

HEAT PUMP OUTDOOR UNITS



ENGINEERING DATA

HP13 ELITE® SERIES R-22

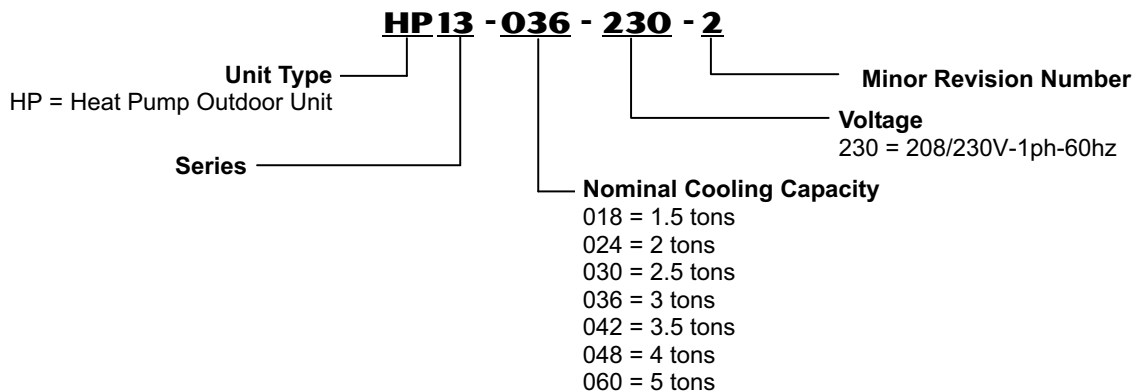
Bulletin No. 210440
March 2009
Supersedes April 2008



SEER - up to 14.0
1.5 to 5 Tons

Cooling Capacity - 18,500 to 58,000 Btuh
Heating Capacity - 16,700 to 55,500 Btuh

MODEL NUMBER IDENTIFICATION



FEATURES

CONTENTS

AHRI Indoor Coil / Air Handler Substitutions	Page 8
AHRI Ratings	Pages 9-15
Dimensions	Page 7
Electrical Data	Page 5
Features	Pages 2-4
Field Wiring	Page 6
Installation Clearances	Page 6
Model Number Identification	Page 1
Optional Accessories	Page 5
Sound Data	Page 6
Specifications	Page 5

EQUIPMENT WARRANTY

Compressor - Limited ten years in residential installations and five years in non-residential installations.

All other covered components - Limited five years in residential installations and one year in non-residential installations.

Refer to Lennox Equipment Limited Warranty certificate included with unit for specific details.

APPROVALS

Certified in accordance with USE certification program which is based on AHRI Standard 210/240-94.

Sound rated in Lennox reverberant sound test room in accordance with test conditions included in AHRI Standard 270.

Tested in the Lennox Research Laboratory environmental test room.

Rated according to U.S. Department of Energy (DOE) test procedures.

Heat pump outdoor units and components within bonded for grounding to meet safety standards for servicing required by UL, NEC, and CEC.

Units are UL and ULC listed.

ISO 9001 Registered Manufacturing Quality System.

ENERGY STAR® certified units are designed to use less energy, help save money on utility bills, and help protect the environment.

APPLICATIONS

SEER up to 14.0.

Heating COP up to 3.94.

HSPF (Region IV) up to 8.5

1.5 through 5 ton.

Single phase power supply.

Sound levels as low as 76 dB.

Vertical air discharge allows concealment behind shrubs at grade level or out of sight on a roof.

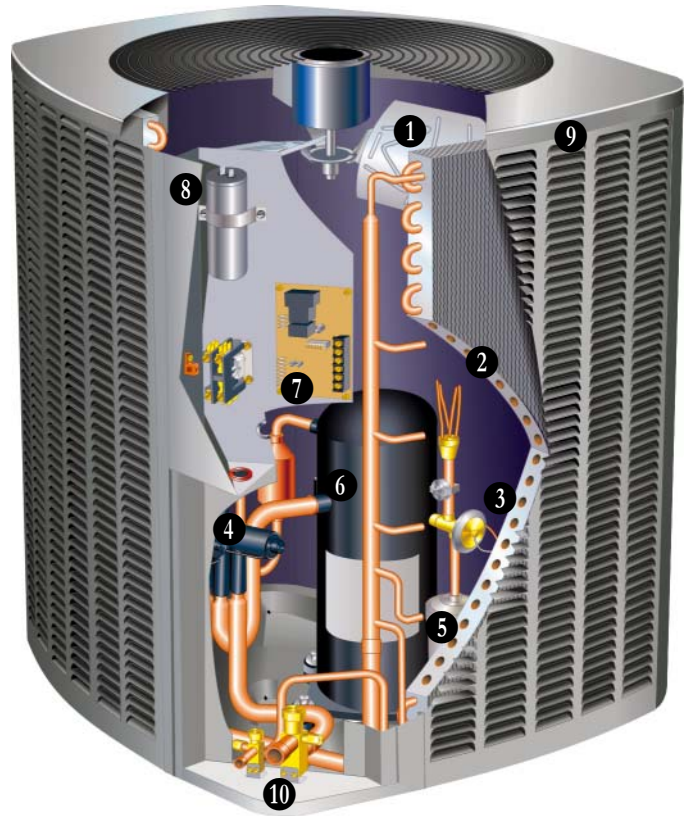
Designed for applications with remotely located indoor air handler units or gas furnaces with indoor add-on coils. When heat pumps are used with gas furnaces, a dual-fuel control (i.e. FM21) or a control system with dual-fuel capabilities (i.e. Harmony III™, LZP-2 or LZP-4) must be used (ordered extra).

