# LENNOX®

# LF25 UNIT HEATERS



DESIGNED FOR EXCEPTIONAL PERFORMANCE



## **UNIT HEATERS AT A GLANCE:**

Designed for easy installation in a wide range of commercial and residential applications

Unit Heaters - Up to 83.8% thermal efficiency

Commercial heating capacities from 30,000 - 400,000 BTU/h

Residential heating capacities from 30,000 - 105,000 BTU/h

Easy access to components through a hinged door

Stocked and available for quick delivery or pick up at a Lennox Store near you

#### **ENGINEERED FOR MAXIMUM EFFICIENCY**

Lennox heating products are designed for increased reliability and peak performance, year after year. Advanced engineering and high-quality components produce a durable product that delivers comfort with maximum efficiency.

#### **TUBULAR HEAT EXCHANGER**

A standard feature of all Lennox unit heaters is the tubular heat exchanger, designed to enhance performance and reliability. The dimpled tubular design maximizes efficiency and provides excellent

heat transfer by completely exposing the heating surface to the air stream. This tubular construction minimizes air resistance to allow for even heating across all surfaces, which, when combined with a lower firing rate, reduces stress on the heat exchanger.

#### **ENHANCED FEATURES**

Commercial unit heater models are available in stainless steel. All unit heater models offer standard features such as the ignitor, flame sensor, high limit



switch, and 100% error proof wiring harness. Hinged access doors allow easy access to the DSI control board with 11 error codes and each unit heater is remote LED fault detection diagnostics enabled. Additional advanced features include in-shot cluster burner assembly that's simple to clean and easy to reach.



<sup>\*</sup> In non-condensing class

#### **EASY INSTALLATION**

The simple-to-install unit heater begins with factory testing to ensure easy and guick project completion. Each unit is factory wired and tested with complete cycles of startup and shutdown before being shipped. Gas and electrical operation verification leads to a quick and easy start up on the job site. The low-profile, dual-purpose, commercial and residential application LF25-30 thru LF25-105, features 180 degree installation position capability. The commercial LF25-125 thru LF25-400 units feature cage-nuts for all-thread installation, and all unit heaters feature easily located connections for gas, and removable terminal block for both line voltage and thermostats.





## **EFFICIENT** by DESIGN

The LF25 Unit Heater models are designed for increased reliability and long-lasting peak performance thanks to advanced engineering and high-quality components.

- Most efficient non-condensing unit heater in the industry\*
- Delivers maximum performance through dimpled tubular heat exchanger design



### **ULTIMATE SOUND QUALITY**

Lennox unit heaters were redesigned to provide a warm and peaceful environment.

- Superior Sound Quality with 25% less pure tones and projection than leading competitors\*\*
- Quieter Space through improved chassis, mounting grill, and fan components



## **SIMPLIFIED INSTALLATION & SERVICE**

Easily install and service Lennox unit heaters. The updated features of the new products were built with technicians and occupants in mind.

- Easy set-up and service with 180° installation position capability\*\*\*
- Shorten service calls by utilizing the new DSI board
- \* Lennox unit heaters are the most efficient unit heaters in the 80% thermal efficiency class for models that are dual qualified for commercial and residential application, LF25-030 thru LF25-0105
- \*\* Lennox tests their products for sound and vibration in a reverberation room which is designed to measure pressure and sound levels during steady state to the standard Section 4.4.4 AHRI 260-2012. The Lennox LF25-200 and Modine 200K BTUH model were compared in May 2019.
- \*\*\*LF25-030 thru LF25-105

