



Variable Capacity - Precise Comfort® Technology - R-410A - 60 Hz

**EL18XCV**

ELITE® Series

**RESIDENTIAL  
PRODUCT SPECIFICATIONS**

Bulletin No. 210911  
October 2020

**ELITE®  
SERIES**



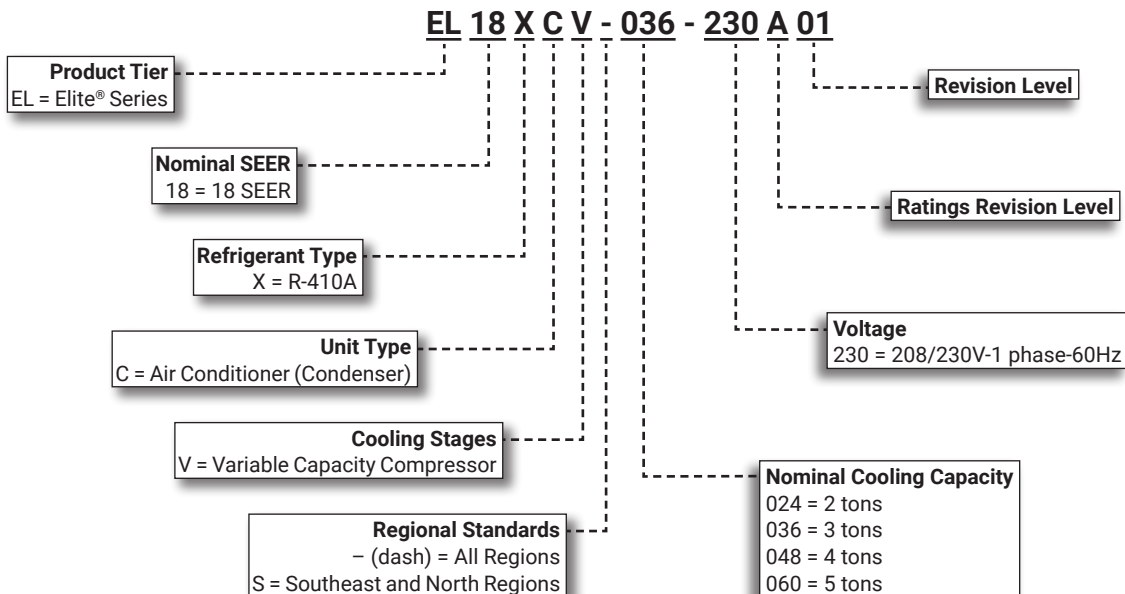
Easy to install • Easy to service • Easy to sell



**SEER up to 18.00  
2 to 5 Tons**

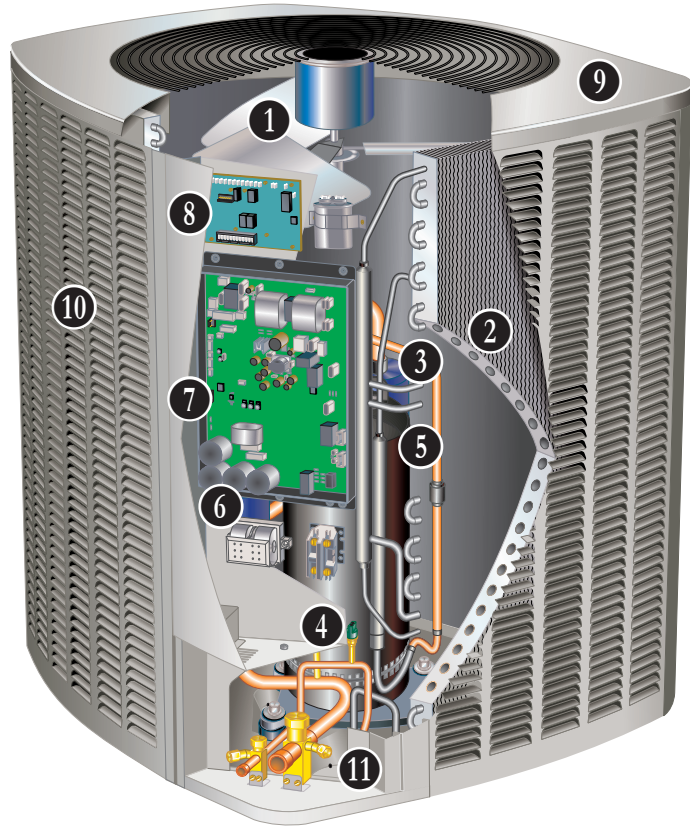
**Cooling Capacity - 21,800 to 58,000 Btuh**