See Indoor Coils and Air Handlers sections for indoor unit data.

Units shipped completely factory assembled, piped, and wired. Each unit is test operated at the factory insuring proper operation.

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

For expanded ratings, see www.lennox.com.



REFRIGERATION SYSTEM

Refrigerant

Unit is factory pre-charged with R-22 refrigerant. See Specification table.

Total system refrigerant charge is dependant on outdoor unit size, indoor unit size and refrigerant line length. Refer to charging procedures in the Installation Instructions to determine correct amount of charge required.

1 Outdoor Coil Fan

Direct drive fan moves large air volumes uniformly through entire outdoor coil for high refrigerant cooling capacity.

Vertical air discharge minimizes operating sounds and eliminates damage to lawn and shrubs.

Fan motor has sleeve bearings and is inherently protected.

Motor totally enclosed for maximum protection from weather, dust and corrosion

Fan guard constructed of corrosion-resistant PVC (polyvinyl chloride) coated steel.

Fan motor is inherently protected.

Fan service access accomplished by removal of fan guard.

2 Copper Tube/Enhanced Fin Coil

Lennox designed and fabricated coil.

Ripple-edged aluminum fins.

Copper tube construction.

Lanced fins provide maximum exposure of fin surface to air stream resulting in excellent heat transfer.

Fin collars grip tubing for maximum contact area.

Flared shoulder tubing connections/silver soldering construction.

Coil is factory tested under high pressure to ensure leakproof construction.

Entire coil is accessible for cleaning.

FEATURES

REFRIGERANT SYSTEM - CONTINUED

- 3 **Expansion Valve - Outdoor Unit**
Designed and sized specifically for use in heat pump system. Sensing bulb is located on the suction line between the coil and the reversing valve thus sensing evaporator out temperature in any cycle.
Factory installed and piped.
- 4 **Reversing Valve**
4-way interchange reversing valve effects a rapid change in direction of refrigerant flow resulting in quick changeover from cooling to heating and vice versa.
Valve operates on pressure differential between outdoor unit and indoor unit of the system. Factory installed.
- 5 **Hi-Capacity Liquid Line Drier**
Factory installed in the liquid line, the drier traps moisture or dirt that could contaminate the refrigerant system.
100% molecular-sieve bead type drier.

OPTIONS

Check/Expansion Valve Kits

Must be ordered extra and field installed on certain indoor units.

See AHRI Ratings tables.
Chatleff style fitting.

Freezestat

Installs on or near the discharge line of the indoor coil or on the suction line.

Senses suction line temperature and cycles the compressor off when suction line temperature falls below it's setpoint.

Opens at 29°F and closes at 58°F.

High Pressure Switch

Protects the system from high pressure conditions that can be a result of fan failure or a blocked/dirty coil.
Automatic reset.

Loss of Charge Switch

Shuts off unit if suction pressure falls below setting.
Provides loss of charge and freeze-up protection.
Automatic reset.

Refrigerant Line Kits

Refrigerant lines (suction & liquid) are shipped refrigeration clean. Lines are cleaned, dried, pressurized and sealed at factory.

Suction line fully insulated.

Lines are stubbed at both ends.

Not available for -060 models and must be field fabricated.

COMPRESSOR

6 Scroll Compressor

Compressor features high efficiency with uniform suction flow, constant discharge flow and high volumetric efficiency and quiet operation.

Compressor consists of two involute spiral scrolls matched together to generate a series of crescent shaped gas pockets between them.

During compression, one scroll remains stationary while the other scroll orbits around it.

Gas is drawn into the outer pocket, the pocket is sealed as the scroll rotates.

As the spiral movement continues, gas pockets are pushed to the center of the scrolls. Volume between the pockets is simultaneously reduced.

When pocket reaches the center, gas is now at high pressure and is forced out of a port located in the center of the fixed scrolls.

During compression, several pockets are compressed simultaneously resulting in a smooth continuous compression cycle.

Continuous flank contact, maintained by centrifugal force, minimizes gas leakage and maximizes efficiency.

Scroll compressor is tolerant to the effects of slugging and contaminants. If this occurs, scrolls separate, allowing liquid or contaminants to be worked toward the center and discharged.

Low gas pulses during compression reduces operational sound levels.

Compressor motor is internally protected from expensive current and temperature.

Compressor is installed in the unit on resilient rubber mounts for vibration free operation.

OPTIONS

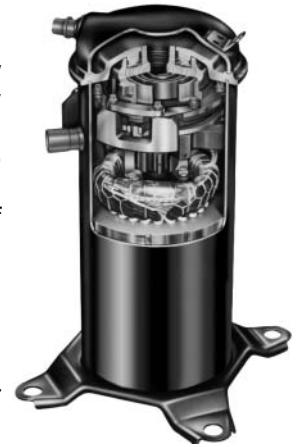
Compressor Crankcase Heater

Crankcase heater prevents migration of liquid refrigerant into compressor and ensures proper compressor lubrication.

