

13^{SEER}

Light Commercial 3 Phase Packaged Heat Pump

Form No. AC-RHP13-100 (05/2013)

RHP13 Features and Benefits

Refrigerant System

- Environmentally friendly R410A refrigerant
- Copper tubing with enhanced fin coils
- External service gauge ports

Cabinet Construction

- Low profile, with compact footprint
- Insulation to minimize heat loss plus reduce sound
- Baked on pre painted steel cabinet finish
- Easy service access
- Wire grill protection
- One piece "no leak" top design

Blower

- Insulated compartment to reduce sound
- High efficiency multispeed motor for wide airflow range

Installation

- Full perimeter base rail system for easy installation
- Horizontal or down discharge, duct covers provided
- Utility connections on "right side"
- Filter channels for 1" filter field provided
- Factory Installed Economizer Harness for easy accessory connections



Warranty

- 1 year limited parts warranty
- 5 year limited compressor warranty
- See limited warranty document for details.



ALLIED
Commercial

Model Number Guide

	R	HP	13	A	36	T	1	A	
Residential Packaged Light Commercial	_____	_____	_____	_____	_____	_____	_____	_____	A - Service Level
Heat Pump	_____	_____	_____	_____	_____	_____	_____	_____	Revision Code
SEER 13	_____	_____	_____	_____	_____	_____	_____	_____	Voltage T = 200-230/60/3 F = 460/60/3
Series	_____	_____	_____	_____	_____	_____	_____	_____	Nominal Capacity 36 - 36,000 Btuh (24 through 60)

Electrical and Physical Data

Model	Voltage/HZ/ Phase	Voltage Range 60 hz	Minimum Circuit Amp.	Maximum Over Current Device (amps)	Compressor		Condenser Fan Motor			Indoor Blower Motor		Refrig. Charge	Shipping Weight (lbs.)
					Rated Load (amps)	Locked Rotor (amps)	Rated Load (amps)	Rated HP	Nom. RPM	Rated Load (amps)	Rated HP		
RHP13A36T-1	200-230/60/3	187-253	18.3	25	10.4	73	1.2	1/4	1075	4.1	1/2	118	370
RHP13A48T-1	200-230/60/3	187-253	24.6	35	13.7	83.1	1.7	1/3	1075	5.8	3/4	154	475
RHP13A60T-1	200-230/60/3	187-253	27.4	40	15.9	110	1.7	1/3	1075	5.8	3/4	150	475
RHP13A48F-1	460/60/3	414-506	12.0	15	6.2	41	1.0	1/3	1075	3.2	3/4	154	480
RHP13A60F-1	460/60/3	414-506	13.9	20	7.7	52	1.0	1/3	1075	3.2	3/4	150	480

Note: Weights listed are unit weights with packaging

Cooling and Heating Performance

Model						Heating				
	SEER	EER	Rated AHRI Capacity ¹ BTUH	Rated Sensible Capacity BTUH	CFM	47°		HSPF	17°	
						BTUH	COP		BTUH	COP
RHP13A36T-1	13.0	11.0	34,600	25,600	1200	33,600	3.5	7.7	20,200	2.3
RHP13A48T, F-1	13.0	11.0	46,000	35,000	1600	44,000	3.3	7.7	26,800	2.1
RHP13A60T,F-1	13.0	10.5	56,000	39,200	1800	54,000	3.3	7.7	34,000	2.3

Blower Performance

Model	Blower Tap	CFM @ Ext. Static Pressure in inch WC w/o Filter, dry coil						
		0.2	0.3	0.4	0.5	0.6	0.7	0.8
RHP13A36T-1	1	650	590	500	430	---	---	---
	2	1240	1200	1150	1100	1060	1020	980
	3	1320	1260	1230	1200	1160	1120	1080
	4	1240	1200	1150	1100	1060	1020	980
	5	1320	1260	1230	1200	1160	1120	1080
RHP13A48T,F-1	1	860	760	690	640	---	---	---
	2	1650	1600	1550	1500	1440	1370	1290
	3	1800	1750	1690	1630	1570	1470	1330
	4	1650	1600	1550	1500	1440	1370	1290
	5	1800	1750	1690	1630	1570	1470	1330
RHP13A60T,F-1	1	1000	900	800	750	---	---	---
	2	1820	1790	1730	1670	1630	1530	1380
	3	1950	1910	1860	1800	1700	1560	1360
	4	1820	1790	1730	1670	1630	1530	1380
	5	1950	1910	1860	1800	1700	1560	1360

Subtract .10 Duct Static for Downflow CFM

Taps 4 & 5 are used with Electric Heat. Refer to Heater Label on unit for proper Heat Tap selection