## LENNOX LF25 UNIT HEATER SPECIFICATIONS

25 Compact		GAS HEATI	CONNECTIONS						
it Heaters	INPUT HEATING CAPACITY	OUTPUT	LP/PROPANE OUTPUT HEATING CAPACITY	STEADY STATE EFFICIENCY			VERT. FLUE SIZE IN [MM]	HORZ. FLUE SIZE IN [MM]	GAS PIPING SIZE INCHES
MODEL*	BTU/[kW]			NATURAL	PROPANE	TEMP. RISE °F [°C]			
LF25-030	30,000	24,900	25,500	83.4%	85.2%	37	4	4	1/2
	8.8	7.3	7.5	00.170		2.8	102	102	
LF25-045	45,000	37,350	38,250	83.7%	85.3%	52	4	4	1/2
LI 23-043	13.2	11.0	11.2	03.7 /6		11.1	102	102	
LF25-060	60,000	49,800	51,000	83.7%	85.3%	47	4	4	1/2
LI 23-000	17.6	14.6	15.0	03.7 /6		8.3	102	102	
LF25-075	75,000	62,250	63,750	83.4%	85.1%	65	4	4	1/2
LI 23-073	22.0	18.3	18.7	03.476		18.3	102	102	
LF25-090	90,000	74,700	75,600	83.8%	85.7%	43	4	4	1/2
LI 23-070	26.4	21.9	22.2	03.076	03.776	6.1	102	102	
LF25-105	105,000	87,150	88,200	83.5%	85.0%	59	4	4	1/2
LF23-103	30.8	25.6	25.9	03.5%	63.0%	15.0	102	102	

5 Commercial Heaters		GAS HEATI	CONNECTIONS						
neaters	INPUT	OUTPUT	LP/PROPANE OUTPUT	STEADY STATE EFFICIENCY		TEMP. RISE °F [°C]		HORZ. FLUE SIZE IN [MM]	GAS PIPING SIZE INCHES
MODEL*	HEATING CAPACITY BTU/[kW]	HEATING CAPACITY BTU/[kW]	HEATING CAPACITY BTU/[kW]	NATURAL PROPANE			VERT. FLUE SIZE IN [MM]		
LF25-125	125,000	103,750	105,000	83%	85%	50	4	4	1/2
LF25-125	36.6	30.4	30.7	03%		10	102	102	
1525 450	150,000	124,500	126,000	0.20/	050/	62	4	4	1/2
LF25-150	44.0	36.5	37.0	83%	85%	16.7	102	102	
1505 475	175,000	145,250	147,000	0.20/	85%	58	5	5	1/2
LF25-175	51.3	42.6	43.1	83%		14.4	127	127	
1.505.000	200,000	166,000	168,000	000/	85%	59	5	5	1/2
LF25-200	58.6	48.6	49.2	83%		15.0	127	127	
1.505.050	250,000	207,500	210,000	0.20/	85%	59	5	5	3/4
LF25-250	73.3	60.8	61.6	83%		15.0	127	127	
1.525.200	300,000	249,000	252,000	0.20/	84%	57	5	5	3/4
LF25-300	87.9	73.0	73.8	82%		13.9	127	127	
1.505.250	350,000	290,500	294,000	0.20/	84%	58	6	6	2/4
LF25-350	102.6	85.2	86.2	83%		14.4	152	152	3/4
1.505.400	400,000	332,000	336,000	0.00/	0.40/	65	6	6	3/4
LF25-400	117.2	97.3	98.4	82%	84%	18.3	152	152	