Compressor Sound Cover

A reinforced vinyl compressor cover containing a 1-1/2 inch thick batt of fiberglass insulation.

All open edges are sealed with a one-inch wide hook and loop fastening tape.



FEATURES

CONTROLS

7 Defrost Control

Solid-state time/temperature defrost control is furnished as standard equipment.

Control initiates a defrost cycle every 30, 60 or 90 minutes of compressor "on" time at outdoor coil temperatures below 42°F (factory setting 60 minutes).

Anti-short cycle, timed-off control incorporated into the board.

High and low pressure switch monitoring with five-trip lockout.

Diagnostic LED's furnished as an aid in troubleshooting. Conveniently located in control box.

OPTIONS

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.

In conditions such as low voltage, kit may be required to increase the compressor starting torque.

Compressor Low Ambient Cut-Off

Non-adjustable switch (low ambient cut-out) prevents compressor operation when outdoor temperature is below 35°F.

Indoor Blower Off Delay Relay

Delays the indoor blower-off time during the cooling cycle. See AHRI Rating Tables for usage.

Low Ambient Kit

Heat pump in the cooling mode will operate satisfactorily down to 45°F outdoor air temperature without any additional controls.

Kit can be added in the field enabling unit to operate properly down to 30°F.

Crankcase Heater and Freezestat should be installed on compressors equipped with a low ambient kit.

A Compressor Low Ambient Cut-Off should be added to terminate compressor operation below recommended operation conditions.

Mild Weather Kit

Heat pump units operate satisfactorily in the heating mode at outdoor air temperatures up to 75°F.

Mild Weather Kit can be field installed, allowing heating operation above 75°F.

Monitor Kit - Service Light

Contains ambient compensating thermistor and service light thermostat.

For use with thermostats requiring input for indicator lights.

Outdoor Thermostat Kit

An outdoor thermostat can be used to lock out some of the electric heating elements on indoor units where two stage control is applicable.

Outdoor thermostat maintains the heating load on the low power input as long as possible before allowing the full power load to come on the line.

Thermostat kit and mounting box must be ordered extra.

8 CABINET

Heavy-gauge steel construction

Pre-painted cabinet finish.

Painted base section.

Control box is conveniently located with all controls factory wired.

Corner patch plate allows access to compressor components.

Drainage holes are provided in base section for moisture removal.

Drainage holes are provided in base section for moisture removal.

High density polyethylene unit support feet raise the unit off of the mounting surface, away from damaging moisture.

9 SmartHinge™ Louvered Coil Protection

Steel louvered panels provides complete coil protection.

Panels are hinged to allow easy cleaning and servicing of coils.

Panels may be completely removed.

Interlocking tabs and slots assure tight fit on cabinet.



Refrigerant Line Connections, Electrical Inlets and Service Valves

10 Suction and liquid lines are located on corner of unit cabinet and are made with sweat connections. See dimension drawing.

Fully serviceable brass service valves prevent corrosion and provide access to refrigerant system. Suction valve can be fully shut off, while liquid valve may be front seated to manage refrigerant charge while servicing system.

Suction and liquid line service valves and gauge ports are located inside the cabinet.

Refrigerant line connections and field wiring inlets are located in one central area of the cabinet. See dimension drawing.

SPECIFICATIONS

General Data		Model No.	HP13-018	HP13-024	HP13-030	HP13-036	HP13-042	HP13-048	HP13-060
Nominal Tonnage			1.5	2	2.5	3	3.5	4	5
¹ Sound Rating Number			76 dB	76 dB	76 dB	76 dB	78 dB	78 dB	78 dB
Connections (sweat)	Liquid line o.d. - in.		3/8	3/8	3/8	3/8	3/8	3/8	3/8
	Vapor line o.d. - in.		3/4	3/4	3/4	7/8	7/8	7/8	1-1/8
² Refrigerant R-22 charge furnished			6 lbs. 6 oz.	6 lbs. 3 oz.	8 lbs. 4 oz.	8 lbs. 10 oz.	10 lbs. 6 oz.	11 lbs. 12 oz.	14 lbs. 14 oz.
Outdoor Coil	Net face area	Outer coil	15.21	15.21	13.30	15.21	18.66	21.11	24.93
		sq. ft. Inner coil	---	---	12.60	14.50	17.95	20.31	24.14
		Tube diameter - in.	5/16	5/16	5/16	5/16	5/16	5/16	5/16
		No. of rows	1	1	2	2	2	2	2
		Fins per inch	22	22	22	22	22	22	22
Outdoor Fan		Diameter - in.	18	18	18	18	22	22	26
		No. of Blades	3	3	4	4	4	4	3
		Motor hp	1/5	1/5	1/5	1/5	1/3	1/3	1/3
		Cfm	2400	2400	2440	2450	3890	3890	4400
		Rpm	1130	1130	1095	1100	1080	1085	830
		Watts	166	166	194	190	400	375	307
Shipping Data - lbs. 1 package			175	188	204	216	254	275	336

