LRP13GNK

Ultra-Low NOx | Constant Torque Blower | Three-Phase | R-454B | 60Hz

COMMERCIAL
PRODUCT SPECIFICATIONS (EHB)

SEER2 - 13.4
AFUE - 81%
3 to 5 Tons
Cooling Capacity - 34,000 to 56,000 Btuh
Input Gas Heating Capacity - 54,000 to 72,000 Btuh

MODEL NUMBER IDENTIFICATION

L RP 13 G N K 36 - 054 E Y - 1 A

- **Brand**
  L = Lennox
- **Product Type**
  RP = Light Commercial Packaged Unit
- **Nominal SEER2**
- **Unit Type**
  G = Packaged Gas/Electric Unit
- **Ultra-Low NOx**
  N = Units meet California Nitrogen Oxides Standard (14ng/J)
- **Refrigerant Type**
  K = R-454B
- **Nominal Cooling Capacity**
  36 = 3 tons
  48 = 4 tons
  60 = 5 tons
- **Heating Type**
  036 Models:
  054 = 54,000 Btuh Gas Heat, 1 Stage
  048, 60 Models:
  072 = 72,000 Btuh Gas Heat, 1 Stage
- **Blower**
  E = High Efficiency Constant Torque Blower Motor
- **Voltage**
  Y = 208/230V-3 phase-60Hz
  G = 460V-3 phase-60Hz
- **Major Revision Sequence**
  1 = 1st Generation
- **Minor Revision Sequence**
  A = 1st Generation

Form Number 211160 | July 2025
Supersedes all previous versions

NOTE - ALL MODELS ARE NATURAL GAS ONLY!

NOTE - NOT AVAILABLE IN ALL AREAS!
CONTACT YOUR NEAREST LENNOX SALES OFFICE FOR DETAILS.

CONTENTS

APPROVALS AND WARRANTY

APPROVALS

- AHRI Standard 210/240-2023 Certified
- Design Certified by ETL Intertek
- Cooling system rated according to DOE test procedures
- Heating ratings are Certified by AHRI according to U.S. Department of Energy (DOE) test procedures and Federal Trade Commission (FTC) labeling regulations
- Approved by the California Energy Commission and meets California Nitrogen Oxides Standard (NOx) limits of 14 ng/J
- All models meet UL 60335-2-40 Refrigerant Detector Requirements
- Units are ETL Certified for the U.S. and Canada
- All models with the Optional Seismic Strapping Kit installed have Seismic Certification for 2018 International Building Code (IBC) and 2019 California Building Code (CBC) ASCE 7
- Unit and components are UL bonded for grounding to meet safety standards for servicing
- Test operated at the factory before shipment ensuring dependable operation at start-up

California Only

- These units **meet** the South Coast Air Quality Management District (SCAQMD) Rule 1111 and San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4905 NOx emission limit (14 ng/J) and can be installed within the SCAQMD, SJVAPCD and Bay area

WARRANTY

- Heat exchanger - Limited ten years
- Compressors - Limited five years
- All other covered components - Limited one year

FEATURES

HEATING SYSTEM

Heat Exchanger Assembly
- Heavy gauge stainless steel heat exchanger
- Tubular type design
- Designed for normal expansion and contraction
- Round surfaces create minimum resistance to air flow for excellent heat transfer
- Heat exchanger has been laboratory life cycle tested in excess of industry standards
- Compact size of heat exchanger permits low overall design of furnace cabinet

Burner Orifice/Air Intake Assembly
- Burner assembly has a single orifice located between the gas valve and the air intake assembly
- Orifice is precisely matched to the burner input

Direct Spark Ignition
- Provides positive and safe main burner ignition
- Spark is intermittent and occurs only when required

Modulating Gas Control Valve
- 24 volt redundant combination modulating gas control valve combines manual shut off switch (On-Off), automatic electric valve (dual) and gas pressure regulation into a compact combination control

Variable-Speed Combustion Air Inducer
- Heavy duty variable-speed blower prepurges heat exchanger and safely vents flue products
- Pressure switch proves blower operation before allowing gas valve to open
- Operates only during heating cycle

NOTE - Inducer operates the first 10 seconds of each cooling cycle to keep flue outlet clear during the cooling season.

Thermal Switch
- Factory installed on air/fuel intake assembly
- Automatic reset
- Switch provides protection from abnormal operating conditions

Limit Control
- Primary limit is accurately located on vestibule panel on all units
- Automatic reset

Ignition Control Board
- Ignition control board with LED diagnostics

Ultra-Low NOx
- All models are standard ultra-low NOx (14 ng/J)

Optional Accessories

Bottom Gas Entry Kit
- Allows gas piping connection through the unit base pan

Vertical Vent Extension Kit
- Use to exhaust flue gases vertically above unit
- Required when unit vent is too close to fresh air intakes per building codes

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

Evaporator and Condenser Coils
- Copper tube with aluminum fin coils
- Factory leak tested

Anti-Microbial Condensate Drain Pan
- Anti-Microbial additive resists growth of mold and mildew on drain pan which improves indoor air quality and reduces drain line blockage
- Insulated to reduce condensation
- Side drain connection

Drain Pan Overflow Switch
- Monitors condensate level in drain pan
- Shuts down unit if drain becomes clogged

Outdoor Coil Fan Motor
- Weather protected heavy duty condenser fan motor
- Coated steel fan blades for long life
- Corrosion-resistant coated steel fan guard
- Internally mounted
- Totally enclosed fan motor

High Pressure Switch
- Protects the system from high pressure conditions
- Automatic reset.

Loss of Charge Switch
- Shuts off unit if suction pressure falls below setting
- Loss of charge and freeze-up protection

Service Valves
- Fully serviceable brass valves installed in discharge and liquid lines

LOW GWP REFRIGERANT DETECTION SYSTEM (RDS)

- Complies with UL 60335-2-40 approved standard
- Required for all systems using R-454B refrigerant
- Factory installed on all units
- Consists of a leak detection sensor(s) and a mitigation control
- Ensures safe operation for systems equipped with R-454B refrigerant
- Sensor(s) monitors indoor coil area for any refrigerant leaks if they occur
- If a leak is detected the refrigerant detection system will prevent compressor and heating operation until a leak is no longer detected
- Refrigeration detection system energizes blower while a leak is detected to mitigate any concentrations of refrigerant from the unit and the system

FEATURES

COMPRESSOR

Scroll 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

Scroll Compressor Operation
- Two involute spiral scrolls matched together 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 the 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
- 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
- Muffler in discharge line reduces operating sound levels

Optional Accessories

Compressor Crankcase Heater
- Protects against refrigerant migration that can occur during low ambient operation

Compressor Timed-Off Control
- Prevents compressor short-cycling
- Allows time for suction and discharge pressure to equalize
- Permits compressor start-up in an unloaded condition
- Automatic reset
- Five minute delay between compressor shut-off and start-up

Freezestat
- Senses suction line temperature
- Cycles compressor off when suction line temperature falls below its setpoint

Low Ambient Kit (40°F)
- Cycles the outdoor fan while allowing compressor operation in the cooling cycle
- This intermittent fan operation allows the system to operate without icing the evaporator coil and losing capacity
- Designed for use in ambient temperatures no lower than 40°F

NOTE - Crankcase heater and freezestat are recommended on compressor equipped with a low ambient kit.