**MODEL NUMBER IDENTIFICATION**



## FEATURE HIGHLIGHTS

1. Outdoor Coil Fan
2. Quantum™ Coil
3. High Capacity Suction Line Drier
4. High Pressure Switch
5. Variable Speed Rotary Compressor
6. Accumulator
7. DC Inverter Control
8. iComfort® Communicating Control
9. Heavy Gauge Steel Cabinet
10. SmartHinge™ Louvered Coil Protection
11. Refrigerant Line Connections and Access



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## APPROVALS AND WARRANTY

### APPROVALS

- AHRI Standard 210/240 certified
- AHRI Certified system match-ups and expanded ratings, visit [www.LennoxPros.com](http://www.LennoxPros.com)

**NOTE** - AHRI certified ratings are based on the following control conditions:

An iComfort® Communicating thermostat matched with a “communicating” indoor unit.

Any conventional non-communicating thermostat matched with a conventional “non-communicating” indoor unit.

- ENERGY STAR® Certified (certain units)
- 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
- Region specific models meet the minimum efficiency requirements for U.S. DOE Federal Regional Standards in that area
- 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 ten years in residential installations
  - Limited five years in non-residential installations
- **All other covered components:**
  - Limited five years in residential installations
  - Limited one year in non-residential installations

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

## FEATURES

### APPLICATIONS

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

### REFRIGERATION SYSTEM

#### R-410A Refrigerant

- Non-chlorine, ozone friendly
- 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 fan
- PSC motor
- Vertical air discharge
- Totally enclosed fan motor
- Ball bearings
- Inherently protected
- PVC (polyvinyl chloride) coated steel fan guard

#### 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 High Capacity Suction Line Drier (all models except -060)

- Factory installed in the suction line
- Drier traps moisture or dirt
- 100% molecular-sieve, bead type, one-way drier

#### High Capacity Liquid Line Drier (-060 model only)

- Factory installed in the liquid line
- Drier traps moisture or dirt
- 100% molecular-sieve, bead type, one-way drier

#### Low Pressure Transducer

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

#### 4 High Pressure Switch

- Protects the system from high pressure conditions
- Automatic reset

## FEATURES

### REFRIGERATION SYSTEM (continued)

#### Optional Accessories

##### Expansion Valve Kits

- Field installed on certain indoor units
- See TXV Usage table
- Chatleff-style fitting

##### Freezestat

- Senses suction line temperature
- Cycles compressor off when suction line temperature falls below its setpoint
- Opens at 29°F and closes at 58°F
- Installs on or near the discharge line of the evaporator or on the suction line

##### Loss of Charge Switch Kit

- Protects compressor from damage from low refrigerant charge conditions
- SPST, normally-closed
- Automatic reset

##### 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

**NOTE** - Not available for -060/S060 models. Must be field fabricated.

**NOTE** - EL18XCV is a variable capacity air conditioner utilizing variable speed compressor technology. With the variable speed compressor and variable pumping capacity, additional consideration must be given to refrigerant piping sizing and application.

Refer to the Installation Instructions for Line Set Requirements and Refrigerant Piping Guidelines.

### PRECISE COMFORT® TECHNOLOGY

The Variable Capacity Rotary Compressor and DC Inverter Control is an integrated system that operates together to reduce overall energy usage when compared to conventional air conditioners.