ELECTRICAL DATA

Line voltage data - 60 hz - 1ph		208/230V	208/230V	208/230V	208/230V	208/230V	208/230V	208/230V
³ Maximum overcurrent protection (amps)		20	20	30	30	40	45	60
⁴ Minimum circuit ampacity		12.3	14.0	18	19.4	22.9	25.7	34.3
Compressor	Rated Load Amps	8.9	10.3	13.5	14.7	17	19.2	26
	Locked Rotor Amps	41	56	72.5	83	95	129	148
	Power Factor	0.98	0.96	0.96	0.96	0.95	0.96	0.96
Outdoor Fan Motor	Full Load Amps	1.1	1.1	1.1	1.1	1.7	1.7	1.8
	Locked Rotor Amps	1.9	1.9	1.9	1.9	4.1	4.1	2.9

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

Compressor Crankcase Heater	93M05	•	•	•	•	•	•	•
Compressor Hard Start Kit	10J42	•						
	88M91		•	•	•	•	•	•
Compressor Low Ambient Cut-Off	45F08	•	•	•	•	•	•	•
Compressor Sound Cover	69J03	•	•	•	•	•	•	•
Freezestat	3/8 in. tubing	93G35	•	•	•	•	•	•
	5/8 in. tubing	50A93	•	•	•	•	•	•
High Pressure Switch Kit	94J46	•	•	•	•	•	•	•
Indoor Blower Off Delay Relay	58M81	•	•	•	•	•	•	•
Loss of Charge Kit	84M23	•	•	•	•	•	•	•
⁵ Low Ambient Kit	27J00	•	•	•	•	•	•	•
Mild Weather Kit	33M07	•	•	•	•	•	•	•
Monitor Kit - Service Light	76F53	•	•	•	•	•	•	•
Outdoor Thermostat Kit	Thermostat	56A87	•	•	•	•	•	•
	Mtg. Box	31461	•	•	•	•	•	•
Refrigerant Line Sets	L15-41-20	L15-41-40	•	•	•			
	L15-41-30	L15-41-50						
	L15-65-30	L15-65-40				•	•	•
		L15-65-50						
	Field Fabricate							•

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

¹ Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270.

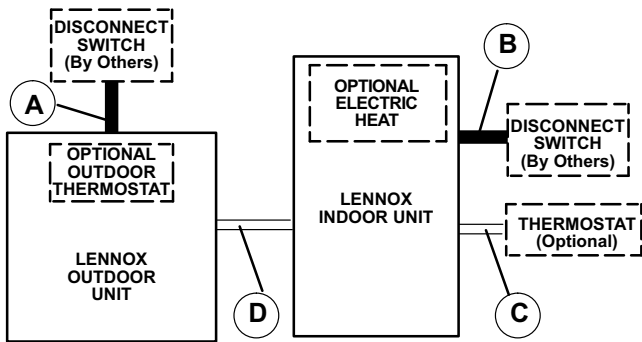
² Refrigerant charge sufficient for 15 ft. (4.6 m) length of refrigerant lines.

³ HACR type circuit breaker or fuse.

⁴ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

⁵ Crankcase Heater and Freezestat are recommended with Low Ambient Kit.

FIELD WIRING

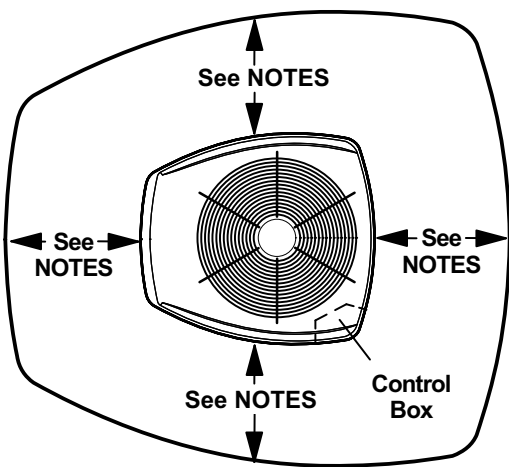


- A — Two Wire Power (see Electrical Data)
- B — Two or Three Wire Power (size to heater capacity)
- C — Twelve Wire Low Voltage — 18 ga. minimum
 - Fourteen Wire Low Voltage with Optional Outdoor Thermostat
- D — Eight Wire Low Voltage — 18 ga. minimum
 - Ten Wire Low Voltage with Optional Outdoor Thermostat

— Field Wiring Not Furnished —

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

INSTALLATION CLEARANCES



NOTES:

Service clearance of 30 in. (762 mm) must be maintained on one of the sides adjacent to the control box.

Clearance to one of the other three sides must be 36 in. (914 mm).

Clearance to one of the remaining two sides may be 12 in. (305 mm) and the final side may be 6 in. (152 mm).

A clearance of 24 in. (610 mm) must be maintained between two units.

48 in. (1219 mm) clearance required on top of unit.