CABINET

- Conditioned areas insulated with foil faced insulation to minimize heat loss and reduce operating sound levels
- Powder paint for maximum durability
- Full perimeter heavy-gauge galvanized steel base rails
- Base rails have rigging holes
- Two sides of the base rails have forklift slots
- Raised edges around duct and power entry openings in the bottom of the unit for water protection
- Easy service access
- Steel louvered panels provides complete coil protection

Airflow Choice
- Units are shipped with supply and return air duct covers installed for downflow or horizontal conversion

Gas Piping Inlets, Electrical Inlets and Service Valves
- Standard gas piping and field wiring inlets are located in one central area of the cabinet
- See dimension drawing
- Service valves with gauge ports are located inside the cabinet

Optional Accessories

Bottom Gas Entry Kit
- Field installed piping kit to facilitate bottom gas entry

Bottom Power Entry Kit
- Allows high and low voltage wiring connections through the unit base pan

Base Rail Openings Closure Kit
- Kit consists of panels and hardware to cover rigging holes and forklift slots in unit base rails

Rectangular to Round Duct Adaptor Kits
- Downflow or horizontal kits available
- Converts rectangular supply and return air openings on unit cabinet to round diameter
- Several sizes available

Tool-Less Filter Access Kit
- Converts blower access panel to two-piece design
- One panel is equipped with tool-less latches for ease filter access without removing entire blower panel

NOTE - Tool-Less Filter Access Kit is not for seismic-rated applications.

FEATURES

CONTROLS

Refrigerant Detection System (RDS) Control
- Monitors leak detection sensor
- Connections for external RDS alarm system (not furnished)
- LED for power, monitoring and sensor status
- Test/Reset button for troubleshooting

24 Volt Transformer
- 70VA transformer furnished and factory installed in control area

Optional Accessories

Field Installed

Smoke Detector
- Photoelectric type
- Installed in supply air and/or return air ducts
- Available with one sensor or two sensors

Thermostats
- For thermostat options, see Optional Conventional Temperature Control Systems on Page 8

BLOWER
- Direct drive blower
- Blower wheel is statically and dynamically balanced
- Resiliently mounted
- Blower assembly easily removed for servicing

Constant Torque Blower Motor
- DC Brushless Motor
- High Efficiency Constant Torque
- ECM (Electronically Commutated Motor)
- Motor is programmed to provide constant torque at each of the selectable speeds
- Fixed blower "On" delay prevents cold air from entering system during gas heating demand
- See Blower Performance tables

INDOOR AIR QUALITY

Air Filters
- Filter rack furnished as standard
- See Specifications Table for sizes

NOTE - Filters must be field provided.

ECONOMIZER

Field Installed

Economizer
(Standard and High Performance Common Features)
- Convertible to downflow or horizontal
- Outdoor Air Hood is furnished
- Includes Barometric Relief Dampers with Exhaust Hood
- Barometric Relief Dampers allow relief of excess air,
- Aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle
- Exhaust hood with bird screen furnished
- Single temperature control is furnished with Economizer
- Outdoor air sensor enables Economizer if the outdoor temperature is less than the setpoint of the control

Standard Economizer Features (Not for Title 24)
- Gear-driven action
- Return air and outdoor air dampers
- Plug-in connections to unit
- Nylon bearings
- Neoprene seals
- 24-volt
- Fully-modulating spring return motor

Standard Economizer Control Module
The Standard Economizer Control Module can be adjusted to operate based on outdoor air temperatures

Economizer Controls:
- Damper Minimum Position - Can be set lower than traditional minimum air requirements resulting in cost savings
- Free Cool LED - A steady green LED indicates outdoor air is suitable for free cooling

NOTE - Free Cooling runs when outdoor air temperature is lower than the set temperature on the economizer control.

NOTE: The Free Cooling default setting for outdoor air temperature sensor is 55°F.

High Performance Economizer Features
- Approved for California Title 24 building standards
- Low leakage dampers are Air Movement and Control Association International (AMCA) Class 1A Certified - Maximum 3 cfm per sq. ft. leakage at 1 in. w.g.
- ASHRAE 90.1 compliant
- Gear-driven action
- High torque 24-volt fully-modulating spring return damper motor
- Return air and outdoor air dampers
- Plug-in connections to unit
- Stainless steel bearings
- Enhanced neoprene blade edge seals
- Flexible stainless steel jamb seals minimize air leakage

ECONOMIZER (continued)

NOTE - High Performance Economizers are not approved for use with enthalpy controls in Title 24 applications.

NOTE - The Free Cooling setpoint for Title 24 applications must be set based on the Climate Zone where the system is installed. See Section 140.4 "Prescriptive Requirements for Space Conditioning Systems" of the California Energy Commission's 2013 Building Energy Efficiency Standards. Refer to Installation Instructions for complete setup information and menu parameters available.

High Performance Economizer Control Module
- Module provides inputs and outputs to control economizer based on parameter settings
- Module automatically detects sensors by polling to determine which sensors are installed in system
- Module displays any alarm messages (fault detection and diagnostics) as an aid in troubleshooting
- Non-volatile memory retains parameter settings in case of power failure
- Keypad with four navigation buttons and LCD screen is furnished for setting economizer parameters
  - Menu Up/Exit ⓘ button returns to the main menu
  - Arrow Up ▲ button moves to the previous or next parameter within the selected menu
  - Arrow Down ▼ button moves to the next parameter within the selected menu
  - Select (enter) ↵ button confirms parameter selection

High Performance Economizer Control Module (continued)
Main Menu Structure:
- STATUS (economizer and system operation status)
- SETPOINTS (settings for various setpoint parameters)
- SYSTEM SETUP (settings/information about the system)
- ADVANCED SETUP (freeze protection, CO_2 settings, stage 3 delay, and additional calibration settings)
- CHECKOUT (damper positions)
- ALARMS (output signal that can be configured for remote alarm monitoring)

NOTE - Refer to Installation Instructions for complete setup information and menu parameters available.

Field Installed

Single Enthalpy Temperature Control (Not for Title 24)
- Outdoor air enthalpy sensor enables Economizer if the outdoor enthalpy is less than the setpoint of the control

OUTDOOR AIR

Field Installed

Outdoor Air Dampers - Downflow
- Single blade damper
- 0 to 25% (fixed) outdoor air adjustable
- Installs in unit
- Outdoor air hood is furnished
- Automatic model features fully modulating spring return damper motor with plug-in connection
- Manual model features a slide damper

NOTE - Maximum mixed air temperature in cooling mode is 100°F.

ROOF CURBS

Field Installed

Clip Curb (Full Perimeter)
- Interlocking tabs fasten corners together
- No tools required
- Fully gasketed around curb perimeter and supply and return openings
- Available in 8, 14, 18 and 24 inch heights
- Shipped knocked down

Adjustable Pitch Clip Curb (Full Perimeter)
- Fully adjustable pitch curb provides a level platform for packaged units
- Allows flexible installations on roofs with sloped or uneven angles
- Adjustable from 2/12 to 6/12 pitch
- Fully gasketed around curb perimeter and supply and return openings
- Shipped knocked down

All Curbs
- IBC 2018 compliant
- CBC 2019 compliant
- Seismic rating - SDS 2.0g, z/h=1, Ip=1.5
- Wind rating - 240 mph (Lateral), 214 mph (Uplift)
- Maximum load rating - 800 lbs.

Adaptor Curbs (not shown)
- Curbs are regionally sourced
- Dimensions vary based upon the source

NOTE - Contact your local sales representative for a detailed cut sheet with applicable dimensions.