			F	AN DAT	Ά		PHYSICAL DATA																		
NO. OF FANS	FAN DIAMETER	NO. OF BLADES	FAN PITCH	OUTPUT	FULL LOAD MOTOR AMPS	RPM	CFM [M3/MIN.]	THROW FT. [M]	DIMENSIONS L X W X H INCHES [MM]	UNIT WEIGHT LBS. [KG]	SHIP WEIGHT LBS. [KG]	MOUNTING HEIGHT RANGES FT. [M]													
1	1 10" 4 37°	270	1/25	0.45	1550	625	27	27.5 x 29 x 12.375	55	60	5-12														
'		37	1/25	0.45		17.7	9.3	698.5 x 736.6 x 314.3	24.9	27.2	1.5-3.0														
1	1 10" 4 37°	0.70	1/25	0.45	1550	665	29	27.5 x 29 x 12.375	60	65	5-12														
'		37				18.8	10.0	698.5 x 736.6 x 314.3	27.2	29.5	1.5-3.0														
1	14" 4 34°	1/15	0.9	1075	1000	34	27.25 x 29 x 17.5	85	90	5-14															
1			0.9		28.3	11.8	692.2 x 736.6 x 445	38.6	40.8	1.5-4.3															
1	1 14" 4 34	4 34° 1	34°	34°	34°	1/15	0.9	1075	1200	41	27.25 x 29 x 17.5	90	95	5-14											
'						34	34	34	34	34	34	34	34	34	34	34	34	1/15	0.9	1075	34.0	14.2	692.2 x 736.6 x 445	40.8	43.0
1	4 / 11	4		1/10	1.5	1075	1600	46	28.875 x 29 x 23	115	120	5-16													
1	16"		4	4	4	4	4	4	4	4	4	4	4	4	4	4	28°	1/10	1.5	1075	45.3	16.1	733.4 x 736.6 x 584	52.2	54.4
	4.411		000	4.440	4.5	4075	1500	43	28.875 x 29 x 23	120	125	5-16													
1	16"	4	28°	1/10	1.5	1075	42.5	15.1	733.4 x 736.6 x 584	54.4	56.7	1.5-4.9													

			E	AN DAT	Ά		PHYSICAL DATA								
NO. OF FANS	FAN DIAMETER	NO. OF BLADES	FAN PITCH	MOTOR OUTPUT HP [W]	FULL LOAD MOTOR AMPS	RPM	CFM [M3/MIN.]	THROW FT. [M]	DIMENSIONS L X W X H INCHES [MM]	UNIT WEIGHT LBS. [KG]	SHIP WEIGHT LBS. [KG]	MOUNTING HEIGHT RANGES FT. [M]			
1	1 16" 4 36°	4 2/0	240	240	240	240	1/5	3.0	1075	1950	49	42.5 x 24 x 35.25	147	167	8-16
1		30	1/5	3.0	10/5	55.2	17.1	1079.5 x 609.6 x 895.4	66.7	75.8	2.4-4.9				
1	1/"		1/5	3.0	1075	1950	49	42.5 x 24 x 35.25	157	177	8-16				
1	16" 4 36°	1/5	3.0	10/5	55.2	17.1	1079.5 x 609.6 x 895.4	71.2	80.3	2.4-4.9					
1	1 18" 5 35°	_	5 250	250	250	1/3	4.4		2350	52	42.5 x 29.5 x 35.25	170	190	8-22	
1		1/3	4.4	1075	66.5	18.0	1079.5 x 749.3 x 895.4	77.1	86.2	2.4-6.7					
1	1 18" 5 35° 1/	250	1/2	4.4	1075	2650	59	42.5 x 29.5 x 35.25	180	200	8-22				
1		1/3	4.4	1073	75.0	20.4	1079.5 x 749.3 x 895.4	81.6	90.7	2.4-6.7					
2	2 16" 4 36°	4	4 2/9	240	2/0	2/0	1/5	3.0	1075	3400	60	42.5 x 41.125 x 35.25	290	310	12-28
2		6 1/3	1/3	1/3	1/5	3.0	10/3	96.3	21.0	1079.5 x 1044.6 x 895.4	131.5	140.6	3.7-8.5		
2		4	4	36°	1/5	3.0	1075	4000	71	42.5 x 41.125 x 35.25	310	330	12-28		
2	16"	4	30' 1/3	1/5	3.0	10/5	113.3	24.8	1079.5 x 1044.6 x 895.4	140.6	149.7	3.7-8.5			
2	18"	5	35°	1/3		1075	4500	70	42.5 x 51.5 x 35.25	340	360	12-28			
Z	2 18" 5 3	35- 1/3	1/3	4.4	10/5	127.4	21.3	1079.5 x 1308.1 x 895.4	154.2	163.3	3.7-8.5				
2	18"	5	35°	1/2	4.4	1075	4750	78	42.5 x 51.5 x 35.25	360	380	12-28			
2	2 18"	3	33	1/3	4.4		134.5	23.8	1079.5 x 1308.1 x 895.4	163.3	172.4	3.7-8.5			

## MORE FLEXIBILITY KEEPS EVERYONE COMFORTABLE

Lennox heating products are available in three unit designs to meet a wide range of commercial and residential applications.

