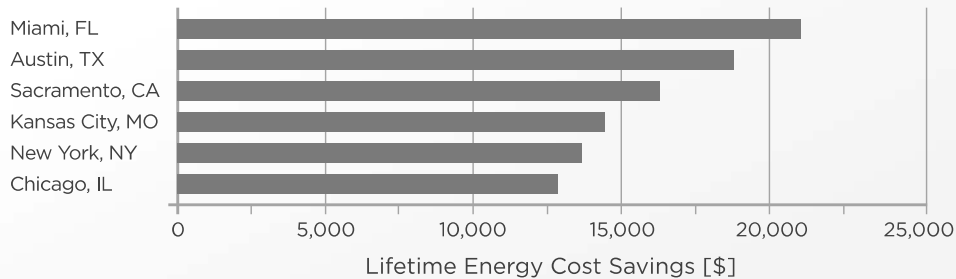
**BEYOND CURRENT EFFICIENCY STANDARDS.  
WAY BEYOND.**

exceeds ASHRAE  
standards by  
up to  
**92%**

Ultra-high efficiencies place the new Energygence® rooftop unit line in a class all its own. Industry-leading IEER ratings exceed ASHRAE 90.1-2010 minimum standards by as much as 92%.

Compared to standard-efficiency equipment, an Energygence ultra-high-efficiency unit can deliver energy savings ranging in the tens of thousands of dollars over the life of the system.\*

### LOWEST TOTAL COST OF OWNERSHIP



Energygence ultra-high-efficiency models may qualify for utility rebates and meet CEE Tier 2 and California Energy Code Title 24 requirements.

*\*Calculations based on Lennox' Total Cost of Ownership™ calculator, comparing 7.5-ton 21.5 IEER (13.9 EER) unit to a 7.5-ton 11.2 IEER (11 EER) standard-efficiency unit at a retail facility (under 25,000 square feet) and a 10:00 a.m. to 10:00 p.m. operating schedule. Lifetime energy cost savings are calculated by multiplying annual energy costs by 15 years. Actual savings may vary depending on system settings, equipment maintenance, local weather, construction, installation of equipment, duct system, hours of operation, local fuel rates and other factors. This information is intended as an example for comparison purposes only.*



**PACKED WITH INNOVATION.  
AND ENERGY-SAVINGS POTENTIAL.**

**MSAV® TECHNOLOGY.**

Available on Emergence® units, MSAV® (Multi-Stage Air Volume) supply fan technology uses up to seven different airflow settings to automatically adjust operating speed, optimizing efficiency and performance.

Up to **72%**  
IEER Improvement\*

**DIRECTPLUS™ BLOWER SYSTEM.**

Ultra-high-efficiency models are offered with standard MSAV, along with the option of a belt drive or new patent-pending beltless DirectPlus™ system. Advantages of the DirectPlus system:

- High-efficiency motor with direct-mounted impeller provides exceptional performance and low energy consumption
- Fan design eliminates belts that age over time, reducing maintenance costs and service calls
- Slide-out blower assembly combines components, making service and installation easier
- Sound-reducing grille lowers indoor sound without affecting airflow

Up to **82%**  
Supply Fan Power  
Savings\*

**ADVANCED COOLING SYSTEM.**

This patent-pending configuration is designed to deliver significant year-round savings:

- Scroll compressors use the full area of the coils, rather than parts, to better match cooling capacity to demand
- Compressor compartment is isolated, allowing for easier access and servicing
- Prodigy® Control System continuously monitors and adjusts the compressors to optimize performance and cost savings