Heating Performance Extended Ratings

Model	Outdoor Temp - DB/WB °F									
	0/0		17/15		35/33		47/43		62/56	
	Btuh	kW	Btuh	kW	Btuh	kW	Btuh	kW	Btuh	kW
RHP13A36T-1	15,900	2.53	20,200	2.58	24,900	2.66	33,600	2.82	40,200	2.93
RHP13A48T,F-1	23,900	3.57	26,800	3.74	29,300	3.73	44,000	3.91	52,900	4.08
RHP13A60T,F-1	25,200	4.30	34,000	4.34	41,200	4.32	54,000	4.78	64,800	5.03

Cooling Performance Extended Ratings

Model	Indoor Temp DB/WB °F	Outdoor Temp - DB°F														
		65°			82°			95°			105°			115°		
		Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW
RHP13A36T-1	85/72	41,800	0.61	2.37	39,300	0.63	2.81	37,500	0.65	3.14	35,700	0.675	3.49	33,100	0.7	3.49
	80/67	39,400	0.68	2.36	37,600	0.7	2.77	34,600	0.74	3.14	32,000	0.76	3.46	29,500	0.8	3.43
	75/63	37,100	0.72	2.35	33,900	0.75	2.78	31,500	0.77	3.11	29,400	0.815	3.44	26,200	0.86	3.42
	75/57	34,300	1	2.31	32,300	1	2.75	30,800	1	3.08	28,900	1	3.39	26,100	1	3.36
RHP13A48T,F-1	85/72	54,400	0.65	3.1	52,100	0.67	3.72	50,200	0.67	4.19	47,200	0.69	4.66	43,500	0.71	4.71
	80/67	51,900	0.71	3.08	49,500	0.73	3.64	46,000	0.76	4.18	43,500	0.78	4.55	38,400	0.8	4.65
	75/63	49,900	0.73	3.06	45,600	0.76	3.64	42,300	0.78	4.09	38,700	0.815	4.55	34,300	0.85	4.6
	75/57	45,200	1	3.02	42,800	1	3.63	40,900	1	4.1	37,900	1	4.53	34,200	1	4.56
RHP13A60T,F-1	85/72	68,500	0.6	3.87	64,500	0.62	4.61	61,300	0.63	5.17	57,500	0.645	5.76	52,300	0.66	5.75
	80/67	64,800	0.66	3.83	60,800	0.68	4.49	56,000	0.7	5.09	53,000	0.72	5.62	45,300	0.77	5.61
	75/63	60,900	0.69	3.81	54,500	0.72	4.5	49,600	0.75	5.03	45,800	0.78	5.56	40,500	0.81	5.52
	75/57	56,400	1	3.75	52,700	1	4.45	49,800	1	4.99	45,500	1	5.53	40,300	1	5.5

Heat Strip Electrical

Model No.	Heater Model	Unit Supply Single Phase	Heater kW	Minimum Circuit Ampacity 1	Maximum Fuse / HACR Brkr. 2 1	Minimum Circuit Ampacity 2	Maximum Fuse / HACR Brkr. 2 2
RHP13A36T-1	AHSA10B	240	10.0	35.2	40	-	-
		208	7.5	31.2	35	-	-
	AHSA15B	240	15.0	50.2	60	-	-
		208	11.3	44.2	45	-	-
RHP13A48T-1 RHP13A60T-1	AHSA10B	240	10.0	37.3	40	-	-
		208	7.5	33.3	35	-	-
	AHSA15B	240	15.0	52.4	60	-	-
		208	11.3	46.3	50	-	-
RHP13A48F-1 RHP13A60F-1	AHSA10C	480	10.0	19	20	-	-
	AHSA15C	480	15.0	25.8	30	-	-

Accessories

Description	Where Used	Kit Number
Roof Curb	RHP13A36	ACURB161-1
Roof Curb	RHP13A48 & RHP13A60	ACURB163-1
Manual Fresh Air Damper	RHP13A36	ADMPR145-1
Manual Fresh Air Damper	RHP13A48 & RHP13A60	ADMPR166-1
Motorized Fresh Air Damper	RHP13A36	ADMPR146-1
Motorized Fresh Air Damper	RHP13A48 & RHP13A60	ADMPR167-1
Downflow Economizer	RHP13A36	AECON825-1
Downflow Economizer	RHP13A48 & RHP13A60	AECON826-1
Horizontal Economizer	RHP13A36	AECON827-1
Horizontal Economizer	RHP13A48 & RHP13A60	AECON828-1
10 kw Electric Heater 230V 3 PH	RHP13A36, RHP13A48 & RHP13A60 T models (230V 3 PH)	AHSA10B-1
15 kw Electric Heater 230V 3 PH	RHP13A36, RHP13A48 & RHP13A60 T models (230V 3 PH)	AHSA15B-1
10 kw Electric Heater 460V 3 PH	RHP13A48 & RHP13A60 F models (460V 3 PH)	AHSA10C-1
15 kw Electric Heater 460V 3 PH	RHP13A48 & RHP13A60 F models (460V 3 PH)	AHSA15C-1

Dimensions (in.)

