



ML16KP2

MERIT® SERIES

Two-Stage | Quantum™ Coil | R-454B | 1-Phase | 60Hz

RESIDENTIAL

PRODUCT SPECIFICATIONS (EHB)

2 to 5 Tons

SEER2 up to 17.5

HSPF2 up to 8.5

Cooling Capacity | 22,400 to 58,000 Btuh

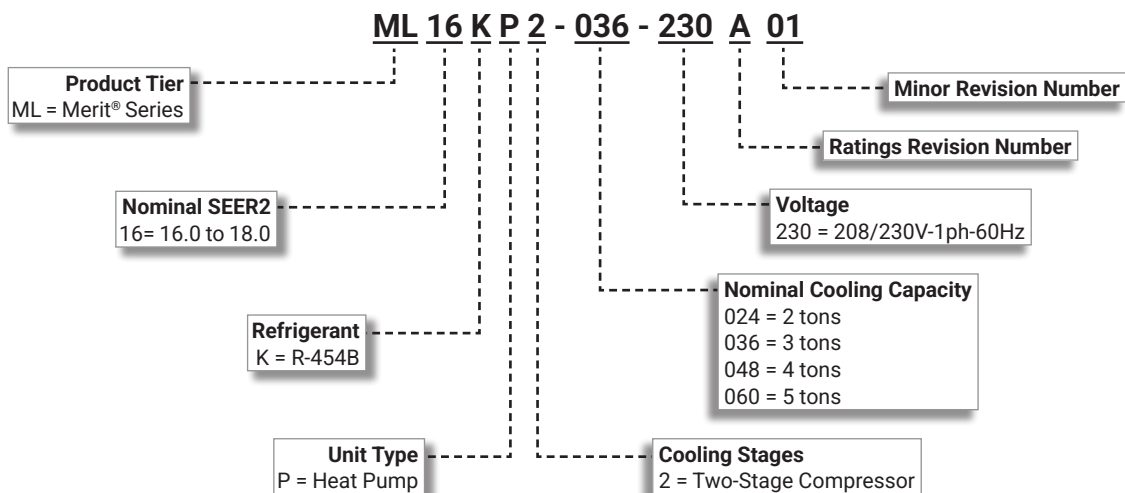
Heating Capacity | 21,200 to 54,000 Btuh



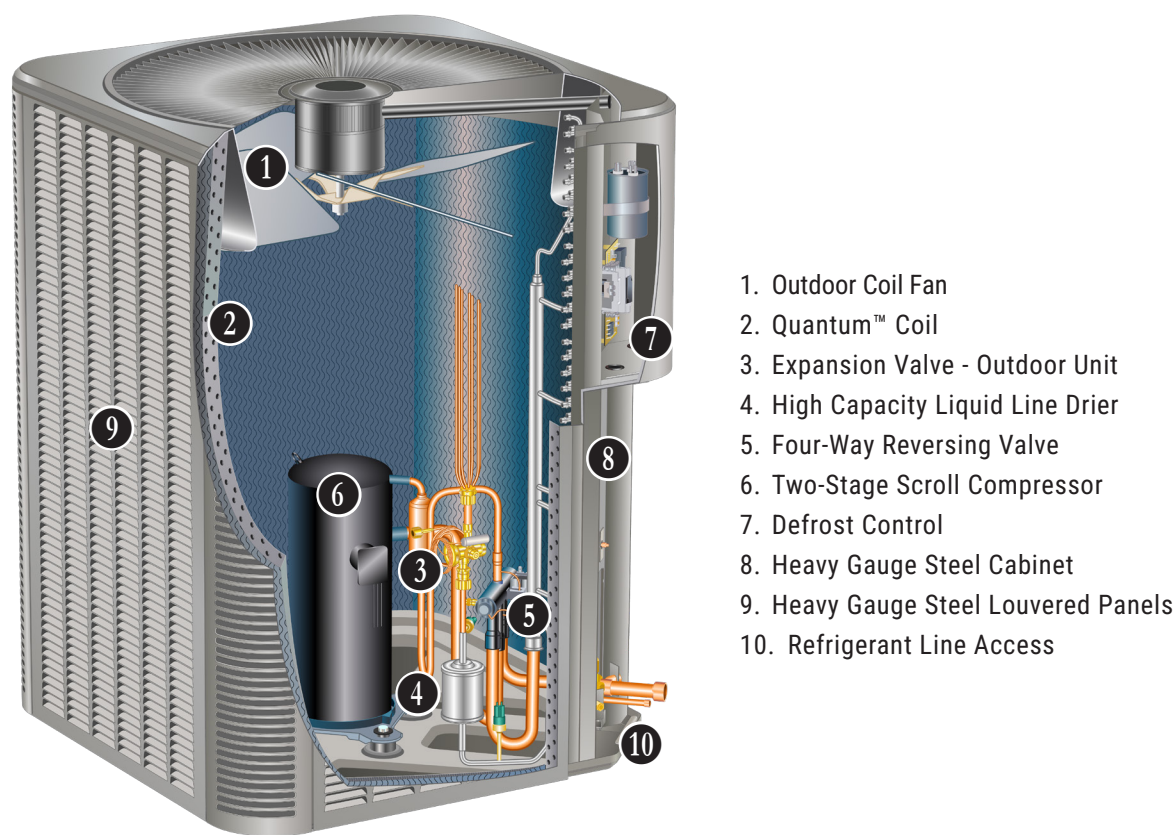
MERIT®
SERIES



MODEL NUMBER IDENTIFICATION



FEATURE HIGHLIGHTS



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APPROVALS AND WARRANTY

APPROVALS

- AHRI Standard 210-240-2023 certified
- AHRI Certified system match-ups and expanded ratings, visit www.LennoxPros.com
- ENERGY STAR® certified
- Sound rated to AHRI Standard 270-2008 test conditions
- Tested in Lennox' Research Laboratory environmental test room
- Rated According to U.S. Department of Energy (DOE) test procedures
- Unit and components ETL, NEC and CEC bonded for grounding to meet safety standards for servicing
- ETL certified (U.S. and Canada)
- ISO 9001 Registered Manufacturing Quality System