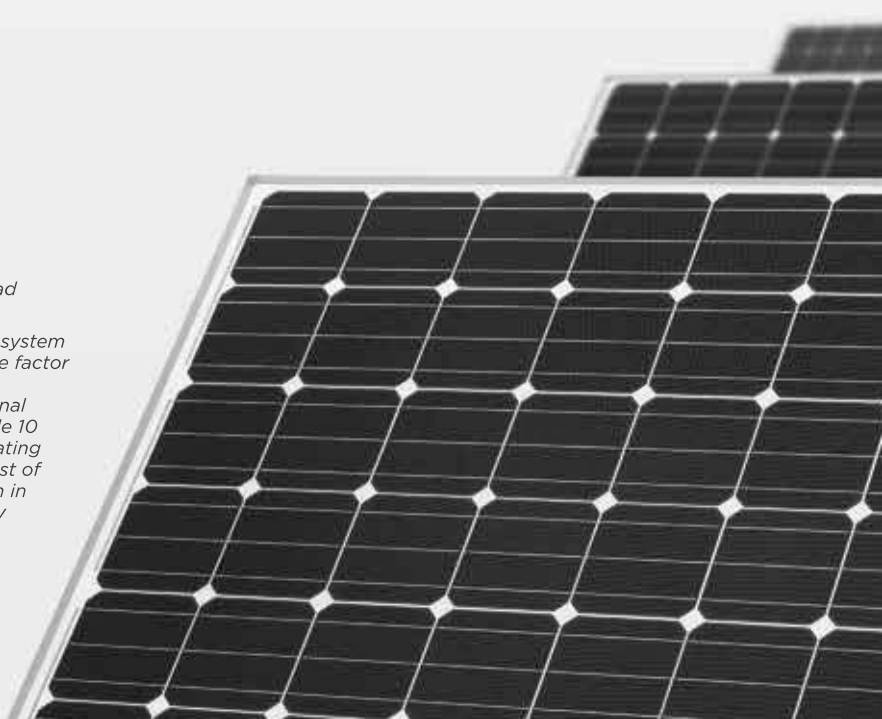
**SUNSOURCE® SOLAR READY.**

SunSource® factory-installed option makes Emergence the first and only commercial HVAC system to integrate directly with solar power.

- Simple, scalable and easy to install on 3- to 12.5-ton units
- Units can achieve net-zero energy status by reaching effective efficiency levels of up to 43 IEER, 34 SEER and beyond\*\*
- Includes an optional communication module for monitoring system status in real time

\*At 55% airflow using the DirectPlus™ blower, when compared to full-load belt-drive units.

\*\*Effective SEER and IEER estimates for the SunSource® air conditioning system are based on the U.S. Department of Energy (DOE) annual performance factor (APF) method for heat pumps and air conditioners (10CFR part 430). Estimates of annual solar energy production are calculated using National Renewable Energy Laboratory's (NREL) PVWatts, calculated at tilt angle 10 degrees with an 180 degree azimuth. Estimates of annual cooling operating cost savings for the rooftop units are calculated using Lennox' Total Cost of Ownership Calculator, with operating hours from 10:00 am to 10:00 pm in a small retail environment in the Omaha region. Estimated SEER energy calculations were made using Emergence® LGH060H4E (5 ton/17 SEER 3-phase - 460V) and six 275DC W solar modules. IEER effective efficiency calculations were made using Emergence LGH094U4E (7.5 ton/21.5 IEER 3-phase) and seven 275DC W solar modules. Note that SEER and IEER equivalents may vary by location.



## ULTRA LIGHT

**AS LIGHT AS THE AIR IT PRODUCES.  
WELL, ALMOST.**

Up to  
**42%** lighter

New Energence® ultra-high-efficiency models are up to 42% lighter\* in weight than leading competitors' units.

Advanced technologies and optimized cabinetry make Energence ultra-high-efficiency units lighter than other units in its class. The lighter weight makes buildings less vulnerable to structural issues, adding to your peace of mind.

Plus, they're designed to fit the same footprint as many existing Lennox® units. That means less labor and equipment is needed for setup, making replacement quick and cost effective.