With fourteen available models, it's easy to find the right size heater to keep your spaces comfortable. Horizontal and vertical wall venting options, as well as the 180° installation\* capability, allow the units to be placed in a number of locations.



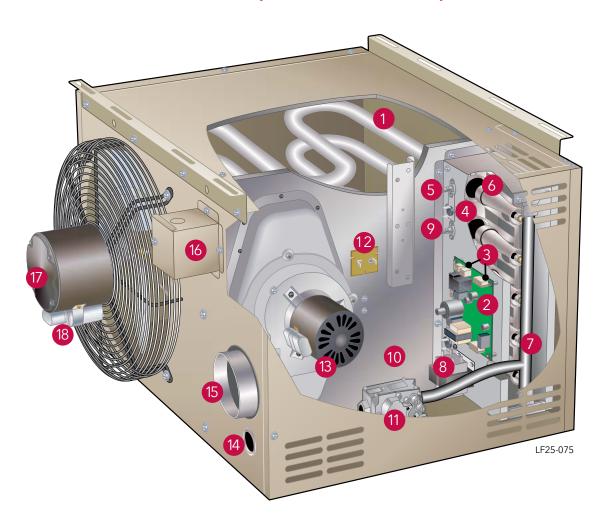
#### **UNIT HEATERS**

- Ideal for a wide range of commercial and residential applications
- Heating capacities from 30,000-400,000 BTU/h
- Up to 83.8% thermal efficiency
- Stainless steel heat exchanger available on 125, 000 400,000 BTU/h
- Sidewall venting eliminates roof penetrations
- Self-diagnostic board with LED display improves troubleshooting efficiency and accuracy

\* Only compact models can be installed 180°



## IMPROVED PERFORMANCE, INSTALLATION, AND SERVICEABILITY



- **Dimpled Tubular Heat Exchanger** improves efficiency and increase durability
- **DSI Control Board** offers the most diagnostic codes to speed up installation and diagnostics
- Removable Thermostat and Power Connections for speed of installation
- 4 Flame Rollout Switches improves safety
- 5 Flame Sensor improves safety
- **6** Burner Cluster
- Gas Manifold
- 8 24V Transformer

- Oirect Spark Igniter improves operation and efficiency
- 10 Pressure Switch verifies flue pipe is clear for safe operation (not shown)
- **24V Gas Valve** with 100% safety shut off
- 12 Primary Limit Switch improves safety
- (13) Combustion Air Inducer removes carbon
- 14 Gas Inlet
- 15 Flue Outlet
- Field Power Connection for quick install
- **Fan Motor**
- 18 Capacitor

## **SOLUTIONS FOR CUSTOMIZED COMFORT**

Don't just choose a Lennox product–choose a Lennox® Commercial Comfort System.

These complete packages of HVAC solutions provide tools to create a healthy and comfortable environment.



#### PACKAGED UNITS

- Energence® Rooftop Units
- Strategos® Rooftop Units
- Landmark® Rooftop Units
- Raider® Rooftop Units
- Accessories



#### **VRF**

- Outdoor Units
- Indoor Units
- Controls
- Accessories



#### **HEATING**

- Unit Heaters
- Duct Furnaces
- Furnaces



#### SPLIT SYSTEMS

- Elite® Series Large Split Systems
- S-Class® Air Conditioners/ Heat Pumps
- T-Class<sup>™</sup> Air Conditioners/ Heat Pumps
- Air Handlers
- Indoor Coils



#### **COMMERCIAL CONTROLS**

- Systems Integration Solutions
- Commercial Thermostats



#### MINI-SPLIT SYSTEMS

- Heat Pump Mini-Splits
- Low Ambient Heat Pump Mini-Splits
- Indoor Units
- Controls



#### INDOOR AIR QUALITY

- Dedicated Outdoor Air System<sup>™</sup>
- Humiditrol® Dehumidification System
- Demand Control Ventilation
- Air Filters
- UVC Lamps