WARRANTY

- Compressor:
 - Limited five years in residential/non-residential installations
- 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

- 2 through 5 tons
- Single phase power supply
- Sound levels low as 72 dBA
- Vertical air discharge
- Applicable to indoor air handlers or gas furnaces with indoor add-on coils
- Shipped completely factory assembled, piped and wired

NOTE - When heat pumps are used with gas furnaces, a dual-fuel compatible thermostat or zone control system with dual-fuel capabilities must be used (order separately).

NOTE - Installer must set outdoor unit, connect refrigerant lines and make electrical connections to complete job.

REFRIGERATION SYSTEM

R-454B Refrigerant

- Low GWP (Global Warming Potential)
- Zero ODP (Ozone Depletion Potential)
- Low Toxicity/Lower Flammability - A2L
- Unit is factory pre-charged

NOTE - Total system refrigerant charge is dependent on outdoor unit size, indoor unit size and refrigerant line length.

NOTE - Refer to the unit-mounted charging sticker to determine correct amount of charge required.

1 Outdoor Coil Fan

- Direct drive PSC fan
- Vertical air discharge
- Louvered steel top fan guard
- Totally enclosed fan motor
- Ball bearings
- Inherently protected

2 Quantum™ Coil

- Lennox designed and fabricated coil
- Enhanced aluminum alloy tube/enhanced fin coil
- Superior corrosion resistance
- Ripple-edged aluminum fins
- Aluminum tube construction
- Lanced fins for maximum fin surface exposure
- Fin collars grip tubing for maximum contact area
- Flared shoulder tubing connections
- Factory tested under high pressure
- Entire coil is accessible for cleaning

3 Expansion Valve - Outdoor Unit

- Designed and sized for heat pump systems
- Sensing bulb senses suction temperature during heating cycle

High Pressure Switch

- Protects the system from high pressure conditions
- Automatic reset

FEATURES

REFRIGERATION SYSTEM (continued)

Low Pressure Switch

- Protects the compressor from low pressure conditions such as low refrigerant charge, or low/no indoor airflow
- Shuts off the outdoor unit if suction pressure falls below setting
- Automatic reset

4 High Capacity Liquid Line Drier

- Factory installed in the liquid line
- Drier traps moisture or dirt that could contaminate the system
- 100% molecular-sieve, bead type, bi-flow drier

5 Four-Way Reversing Valve

- Rapid changeover of refrigerant flow direction from cooling to heating and vice versa
- Operates on pressure differential between outdoor unit and indoor coil

Optional Accessories

Check/Expansion Valve Kits

- Field installed on indoor units (if required)
- See TXV Usage table
- Chatleff-style fitting

Freezestat

- Protects the system from ice buildup on the indoor coil due to conditions such as low/no airflow, or low refrigerant charge
- Cycles compressor off when suction line temperature falls below freezestat setpoint
- Opens at 29°F and closes at 58°F
- Installs on or near the discharge line of the indoor coil or on the suction line

Refrigerant Line Kits

- Refrigerant lines are shipped refrigeration clean
- Lines are cleaned, dried, pressurized and sealed at factory
- Suction line fully insulated
- Lines are stubbed at both ends

COMPRESSOR

6 Two-Stage Scroll Compressor

- High volumetric efficiency
- Uniform suction flow
- Constant discharge flow
- Quiet operation
- A 24-volt DC solenoid valve inside the compressor controls staging
- When the solenoid is de-energized the lift ring assembly moves to unblock the compressor ports and the compressor operates at part-load or approximately 67% of its full-load capacity
- The “loading” and “unloading” of the two stage scroll is done “on the fly” without shutting off the single-speed compressor motor between stages
- Compressor motor is internally protected from excessive current and temperature
- Compressor is installed in the unit on specially formulated, resilient rubber mounts for better sound dampening and vibration free operation

Compressor Crankcase Heater

(Factory installed on -036-048-060 models)

- Prevents migration of liquid refrigerant into compressor and ensures proper compressor lubrication

Optional Accessories

Compressor Crankcase Heater

(Optional for -024 model)

- Prevents migration of liquid refrigerant into compressor and ensures proper compressor lubrication

Compressor Sound Cover

- Reinforced vinyl compressor cover
- 1-1/2 inch thick batt of fiberglass insulation
- Hook and loop fastening tape on all open edges

FEATURES

INDOOR REFRIGERANT DETECTION SYSTEM (RDS)

- Complies with UL 60335-2-40 approved standard
- Required for all systems using R-454B refrigerant
- Factory or field installed on all indoor units
- Consists of a RDS refrigerant detection sensor and a mitigation control in the indoor unit
- Ensures safe operation for systems equipped with R-454B refrigerant
- Indoor sensor will detect any R-454B refrigerant
- If R-454B refrigerant is detected, the refrigerant detection system will stop compressor operation and operate the blower to reduce concentrations in the conditioned space
- Once safe levels are reached the HVAC system will resume normal operation
- Refer to indoor unit Product Specifications documents for additional details