#### 5 Variable Capacity Rotary Compressor

- High volumetric efficiency
- Uniform suction flow
- Constant discharge flow
- Quiet operation
- Low gas pulses during compression reduces operational sound levels
- Compressor motor is internally protected from excessive current and temperature
- Compressor is installed in the unit on resilient rubber mounts for vibration free operation

##### Rotary Compressor Operation

- Rotary compressor has a cylindrical chamber
- A roller is mounted to the motor shaft and is offset to rotate in the center of the chamber
- Two spring-loaded vanes sweep the sides of the chamber as the roller rotates
- Roller touches the chamber at a point between the intake and the discharge ports as the roller rotates
- While rotating, the roller draws vapor into the chamber through the intake port
- Vapor is trapped in the space between the chamber wall, the vane, and the point of contact between the roller and the chamber
- As the next vane passes the contact point vapor is compressed
- The space becomes smaller compressing the vapor as the roller rotates
- Vapor is discharged through the discharge port

##### Variable Capacity Scroll Compressor

- Furnished on -060 model only

#### 6 Accumulator

- Standard in all models except -060 model

##### Compressor Crankcase Heater

- Protects against refrigerant migration that can occur during low ambient operation
- Factory Installed

##### Compressor Sound Dampening System

- Polyethylene compressor cover
- 2-inch thick batt fiberglass insulation
- All open edges sealed with one-inch wide hook and loop fastening tape

## FEATURES

### **PRECISE COMFORT® TECHNOLOGY (continued)**

#### **7** DC Inverter Control

- Converts AC line voltage into filtered variable DC voltage
- Provides continuous compressor operation, while adjusting the capacity according to indoor temperature
- Adjusts compressor output in increments as small as 1%
- The accurate sensing of cooling load prevents frequent changes in capacity and ensures efficient, economical operation
- Power Factor Correction (PFC) circuit monitors the DC bus for high, low and abnormal voltage conditions to protect the compressor
- Two LEDs (red and green) indicate inverter operating status and aid in troubleshooting
- Noise filter reduces unwanted electromagnetic interference (EMI)
- Integrated on the iComfort Communicating Control for 024 and 036 models,
- Separate external inverter control for 048 and 060 models
- The inverter reactor (mounted separately) adds inductance to the line between the inverter and the compressor to limit current rise and protect the compressor



### **CONTROLS**

#### **8** iComfort® Communicating Control

- Advanced control communicates information about various operating parameters in the air conditioner to the iComfort® Communicating Thermostat to constantly maintain the highest level of comfort, performance and efficiency available
- **Auto Configuration** - On start-up the control automatically sends a description of the unit to the iComfort® Communicating Thermostat to automatically configure the features available
- Control also features:
  - **Seven-Segment Display** - Shows information about outdoor unit type and capacity and also displays alerts for common fault conditions (electrical and mechanical)
  - **Low Voltage Protection** - Prevents compressor operation when voltage is not within the specified range
  - High and low pressure switch monitoring with provisions for lockout
  - Five-Strike lockout protection protects compressor
  - Liquid line temperature and sensor monitoring
  - EEPROM storage of all local configurations
  - Non-volatile memory storage of 100 alarm codes with display of last 10 codes for troubleshooting
  - Built-in low-ambient control



**NOTE** - Two RAST connectors for a conventional heating/cooling thermostat are also provided for connection to the control. A two-stage or single-stage thermostat can be used.

#### **Low Ambient Operation**

- Air conditioner can operate down to 0°F outdoor air temperature

**NOTE** - A freezestat is recommended for extra protection during low ambient operation.

#### **Climate IQ™ Technology**

- Optimizes dehumidification settings for specific climates to improve home comfort during cooling operation
- iComfort® S30 Thermostat Setting:
  - **Climate IQ (Auto)** - Dry, Normal, Basic and Humid modes are automatically set based on the difference between the measured relative humidity and the relative humidity setting
- All modes are selected on the iComfort® Communicating Thermostat

#### **Outdoor Air Temperature Sensor**

- Used with iComfort® Communicating Thermostats
- Sensor allows thermostat to display outdoor temperature
- Sensor is auto-detected when connected to thermostat



## FEATURES

### CONTROLS (continued)

**NOTE** - The EL18XCV Air Conditioner can be used with an iComfort® Communicating Thermostat matched with a “communicating” indoor unit, or a conventional non-communicating thermostat matched with a “non-communicating” indoor unit.