Strapping Kit - Seismic
- Heavy-gauge galvanized steel
- Kit contains 4 brackets and mounting hardware

SPECIFICATIONS

Model		LRP13GNK36	LRP13GNK48	LRP13GNK60
Nominal Tonnage		3	4	5
Cooling Performance	Gross Cooling Capacity (Btuh)	35,000	47,500	58,000
	[1] Net Cooling Capacity - Btuh	34,000	45,500	56,000
	AHRI Rated Air Flow - cfm	1200	1650	1750
	[1] SEER2 (Btuh/Watt)	13.4	13.4	13.4
	[1] EER2 (Btuh/Watt)	10.6	10.6	10.6
	Total Unit Power - kW	3.2	3.83	4.86
Sound Rating Number	dBA			
Refrigerant	Type	R-454B	R-454B	R-454B
	Charge	5 lbs. 6 oz.	5 lbs. 5 oz.	7 lbs. 13 oz.
Gas Heating Options		See Page 11		
Compressor Type (Number)		Scroll (1)	Scroll (1)	Scroll (1)
Outdoor Coil	Net face area - ft.^{2}	19.53	19.53	33.57
	Rows	1	1	2
	Fins - in.	26	26	22
Outdoor Coil Fan	Motor HP (number and type)	(1) 1/3 (1 PSC)	(1) 1/3 (1 PSC)	(1) 1/3 (1 PSC)
	Rpm	825	825	825
	Watts	280	280	280
	Diameter (Number) - in.	(1) 24	(1) 24	(1) 24
	Blades	3	3	3
Indoor Coil	Net face area - ft.^{2}	6.75	6.75	6.75
	Tube diameter - in.	5/16	5/16	3/8
	Rows	3	3	3
	Fins - in.	15	15	15
	Condensate drain size (NPT) - in.	(1) 3/4 in.		
	Expansion device type	Refrigerant Metering Orifice		
Indoor Blower	Motor HP (number and type)	0.75 HP (1 ECM)	1.0 HP (1 ECM)	1.0 HP (1 ECM)
	Wheel (Number) diameter x width - in.	(1) 12 x 9	(1) 12 x 9	(1) 12 x 10
[2] Filters	Type of filter	Disposable		
	Number and size - in.	(2) 20 x 20 x 1		
Line voltage data (Volts-Phase-Hz)		208/230-3-60 460-3-60		

NOTE - Net capacity includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

[1] 1AHRI Certified to AHRI Standard 210/240: 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

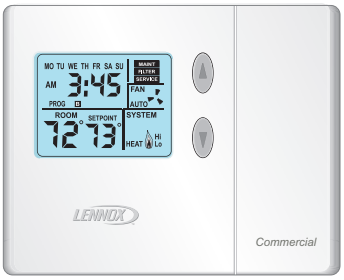
[2] Filters are not furnished and must be field provided.

OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

CS7500 Commercial 7-Day Programmable Thermostat

- Premium Universal Thermostat
- Full Color Touchscreen Interface
- Up To 4 Heat / 3 Cool
- Built-In Sensors For Temperature and Humidity
- Remote Sensors Options For Temperature, Discharge Air, Outdoor Air
- 5-2 or 7-Day Scheduling
- Smooth Setback Recovery
- Heat/Cool Auto-Changeover
- FDD, ASHRAE, IECC Compliant

CS3000 Commercial 5-2 Day Programmable Thermostat



- Conventional Multi-Stage Thermostat
- Intuitive Display
- Push-Button Operation
- Up To 2 Heat / 2 Cool
- Built-In Temperature Sensor
- Remote Temperature Sensing
- Up to 5-2 Day Scheduling
- Smooth Setback Recovery
- Heat/Cool Auto-changeover

Description		Catalog No.
CS7500 Commercial 7-Day Programmable Thermostat		
CS7500 7-Day Thermostat		**24K41**
Sensors/ Accessories	[1] Remote non-adjustable wall-mount 20k	**47W36**
	[1] Remote non-adjustable wall-mount 10k	**47W37**
	Remote non-adjustable discharge air (duct mount)	**19L22**
	Outdoor temperature sensor	**X2658**
CS3000 5-2 Day Programmable Thermostat		
CS3000 5-2 Day Thermostat		**11Y05**
Sensor/ Accessories	Remote non-adjustable wall mount 10k averaging	**47W37**
	Thermostat wall mounting plate	**X2659**
Universal Thermostat Guard with Lock (clear)		
	Inside Dimensions (H x W x D) 5-7/8 x 8-3/8 x 3 in.	**39P21**

[1] Remote wall-mount sensors can be applied in any of the following combinations:
One Sensor - (1) 47W36
Two Sensors - (2) 47W37
Three Sensors - (2) 47W36 and (1) 47W37
Four Sensors - (4) 47W36
Five Sensors - (3) 47W36 and (2) 47W37

OPTIONS / ACCESSORIES

Item		Order Number	Size 36	48	60
COOLING SYSTEM					
Compressor Crankcase Heater	208/230V-3ph	**11X27**	X	X	X
	460V-3ph	**21D21**	X	X	X
Compressor Timed-Off Control		**47J27**	X	X	X
Freezestat		**21D23**	X	X	X
Low Ambient Kit (40°F)		**21D20**	X	X	X
HEATING SYSTEM					
Gas Heat Input	54 kBtuh input	Factory	X		
	72 kBtuh input	Factory		X	X
Bottom Gas Entry Kit		**22G63**	X	X	X
Vertical Vent Extension Kit		**21J79**	X	X	X
CABINET					
Base Rail Openings Closure Kit		**21J84**	X	X	X
Rectangular to Round Duct Adaptor Kits	Downflow - 14 in. dia.	**21D26**	X	X	X
	Horizontal - 14 in. dia.	**21D24**	X	X	X
	- 16 in. dia.	**22U78**	X	X	X
	- 18 in. dia.	**22U79**	X	X	X
[1] Tool-Less Filter Access Kit		**21J80**	X	X	X
CONTROLS					
Smoke Detector - Supply or Return (one sensor)		**21U21**	X	X	X
Smoke Detector - Supply and Return (two sensors)		**21U22**	X	X	X
ELECTRICAL					
Bottom Power Entry Kit		**21J78**	X	X	X
ECONOMIZER					
Standard Economizer With Outdoor Air Hood (Not for Title 24)					
Downflow or Horizontal (Includes Barometric Relief Dampers and Exhaust Hood)		**21U15**	X	X	X
High Performance Economizer With Outdoor Air Hood (Approved for California Title 24 Building Standards / AMCA Class 1A Certified)					
Downflow or Horizontal (Includes Barometric Relief Dampers and Exhaust Hood)		**21U17**	X	X	X
Economizer Controls					
Single Enthalpy Control (Standard)		**21Z09**	X	X	X
Single Enthalpy Control (High Performance)		**11G21**	X	X	X
OUTDOOR AIR					
Outdoor Air Dampers With Outdoor Air Hood					
Motorized		**21U19**	X	X	X
Manual		**21U20**	X	X	X

[1] Not for seismic-rated applications.

X = Field Installed

OPTIONS / ACCESSORIES

Item	Order Number	Size		
		36	48	60
ROOF CURBS				
Clip Curbs				
8 in height	**21J17**	X	X	X
14 in height	**30X48**	X	X	X
18 in height	**21J20**	X	X	X
24 in height	**21J25**	X	X	X
Adjustable Pitch Clip Curb				
14 in height	**21U04**	X	X	X
Strapping Kits for Roof Curbs				
Strapping Kit - Seismic	**21J75**	X	X	X

X = Field Installed

SPECIFICATIONS - GAS HEAT

Model		LRP13GNK36	LRP13GNK48 LRP13GNK60
Heating Capacity Btuh	Input	54,000	72,000
	Output	43,740	58,320
[1] AFUE		81%	81%
Temperature Rise - °F		30-60	25-55
Gas Supply Connection (FPT) - in.		1/2	1/2
Gas Supply Pressure		5 in. w.g. (min.) / 10.5 in. w.g. (max.) Natural Gas	

[1] Annual Fuel Utilization Efficiency based on U.S. DOE test procedures and FTC labeling regulations.