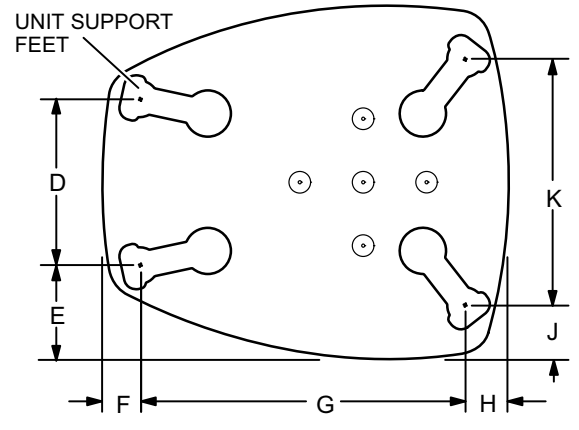
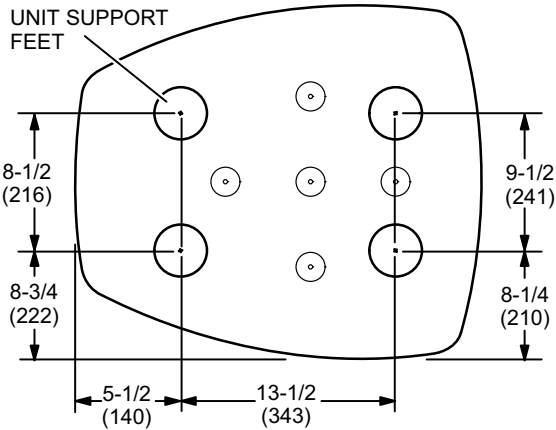
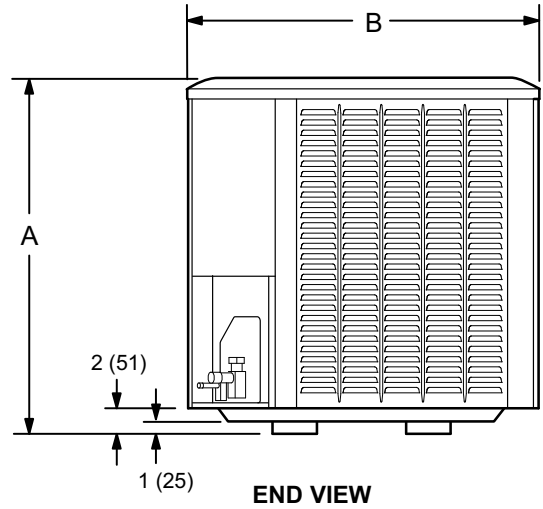
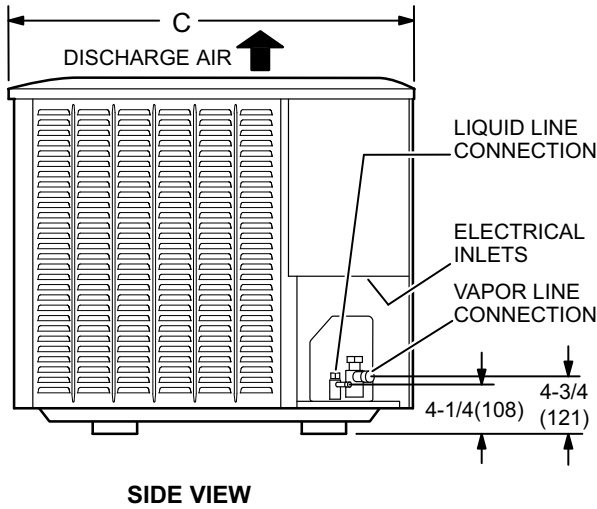
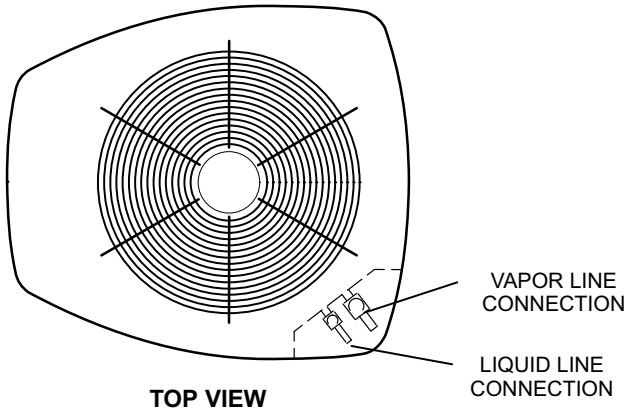
OUTDOOR SOUND DATA

1 Unit Model No.	Octave Band Sound Power Levels dBA, re 10 ⁻¹² Watts Center Frequency - HZ							1 Sound Rating Number (dB)
	125	250	500	1000	2000	4000	8000	
HP13-018	69.5	69.0	70.5	68.0	68.0	58.5	54.5	76
HP13-024	67.5	66.5	71.5	70.0	65.5	59.5	55.5	76
HP13-030	68.5	68.5	70.5	70.5	65.5	60.5	56.0	76
HP13-036	70.5	73.0	73.0	73.0	67.5	61.5	56.5	76
HP13-042	73.5	78.5	76.5	74.0	69.5	65.0	59.5	78
HP13-048	72.5	77.5	76.5	74.5	71.0	65.0	61.0	78
HP13-060	70.5	71.0	73.5	73.5	68.5	62.5	60.0	78

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

¹ Tested according to AHRI Standard 270 test conditions.