Thermostat	Model No.	Indoor Unit Type
Communicating	S30	Communicating
Non-Communicating	E30, M30, CS7500	Non-Communicating
	Conventional thermostat	

### Optional Accessories

#### iComfort® S30 Ultra-Smart Wi-Fi Thermostat (part of the iComfort® Residential Communicating Control System)

- Recognizes and connects to all iComfort® Communicating products to automatically configure and control the heating/cooling system (based on user-specified settings) for the highest level of comfort, performance and efficiency
- Recognizes model and serial number information for iComfort® Communicating products to simplify system setup
- Wi-Fi remote temperature monitoring and adjustment through a home wireless network for desktop PCs, laptops and apps for smartphones or tablets
- Service alerts and reminders sent via text message or e-mail
- Smart home automation compatible with Apple HomeKit™, Amazon Alexa®, Google Assistant and IFTTT
- Service Dashboard features online real-time monitoring of installed iComfort® thermostats
- Simple easy-to-use touchscreen allows complete system configuration
- Scheduled maintenance alerts, system warnings and troubleshooting are also displayed on thermostat screen
- Easy to read 7 inch high definition color display (measured diagonally)
- Conventional outdoor units (not iComfort® Communicating) can easily be added and controlled by the iComfort® S30 Thermostat
- Installer setup screens allow quick and simple system configuration without a manual, Installer can also run tests on complete system or individual components for easy maintenance and troubleshooting
- Serial communications bus (RSBus), with less wiring than a conventional heating/cooling system, allows system communication
- Uses 4-wire, standard thermostat wiring
- High Definition Color Display with Subbase, Smart Hub Controller, wallplate (for retrofit installations) furnished for easy installation
- See the iComfort® S30 Thermostat Product Specifications bulletin for more information



#### iComfort® E30 Smart Wi-Fi Thermostat

- Wi-Fi enabled, electronic 7-day, universal, multi-stage, programmable, touchscreen thermostat
- 3 Heat/2 Cool
- Auto-changeover
- Controls dehumidification during cooling mode and humidification during heating mode
- Offers enhanced capabilities including humidification / dehumidification / dewpoint measurement and control, Humiditol® control, and equipment maintenance reminders
- Easy to read 7 in. color touchscreen (measured diagonally)
- LCD display with backlight shows the current and set temperature, time, inside relative humidity, system status (operating mode and schedules) and outside temperature (optional outdoor sensor required)
- Smooth Setback Recovery starts system early to achieve setpoint at start of program period
- Compressor short-cycle protection (5 minutes)
- Up to four separate schedules are available plus Schedule IQ™
- One-Touch Away Mode - A quick and easy way to set the cooling and heating setpoints while away
- Smart Away™ - Uses geo-fencing technology to determine when the homeowner is within a predetermined distance from the home to operate the system when leaving, away and arriving
- Wi-Fi remote monitoring and adjustment through a home wireless network for desktop PCs, laptops and apps for smartphones or tablets
- Smart home automation compatible with Apple HomeKit™, Amazon Alexa®, Google Assistant and IFTTT
- Service Dashboard features online real-time monitoring of installed iComfort® thermostats
- High Definition Color Display with Subbase, Smart Hub Controller, wallplate (for retrofit installations) furnished for easy installation
- See the iComfort® E30 Smart Wi-Fi Thermostat Product Specifications bulletin for more information



#### Thermostat

- Thermostat is not furnished with unit
- See Lennox Price Book for selection

## FEATURES

### **CABINET**

- 9 • Heavy-gauge steel construction
- Pre-painted cabinet finish
- Louvered steel panels surround unit on all four sides
- 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
- High density polyethylene unit support feet raise the unit off of the mounting surface, away from damaging moisture

#### **PermaGuard™ Unit Base**

- Durable zinc-coated base section resists rust and corrosion

#### **10 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



#### **11 Refrigerant Line Connections, Electrical Inlets and Service Valves**

- Sweat connection suction and liquid lines
- Located on corner of unit cabinet
- Suction 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 the cabinet
- See dimension drawing