CONTROLS

7 Defrost Control

- Control furnished as standard
- Enables a demand defrost cycle whenever system heating performance falls below optimum levels
- Sensing element on coil determines when defrost cycle is required and when to terminate cycle
- Anti-short cycle (5 minutes) incorporated into the board
- Diagnostic LEDs furnished as an aid in troubleshooting
- Conveniently located in control box

Optional Accessories

Thermostat

- Thermostat is not furnished with unit
- See Page 6

Compressor Low Ambient Cut-Off

- Non-adjustable switch (low ambient cut-out)
- Prevents compressor operation in cooling mode when outdoor temperature is below 35°F

Compressor Hard Start Kit

- Single-phase units are equipped with a PSC compressor motor
- This type of motor normally does not need a potential relay and start capacitor
- For conditions such as low voltage, kit may be required to increase the compressor starting torque

Low Ambient Kit

- Heat pump can operate in the cooling mode down to 45°F outdoor air temperature without additional controls
- Allows unit to operate properly down to 30°F in the cooling mode

NOTE - Crankcase heater and freezestat should be installed on compressors equipped with a low ambient kit.

NOTE - A compressor lock-out thermostat should be added to terminate compressor operation below recommended operation conditions.

Mild Weather Kit

- Units can operate in the heating mode at outdoor air temperatures up to 75°F
- Field installed kit allows heating operation above 75°F

Outdoor Thermostat Kit

- Outdoor thermostat locks out some of the electric heating elements on indoor units where two-stage control is applicable
- Outdoor thermostat maintains the heating load on low power input as long as possible before allowing the full power load to come on the line

8 CABINET

- Heavy gauge steel cabinet
- Pre-painted powder paint cabinet finish

9

- Louvered heavy gauge steel panels
- Control box conveniently located with all controls factory wired
- Corner patch plate allows compressor access
- Drainage holes provided in base section

Zinc-Coated Steel Unit Base

- Resists rust and corrosion

10 Refrigerant Line Connections, Electrical Inlets, Service Valves

- Braze connection vapor and liquid lines
- Located on corner of unit cabinet
- Fully serviceable brass service valves
- Vapor valve can be fully shut off, while liquid valve may be front seated to manage refrigerant charge while servicing system
- Refrigerant line connections and field wiring inlets are located in one central area of cabinet for easy access
- See dimension drawing

Braze-Free/Press Fitting Flexibility

- Units can accommodate braze-free or press fittings for installation versatility

Optional Accessories

Unit Stand-Off Kit

- Black high density polyethylene feet
- Raises unit off mounting surface
- Four feet furnished per order number

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 Amazon Alexa®, Google Assistant, Control4®, Building36®, Matter and IFTTT
- 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



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

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.

Sensor is required in dual-fuel applications when the E40 is not connected to the internet to control changeover.

Sensor is required with Enhanced Dehumidification Accessory (EDA) applications.

SPECIFICATIONS					
Size		024	036	048	060
Nominal Tonnage		2	3	4	5
Sound Rating Number (dBA)	Low	73	72	78	77
	High	74	75	77	77
Connections (sweat)	Liquid line (OD) - in.	3/8	3/8	3/8	3/8
	Vapor line (OD) - in.	3/4	7/8	7/8	1-1/8
Refrigerant (30 ft. Line Set) ¹ R-454B charge furnished		7 lbs. 7 oz.	8 lbs. 4 oz.	10 lbs. 10 oz.	11 lbs. 1 oz.
Indoor Unit Expansion Valve (TXV)		26Z70	26Z70	26Z71	26Z72
Outdoor Coil	Net face area - ft. ² Outer coil	24.5	22.2	24.93	29.09
	Inner coil	- - -	21.5	24.13	28.16
	Tube diameter - in.	5/16	5/16	5/16	5/16
	Rows	1	2	2	2
	Fins - in.	22	22	22	22
Outdoor Fan	HP	1/8	1/3	1/3	1/3
	Diameter - in.	22	26	26	26
	Blades	2	3	4	4
	Cfm	2840	3590	4110	4060
	Rpm	825	825	825	825
	Watts	127	220	250	260
Shipping Data - lbs.		179	207	230	263
ELECTRICAL DATA					
Line voltage data (Volts-Phase-Hz)		208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60
² Maximum overcurrent protection (MOCP) amps		25	35	40	50
³ Minimum circuit ampacity (MCA)		15.4	21.3	25.5	34.1
Compressor	Rated Load Amps	10.3	14.9	18.3	25.2
	Locked Rotor Amps	62	90	138	147.3
Fan Motor	Full Load Amps	2.6	2.6	2.6	2.6
OPTIONAL ACCESSORIES - ORDER SEPARATELY					
Compressor Crankcase Heater		93M04	•	Factory	Factory
Compressor Hard Start Kit		Copeland 10J42	•	•	•
Compressor Sound Cover		18J42	•	•	•
Compressor Low Ambient Cut-Off		45F08	•	•	•
Freezestat		3/8 in. 93G35	•	•	•
⁴ Low Ambient Kit (30°F)		54M89	•	•	•
Mild Weather Kit		11B97	•	•	•
Outdoor Thermostat Kit		10Z23	•	•	•
Refrigerant Line Sets	3/8 x 3/4 3/8 20 ft.	89J56			
	3/8 x 3/4 3/8 30 ft.	89J57	•		
	Liquid x Suction OD 3/8 x 3/4 3/8 50 ft.	89J59			
	Insulation Thickness 3/8 x 7/8 3/8 30 ft.	89J60		•	
	Length 3/8 x 7/8 3/8 50 ft.	89J62		•	
		3/8 x 1-1/8 3/8 50 ft.	73P91		•
Unit Stand-Off Kit		94J45	•	•	•

NOTE - Extremes of operating range are plus 10% and minus 5% of line voltage.