DIMENSIONS – INCHES (MM)



Model No.	A		B		C		D		E		F		G		H		J		K	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
HP13-018	35	889	27	686	28	711	---	---	---	---	---	---	---	---	---	---	---	---	---	---
HP13-024	35	889	27	686	28	711	---	---	---	---	---	---	---	---	---	---	---	---	---	---
HP13-030	31	787	27	686	28	711	---	---	---	---	---	---	---	---	---	---	---	---	---	---
HP13-036	35	889	27	686	28	711	---	---	---	---	---	---	---	---	---	---	---	---	---	---
HP13-042	35	787	30-1/2	775	35	889	13-7/8	352	7-3/4	197	3-1/4	83	27-1/8	689	3-5/8	92	4-1/2	114	20-5/8	524
HP13-048	39	991	30-1/2	775	35	889	13-7/8	352	7-3/4	197	3-1/4	83	27-1/8	689	3-5/8	92	4-1/2	114	20-5/8	524
HP13-060	39	991	35-1/2	902	39-1/2	1003	16-7/8	429	8-3/4	222	3-1/8	79	30-3/4	781	4-5/8	117	3-3/4	95	26-7/8	683

AHRI RATINGS - INDOOR COIL / AIR HANDLER SUBSTITUTION

Substituting Coils in the AHRI Tables

Most R-22 and R-410A indoor coils and air handlers are the same except for the factory installed expansion device. C33 coils can be used in place of the CX34 coils, CB26UH-R, CB27UH, and CB30M air handlers can be used in place of the CBX26UH, CBX27UH, and CBX32M, respectively.

The expansion device is based on the size of the outdoor unit. The factory installed RFC or TXV on the CX34/CBX26UH/CBX27UH/CBX32MV/CBX32M must be replaced to correspond to the outdoor unit. The correct TXV's are:

1.5-2.5 ton heat pump units

56J19

3-5 ton heat pump units

56J20

Example:

A four-ton heat pump is being installed. The AHRI table shows that CBX32M-048 is a matching air handler. A CB32M-048 with a 91M02 TXV can be used in its place.

UP-FLOW COILS

	R-410A	=	R-22
CX34-18/24A-6F		=	C33-24A-2
CX34-18/24B-6F		=	C33-24B-2
CX34-18/24C-6F		=	C33-24C-2
CX34-19A-6F		=	C33-19A-2
CX34-25A-6F		=	C33-25A-2
CX34-25B-6F		=	C33-25B-2
CX34-30A-6F		=	C33-30A-2
CX34-30B-6F		=	C33-30B-2
CX34-30C-6F		=	C33-30C-2
CX34-31A-6F		=	C33-31A-2
CX34-31B-6F		=	C33-31B-2
CX34-36A-6F		=	C33-36A-2
CX34-36B-6F		=	C33-36B-2
CX34-36C-6F		=	C33-36C-2
CX34-38A-6F		=	C33-38A-2
CX34-38B-6F		=	C33-38B-2
CX34-42B-6F		=	C33-42B-2
CX34-43B-6F		=	C33-43B-2
CX34-43C-6F		=	C33-43C-2
no equivalent			C33-44C-2
CX34-44/48B-6F		=	C33-48B-2
CX34-44/48C-6F		=	C33-48C-2
CX34-49C-6F		=	C33-49C-2
CX34-50/60C-6F		=	C33-50/60C-2
CX34-60D-6F		=	C33-60D-2
CX34-62C-6F		=	C33-62C-2
CX34-62D-6F		=	C33-62D-2

AIR HANDLERS

	R-410A	=	R-22
CBX26UH-018		=	CB26UH-018-R
CBX26UH-024		=	CB26UH-024-R
CBX26UH-030		=	CB26UH-030-R
CBX26UH-036		=	CB26UH-036-R
CBX26UH-042		=	CB26UH-042-R
CBX26UH-048		=	CB26UH-048
CBX26UH-060		=	CB26UH-060-R
CBX27UH-018/024		=	CB27UH-018/024
CBX27UH-030		=	CB27UH-030
CBX27UH-036		=	CB27UH-036
CBX27UH-042		=	CB27UH-042
CBX27UH-048		=	CB27UH-048
CBX27UH-060		=	CB27UH-060
CBX32M-018/024		=	CB30M-21/26
CBX32M-030		=	CB30M-31
CBX32M-036		=	CB30M-41
CBX32M-042		=	CB30M-46
CBX32M-048		=	CB30M-51
CBX32M-060		=	CB30M-65
CBX32MV-all			no equivalent