**SPECIFICATIONS**

**ALL REGIONS**

General Data		Model No. - All Regions	EL18XCV-024	EL18XCV-036	EL18XCV-048	EL18XCV-060
		Nominal Tonnage	2	3	4	5
Connections (sweat)	Liquid line (o.d.) - in.		3/8	3/8	3/8	3/8
	Suction line (o.d.) - in.		3/4	7/8	7/8	1-1/8
Refrigerant		<sup>1</sup> R-410A charge furnished	5 lbs. 7 oz.	7 lbs. 6 oz.	10 lbs. 7 oz.	11 lbs. 8 oz.
Compressor Type			Rotary	Rotary	Rotary	Scroll
Outdoor Coil	Net face area - sq. ft.		14.44	14.44	23.63	27.22
	Outer coil					
	Inner coil		- - -	13.83	22.79	26.36
	Tube diameter - in.		5/16	5/16	5/16	5/16
	No. of rows		1	2	2	2
		Fins per inch	26	22	22	22
Outdoor Fan	Diameter - in.		18	18	22	26
	No. of blades		4	4	4	3
	Motor hp		1/5	1/5	1/4	1/3
	Cfm		2500	2500	3560	4350
	Rpm		1075	1075	825	1200
	Watts		183	183	278	252
	Shipping Data - lbs. 1 pkg.			180	195	270

**ELECTRICAL DATA**

Line Voltage Data - 60Hz	208/230V-1ph	208/230V-1ph	208/230V-1ph	208/230V-1ph
<sup>2</sup> Maximum Overcurrent Protection (amps)	20	30	40	50
<sup>3</sup> Minimum Circuit Ampacity	12.1	18.4	24.1	29.6
Compressor Input (amps)	8.8	13.8	17.9	21.6
Outdoor Fan Motor - Full Load Amps	1.1	1.1	1.7	2.6

**CONTROLS**

iComfort® S30 Ultra-Smart Wi-Fi Thermostat	19V30	•	•	•	•
<sup>4</sup> Discharge Air Temperature Sensor	88K38	•	•	•	•
iComfort® E30 Smart Wi-Fi Thermostat	20A65	•	•	•	•

**OPTIONAL ACCESSORIES - ORDER SEPARATELY**

<sup>5</sup> Freezestat	93G35	•	•	•	•
	50A93	•	•	•	•
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.

<sup>1</sup> Refrigerant charge sufficient for 15 ft. length of refrigerant lines. For longer line set requirements see the Installation Instructions for information about line set length and additional refrigerant charge required.

<sup>2</sup> HACR type breaker or fuse.

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

<sup>4</sup> Used with the iComfort® S30 Ultra-Smart Wi-Fi Thermostat for optional service diagnostics.

<sup>5</sup> Freezestat is recommended for low ambient operation.



**SPECIFICATIONS**

**SOUTHEAST AND NORTH REGIONS**

General Data		Model No. - Southeast and North Regions	EL18XCVS024	EL18XCVS036	EL18XCVS048	EL18XCVS060
		Nominal Tonnage	2	3	4	5
Connections (sweat)	Liquid line (o.d.) - in.		3/8	3/8	3/8	3/8
	Suction line (o.d.) - in.		3/4	7/8	7/8	1-1/8
Refrigerant		<sup>1</sup> R-410A charge furnished	5 lbs. 7 oz.	5 lbs. 11 oz.	10 lbs. 7 oz.	11 lbs. 10 oz.
Compressor Type			Rotary	Rotary	Rotary	Rotary
Outdoor Coil	Net face area - sq. ft.		14.44	14.44	23.63	23.63
	Outer coil					
	Inner coil		- - -	- - -	22.79	22.79
	Tube diameter - in.		5/16	5/16	5/16	5/16
	No. of rows		1	1	2	2
		Fins per inch	26	26	22	22
Outdoor Fan	Diameter - in.		18	18	22	22
	No. of blades		4	4	4	4
	Motor hp		1/5	1/5	1/4	1/4
	Cfm		2500	2400	3660	3650
	Rpm		1075	1075	825	825
	Watts		183	187	278	278
Shipping Data - lbs. 1 pkg.			180	180	270	270