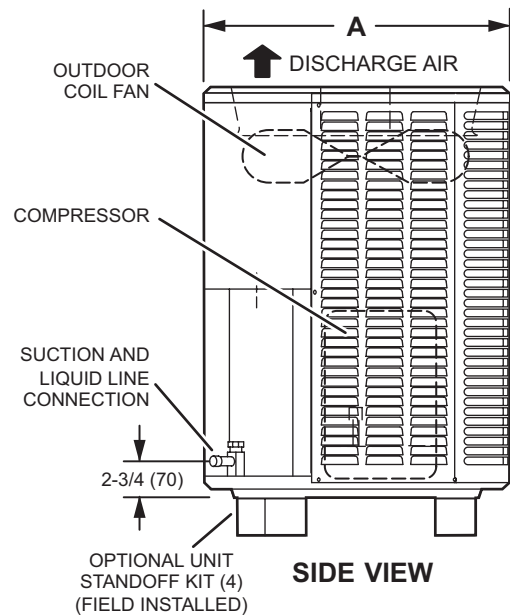
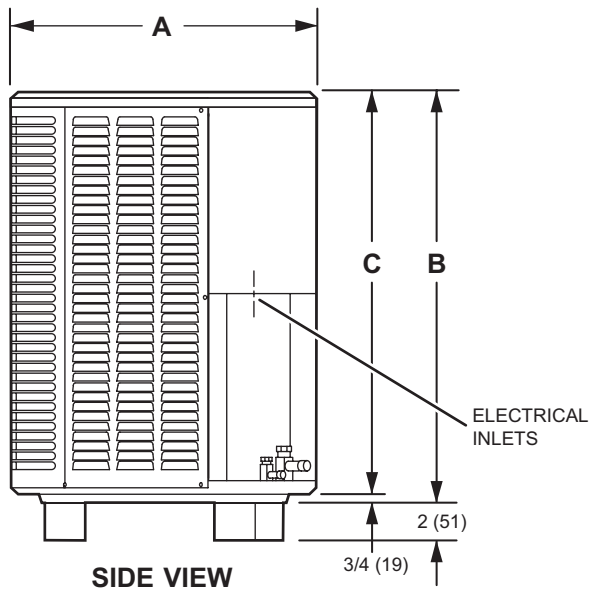
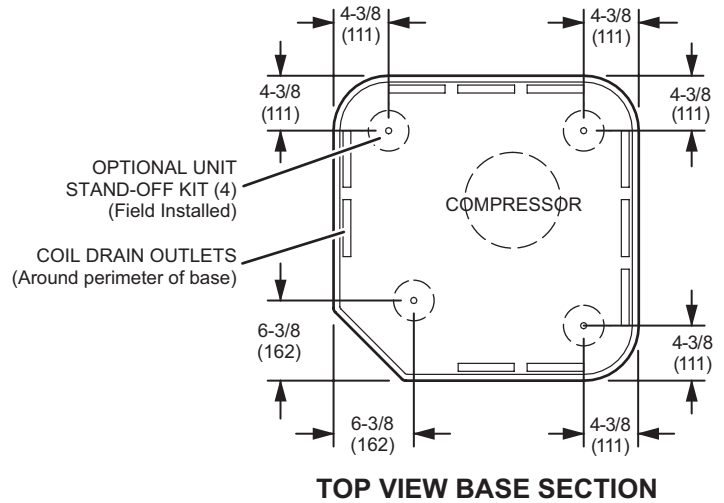
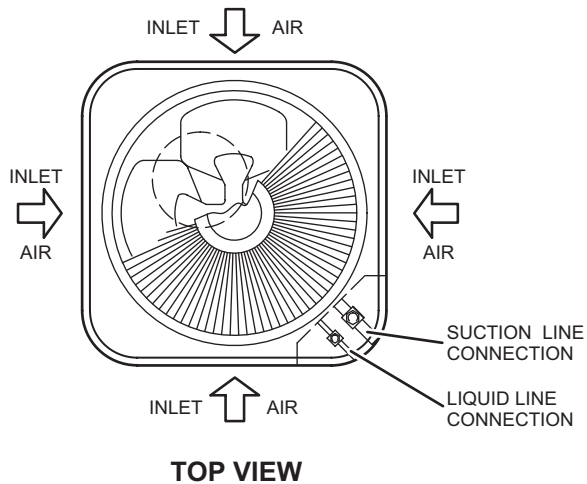
¹ Refrigerant charge is sufficient 30 ft. of line set. For longer line set requirements see the Installation Instructions or unit Charging Label for information about line set length and additional refrigerant charge required.

² HACR type breaker or fuse.

³ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

⁴ Crankcase Heater and Freezestat are recommended with Low Ambient Kit.