HIGH ALTITUDE DERATE

Units may be installed at altitudes up to 4500 feet above sea level without any modification.
NOTE - Units are not approved for installation above 4500 feet.

RATINGS

NOTE - For Temperatures and Capacities not shown in tables, see bulletin - Cooling Unit Rating Table Correction Factor Data in Miscellaneous Product Data section.

3 TON - LRP13GNK36

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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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
59°F	1000	35.6	2.27	0.91	1.00	1.00	34.2	2.58	0.93	1.00	1.00	33.0	2.91	0.95	1.00	1.00	31.8	3.29	0.97	1.00	1.00
	1200	37.8	2.28	0.96	1.00	1.00	36.4	2.58	0.98	1.00	1.00	35.0	2.93	1.00	1.00	1.00	33.6	3.30	1.00	1.00	1.00
	1400	39.5	2.29	1.00	1.00	1.00	38.0	2.59	1.00	1.00	1.00	36.6	2.93	1.00	1.00	1.00	34.8	3.31	1.00	1.00	1.00
63°F	1000	37.2	2.28	0.74	0.88	0.99	35.6	2.58	0.76	0.90	1.00	34.0	2.92	0.78	0.92	1.00	32.4	3.30	0.80	0.94	1.00
	1200	38.5	2.28	0.80	0.94	1.00	37.0	2.59	0.80	0.96	1.00	35.4	2.93	0.82	0.98	1.00	33.8	3.30	0.85	1.00	1.00
	1400	40.0	2.29	0.83	0.98	1.00	38.5	2.59	0.85	1.00	1.00	36.6	2.93	0.87	1.00	1.00	35.0	3.31	0.90	1.00	1.00
67°F	1000	39.5	2.29	0.61	0.73	0.84	37.8	2.59	0.61	0.73	0.87	36.0	2.93	0.62	0.76	0.89	34.2	3.31	0.63	0.78	0.91
	1200	41.0	2.29	0.64	0.77	0.91	39.0	2.59	0.64	0.79	0.93	37.4	2.94	0.65	0.81	0.95	35.4	3.31	0.67	0.83	0.97
	1400	42.0	2.29	0.67	0.82	0.96	40.5	2.60	0.68	0.83	0.98	38.5	2.94	0.69	0.86	1.00	36.4	3.32	0.70	0.88	1.00
71°F	1000	41.5	2.29	0.48	0.60	0.70	39.5	2.60	0.48	0.61	0.72	38.0	2.94	0.49	0.61	0.73	36.2	3.32	0.48	0.61	0.75
	1200	43.0	2.30	0.49	0.63	0.76	41.0	2.60	0.50	0.64	0.77	39.5	2.95	0.51	0.65	0.79	37.4	3.33	0.51	0.65	0.81
	1400	44.5	2.30	0.51	0.66	0.80	42.5	2.61	0.51	0.67	0.81	40.5	2.95	0.51	0.68	0.84	38.5	3.33	0.52	0.70	0.87

4 TON - LRP13GNK48

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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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
59°F	1300	43.5	2.59	0.94	1.00	1.00	42.0	2.96	0.96	1.00	1.00	40.5	3.37	0.98	1.00	1.00	38.5	3.84	1.00	1.00	1.00
	1600	46.0	2.60	1.00	1.00	1.00	44.5	2.97	1.00	1.00	1.00	42.5	3.39	1.00	1.00	1.00	40.5	3.85	1.00	1.00	1.00
	1900	48.0	2.62	1.00	1.00	1.00	46.5	2.99	1.00	1.00	1.00	44.5	3.40	1.00	1.00	1.00	42.5	3.86	1.00	1.00	1.00
63°F	1300	45.0	2.60	0.77	0.91	1.00	43.5	2.97	0.79	0.92	1.00	41.0	3.38	0.80	0.95	1.00	39.0	3.85	0.83	0.98	1.00
	1600	47.0	2.61	0.83	0.98	1.00	45.0	2.98	0.84	1.00	1.00	43.0	3.39	0.86	1.00	1.00	41.0	3.86	0.89	1.00	1.00
	1900	48.0	2.62	0.88	1.00	1.00	46.5	2.99	0.90	1.00	1.00	45.0	3.40	0.92	1.00	1.00	42.5	3.86	0.95	1.00	1.00
67°F	1300	47.5	2.61	0.63	0.75	0.88	45.5	2.98	0.63	0.77	0.90	43.5	3.39	0.64	0.79	0.92	41.0	3.86	0.66	0.81	0.95
	1600	49.5	2.62	0.66	0.81	0.95	47.5	2.99	0.67	0.83	0.97	45.0	3.40	0.69	0.85	1.00	43.0	3.86	0.70	0.87	1.00
	1900	51.0	2.63	0.70	0.86	1.00	49.0	3.00	0.71	0.88	1.00	46.5	3.40	0.72	0.91	1.00	44.0	3.87	0.75	0.93	1.00
71°F	1300	50.0	2.62	0.48	0.61	0.73	48.0	2.99	0.49	0.62	0.75	46.0	3.40	0.49	0.63	0.77	43.5	3.86	0.50	0.65	0.79
	1600	52.0	2.63	0.51	0.65	0.79	50.0	3.00	0.51	0.66	0.81	47.5	3.41	0.52	0.68	0.83	45.0	3.87	0.53	0.70	0.86
	1900	53.5	2.63	0.53	0.69	0.85	51.0	3.00	0.54	0.70	0.87	48.5	3.41	0.54	0.72	0.89	46.0	3.87	0.56	0.74	0.92

5 TON - LRP13GNK60

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) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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
59°F	1450	55.5	3.47	0.89	1.00	1.00	54.0	3.92	0.91	1.00	1.00	51.5	4.43	0.93	1.00	1.00	49.5	5.02	0.95	1.00	1.00
	1800	60.0	3.49	0.96	1.00	1.00	57.5	3.95	0.98	1.00	1.00	55.0	4.46	1.00	1.00	1.00	53.0	5.06	1.00	1.00	1.00
	2100	62.5	3.50	1.00	1.00	1.00	60.0	3.96	1.00	1.00	1.00	58.0	4.48	1.00	1.00	1.00	55.0	5.08	1.00	1.00	1.00
63°F	1450	58.5	3.49	0.74	0.86	0.98	56.5	3.94	0.76	0.88	1.00	54.0	4.44	0.77	0.90	1.00	51.0	5.03	0.79	0.93	1.00
	1800	61.5	3.50	0.79	0.93	1.00	58.5	3.95	0.81	0.95	1.00	56.0	4.47	0.82	0.98	1.00	53.5	5.06	0.85	1.00	1.00
	2100	63.5	3.51	0.83	0.98	1.00	60.5	3.96	0.85	1.00	1.00	57.5	4.48	0.87	1.00	1.00	55.5	5.08	0.90	1.00	1.00
67°F	1450	61.5	3.50	0.60	0.72	0.83	59.5	3.96	0.61	0.73	0.85	56.5	4.47	0.62	0.75	0.87	53.5	5.06	0.63	0.77	0.89
	1800	65.0	3.51	0.64	0.77	0.90	61.5	3.97	0.65	0.79	0.92	59.5	4.49	0.66	0.81	0.95	56.0	5.09	0.67	0.83	0.98
	2100	66.5	3.52	0.67	0.81	0.96	64.0	3.98	0.68	0.83	0.99	60.5	4.50	0.69	0.86	1.00	57.5	5.10	0.71	0.88	1.00
71°F	1450	65.0	3.51	0.47	0.59	0.70	62.5	3.97	0.48	0.60	0.71	59.5	4.49	0.48	0.61	0.73	56.5	5.09	0.49	0.62	0.75
	1800	67.5	3.52	0.49	0.63	0.75	65.5	3.99	0.50	0.64	0.77	62.0	4.51	0.50	0.65	0.79	59.0	5.12	0.52	0.67	0.81
	2100	69.5	3.53	0.51	0.66	0.80	67.0	4.00	0.52	0.67	0.82	63.5	4.52	0.53	0.69	0.84	60.5	5.13	0.54	0.71	0.86