HP13 AHRI RATINGS

Model	Cooling Btuh	SEER	EER	Heat Btuh		HSPF		Heat COP		Coil or Air Handler	Furnace	Expansion Device
				High	Low	IV	V	High	Low			
Air Handlers												
HP13-018	18,000	13.00	11.50	16,800	10,600	7.70	6.90	3.46	2.36	CB26UH-018-R		Factory RFC (0.057)
HP13-018	18,500	13.00	11.50	16,800	10,600	7.70	6.80	3.46	2.36	CB26UH-024-R		56J19
HP13-018	18,600	13.00	11.50	16,700	10,600	7.70	6.80	3.48	2.40	* CB26UH-018-R		56J19
HP13-018	18,600	13.00	11.50	17,400	12,100	7.70	6.80	3.52	2.64	CB30M-21/26		Factory TXV
Air Handlers												
HP13-024	24,000	13.00	11.50	22,000	13,900	7.70	7.05	3.54	2.38	CB26UH-024-R		Factory RFC (0.061)
HP13-024	24,200	13.00	11.00	22,000	14,000	7.70	6.80	3.42	2.30	CB30M-21/26		Factory TXV
HP13-024	24,600	13.00	11.50	22,000	13,900	7.70	6.80	3.54	2.38	* CB26UH-024-R		56J19
HP13-024	25,600	13.00	11.50	22,000	13,800	7.70	6.80	3.56	2.18	CB30M-31		Factory TXV
Upflow Indoor Coils + Furnaces												
HP13-024	24,000	13.50	11.50	21,400	13,500	7.70	6.80	3.34	2.28	C33-24B	G60UHV-36B-090	56J19
HP13-024	24,000	13.00	11.50	21,600	13,600	7.70	6.80	3.52	2.38	C33-30A	G60UHV-36A-070	56J19
HP13-024	24,000	13.50	11.50	21,600	13,600	7.70	6.80	3.56	2.42	C33-30B	G60UHV-36B-090	56J19
HP13-024	24,000	13.00	11.50	21,600	13,700	7.70	6.80	3.52	2.38	C33-30B	G61MPV-36B-045	56J19
HP13-024	24,000	13.00	11.50	21,600	13,600	7.70	6.80	3.52	2.38	C33-30B	G71MPP-36B-070	56J19
HP13-024	24,000	13.00	11.50	21,600	13,600	7.70	6.80	3.52	2.38	C33-30B	G61MPV-36B-070	56J19
Downflow Indoor Coils + Furnaces												
HP13-024	24,400	13.00	11.50	21,800	13,800	7.70	6.80	3.56	2.42	CR33-24B-F	G61MPV-36B-045	56J19
HP13-024	24,400	13.00	11.50	21,800	13,700	7.70	6.80	3.58	2.42	CR33-24B-F	G61MPV-36B-070	56J19
HP13-024	24,400	13.00	11.50	21,800	13,700	7.70	6.80	3.58	2.42	CR33-24B-F	G71MPP-36B-070	56J19
HP13-024	24,600	13.00	11.50	21,800	13,800	7.70	6.80	3.60	2.44	CR33-24A-F	G60DFV-36A-070	56J19
Horizontal Indoor Coils + Furnaces												
HP13-024	23,000	13.00	11.00	21,600	13,600	7.70	6.80	3.36	2.30	CH23-21	G60UHV-36B-090	56J19
HP13-024	23,200	13.00	11.00	21,400	13,600	7.70	6.80	3.42	2.36	CH23-31	G60UHV-36B-090	56J19
HP13-024	24,200	13.00	11.50	21,600	13,600	7.70	6.80	3.38	2.28	CH33-24/30A-2F	G60UHV-36A-070	56J19
Air Handlers												
HP13-030	30,800	13.00	11.00	28,600	17,800	7.70	6.80	3.44	2.16	CB30M-31		Factory TXV
HP13-030	31,000	13.00	11.00	28,600	17,900	7.70	7.10	3.48	2.40	CB26UH-030-R		Factory RFC (0.072)
HP13-030	31,000	13.00	11.00	28,600	17,900	7.70	6.80	3.48	2.40	* CB26UH-030-R		56J19
HP13-030	31,200	13.50	12.00	28,200	17,500	7.70	6.70	3.52	2.20	CB27UH-030		Factory TXV
HP13-030	31,200	13.50	12.00	28,200	17,400	7.70	6.70	3.54	2.22	CB27UH-036		Factory TXV
Upflow Indoor Coils + Furnaces												
HP13-030	30,400	13.00	11.50	28,200	17,600	7.70	6.80	3.34	2.24	C33-36A	G60UHV-36A-070	56J19
HP13-030	30,600	13.50	11.50	28,000	17,400	7.70	6.80	3.40	2.28	C33-36B	G60UHV-36B-090	56J19
HP13-030	30,600	13.00	11.50	28,400	17,700	7.70	6.80	3.36	2.26	C33-36B	G61MPV-36B-045	56J19
HP13-030	30,600	13.00	11.50	28,200	17,600	7.70	6.80	3.36	2.26	C33-36B	G61MPV-36B-070	56J19
HP13-030	30,600	13.00	11.50	28,200	17,600	7.70	6.80	3.36	2.26	C33-36B	G71MPP-36B-070	56J19

NOTES:

When used with gas furnaces, a dual-fuel control (i.e. FM21), a control system with dual-fuel capabilities (LZP-2 or LZP-4), or a thermostat with dual-fuel capabilities must be used (ordered extra).

Certified in accordance with USE certification program which is based on AHRI Standard 210/240 with 25 ft. of connecting refrigerant lines;

Cooling Ratings – 95°F outdoor air temperature and 80 °F db/67° F wb entering indoor coil air.

High Temperature Heating Ratings – 47° F db/43° F wb outdoor air temperature and 70 °F db entering indoor coil air.

Low Temperature Heating Ratings – 17 °F db/15° F wb outdoor air temperature and 70 °F db entering indoor coil air.