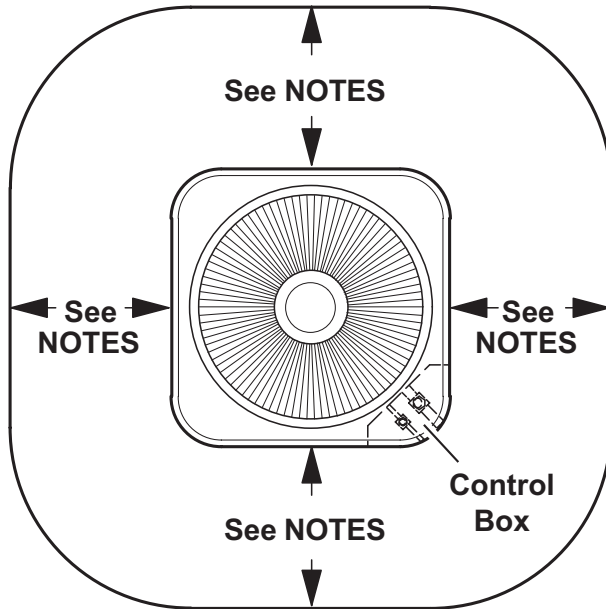
DIMENSIONS



Size	A Width and Depth		B Height		C	
	in.	mm	in.	mm	in.	mm
024	28-1/4	718	43-1/4	1099	42-1/2	1080
036	32-1/4	819	33-1/4	845	32-1/2	826
048	32-1/4	819	37-1/4	946	36-1/2	927
060	32-1/4	819	43-1/4	1099	42-1/2	1080

INSTALLATION CLEARANCES

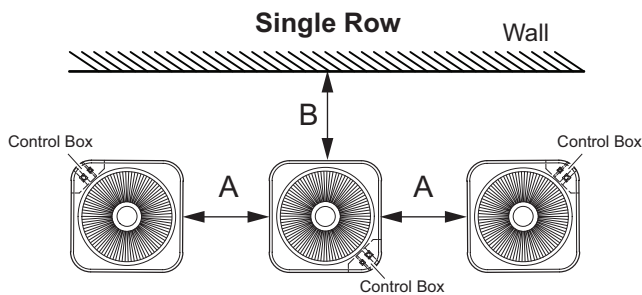
SINGLE-UNIT INSTALLATION



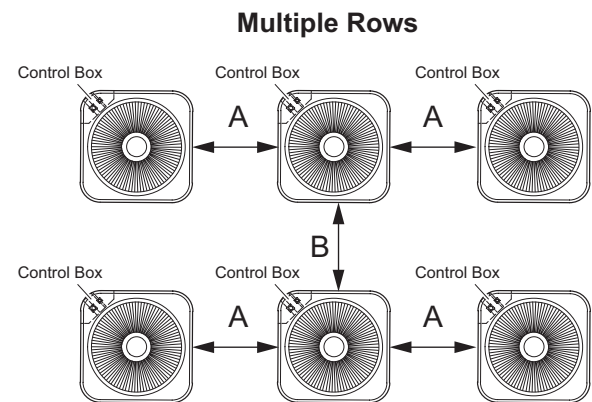
Single-Unit Installation Notes:

- Service Clearance - 24 in. (610 mm) on one of the sides adjacent to the Control Box.
- One of other three sides must be 36 in. (914 mm).
- One of the two remaining sides may be 12 in. (305 mm).
- The remaining side may be 6 in. (152 mm).
- 48 in. (1219 mm) clearance required on top of unit.

MULTI-UNIT INSTALLATIONS



Required Minimum Clearances	A	B
	12 in. (305 mm) [18 in. (457 mm) recommended]	12 in. (305 mm)



Required Minimum Clearances	A	B
	12 in. (305 mm) [18 in. (457 mm) recommended]	24 in. (610 mm)

Multi-Unit Installation Notes:

- Recommended service clearance of 24 in. (610 mm) on one side.
- 48 in. (1219 mm) clearance required on top of the unit.

SOUND DATA

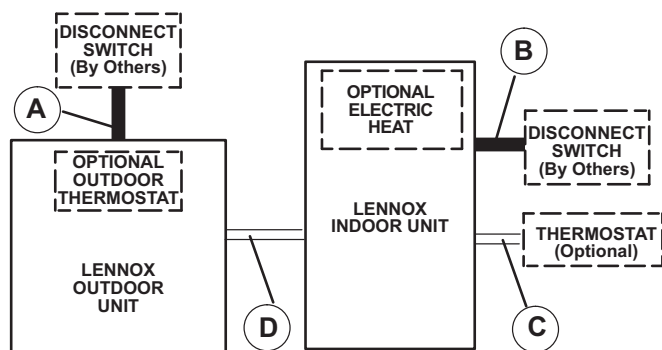
Size	Octave Band Sound Power Levels dBA, re 10 ⁻¹² Watts Center Frequency - HZ							¹ Sound Rating Number (dBA)	² Estimated Sound Pressure Level at Distance From Unit (dBA at distance in ft.)				
	125	250	500	1000	2000	4000	8000		3	5	10	15	50
024 Low	55	62.5	66.5	68	65.5	62	59.5	73	66	61	55	52	41
024 High	55	63	65.5	71.5	66	60.5	55	74	67	62	56	53	42
036 Low	54.5	60.5	64.5	67.5	63.5	59.5	60.5	72	65	60	54	51	40
036 High	57.5	66.5	67.5	71.5	66.5	59.5	57.5	75	68	63	57	54	43
048 Low	61	70.5	73	71.5	68.5	62.5	58.5	78	71	66	60	57	46
048 High	60.5	69.5	72.5	71.5	68.5	62	55	77	70	65	59	56	45
060 Low	62.5	70	72.5	71	68	66	63	77	70	65	59	56	45
060 High	61.5	68.5	72	71.5	68	63.5	58.5	77	70	65	59	56	45

NOTE - The octave sound power data does not include tonal correction.

¹ Tested according to AHRI Standard 270 test conditions. Sound rating Number is the overall A-Weighted Sound Power Level, (LWA), dB (100 Hz to 10,000 Hz).

² Estimated sound pressure level at distance based on AHRI Standard 275 method for equipment located on the ground, roof, or on side of building wall with no adjacent reflective surface within 9.8 feet. Sound pressure levels will increase based on changes to assumptions. For other applications, refer to AHRI Standard 275.

