



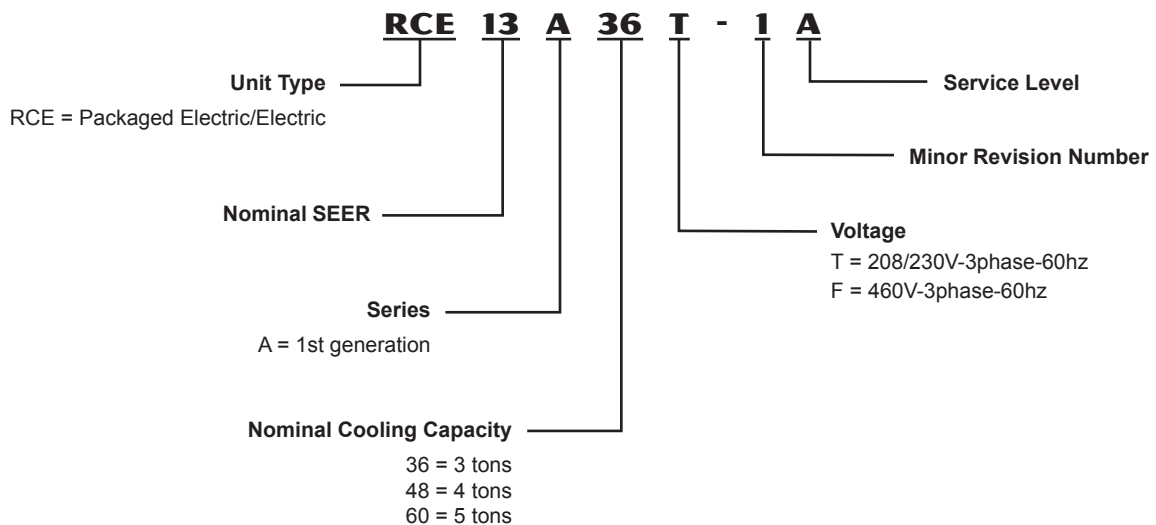
PRODUCT SPECIFICATIONS

Bulletin No. 210624
October 2011
Supersedes September 2011



SEER - 13.00
3 to 5 Tons
Cooling Capacity - 34,000 to 56,000 Btuh
Optional Electric Heat - 10 and 15 kW

MODEL NUMBER IDENTIFICATION



FEATURES

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WARRANTY

Compressor - five year limited warranty.

All other covered components - one year.

APPROVALS

AHRI Certified to AHRI Standard 210/240-2008.

ETL listed.

APPLICATIONS

Designed for outdoor installations at ground level or rooftop applications.

SUPPLY AIR BLOWER

Direct Drive Blower

Each blower assembly statically and dynamically balanced.

Multi-speed, direct drive blower motor.

Change in blower speed is easily accomplished by simple wiring change on blower motor.

Blower assembly easily removed for servicing.

See Blower Performance tables.

REFRIGERATION SYSTEM

R-410A Refrigerant

Non-chlorine, ozone friendly, R-410A.

Unit pre-charged with refrigerant.

See Specification table.



Evaporator and Condenser Coils

Copper tube with aluminum fin coils.

PVC (polyvinyl chloride) coated coil guard protects condenser coil.

Evaporator Coil Drain Pan

Corrosion resistant plastic drain pan.

Condenser Fan

Weather protected heavy duty condenser fan motor with coated steel fan blades for long life.

Totally enclosed motor.

Fan guard constructed of corrosion-resistant coated steel.

High Pressure Switch

Shuts off unit if abnormal operating conditions cause the discharge pressure to rise above setting.

Protects compressor from excessive condensing pressure. Automatic reset.

COMPRESSOR

Heavy duty, hermetically sealed reciprocating compressor on 36 and 48 models.

Scroll compressor on 60 models.

Overload protected.

Running gear spring mounted within sealed housing (except 60 models).

Resiliently mounted on rubber mounts.

OPTIONS / ACCESSORIES

Timed-Off Control

Prevents compressor short-cycling and allows time for suction and discharge pressure to equalize. Permits compressor start-up in an unloaded condition. Automatic reset with 5 minute delay between compressor shut-off and start-up.

SUPPLY AIR BLOWER

Direct Drive Blower

Each blower assembly statically and dynamically balanced.