BLOWER DATA

LRP13GNK36

Blower Tap		External Static (in.w.g.)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Tap 1 (Fan Only)	CFM	978	862	786	721	656	589	518	456	401	- - -
	RPM	579	590	624	661	701	737	775	810	842	- - -
	Watts	137	125	127	133	139	143	149	154	159	- - -
Tap 2 (Low Cooling)	CFM	1387	1344	1301	1261	1220	1175	1130	1089	1044	1000
	RPM	743	769	795	821	846	873	900	928	955	983
	Watts	284	291	299	307	315	322	332	339	347	356
Tap 3 (High Cooling)	CFM	1540	1506	1463	1424	1382	1341	1302	1270	1227	1190
	RPM	811	832	855	879	902	926	951	975	1001	1025
	Watts	377	385	393	401	410	419	427	437	446	455
Tap 4 (54k Heat Exchanger	CFM	975	890	840	790	735	- - -	- - -	- - -	- - -	- - -
	RPM	585	609	648	688	726	- - -	- - -	- - -	- - -	- - -
	Watts	146	154	163	172	180	- - -	- - -	- - -	- - -	- - -
	Rise (°F)	42	46	48	52	55	- - -	- - -	- - -	- - -	- - -
Tap 5 (54k Heat Exchanger	CFM	- - -	1225	1180	1140	1095	1055	1015	975	935	890
	RPM	- - -	749	776	806	836	866	896	926	957	987
	Watts	- - -	286	296	306	317	328	339	349	359	370
	Rise (°F)	- - -	33	34	36	37	39	40	42	44	46

NOTE - All air data is measured external to unit with dry coil and without air filters.

BLOWER DATA

LRP13GNK48

Blower Tap		External Static (in.w.g.)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Tap 1 (Fan Only)	CFM	1203	1064	1012	953	894	820	735	675	622	566
	RPM	587	597	635	674	715	761	801	838	876	912
	Watts	160	147	154	162	169	179	188	194	202	209
Tap 2 (Low Cooling)	CFM	1784	1742	1701	1661	1625	1583	1544	1508	1472	1430
	RPM	794	824	850	876	902	927	954	979	1003	1029
	Watts	418	431	442	455	468	479	492	504	514	526
Tap 3 (High Cooling)	CFM	1932	1891	1854	1818	1778	1741	1707	1670	1633	1601
	RPM	849	874	900	924	949	974	998	1021	1046	1068
	Watts	518	529	543	557	570	583	597	610	622	633
Tap 4 (72k Heat Exchanger	CFM	1420	1370	1320	1275	1235	1190	1135	1080	1020	- - -
	RPM	637	667	706	736	768	797	831	864	903	- - -
	Watts	255	266	281	291	303	313	327	339	352	- - -
	Rise (°F)	38	40	41	43	44	46	48	50	53	- - -
Tap 5 (72k Heat Exchanger	CFM	1745	1705	1660	1620	1575	1540	1500	1460	1420	1370
	RPM	751	777	805	835	865	889	915	938	965	989
	Watts	433	446	460	476	492	502	516	528	541	553
	Rise (°F)	31	32	33	34	34	35	36	37	38	40

NOTE - All air data is measured external to unit with dry coil and without air filters.

BLOWER DATA

LRP13GNK60

Blower Tap		External Static (in.w.g.)									
		0.1	**0.2**	**0.3**	**0.4**	**0.5**	**0.6**	**0.7**	**0.8**	**0.9**	**1.0**
Tap 1 (Fan Only)	CFM	1305	1252	1195	1143	1087	1030	968	902	797	736
	RPM	600	634	671	705	745	782	826	869	917	971
	Watts	166	174	182	190	199	208	217	227	239	251
Tap 2 (Low Cooling)	CFM	1983	1937	1905	1864	1829	1792	1754	1715	1672	1634
	RPM	835	861	882	909	931	956	977	1002	1031	1053
	Watts	474	487	497	510	523	534	543	557	570	581
Tap 3 (High Cooling)	CFM	2120	2082	2041	2010	1974	1937	1899	1871	1828	1793
	RPM	883	905	934	952	974	994	1016	1041	1062	1087
	Watts	570	583	598	609	620	634	646	658	672	686
Tap 4 (72k Heat Exchanger	CFM	1415	1365	1315	1260	1225	1175	1120	1065	1005	- - -
	RPM	639	675	707	741	774	810	848	886	924	- - -
	Watts	230	240	252	262	273	285	298	309	322	- - -
	Rise (°F)	38	40	41	43	44	46	49	51	54	- - -
Tap 5 (72k Heat Exchanger	CFM	1745	1705	1660	1620	1575	1540	1495	1450	1410	1365
	RPM	759	782	814	839	871	893	920	948	979	1009
	Watts	391	402	416	427	442	452	464	476	490	504
	Rise (°F)	31	32	33	33	34	35	36	37	39	40

NOTE - All air data is measured external to unit with dry coil and without air filters.

BLOWER DATA

AIR RESISTANCE DATA - in. w.g.

Air Volume cfm	Wet Indoor Coil			Optional Economizer	Rectangular to Round Duct Adaptor Kits					
					Downflow		Horizontal			
					14 in. Diameter		14 in. Diameter		16 in. Diameter	18 in. Diameter
	36	48	60		36	48, 60	36	48, 60	36, 48, 60	36, 48, 60
600	0.01	0.01	- - -	0.02	0.05	- - -	0.07	- - -	- - -	- - -
700	0.01	0.01	0.01	0.03	0.08	0.13	0.08	0.13	- - -	- - -
800	0.01	0.01	0.01	0.04	0.10	0.17	0.12	0.16	- - -	- - -
900	0.02	0.01	0.01	0.05	0.12	0.21	0.15	0.21	- - -	- - -
1000	0.02	0.02	0.02	0.06	0.17	0.24	0.19	0.25	0.11	0.03
1100	0.02	0.02	0.02	0.07	0.18	0.30	0.23	0.30	0.11	0.03
1200	0.03	0.02	0.02	0.08	0.20	0.36	0.29	0.37	0.13	0.03
1300	0.03	0.03	0.03	0.10	0.26	0.43	0.31	0.43	0.17	0.03
1400	0.04	0.03	0.03	0.12	0.31	0.50	0.39	0.51	0.20	0.03
1500	0.05	0.04	0.03	0.13	- - -	0.57	- - -	0.57	0.21	0.05
1600	0.05	0.05	0.03	0.15	- - -	0.63	- - -	0.65	0.26	0.05
1700	0.05	0.05	0.04	0.18	- - -	0.71	- - -	0.72	0.30	0.06
1800	0.06	0.05	0.04	0.20	- - -	0.80	- - -	0.81	0.30	0.06
1900	0.06	0.06	0.04	0.21	- - -	0.91	- - -	0.90	0.40	0.06
2000	0.07	0.06	0.05	0.24	- - -	0.99	- - -	1.01	0.41	0.06