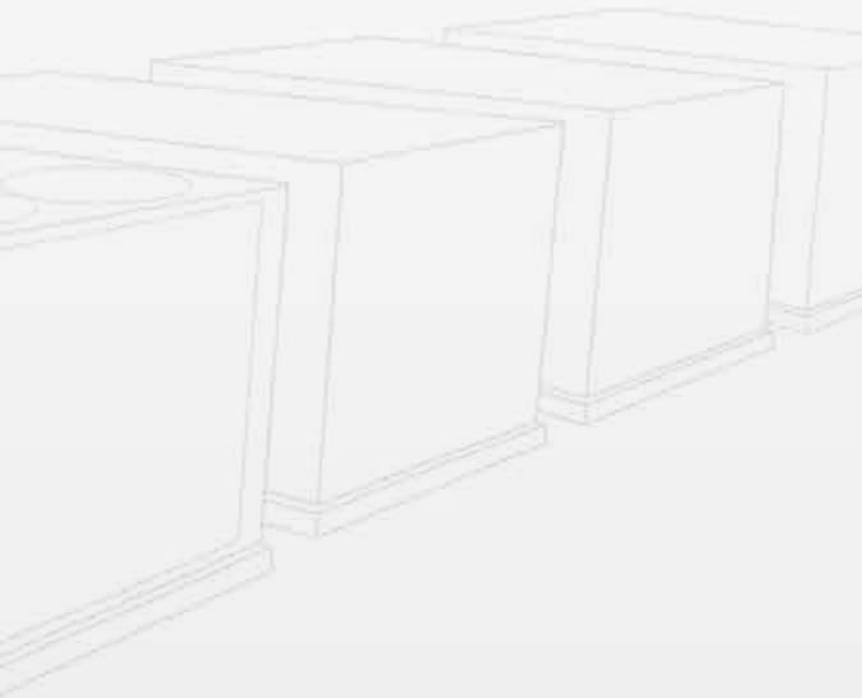
## ULTRA QUIET

### VIRTUALLY SILENT, EVEN WHEN RUNNING AT FULL CAPACITY

as low as  
**81 dBA**

We've pushed the boundaries of innovation to design a rooftop unit that not only offers ultra-high efficiency, but also delivers the ultimate in quiet performance.

Technologies such as the advanced cooling system, DirectPlus™ blower system and ECM outdoor fans keep outdoor sound levels at a minimum. This helps ensure customers are comfortable whenever they enter a building, particularly if it's a movie theater, church or some other facility with low sound requirements. Ultra-quiet performance can also help keep business owners in compliance with changing environmental regulations.



# ULTRA INTELLIGENT

## A SMART IDEA THAT KEEPS GETTING SMARTER

Standard on every Energence® unit, the Prodigy® Control System helps optimize system performance with more than 250 adjustable parameters to meet almost any design specification. And with the new Prodigy 2.0 Unit Controller, monitoring and controlling the system is easier than ever before. This enhanced user interface includes additional space for a more intuitive navigation, along with access to the home screen from any point in the menu for quick, user-friendly operation.



### ENHANCED USER INTERFACE

- 4-line by 20-character LCD with backlight provides more text/data, simplifying navigation in any condition
- Help button with menu-specific content simplifies operation and troubleshooting
- Clearly labeled scroll and adjustment buttons help eliminate accidental changes by users
- Menu LEDs clearly indicate your place in the menu

### VERIFICATION WHEN AND WHERE YOU NEED IT

The USB service report makes service and troubleshooting easier than ever:

- Validates effectiveness of service and maintenance work
- Assists in making “service versus replacement” decisions based on component runtimes
- Alarm and status logs provide quick view of problem areas, speeding up maintenance
- Allows trending and verification of service and unit operation over time with time/date-stamped reports

### RELIABLE, COST-SAVING OPERATION

More than 100 diagnostic codes detect operating issues to help prevent premature equipment failures and simplify troubleshooting. Plus, the Prodigy® Control System tracks the runtime of every major component and records when service or maintenance is performed, helping cut the length and cost of service calls.

### PRODIGY APP ANSWERS ALL YOUR HOW-TO QUESTIONS

Available as a free download from iTunes or Google Play, the Prodigy mobile app speeds up service by giving you on-the-spot access to helpful resources. Features of the app include:

- Step-by-step troubleshooting guides
- Instructional videos
- Product and technical FAQs
- Searchable library of technical documents on [lennoxcommercial.com](http://lennoxcommercial.com)





# PERFORMANCE GEARED FOR YOUR APPLICATION

## AN INNOVATIVE SOLUTION FOR EVERY BUSINESS, EVERY BUILDING

Every building is different, from its age and location to the needs and preferences of its occupants. That's why Lennox provides near-endless opportunities for customization of every Energence® rooftop unit. With more than three million possible factory configurations, it's never been easier to fine-tune your Energence unit to deliver optimal performance for your application and budget needs.