Blower assembly easily removed for servicing

Multi-speed, direct drive blower motor.

Change in blower speed is easily accomplished by simple wiring change on blower motor.

See Blower Performance tables

FEATURES

CONTROLS

24 Volt Transformer

40VA transformer furnished and factory installed in control area.

3-Pole Double-Break Contactor

Furnished and factory installed

OPTIONS / ACCESSORIES

Thermostat

See Thermostat bulletins in Controls section and Lennox Price Book for a complete list of thermostats.

CABINET

Conditioned areas insulated with foil faced insulation to minimize heat loss and reduce operating sound levels.

Powder paint for maximum durability.

Easy service access.

Coated steel wire guard provides complete coil protection.

Interchangeable panels for horizontal to downflow airflow conversion furnished (shipped for horizontal).

Electrical Inlets and Service Valves

Field wiring inlets are located in one area of the cabinet. See dimension drawing.

Gauge ports are located outside the cabinet.

Factory installed wiring harness for optional Economizer allows fast and easy electrical connections.

AIR FILTER (NOT FURNISHED - REQUIRED)

Filter rails for mounting 1 inch filter are furnished in cabinet. Filter is not furnished and must be field provided.

See Specifications Table for sizes.

OPTIONS / ACCESSORIES

ROOF CURB

Roof Curb, Downflow

Nailer strip furnished, mates to unit, shipped knocked down. See dimension drawing.

ECONOMIZER

Downflow or horizontal, parallel 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, adjustable minimum damper position.

Barometric relief dampers are furnished in downflow economizer.

ELECTRIC HEAT (10 AND 15 KW)

Field install internal to unit cabinet.

Available in several voltages and kw sizes.

Helix wound nichrome heating elements exposed directly in air stream resulting in instant heat transfer, low element temperatures and long service life.

Cutoff limit control provides positive protection in case of excessive temperatures.

Easy plug-in connections for low voltage control wiring.

OUTDOOR AIR DAMPER

Manual or motorized. Perforated air intake panel replaces existing duct cover on unit.

0 to 25% (fixed)

Manual outdoor air damper has adjustable damper slide.

Motorized outdoor air damper has motorized damper assembly with adjustable damper slide.

Outdoor air hood with cleanable filter included.

SPECIFICATIONS

General Data		Model No.	RCE13A36	RCE13A48	RCE13A60
Nominal Tonnage			3	4	5
Cooling Performance	Total capacity - Btuh		34,000	46,000	56,000
	¹ SEER (Btuh/Watt)		13.0	13.0	13.0
	EER (Btuh/Watt)		11.0	11.0	11.0
² Sound Rating Number (dB)			79	80	80
Refrigerant	Type		R-410A	R-410A	R-410A
	Charge		7 lbs. 5 oz	6 lbs. 8 oz.	8 lbs. 12 oz.
Condensate drain size (fpt) - in.			3/4	3/4	3/4
Outdoor Coil Fan	Motor horsepower		1/4	1/3	1/3
	Motor rpm		1075	1075	1075
	Diameter - in. & No. of blades		18 - 4	22 - 4	22 - 4
Indoor Blower	Motor horsepower		1/2	3/4	3/4
	Blower wheel size dia. x width - in.		10 x 8	10 x 10	10 x 10
⁵ Filter Dimensions (filter not furnished)			(1) 24 x 28 x 1	(1) 30 x 30 x 1	(1) 30 x 30 x 1
Shipping weight of basic unit (1 Pkg.) - lbs.			360	460	470
Electrical characteristics (60 hz)			208/230V-3ph or 460V-3ph		

ELECTRICAL DATA

Line voltage data - 60hz 3 phase		208/230V	208/230V	460V	208/230V	460V
³ Maximum overcurrent protection (amps)		20	30	15	40	20
⁴ Minimum Circuit Ampacity		16.1	22.3	10.7	27.3	13.0
Compressor	Rated load amps	8.6	11.8	15.2	15.9	7.0
	Locked rotor amps	68	88	44	110	52
Outdoor Coil Fan Motor	Full load amps	1.2	1.7	1	1.7	1
Indoor Blower Motor	Full load amps	4.1	5.8	3.2	5.8	3.2

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

¹ AHRI Certified to AHRI Standard 210/240; 95°F outdoor air temperature, 80°F db/67°F wb entering evaporator air.

² Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270.

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 Filters are not furnished and must be field provided.

OPTIONS / ACCESSORIES

Item Description	Model Number	Catalog Number	Unit Model No			
			36	48	60	
COOLING SYSTEM						
Compressor Timed-Off Control		47J27	X	X	X	
ELECTRIC HEAT						
10 kW	208/240V-3ph-60hz	AHSA10B-1	1.821007	X	X	X
	460V-3ph-60hz	AHSA10C-1	1.821014		X	X
15 kW	208/240V-3ph-60hz	AHSA15B-1	1.821008	X	X	X
	460V-3ph-60hz	AHSA15C-1	1.821015		X	X
ECONOMIZER						
Downflow		AECON825-1	1.851395	X		
		AECON826-1	1.851396		X	X
Horizontal		AECON827-1	1.851397	X		
		AECON828-1	1.851398		X	X
OUTDOOR AIR DAMPER						
Manual		ADMPR145-1	1.851274	X		
		ADMPR166-1	1.851293		X	X
Motorized		ADMPR146-1	1.851275	X		
		ADMPR167-1	1.851294		X	X
ROOF CURBS						
		ACURB160-1	1.851291	X		
		ACURB162-1	1.851292		X	X

NOTE - Catalog and model numbers shown are for ordering field installed accessories.
X = Field installed.

ELECTRIC HEAT DATA

Packaged Unit Model No.	Electric Heat Size	Input		¹ Minimum Circuit Ampacity	² Maximum Overcurrent Protection
		Volt	kW	Circuit 1	Circuit 1
RCE13A36	10 kW	208	7.5	31.2	35
		240	10.0	35.2	40
	15 kW	208	11.3	44.2	45
		240	15.0	50.2	60
RCE13A48 RCE13A60	10 kW	208	7.5	33.3	35
		240	10.0	37.3	40
		480	10.0	19.0	20
	15 kW	208	11.3	46.3	50
		240	15.0	52.4	60
		480	15.0	25.8	30

¹ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. use wires suitable for at least 167°F.

² HACR type circuit breaker or fuse.

COOLING RATINGS

Model No.	Indoor Temp DB/WB °F	Outdoor Temp - DB														
		65°F			82°F			95°F			105°F			115°F		
		Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW
RCE13A36	85/72	39,000	0.62	2.35	37,500	0.64	2.77	36,300	0.65	3.10	34,200	0.68	3.43	31,900	0.70	3.48
	80/67	36,800	0.69	2.34	36,100	0.71	2.73	34,000	0.72	3.09	31,000	0.76	3.33	29,000	0.78	3.47
	75/63	35,600	0.72	2.33	32,900	0.75	2.74	30,700	0.77	3.06	28,500	0.80	3.38	26,100	0.83	3.44
	75/57	32,000	1.00	2.29	31,000	1.00	2.71	30,300	1.00	3.03	28,100	1.00	3.35	25,800	1.00	3.40
RCE13A48	85/72	58,200	0.64	3.30	53,700	0.66	3.83	50,300	0.68	4.23	44,800	0.72	4.49	39,300	0.75	4.52
	80/67	54,900	0.70	3.27	51,500	0.71	3.79	46,000	0.76	4.18	41,500	0.80	4.39	33,300	0.86	4.39
	75/63	51,600	0.73	3.24	45,900	0.77	3.74	41,500	0.80	4.12	34,900	0.86	4.33	28,400	0.91	4.32
	75/57	47,800	1.00	3.20	43,900	1.00	3.71	40,900	1.00	4.10	35,300	1.00	4.31	29,600	1.00	4.30
RCE13A60	85/72	67,500	0.62	3.83	63,500	0.64	4.54	60,700	0.65	5.08	56,500	0.66	5.65	52,300	0.67	5.60
	80/67	63,600	0.68	3.80	59,800	0.71	4.45	56,000	0.72	5.06	54,300	0.74	5.62	47,200	0.77	5.58
	75/63	60,300	0.71	3.77	55,500	0.73	4.48	52,200	0.75	5.02	47,300	0.78	5.57	42,400	0.81	5.52
	75/57	53,400	1.00	3.73	49,200	1.00	4.43	46,200	1.00	4.97	42,100	1.00	5.54	38,300	1.00	5.49