Model No.	A	B	C	D	E	F
RHP13-36T-1	32-1/2	46-1/2	46-1/2	45-5/8	45-5/8	17-1/2
RHP13-48T,F-1	34-1/2	55-1/2	50-1/2	54-5/8	49-5/8	21-1/2
RHP13-60T,F-1						

Model No.	G	H	J	K	L	M
RHP13-36T-1	11-1/2	5-1/2	1-5/8	4	4	1-3/4
RHP13-48T,F-1	12	5-1/2	1-5/8	6-1/4	5-5/8	2-3/8
RHP13-60T,F-1						

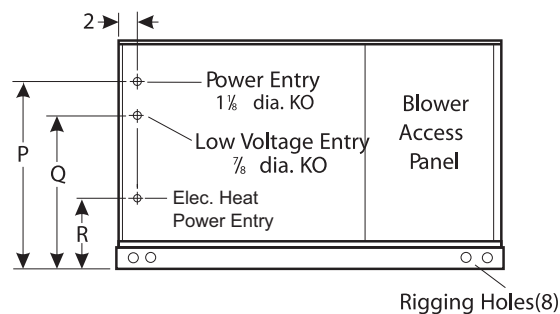
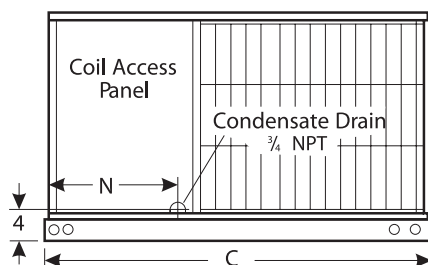
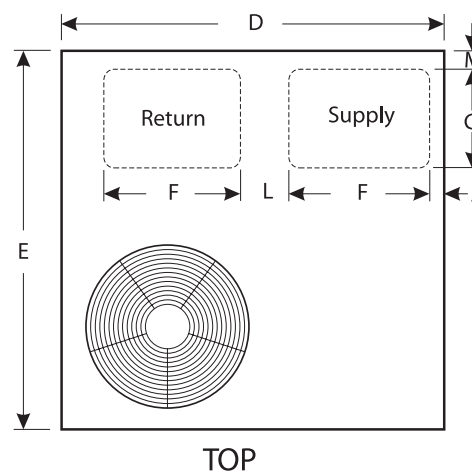
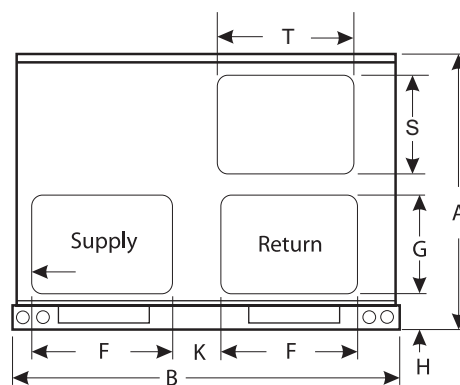
Model No.	N	P	Q	R	S	T
RHP13-36T-1	15-5/8	27-3/4	24-7/8	9-3/4	-	-
RHP13-48T,F-1	17-1/8	29-3/4	26-7/8	15-1/2	12	21-1/2
RHP13-60T,F-1						

Sound Ratings

Model No.	Sound dBA
RHP13A36T-1	79
RHP13A48T,F-1	80
RHP13A60T,F-1	80

Field Provided 1" Filter Dimensions

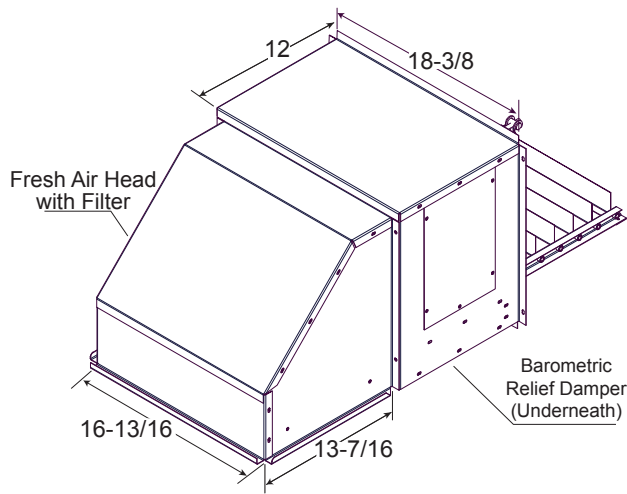
Small Base	3 Ton	24" width 28" height
Large Base	4 & 5 Ton	30" width 30" height