**ELECTRICAL DATA**

Line Voltage Data - 60Hz	208/230V-1ph	208/230V-1ph	208/230V-1ph	208/230V-1ph
<sup>2</sup> Maximum Overcurrent Protection (amps)	20	30	40	50
<sup>3</sup> Minimum Circuit Ampacity	12.1	18.4	24.1	30.3
Compressor Input (amps)	8.8	13.8	17.9	22.9
Outdoor Fan Motor - Full Load Amps	1.1	1.1	1.7	1.7

**CONTROLS**

iComfort® S30 Ultra-Smart Wi-Fi Thermostat	19V30	•	•	•	•
<sup>4</sup> Discharge Air Temperature Sensor	88K38	•	•	•	•
iComfort® E30 Smart Wi-Fi Thermostat	20A65	•	•	•	•

**OPTIONAL ACCESSORIES - ORDER SEPARATELY**

<sup>5</sup> Freezestat	93G35	•	•	•	•
	50A93	•	•	•	•
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.

<sup>1</sup> Refrigerant charge sufficient for 15 ft. length of refrigerant lines. For longer line set requirements see the Installation Instructions for information about line set length and additional refrigerant charge required.

<sup>2</sup> HACR type breaker or fuse.

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

<sup>4</sup> Used with the iComfort® S30 Ultra-Smart Wi-Fi Thermostat for optional service diagnostics.

<sup>5</sup> Freezestat is recommended for low ambient operation.

## SOUND DATA

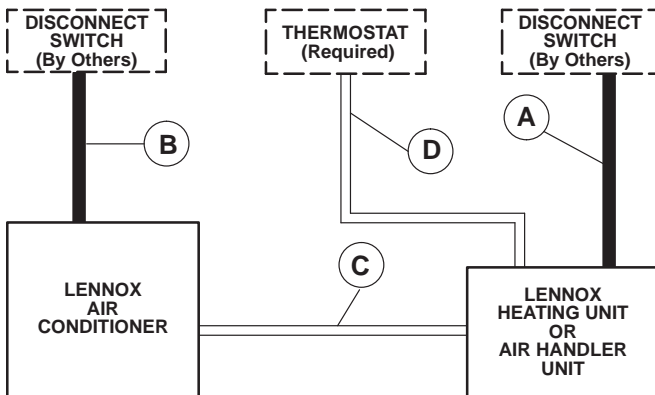
1 Unit Model	Octave Band Sound Power Levels dBA, re 10 <sup>-12</sup> Watts Center Frequency - HZ							1 Sound Rating Number (dBA)	2 Estimated Sound Pressure Level at Distance From Unit (dBA at distance in ft.)				
	125	250	500	1000	2000	4000	8000		3	5	10	15	50
024 Min.	71	72	73	69	65	61	56	74	67	62	56	53	42
024 Max.	75	72	75	70	66	68	58	76	69	64	58	55	44
036 Min.	71	72	73	68	63	60	54	74	67	62	56	53	42
036 Max.	73	73	74	70	69	67	59	76	69	64	58	55	44
048 Min.	69	70	71	69	62	55	52	72	65	60	54	51	40
048 Max.	71	71	75	69	65	65	58	75	68	63	57	54	43
-060 Min.	69	70	71	69	62	55	52	72	65	60	54	51	40
-060 Max.	72	72	73	69	68	66	55	75	68	63	57	54	43
S060 Min.	76	70	71	67	62	57	57	72	65	60	54	51	40
S060 Max.	74	70	71	67	61	55	56	72	65	60	54	51	40

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

<sup>1</sup> Tested according to AHRI Standard 270-2008 test conditions. Sound rating Number is the overall A-Weighted Sound Power Level, (LWA), dB (100 Hz to 10,000 Hz).