ELECTRICAL DATA

Model		LRP13GNK36	
[1] Voltage - 60Hz		208/230V-3ph	460V-3ph
Compressor (Non-Inverter)	Rated Load Amps	12.2	5.8
	Locked Rotor Amps	102.8	50
Outdoor Fan Motor	Full Load Amps (1 Non-ECM)	1.8	1
Indoor Blower Motor	Horsepower	0.75	0.75
	Type	ECM	ECM
	Full Load Amps	2.4	3.2
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	30	15
[3] Minimum Circuit Ampacity (MCA)	Unit Only	21	11.9

Model		LRP13GNK48	
[1] Voltage - 60Hz		208/230V-3ph	460V-3ph
Compressor (Non-Inverter)	Rated Load Amps	12.2	5.1
	Locked Rotor Amps	120.4	41
Outdoor Fan Motor	Full Load Amps (1 Non-ECM)	1.8	1
Indoor Blower Motor	Horsepower	1.0	1.0
	Type	ECM	ECM
	Full Load Amps	7.6	4
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	35	15
[3] Minimum Circuit Ampacity (MCA)	Unit Only	26.2	11.9

Model		LRP13GNK60	
[1] Voltage - 60Hz		208/230V-3ph	460V-3ph
Compressor (Non-Inverter)	Rated Load Amps	13.1	6.6
	Locked Rotor Amps	93	60
Outdoor Fan Motor	Full Load Amps (1 Non-ECM)	1.8	1
Indoor Blower Motor	Horsepower	1.0	1.0
	Type	ECM	ECM
	Full Load Amps	7.6	4
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	35	15
[3] Minimum Circuit Ampacity (MCA)	Unit Only	27.3	13.7

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

[1] Extremes of operating range are plus and minus 10% of line voltage.

[2] HACR type breaker or fuse.

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

WEIGHT DATA — UNIT

Model	Net		Shipping	
	lbs.	kg	lbs.	kg
LRP13GNK36	511	232	517	235
LRP13GNK48	542	246	548	249
LRP13GNK60	560	254	566	257

WEIGHT DATA — OPTIONS / ACCESSORIES

Description	Shipping	
	lbs.	kg
CABINET		
Tool-Less Filter Access Kit	20	9
ECONOMIZER / OUTDOOR AIR		
Economizer		
Economizer, Includes Barometric Relief Dampers and Exhaust Hood	95	43
Outdoor Air Dampers		
Motorized	35	16
Manual	28	13
ROOF CURBS		
Clip Curbs		
8 in. height	63	29
14 in. height	77	35
18 in. height	99	45
24 in. height	132	60
Adjustable Pitch Curb, Downflow		
14 in. height	95	43

INSTALLATION CLEARANCES

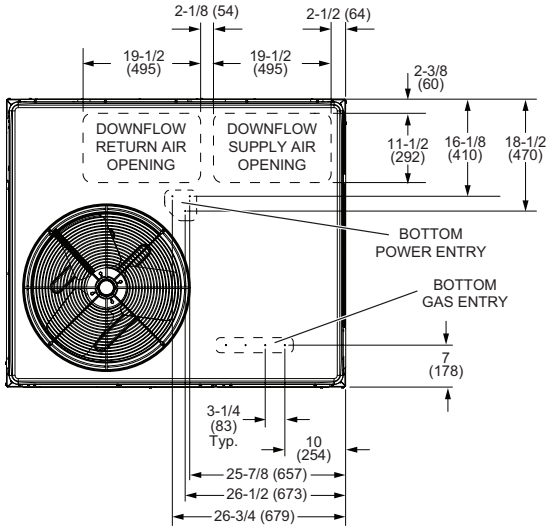
	in.	mm
Front (heat exchanger access)	24	610
Right Side (blower and evaporator coil access)	24	610
Left Side (compressor access)	24	610
Back	0	0
Back (with Optional Economizer)	40	1016
Top	48	1219

MINIMUM CLEARANCE TO COMBUSTIBLE MATERIAL

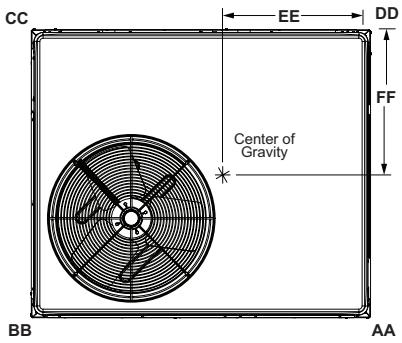
	in.	mm
Front	0	0
Back	0	0
Right Side (vent cover)	12	305
Left Side	0	0
Top	0	0
Below Unit	0	0

DIMENSIONS — UNIT

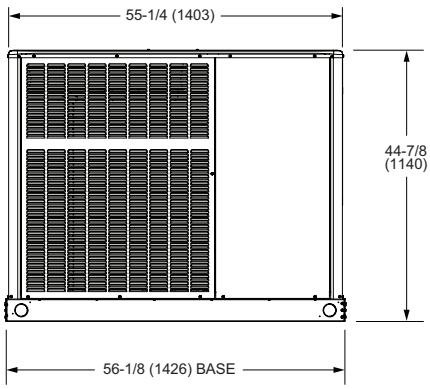
Model	CORNER WEIGHTS								CENTER OF GRAVITY			
	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
LRP13GNK36	125	57	124	56	134	61	134	61	32-1/2	826	22-3/4	579
LRP13GNK48	133	60	130	59	143	65	143	65	32-1/2	826	22-3/4	579
LRP13GNK60	137	62	135	61	147	67	147	67	32-1/2	826	22-3/4	579



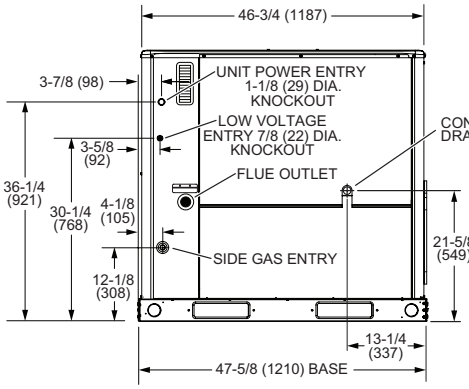
TOP VIEW (Base)



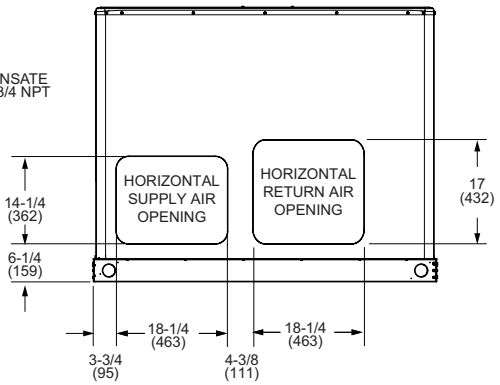
TOP VIEW
(Corner Weight and Center of Gravity)