INSTALLATION CLEARANCES

	in.	mm
Front (electric heat access)	24	610
Right Side (blower access)	24	610
Left Side (indoor coil access)	24	610
Back	0	0
Top	48	1219

BLOWER DATA

RCE13A36 BLOWER PERFORMANCE

¹ Horizontal Airflow

External Static Pressure in. w.g.	Air Volume at Specific Blower Taps (cfm)				
	Tap 1 (Fan Only)	Tap 2 (Low Static)	Tap 3 (High Static)	² Tap 4 (Low Static Electric Heat)	² Tap 5 (High Static Electric Heat)
0.20	650	1240	1320	1240	1320
0.30	590	1200	1260	1200	1260
0.40	500	1150	1230	1150	1230
0.50	430	1100	1200	1100	1200
0.60	---	1060	1160	1060	1160
0.70	---	1020	1120	1020	1120
0.80	---	980	1080	980	1080

NOTE - All air data measured external to unit with dry coil and less filter.

¹ For downflow air volume, add 0.10 in. w.g. to duct static.

² Taps 4 and 5 are used with Optional Electric Heat. Refer to Electric Heat nameplate for proper heat tap selection

RCE13A48 BLOWER PERFORMANCE

¹ Horizontal Airflow

External Static Pressure in. w.g.	Air Volume at Specific Blower Taps (cfm)				
	Tap 1 (Fan Only)	Tap 2 (Low Static)	Tap 3 (High Static)	² Tap 4 (Low Static Electric Heat)	² Tap 5 (High Static Electric Heat)
0.20	860	1650	1800	1650	1800
0.30	760	1600	1750	1600	1750
0.40	690	1550	1690	1550	1690
0.50	640	1500	1630	1500	1630
0.60	---	1440	1570	1440	1570
0.70	---	1370	1470	1370	1470
0.80	---	1290	1330	1290	1330

NOTE - All air data measured external to unit with dry coil and less filter.

¹ For downflow air volume, add 0.10 in. w.g. to duct static.

² Taps 4 and 5 are used with Optional Electric Heat. Refer to Electric Heat nameplate for proper heat tap selection

RCE13A60 BLOWER PERFORMANCE

¹ Horizontal Airflow

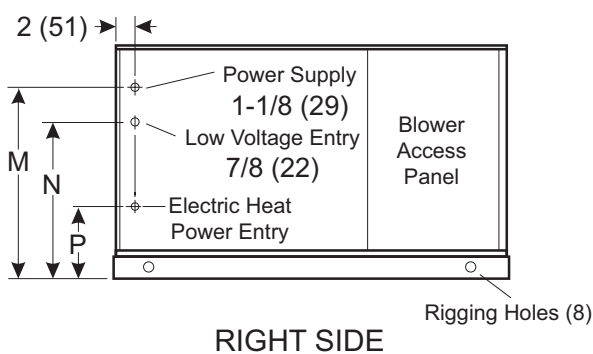
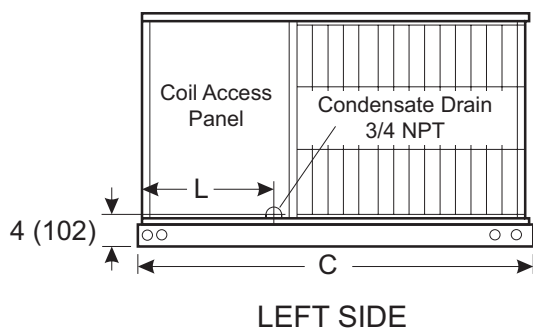
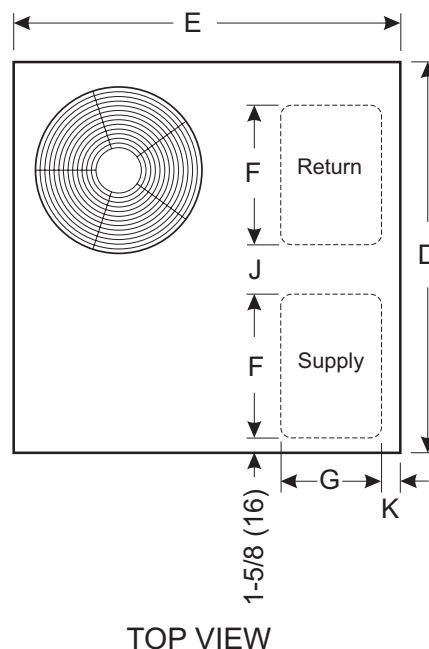
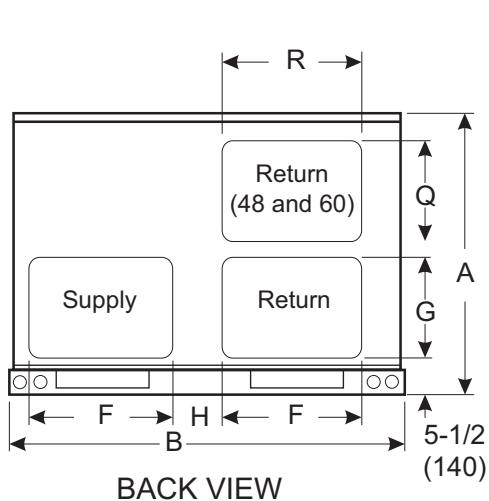
External Static Pressure in. w.g.	Air Volume at Specific Blower Taps (cfm)				
	Tap 1 (Fan Only)	Tap 2 (Low Static)	Tap 3 (High Static)	² Tap 4 (Low Static Electric Heat)	² Tap 5 (High Static Electric Heat)
0.20	1000	1820	1950	1820	1950
0.30	900	1790	1910	1790	1910
0.40	800	1730	1860	1730	1860
0.50	750	1670	1800	1670	1800
0.60	---	1630	1700	1630	1700
0.70	---	1530	1560	1530	1560
0.80	---	1380	1360	1380	1360