FIELD WIRING



A - Two Wire Power (see Electrical Data)

B - Two or Three Wire Power (size to heater capacity)

C - Twelve Wire Low Voltage 18 ga. minimum
Fourteen Wire Low Voltage with Optional Outdoor
Thermostat

D - Eight Wire Low Voltage 18 ga. minimum
Ten Wire Low Voltage with Optional Outdoor Thermostat

NOTE - Field Wiring Not Furnished

All wiring must conform to NEC or CEC and local electrical codes.

EXPANDED PERFORMANCE DATA

NOTE - For additional expanded ratings, please see the ACCA Manual S Cooling and Heat Pump Capacity Calculator at www.LennoxPros.com

ML16KP2-024-230 + CBK47UHET-024-230 (FULL LOAD COOLING)

Entering Wet Bulb Tem- perature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
				75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	800	24.6	1.33	0.79	0.95	1	23.4	1.5	0.81	0.97	1	22.1	1.7	0.83	1	1	21	1.93	0.86	1	1
	900	25.2	1.33	0.82	0.99	1	24	1.5	0.84	1	1	22.9	1.71	0.87	1	1	21.8	1.94	0.9	1	1
	1000	25.9	1.33	0.85	1	1	24.7	1.51	0.88	1	1	23.6	1.71	0.91	1	1	22.4	1.94	0.94	1	1
67°F	800	26.2	1.33	0.61	0.76	0.91	24.9	1.51	0.62	0.78	0.94	23.7	1.71	0.64	0.81	0.97	22.3	1.94	0.66	0.83	1
	900	26.9	1.34	0.63	0.8	0.95	25.5	1.51	0.65	0.82	0.98	24.2	1.71	0.67	0.85	1	22.8	1.94	0.68	0.88	1
	1000	27.3	1.34	0.65	0.83	0.99	26	1.52	0.67	0.85	1	24.6	1.72	0.69	0.88	1	23.1	1.94	0.71	0.92	1
71°F	800	27.8	1.34	0.46	0.6	0.74	26.5	1.52	0.47	0.61	0.76	25.2	1.72	0.47	0.63	0.78	23.8	1.95	0.48	0.64	0.81
	900	28.4	1.35	0.47	0.62	0.77	27.1	1.52	0.48	0.64	0.8	25.7	1.72	0.48	0.65	0.82	24.3	1.95	0.49	0.67	0.85
	1000	29	1.35	0.48	0.64	0.8	27.5	1.53	0.49	0.66	0.83	26.1	1.73	0.5	0.68	0.86	24.6	1.95	0.51	0.7	0.89
Entering Wet Bulb Tem- perature	Total Air Volume	125°F																			
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		Dry Bulb															
				Dry Bulb																	
				75°F	80°F	85°F															
			cfm	kBtuh	kW	75°F	80°F	85°F													
63°F	800	19.8	2.21	0.89	1	1															
	900	20.6	2.21	0.94	1	1															
	1000	21.2	2.21	0.99	1	1															
67°F	800	20.8	2.21	0.68	0.87	1															
	900	21.2	2.21	0.7	0.91	1															
	1000	21.4	2.21	0.73	0.96	1															
71°F	800	22.2	2.21	0.49	0.67	0.84															
	900	22.7	2.22	0.5	0.7	0.89															
	1000	23.1	2.22	0.52	0.73	0.94															

ML16KP2-024-230 + CBK47UHET-024-230 (FULL LOAD HEATING)

Indoor Coil Air Volume 70°F Dry Bulb cfm	Air Temperature Entering Outdoor Coil							
	65°F		45°F		25°F		5°F	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW
800	28.3	1.39	21.6	1.25	15.9	1.1	10.3	1.08
900	28.6	1.34	21.8	1.21	16	1.1	10.4	1.06
1000	28.8	1.34	21.9	1.18	16.1	1.1	10.4	1.05

EXPANDED PERFORMANCE DATA

NOTE - For additional expanded ratings, please see the **ACCA Manual S Cooling and Heat Pump Capacity Calculator** at www.LennoxPros.com

ML16KP2-036-230 + CBK47UHET-036-230 (FULL LOAD COOLING)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
				cfm	kBtuh	kW			75°F	80°F	85°F	kBtuh		kW	75°F	80°F	85°F		kBtuh	kW	75°F
63°F	960	36	2.08	0.73	0.86	0.99	34.6	2.34	0.74	0.88	1	32.8	2.64	0.76	0.91	1	31.2	3.01	0.78	0.93	1
	1110	37.3	2.09	0.76	0.91	1	35.5	2.35	0.78	0.93	1	33.9	2.65	0.8	0.95	1	31.9	3.01	0.82	0.99	1
	1260	38	2.09	0.8	0.95	1	36.5	2.35	0.81	0.97	1	34.8	2.65	0.83	1	1	33	3.01	0.86	1	1
67°F	960	38.2	2.09	0.58	0.71	0.83	36.7	2.35	0.59	0.72	0.85	35	2.65	0.6	0.73	0.87	33	3.01	0.61	0.75	0.9
	1110	39.5	2.1	0.6	0.74	0.88	37.9	2.36	0.61	0.76	0.89	36.1	2.66	0.62	0.77	0.93	33.9	3.01	0.63	0.8	0.95
	1260	40.4	2.1	0.62	0.77	0.92	38.7	2.36	0.63	0.79	0.95	36.6	2.66	0.64	0.81	0.97	34.8	3.02	0.66	0.83	1
71°F	960	40.3	2.1	0.45	0.56	0.68	38.5	2.36	0.45	0.57	0.7	36.8	2.66	0.45	0.58	0.71	34.9	3.02	0.46	0.59	0.73
	1110	41.4	2.11	0.46	0.59	0.72	39.8	2.36	0.46	0.6	0.73	37.9	2.66	0.47	0.61	0.75	35.9	3.02	0.47	0.62	0.77
	1260	42.5	2.11	0.47	0.61	0.75	40.7	2.37	0.47	0.62	0.77	38.8	2.67	0.48	0.64	0.79	36.8	3.02	0.49	0.65	0.82
Entering Wet Bulb Temperature	Total Air Volume	125°F																			
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Dry Bulb														
				Dry Bulb																	
				75°F	80°F	85°F															
		cfm	kBtuh	kW	75°F	80°F	85°F														
63°F	960	29.2	3.43	0.8	0.97	1															
	1110	29.9	3.43	0.85	1	1															
	1260	31.2	3.44	0.89	1	1															
67°F	960	31.2	3.44	0.62	0.78	0.93															
	1110	31.9	3.44	0.65	0.82	0.99															
	1260	32.4	3.44	0.68	0.87	1															
71°F	960	32.7	3.44	0.46	0.61	0.76															
	1110	33.7	3.45	0.49	0.64	0.8															
	1260	34.5	3.44	0.49	0.67	0.84															