FRONT VIEW

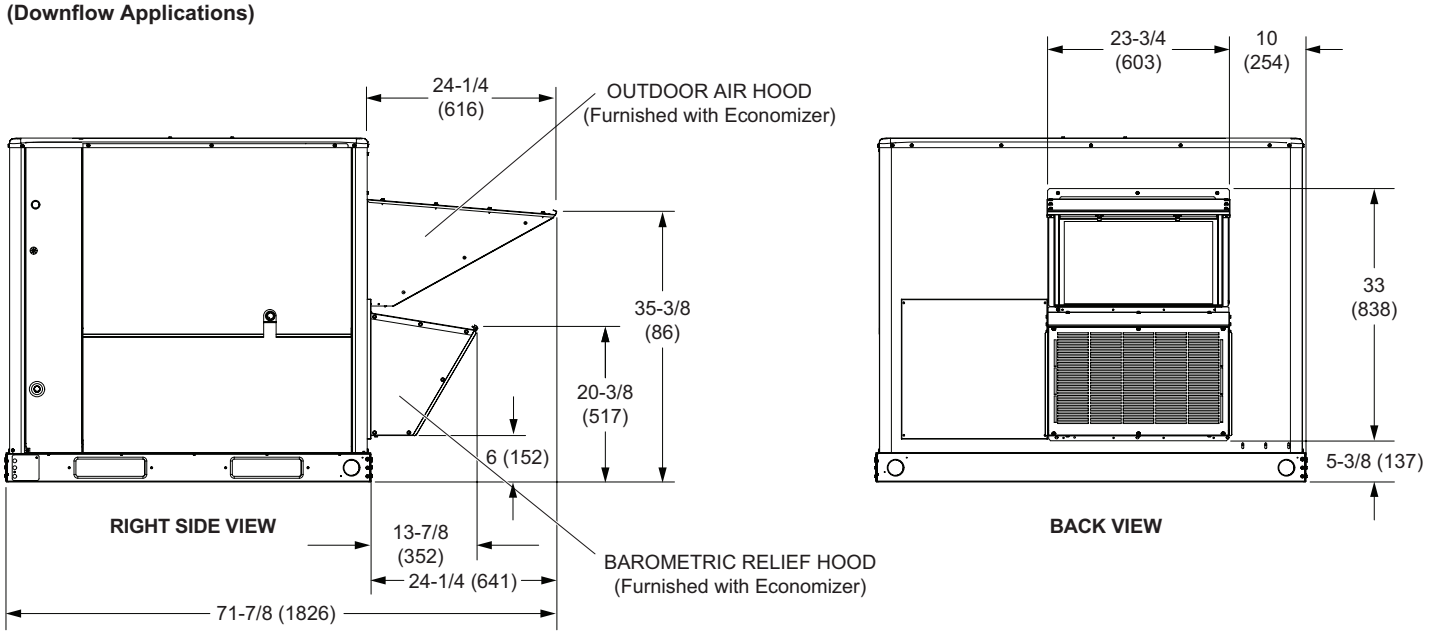


RIGHT SIDE VIEW

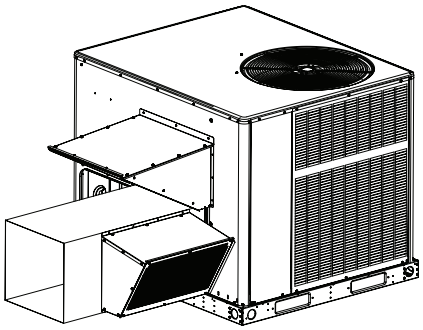


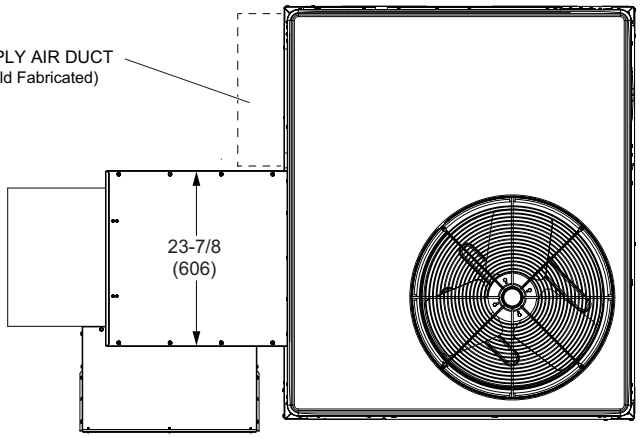
BACK VIEW

OUTDOOR AIR HOOD DETAIL FOR OPTIONAL ECONOMIZER WITH BAROMETRIC RELIEF DAMPERS
(Downflow Applications)

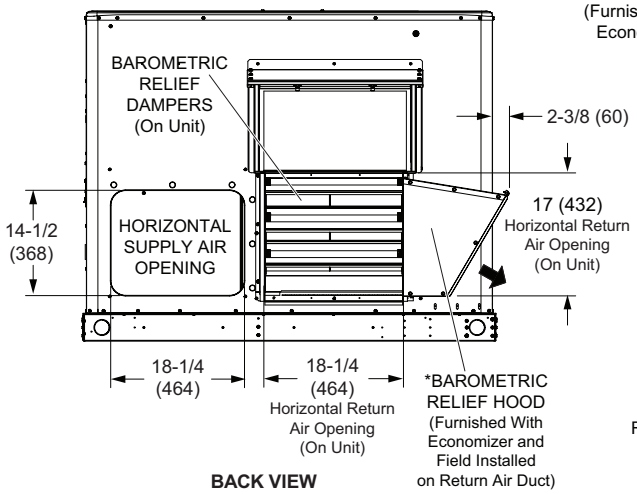


OUTDOOR AIR HOOD DETAIL FOR OPTIONAL ECONOMIZER WITH BAROMETRIC RELIEF DAMPERS
(Horizontal Applications)

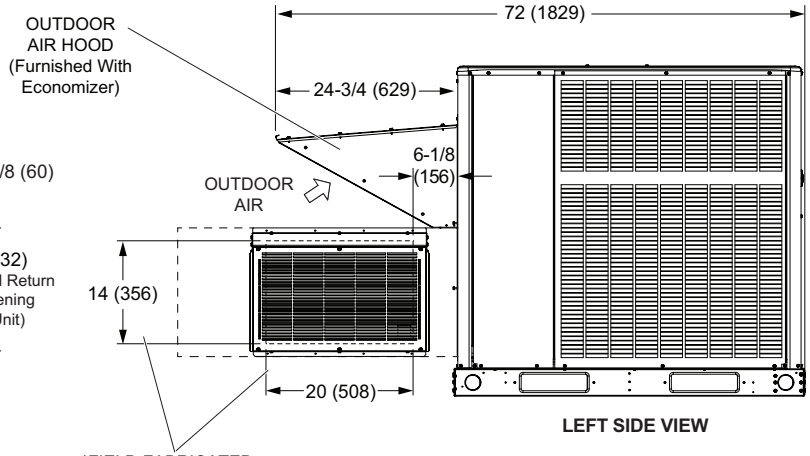




TOP VIEW



BACK VIEW

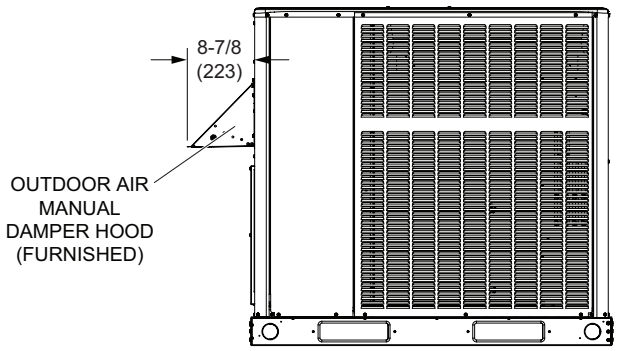


LEFT SIDE VIEW

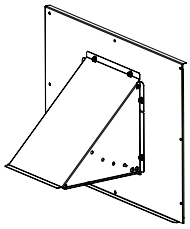
NOTE - Return Air Duct and Transition must be supported.