NOTE - All air data measured external to unit with dry coil and less filter.

¹ For downflow air volume, add 0.10 in. w.g. to duct static.

² Taps 4 and 5 are used with Optional Electric Heat. Refer to Electric Heat nameplate for proper heat tap selection

DIMENSIONS - INCHES (MM)



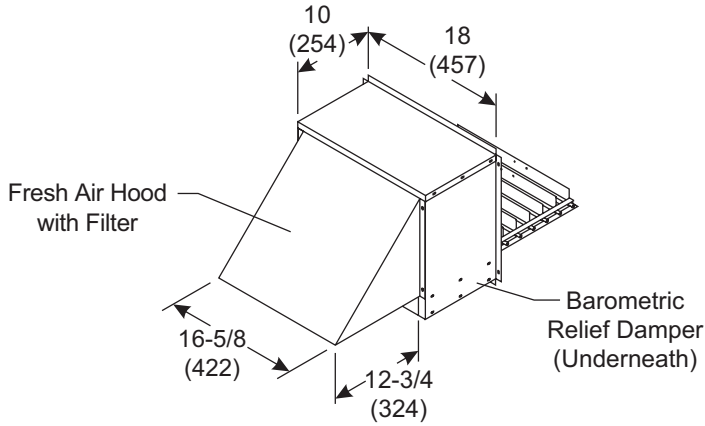
Model No.	A		B		C		D		E		F		G		H	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
RCE13A36	32-1/2	826	46-1/2	1181	46-1/2	1181	45-5/8	1159	45-5/8	1159	17-1/2	445	11-1/2	292	4	102
RCE13A48 RCE13A60	34-1/2	876	55-1/2	1410	50-1/2	1283	54-5/8	1387	49-5/8	1260	21-1/2	546	12	305	6-1/4	159

Model No.	J		K		L		M		N		P		Q		R	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
RCE13A36	4	102	1-3/4	44	15-5/8	397	27-3/4	705	24-7/8	632	9-3/4	248	---	---	---	---
RCE13A48 RCE13A60	5-5/8	143	2-3/8	60	17-1/8	435	29-3/4	756	26-7/8	683	15-1/2	394	12	305	21-1/2	546