<sup>2</sup> Estimated sound pressure level at distance based on AHRI Standard 275-2010 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

**B** - Two Wire Power (see Electrical Data)

**C** - iComfort® Communicating Thermostat:

- Four Wire, 18AWG (RSBus)

**C** - Conventional Thermostat:

- Four Wire Low Voltage, 18AWG

**D** - iComfort® Communicating Thermostat:

- Two Wire, **18AWG** (RSBus) unshielded thermostat cable for low voltage **Smart Hub power terminals** (R, C, + and -)

- Two Wire, **18 to 22AWG** (RSBus) shielded thermostat cable recommended for **Smart Hub communications terminals** (I+, I-, A and B)

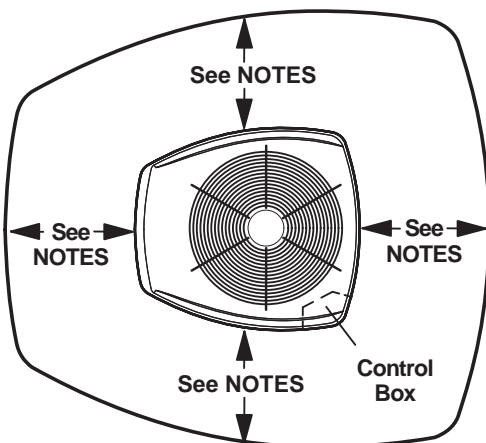
**D** - Conventional Thermostat:

- Six Wire Low Voltage, 18AWG

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

NOTE - Field wiring not furnished.

## INSTALLATION CLEARANCES



### NOTES:

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

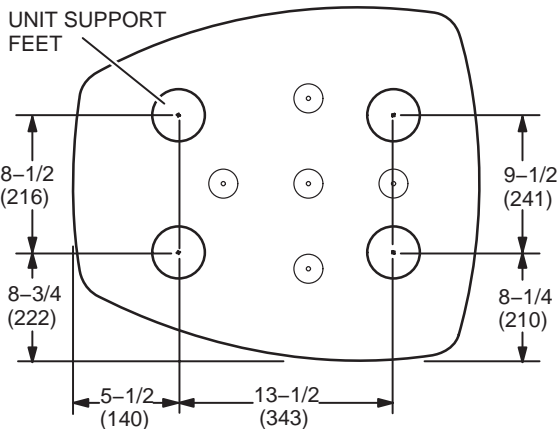
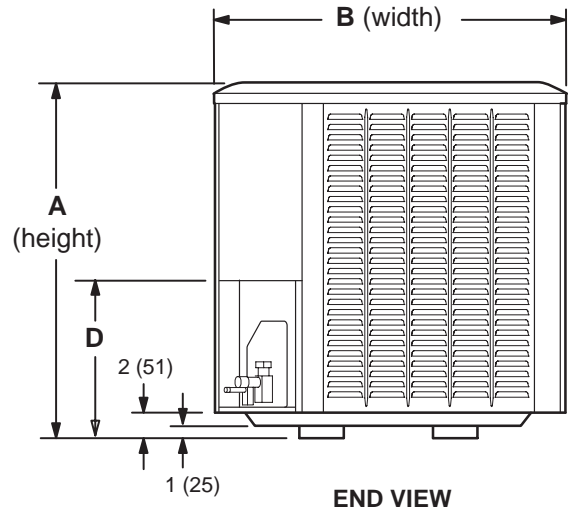
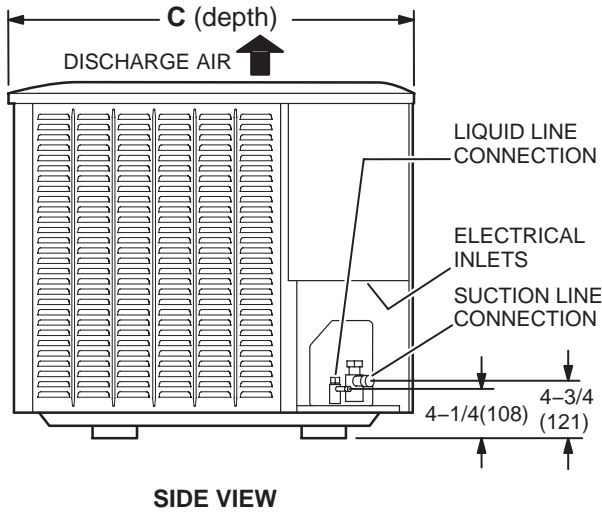
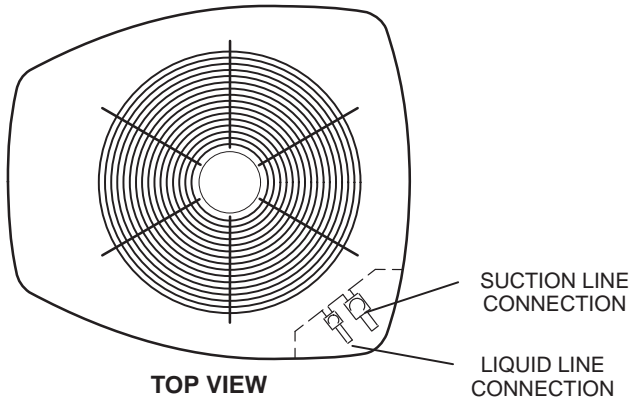
Clearance to one of the other three sides must be 36 in. (914 mm)