ML16KP2-036-230 + CBK47UHET-036-230 (FULL LOAD HEATING)

Indoor Coil Air Volume 70°F Dry Bulb cfm	Air Temperature Entering Outdoor Coil							
	65°F		45°F		25°F		5°F	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
960	44.4	2.6	34.6	2.33	26	2.6	16.1	1.91
1110	45.1	2.45	35	2.22	26.2	2.04	16.2	1.87
1260	45.6	2.45	35.4	2.14	26.3	1.99	16.3	1.84

EXPANDED PERFORMANCE DATA

NOTE - For additional expanded ratings, please see the ACCA Manual S Cooling and Heat Pump Capacity Calculator at www.LennoxPros.com

ML16KP2-048-230 + CBK47UHET-048-230 (FULL LOAD COOLING)

Entering Wet Bulb Tem- perature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
				75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	1360	47.4	2.7	0.73	0.87	1	45.5	3.08	0.75	0.89	1	43.3	3.51	0.76	0.91	1	40.7	3.99	0.78	0.94	1
	1560	48.9	2.71	0.76	0.91	1	46.5	3.09	0.78	0.94	1	44.3	3.51	0.8	0.96	1	41.9	4	0.82	0.99	1
	1760	50.1	2.72	0.8	0.95	1	47.7	3.09	0.81	0.98	1	45.4	3.52	0.83	1	1	43.1	4	0.86	1	1
67°F	1360	49.9	2.72	0.58	0.71	0.84	47.9	3.09	0.59	0.72	0.85	45.6	3.52	0.6	0.74	0.88	43.2	4	0.61	0.76	0.91
	1560	51.4	2.74	0.6	0.74	0.88	49.2	3.1	0.61	0.76	0.9	46.9	3.53	0.62	0.78	0.93	44.4	4	0.63	0.8	0.96
	1760	52.8	2.75	0.62	0.77	0.92	50.5	3.11	0.63	0.79	0.94	48.1	3.54	0.64	0.81	0.97	45.5	4.01	0.66	0.83	1
71°F	1360	52.9	2.75	0.44	0.56	0.69	50.6	3.11	0.44	0.57	0.7	48.3	3.54	0.45	0.58	0.72	45.9	4.01	0.45	0.59	0.74
	1560	54.4	2.76	0.45	0.59	0.72	52.2	3.13	0.45	0.6	0.73	49.8	3.55	0.46	0.61	0.75	47.2	4.02	0.46	0.62	0.78
	1760	55.7	2.77	0.46	0.61	0.75	53.4	3.14	0.47	0.62	0.77	50.9	3.56	0.47	0.63	0.79	48.2	4.02	0.48	0.65	0.81
Entering Wet Bulb Tem- perature	Total Air Volume	125°F																			
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		Dry Bulb															
				Dry Bulb																	
				75°F	80°F	85°F															
		cfm	kBtuh	kW	75°F	80°F	85°F														
63°F	1360	38.1	4.52	0.81	0.98	1															
	1560	39.5	4.52	0.85	1	1															
	1760	40.9	4.52	0.89	1	1															
67°F	1360	40.6	4.52	0.62	0.79	0.94															
	1560	41.7	4.52	0.65	0.82	0.99															
	1760	42.7	4.53	0.68	0.87	1															
71°F	1360	43.2	4.53	0.46	0.61	0.76															
	1560	44.3	4.54	0.47	0.64	0.8															
	1760	45.1	4.54	0.49	0.67	0.84															

ML16KP2-048-230 + CBK47UHET-048-230 (FULL LOAD HEATING)

Indoor Coil Air Volume 70°F Dry Bulb cfm	Air Temperature Entering Outdoor Coil							
	65°F		45°F		25°F		5°F	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
1360	56.4	3.19	43.3	2.84	31.6	31.6	21.4	2.21
1560	57.1	3	43.7	2.71	32.1	2.51	21.6	2.17
1760	57.8	3	44	2.61	31.8	2.44	21.7	2.14

EXPANDED PERFORMANCE DATA

NOTE - For additional expanded ratings, please see the ACCA Manual S Cooling and Heat Pump Capacity Calculator at www.LennoxPros.com

ML16KP2-060-230 + CBK47UHET-060-230 (FULL LOAD COOLING)