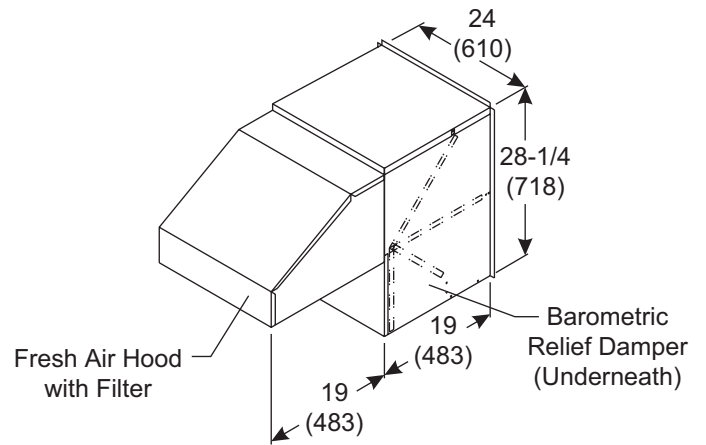
ACCESSORIES DIMENSIONS - INCHES (MM)

ECONOMIZER DAMPERS - DOWNFLOW

FOR RCE13A36

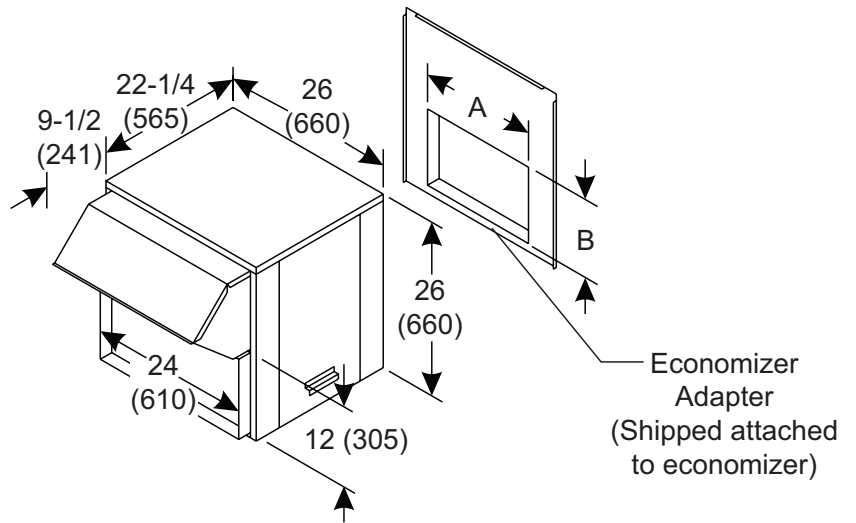


FOR RCE13A48 AND RCE13A60



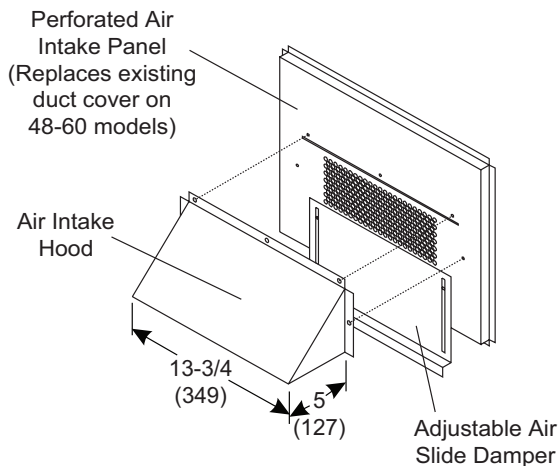
ECONOMIZER DAMPERS - HORIZONTAL

Model No.	A		B	
	in	mm	in	mm
RCE13A36	17-5/8	448	11-1/2	292
RCE13A48 RCE13A60	21-3/4	552	12-1/4	311