### LEADING THE WAY IN LEED® CERTIFICATION

Every Energence rooftop unit is designed to reduce your business's carbon footprint:

- Industry-leading efficiencies exceed LEED® minimum requirements for EA Credit 1.3
- Environ™ Coil System (standard on most models) delivers exceptional performance, with up to 52% less refrigerant than typical units
- Millions of factory-installed options can add to the efficiency of units and help businesses qualify for additional LEED credits—as well as Title 24, ASHRAE 90.1 and many state and local utility rebates

### INDOOR AIR THAT LETS EVERYONE BREATHE EASY

Improving a building's indoor air quality creates a better indoor environment, and a better indoor environment helps protect a company's productivity and profitability. Lennox' patented Humiditrol® dehumidification system removes moisture based on humidity requirements rather than temperature, making it easy and efficient to create a better indoor environment.

### OPTIONS AND ACCESSORIES TO MAXIMIZE SYSTEM PERFORMANCE\*

#### Factory- or Field-Installed Options:

- Condensate drain trap
- Blower proving switch
- Prodigy® BACnet® module (BTL certified)
- Prodigy LonTalk® module (LonTalk certified)
- Dirty filter switch
- Fresh air tempering
- Smoke detector (return and/or supply)
- Disconnect switch
- GFI service outlets
- Economizer
- Outdoor air dampers
- High-efficiency air filters
- UVC light kit
- Barometric relief dampers
- Low-temperature vestibule heater

#### Factory-Installed Options:

- HACR circuit breakers
- Direct-drive blower motor
- Belt-drive blower motor
- Drive kits
- Corrosion protection
- Novar® LSM
- Phase monitor
- Humiditrol dehumidification system
- Gas heat input
- Stainless steel heat exchanger
- SRC Electric Heat
- SunSource® ready

#### Field-Installed Options:

- Coil guards
- Hail guards
- L Connection® Network
- Horizontal economizer control kit
- Humidity sensor kit
- CO<sub>2</sub> sensor
- LGP/propane conversion kit

*\*All options are not available for all models of Energence® rooftop units. Please contact your Lennox sales representative for details.*

*BACnet is a registered trademark of ASHRAE.*

*LonTalk is a registered trademark of the Echelon Corporation.*

# QUALITY COMPONENTS BUILT INTO EVERY ENERGENGE® ROOFTOP UNIT

- 1 HINGED ACCESS PANEL:**  
Provides quick access to components and protects panels and roof from damage during servicing.
- 2 ISOLATED COMPRESSOR COMPARTMENT:**  
Allows performance check during normal compressor operation without disrupting airflow.
- 3 CORROSION-RESISTANT, REMOVABLE, DOUBLE-SLOPED DRAIN PAN:**  
Provides application flexibility, durability and improved serviceability.
- 4 THERMOSTATIC EXPANSION VALVES:**  
Provide peak cooling performance across the entire application range.
- 5 SCROLL COMPRESSOR:**  
Standard on all units for reliable, long-term operation.
- 6 HUMIDITROL® DEHUMIDIFICATION SYSTEM:**  
Optional patented system allows for independent control of temperature and humidity, providing enhanced comfort control.
- 7 MERV 13 FILTERS:**  
Optional filters provide an enhanced level of indoor air quality, and can help the building qualify for additional LEED® credits.



- 8 FOIL-FACED INSULATION:**  
On all internal surfaces that contact airflow, helps minimize airborne fibers and improve IAQ.
- 9 PRODIGY® CONTROL SYSTEM:**  
Standard on every Energenge® rooftop unit.
- 10 MSAV® (MULTI-STAGE AIR VOLUME) SUPPLY FAN:**  
Optional MSAV® helps achieve the highest level of energy savings and comfort control with blower speed modulation.
- 11 ENVIRON™ COIL SYSTEM:**  
Uses less refrigerant and is lighter than traditional coils (available on select models).

**BLOWER BELT AUTO TENSIONER:**  
Optional auto tensioner ensures blower is delivering the proper airflow for comfort, while maximizing efficiency and belt life (not shown).