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

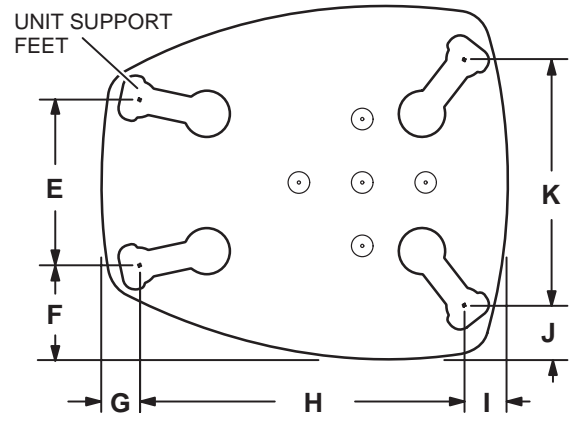
A clearance of 24 in. (610 mm) must be maintained between two units.

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

# DIMENSIONS - UNIT



**024 TO 036 BASE SECTION  
(Small Base)**



**048 AND 060 BASE SECTION  
(Medium and Large Base)**

Model	A (Height)		B (Width)		C (Depth)		D		E		F		G		H		I		J		K	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
-024, S024	35	889	27	686	28	711	8	203	---	---	---	---	---	---	---	---	---	---	---	---	---	---
-036, S036	35	889	27	686	28	711	8	203	---	---	---	---	---	---	---	---	---	---	---	---	---	---
-048, S048	45	1143	30-1/2	775	35	889	11-5/8	295	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
S060	45	1143	30-1/2	775	35	889	11-5/8	295	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
-060	45	1143	35-1/2	902	39-1/2	1003	11-5/8	295	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

## TXV USAGE

Use this table for C35, CH23, CH35 and CR33 Field Installed TXV/Orifice Match-Ups

Outdoor Unit Size	Thermal Expansion Valve (TXV)
024	12J18
036	12J19
048	12J20
060	12J20

CX35 and CHX35 coils and all Lennox air handlers are shipped with a factory installed TXV. In most cases, no change out of the valve is needed.

If a change out is required it will be listed in the "TXV SUBSTITUTIONS" table by size. The correct TXV must be ordered separately and field installed.

C35 and CH35 coils - Replace the factory installed RFC orifice with the expansion valve listed.

CR33 and CH23 coils - Use the expansion valve listed.

## AHRI STANDARD 210/240

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

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

Outdoor Unit		Indoor Unit		TXV	TXV
Size	Tons	Size	Tons	Furnished	Replacement
024	2	42	3.5	12J20	12J18
024	2	48	4	12J20	12J18
024	2	49	4	12J20	12J18
024	2	50/60	5	12J20	12J18
024	2	51/61	5	12J20	12J18
024	2	60	5	12J20	12J18
036	3	24	2	12J18	12J19
036	3	30	2.5	12J18	12J19
048	4	30/36	2.5/3	12J19	12J20
048	4	36	3	12J19	12J20

### TXV Ranges:

**12J18** - 1.5 to 2.5 ton systems - Use on 2.5 ton (030) and lower systems.

**12J19** - 3 ton systems - Use down to 2 ton (024) systems.

**12J20** - 3.5 to 5 ton systems - Use down to 3 ton (036) systems.

## REVISIONS

Sections	Description of Change
Optional Accessories	Updated.
TXV Substitutions	New section.



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