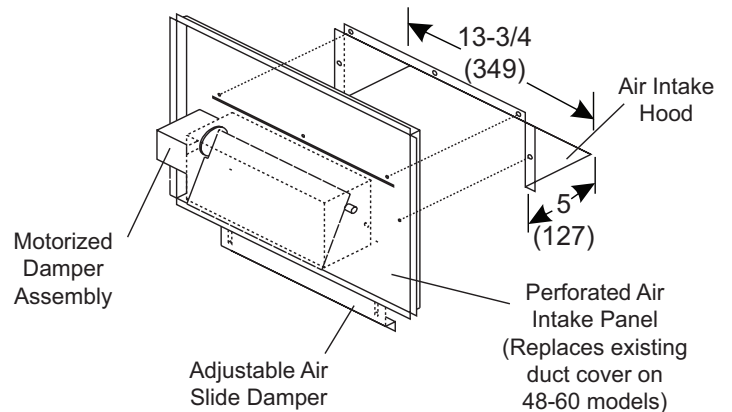


FRESH AIR DAMPERS

MANUAL

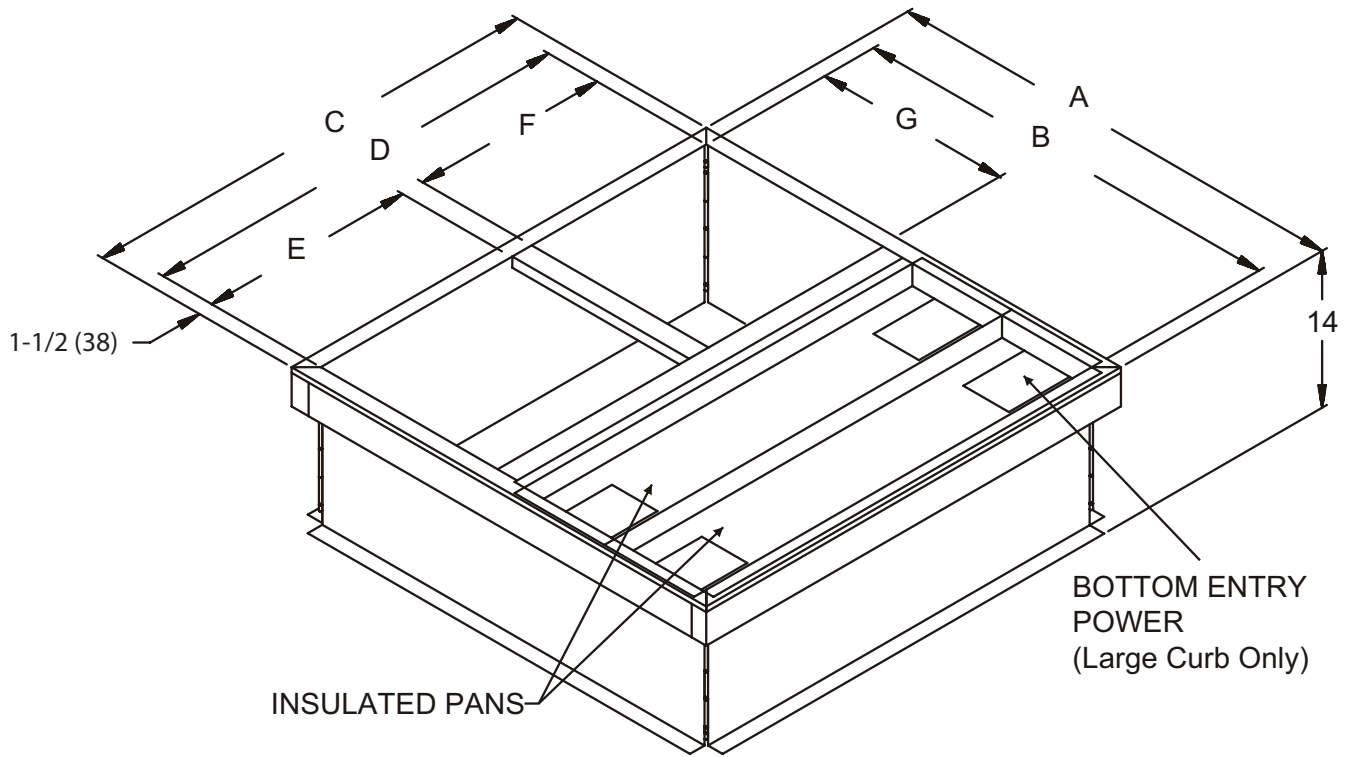


MOTORIZED



ACCESSORIES DIMENSIONS - INCHES (MM)

ROOF CURB



Model No.	A		B		C		D		E		F		G	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
RCE13A36	43	1092	40	1016	43	1092	40	1016	18	457	20	508	19	483
RCE13A48 RCE13A60	47-1/8	1197	44-1/8	1121	52	1321	49	1245	23-1/2	597	23-1/2	597	19-1/2	495

REVISIONS

Section	Description
Options/Accessories	Revised catalog numbers for Outdoor Air Dampers.



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NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

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