Entering Wet Bulb Tem- perature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
				75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	1360	56.8	3.47	0.7	0.82	0.94	54.4	3.93	0.71	0.84	0.96	51.8	4.45	0.73	0.86	0.99	48.7	5.04	0.75	0.89	1
	1610	59.3	3.5	0.73	0.86	0.99	56.7	3.96	0.75	0.89	1	53.4	4.47	0.77	0.92	1	50.5	5.07	0.79	0.95	1
	1860	61.3	3.52	0.76	0.91	1	58.2	3.97	0.78	0.94	1	55.2	4.49	0.8	0.97	1	52	5.09	0.83	1	1
67°F	1360	59.8	3.51	0.56	0.68	0.79	57.3	3.96	0.57	0.69	0.81	54.4	4.49	0.58	0.7	0.83	51.2	5.08	0.58	0.72	0.85
	1610	62.4	3.53	0.58	0.71	0.83	59.7	3.99	0.59	0.72	0.85	56.4	4.51	0.6	0.75	0.88	53.2	5.11	0.61	0.77	0.92
	1860	64.5	3.56	0.6	0.74	0.87	61.6	4.02	0.61	0.76	0.9	58.1	4.54	0.63	0.78	0.94	54.7	5.14	0.64	0.81	0.97
71°F	1360	63.5	3.55	0.43	0.54	0.65	60.8	4.01	0.43	0.55	0.67	57.6	4.53	0.44	0.56	0.68	54.4	5.13	0.44	0.57	0.7
	1610	65.2	3.56	0.44	0.57	0.69	63	4.03	0.44	0.58	0.7	59.6	4.56	0.45	0.59	0.72	56.3	5.16	0.46	0.6	0.75
	1860	67.6	3.59	0.45	0.59	0.72	64.2	4.05	0.46	0.6	0.74	61	4.58	0.46	0.61	0.76	57.5	5.18	0.47	0.63	0.79
Entering Wet Bulb Tem- perature	Total Air Volume	125°F																			
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)																	
				Dry Bulb																	
				75°F	80°F	85°F															
		cfm	kBtuh	kW	75°F	80°F	85°F														
63°F	1360	45.1	5.72	0.77	0.93	1															
	1610	46.8	5.75	0.82	0.99	1															
	1860	48.8	5.78	0.86	1	1															
67°F	1360	47.8	5.77	0.6	0.75	0.89															
	1610	49.6	5.8	0.63	0.8	0.95															
	1860	50.9	5.82	0.67	0.84	1															
71°F	1360	50.8	5.82	0.45	0.58	0.73															
	1610	52.6	5.85	0.46	0.62	0.78															
	1860	53.8	5.87	0.48	0.65	0.82															

ML16KP2-060-230 + CBK47UHET-060-230 (FULL LOAD HEATING)

Indoor Coil Air Volume 70°F Dry Bulb cfm	Air Temperature Entering Outdoor Coil							
	65°F		45°F		25°F		5°F	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW
1360	66.8	4.36	52.2	3.83	39.3	3.3	26.5	3.01
1610	67.8	4.08	52.9	3.62	39.6	3.21	26.4	2.91
1860	68.7	4.08	53.4	3.47	39.8	3.1	26.5	2.84

TXV USAGE

All Lennox coils and air handlers are shipped with a factory installed TXV. In most cases, no substitution is needed. If a different size TXV is required, it will be listed in the "TXV SUBSTITUTION" table by size. The correct TXV must be ordered separately and field installed.

Size	Order Number
024	26Z70
036	26Z70
048	26Z71
060	26Z72

AHRI STANDARD 210-240-2023

Cooling or heating capacities are net values, including the effects of blower motor heat, and do not include supplementary heat. Power input is the total power input to the compressor(s) and fan(s), plus any controls and other items required as part of the system for normal operation.

Units which do not have an indoor air-circulating blower furnished as part of the model, i.e., split system with indoor coil only, is established by subtracting from the total cooling capacity 1250 Btu/h per 1,000 cfm, and by adding the same amount to the heating capacity.

Total power input for both heating and cooling is increased by 365 W per 1,000 cfm of indoor air circulated.

TXV SUBSTITUTION - R-454B

A general guide for replacing the factory installed R-454B TXV if the indoor unit (coil/air handler) is larger or smaller than the outdoor unit.

Outdoor Unit		Indoor Unit		Indoor TXV Furnished	Indoor TXV Replacement
Size	Tons	Size	Tons		
024	2	42	3.5	26Z71	26Z70
024	2	48	4	26Z71	26Z70
024	2	49	4	26Z71	26Z70
024	2	50/60	4/5	26Z71	26Z70
024	2	51/61	4/5	26Z71	26Z70
024	2	60	5	26Z72	26Z70
036	3	42	3.5	26Z71	26Z70
036	3	48	4	26Z71	26Z70
036	3	49	4	26Z71	26Z70
036	3	50/60	4/5	26Z71	26Z70
036	3	51/61	4/5	26Z71	26Z70
036	3	60	5	26Z72	26Z70
048	4	30/36	2.5/3	26Z70	26Z71
048	4	36	3	26Z70	26Z71
048	4	60	5	26Z72	26Z71
060	5	50/60	4/5	26Z71	26Z72
060	5	51/61	4/5	26Z71	26Z72

TXV Ranges:

26Z70 - 1.5 to 3 ton systems - Use on 3 ton (036) and lower systems.

26Z71 - 3.5-4 ton systems - Use on 4 ton (048) and down to 3.5 ton (042) systems.

26Z72 - 5 ton systems - Use on 5 ton (060) systems only.

REVISIONS

Sections	Description of Change
New Section	Added Expanded Performance Data tables.



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Contact us at 1-800-9-LENNOX

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. 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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