All ratings include the use of a blower time-off delay. All Lennox variable-speed furnaces and Air Handlers have time-off delay capabilities. Other furnaces and Air Handlers may require an optional time delay relay (58M81) for field installation. See furnace or air handler specifications to determine if relay is needed.

Expansion Devices – If "Factory TXV" is listed, no change is required. If a catalog number is listed, the factory installed RFC or expansion valve on the indoor coil must be replaced with the expansion valve (ordered separately) or RFC (shipped with air conditioner) listed.

*Most popular combination.

HP13 AHRI RATINGS

Model	Cooling Btuh	SEER	EER	Heat Btuh		HSPF		Heat COP		Coil or Air Handler	Furnace	Expansion Device
				High	Low	IV	V	High	Low			
HP13-060	56,500	13.00	11.00	54,500	35,400	7.70	6.80	3.20	2.38	C33-62C	G60UHV-60C-110	56J20
HP13-060	56,500	13.00	11.00	55,000	35,400	7.70	6.80	3.24	2.38	C33-62C	G61MPV-60C-110	56J20
HP13-060	56,500	13.00	11.00	55,000	35,400	7.70	6.80	3.24	2.38	C33-62C	G71MPP-60C-110	56J20
HP13-060	56,500	13.00	11.00	54,500	35,200	7.70	6.80	3.34	2.46	C33-62D	G60UHV-60D-135	56J20
HP13-060	57,000	13.00	11.00	54,500	35,400	7.70	6.80	3.26	2.40	C33-62C	G60UHV-60C-090	56J20
Downflow Indoor Coils + Furnaces												
HP13-060	53,500	13.00	11.00	54,500	35,200	7.70	6.80	3.52	2.70	CR33-50/60C-F	G60DFV-60C-090	56J20
HP13-060	54,000	13.00	11.00	54,500	35,200	7.70	6.80	3.52	2.70	CR33-60D-F	G60DFV-60D-135	56J20
Horizontal Indoor Coils + Furnaces												
HP13-060	55,000	13.00	11.00	54,500	35,400	7.70	6.80	3.24	2.44	CH33-60D-2F	G71MPP-60D-135	56J20
HP13-060	55,000	13.00	11.00	54,500	35,400	7.70	6.80	3.24	2.44	CH33-60D-2F	G61MPV-60D-135	56J20
HP13-060	55,000	13.00	11.00	54,500	35,400	7.70	6.80	3.28	2.48	CH33-62D-2F	G71MPP-60D-135	56J20
HP13-060	55,000	13.00	11.00	54,500	35,400	7.70	6.80	3.28	2.48	CH33-62D-2F	G61MPV-60D-135	56J20
HP13-060	55,500	13.00	11.00	55,000	35,400	7.70	6.80	3.68	2.78	CH23-68	G71MPP-60D-135	56J20
HP13-060	55,500	13.00	11.00	55,000	35,400	7.70	6.80	3.68	2.78	CH23-68	G61MPV-60D-135	56J20
HP13-060	55,500	13.00	11.00	54,500	35,400	7.70	6.80	3.30	2.46	CH33-60D-2F	G60UHV-60D-135	56J20
HP13-060	56,000	13.00	11.00	54,500	35,400	7.70	6.80	3.34	2.50	CH33-62D-2F	G60UHV-60D-135	56J20
HP13-060	56,500	13.00	11.00	55,000	35,600	7.70	6.80	3.74	2.80	CH23-68	G60UHV-60D-135	56J20
HP13-060	57,500	13.50	11.50	55,000	35,600	7.70	6.80	3.24	2.42	CH33-50/60C-2F	G60UHV-60C-110	56J20
HP13-060	58,000	13.00	11.50	55,000	35,600	7.70	6.80	3.26	2.40	CH33-50/60C-2F	G60UHV-60C-090	56J20

NOTES:

When used with gas furnaces, a dual-fuel control (i.e. FM21), a control system with dual-fuel capabilities (LZP-2 or LZP-4), or a thermostat with dual-fuel capabilities must be used (ordered extra).

Certified in accordance with USE certification program which is based on AHRI Standard 210/240 with 25 ft. of connecting refrigerant lines;

Cooling Ratings – 95°F outdoor air temperature and 80 °F db/67° F wb entering indoor coil air.

High Temperature Heating Ratings – 47° F db/43° F wb outdoor air temperature and 70 °F db entering indoor coil air.

Low Temperature Heating Ratings – 17 °F db/15° F wb outdoor air temperature and 70 °F db entering indoor coil air.

All ratings include the use of a blower time-off delay. All Lennox variable-speed furnaces and Air Handlers have time-off delay capabilities. Other furnaces and Air Handlers may require an optional time delay relay (58M81) for field installation. See furnace or air handler specifications to determine if relay is needed.

Expansion Devices – If “Factory TXV” is listed, no change is required. If a catalog number is listed, the factory installed RFC or expansion valve on the indoor coil must be replaced with the expansion valve (ordered separately) or RFC (shipped with air conditioner) listed.

*Most popular combination.

REVISIONS

AHRI Rating Tables

Updated format. Added ratings for CBX40UHV air handlers.



Visit us at www.lennox.com

For the latest technical information, www.lennoxravenet.com

Contact us at 1-800-4-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.

©2009 Lennox Industries, Inc.