## ENERGENGE® ULTRA-HIGH-EFFICIENCY ROOFTOP UNIT PERFORMANCE SPECIFICATIONS

	NOM. TON	MODEL	COOLING DATA		HEATING INPUT				PHYSICAL DATA		
			EER	IEER	LOW	STD.	MED.	HIGH	H X W X L [INCHES]	SHIP WT. [LBS.]	
GAS/ ELECTRIC UNITS	7.5	LGH094U4M/E	13.4/13.9	20.7/21.5	—	130	180	240	47 x 61 x 124	1,345	
	10	LGH122U4M/E	12.6/13.1	19.2/20.0	—	130	180	240	47 x 61 x 124	1,355	
	12.5	LGH152U4M/E	12.0/12.3	18.1/18.9	—	130	180	240	47 x 61 x 124	1,365	
					<b>KW RANGE</b>						
ELECTRIC/ ELECTRIC UNITS	7.5	LCH094U4M/E	13.4/13.9	20.7/21.5	7.5	15	22.5	30	45	47 x 61 x 124	1,297
	10	LCH122U4M/E	12.6/13.1	19.2/20.0	15	22.5	30	45	60	47 x 61 x 124	1,307
	12.5	LCH152U4M/E	12.0/12.3	18.1/18.9	15	22.5	30	45	60	47 x 61 x 124	1,317

M=Belt Drive MSAV® option  
E=DirectPlus™ option

**ENERGENCE® ROOFTOP UNIT PERFORMANCE SPECIFICATIONS**

		COOLING DATA		HEATING DATA				PHYSICAL DATA			
NOM TON.	MODEL	EER	SEER OR IEER	LOW	STD.	MED.	HIGH	DIMENSIONS H X W X L [INCHES]	SHIP WT. [LBS.]		
GAS/ELECTRIC UNITS	3	LGHO36S4T	11.6	15.0	—	65	105	—	39 x 47 x 86	610	
	3	LGHO36H4E	12.7	18.0	—	65	105	—	39 x 47 x 86	610	
	4	LGHO48S4T	12.5	15.0	—	65	105	150	39 x 47 x 86	626	
	4	LGHO48H4E	12.8	17.6	—	65	105	150	39 x 47 x 86	626	
	5	LGHO60S4T	12.5	15.5	—	65	105	150	47 x 4 <sup>9</sup> 6	704	
	5	LGHO60H4E	12.7	17.1	—	65	105	150	47 x 47 x 86	704	
	6	LGHO72H4B	12.0	13.5	—	65	105	150	47 x 47 x 86	781	
	7.5	LGHO92H4B/M	12.5	13.0/14.0	—	130	180	240	47 x 61 x 102	1,173	
	8.5	LGH102H4B/M	12.2	12.9/14.0	—	130	180	240	47 x 61 x 102	1,180	
	10	LGH120H4B/M	12.0	13.0/13.8	—	130	180	240	47 x 61 x 102	1,215	
	12.5	LGH150S4B/M	11.0	11.4/13.1	—	130	180	240	47 x 61 x 102	1,255	
	13	LGH156H4B/M	12.0	13.6/14.1	169	260	360	—	55 x 91 x 108	2,135	
	15	LGH180H4B/M	12.0	13.5/13.7	169	260	360	480	55 x 91 x 133	2,315	
	17.5	LGH210H4B/M	12.0	13.0/14.0	169	260	360	480	55 x 91 x 133	2,440	
	20	LGH240H4B/M	12.0	13.2/14.5	—	260	360	480	55 x 91 x 133	2,525	
	20	LGH242H4V	12.3	15.5	—	260	360	480	65 x 91 x 145	3,317	
	25	LGH300S4B/M	10.5	10.9/13.8	—	260	360	480	55 x 91 x 133	2,630	
	25	LGH300H4B/V	11.6	12.5/14.3	—	260	360	480	65 x 91 x 145	3,317	
	30	LGH360H4B/V	10.6	11.5/13.5	—	260	360	480	65 x 91 x 145	3,317	
	35	LGH420S4B/V	9.8/10.0	10.2/11.0	—	500	—	800	68 x 90 x 286	6,345–8,600	
35	LGH420H4B/V	10.8	11.3/12.5	—	500	—	800	68 x 90 x 286	6,345–8,600		
40	LGH480S4B/V	9.8	10.1/11.0	—	500	—	800	68 x 90 x 286	6,345–8,600		
40	LGH480H4B/V	11.0/10.8	12.0/13.0	—	500	—	800	68 x 90 x 286	6,345–8,600		
45	LGH540S4B/V	9.8/10.0	10.5/11.7	—	500	—	800	68 x 90 x 286	6,345–8,600		
50	LGH600S4B/V	9.8	10.3/11.0	—	500	—	800	68 x 90 x 286	6,345–8,600		
<b>KW RANGE</b>											
ELECTRIC/ELECTRIC UNITS	3	LCHO36S4T	11.6	15.0	7.5	15	—	—	—	39 x 47 x 86	574