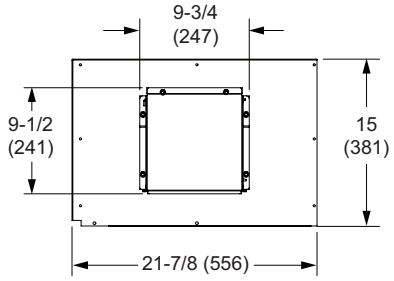
OUTDOOR AIR HOOD DETAIL FOR OPTIONAL OUTDOOR AIR DAMPERS

MANUAL OUTDOOR AIR DAMPERS



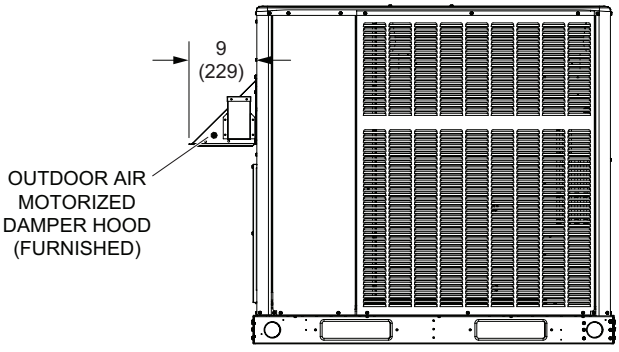
LEFT SIDE VIEW



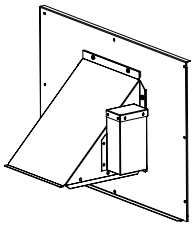


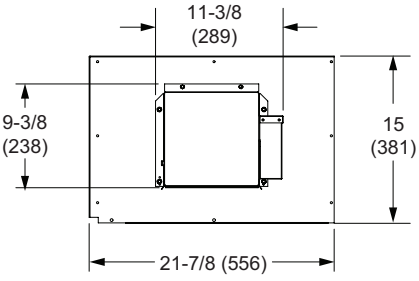
NOTE - Outdoor Air Hood and Panel replaces existing panel on unit.

MOTORIZED OUTDOOR AIR DAMPERS

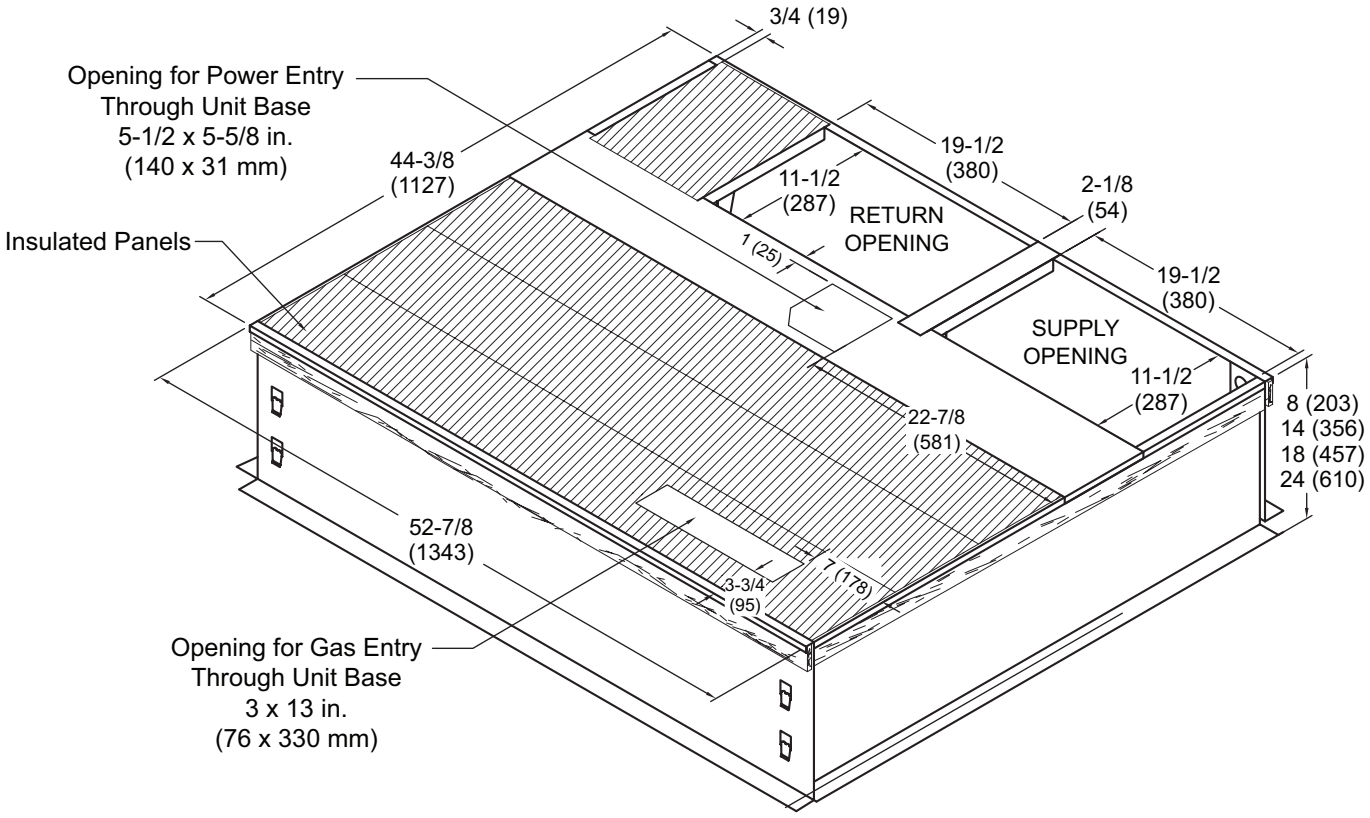


LEFT SIDE VIEW



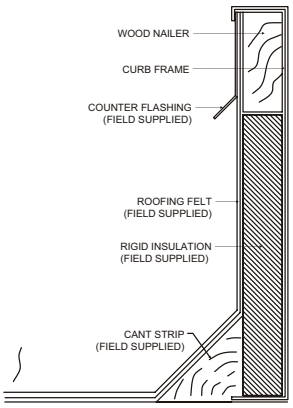


CLIP CURB

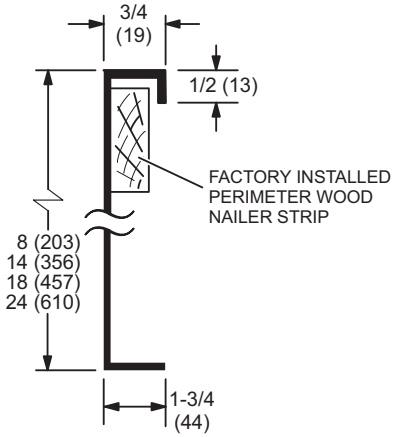


NOTE - Roof deck may be omitted within confines of curb.

TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB



REVISIONS

Sections	Description of Change
Optional Accessories	Removed Hurricane Strapping Kits.

LENNOX

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Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury.
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