	3	LCHO36H4E	12.7	18.0	7.5	15	—	—	—	39 x 47 x 86	574
	4	LCHO48S4T	12.5	15.0	7.5	15	—	—	—	39 x 47 x 86	590
	4	LCHO48H4E	12.8	17.6	7.5	15	—	—	—	39 x 47 x 86	590
	5	LCHO60S4T	12.5	15.5	7.5	15	22.5	—	—	47 x 47 x 86	668
	5	LCHO60H4E	12.7	17.1	7.5	15	22.5	—	—	47 x 47 x 86	668
	6	LCHO72H4B	12.0	13.5	7.5	15	22.5	30	—	47 x 47 x 86	745
	7.5	LCHO92H4B/M	12.7	13.0/14.0	7.5	15	22.5	30	45	47 x 61 x 102	1,125
	8.5	LCHI02H4B/M	12.4	12.9/14.0	7.5	15	22.5	30	45	47 x 61 x 102	1,132
	10	LCHI20H4B/M	12.2	13.2/14.0	15	22.5	30	45	60	47 x 61 x 102	1,167
	12.5	LCHI50S4B/M	11.2	11.6/13.1	15	22.5	30	45	60	47 x 61 x 102	1,207
	13	LCHI56H4B/M	12.0	13.6/14.1	15	30	45	60	—	55 x 91 x 108	1,985
	15	LCHI80H4B/M	12.0	13.5/13.7	15	30	45	60	—	55 x 91 x 133	2,165
	17.5	LCH210H4B/M	12.0	13.0/14.0	15	30	45	60	90	55 x 91 x 133	2,290
	20	LCH240H4B/M	12.0	13.2/14.5	15	30	45	60	90	55 x 91 x 133	2,375
	20	LCH242H4V	12.5	15.5	30–120					65 x 91 x 145	3,207
	25	LCH300S4B/M	10.5	10.9/13.8	15	30	45	60	90	55 x 91 x 133	2,480
	25	LCH300H4B/V	11.8	12.5/14.3	30–120					65 x 91 x 145	3,207
	30	LCH360H4B/V	10.8	11.5/13.5	30–120					65 x 91 x 145	3,207
	35	LCH420S4B/V	10.0	10.2/11.0	30–120					68 x 90 x 286	6,345–8,600
35	LCH420H4B/V	10.8	11.3/12.5	30–120					68 x 90 x 286	6,345–8,600	
40	LCH480S4B/V	10.0	10.1/11.0	30–150					68 x 90 x 286	6,345–8,600	
40	LCH480H4B/V	11.0/10.8	12.0/13.0	30–150					68 x 90 x 286	6,345–8,600	
45	LCH540S4B/V	10.0	10.5/11.7	45–165					68 x 90 x 286	6,345–8,600	
50	LCH600S4B/V	10.0	10.3/11.0	45–180					68 x 90 x 286	6,345–8,600	

E=Direct Drive, T=Belt Drive, CAV (2-speed), B=Belt Drive, CAV (1-speed), M= Belt Drive MSAV®, V=Variable Air Volume Belt Drive

NOTE: Due to Lennox' ongoing commitment to quality, all specifications, ratings and dimensions are subject to change. All ratings shown are for the highest-rated model in the tonnage size.

**GROUNDBREAKING INNOVATION.  
GAME-CHANGING COMFORT.**

Since 1895, Lennox has been on a continuous quest to reinvent indoor comfort. Today, we are proud to introduce our latest advancement in that pursuit.

The newest models in the Emergence® line are our most energy-efficient rooftop units yet, and efficiency is just the beginning. Emergence is engineered to deliver ultra innovation on all counts, making it an ultra-smart choice for optimal performance and total cost of ownership.

In addition, financing options through Lennox Commercial Financing<sup>SM</sup> help put Emergence rooftop units in reach for nearly any business.

For more information, visit us at [www.lennoxcommercial.com](http://www.lennoxcommercial.com), or contact us at 1-877-726-0024.



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