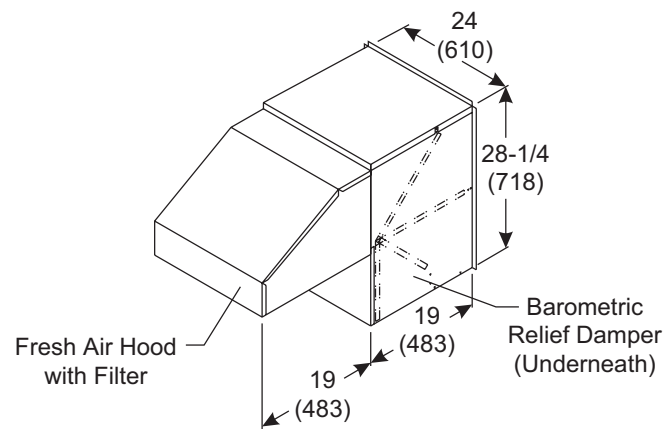
Accessories Dimensions inches (mm)

ECONOMIZER DAMPERS - DOWNFLOW

FOR 36 MODELS

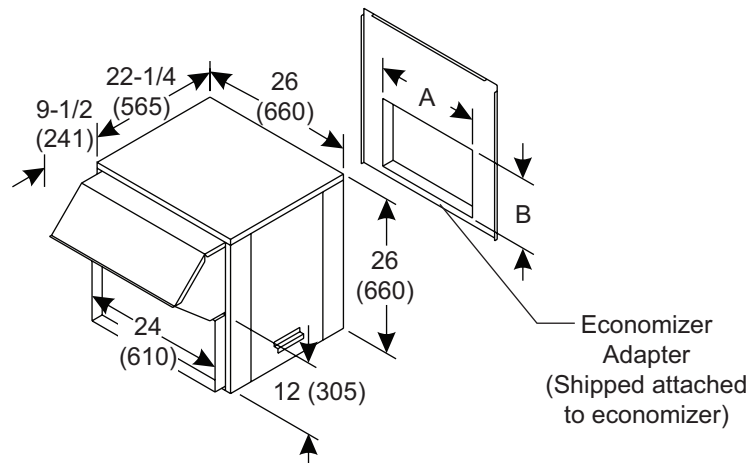


FOR 48 AND 60 MODELS



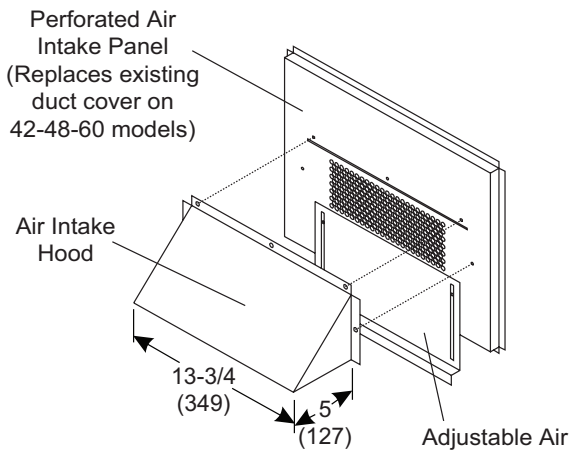
ECONOMIZER DAMPERS - HORIZONTAL

Model No.	A		B	
	in	mm	in	mm
RHP13A 36	17-5/8	448	11-1/2	292
RHP13A 48, 60	21-3/4	552	12-1/4	311

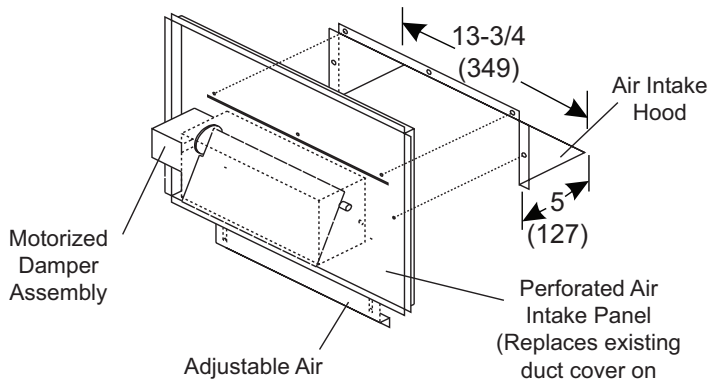


FRESH AIR DAMPERS

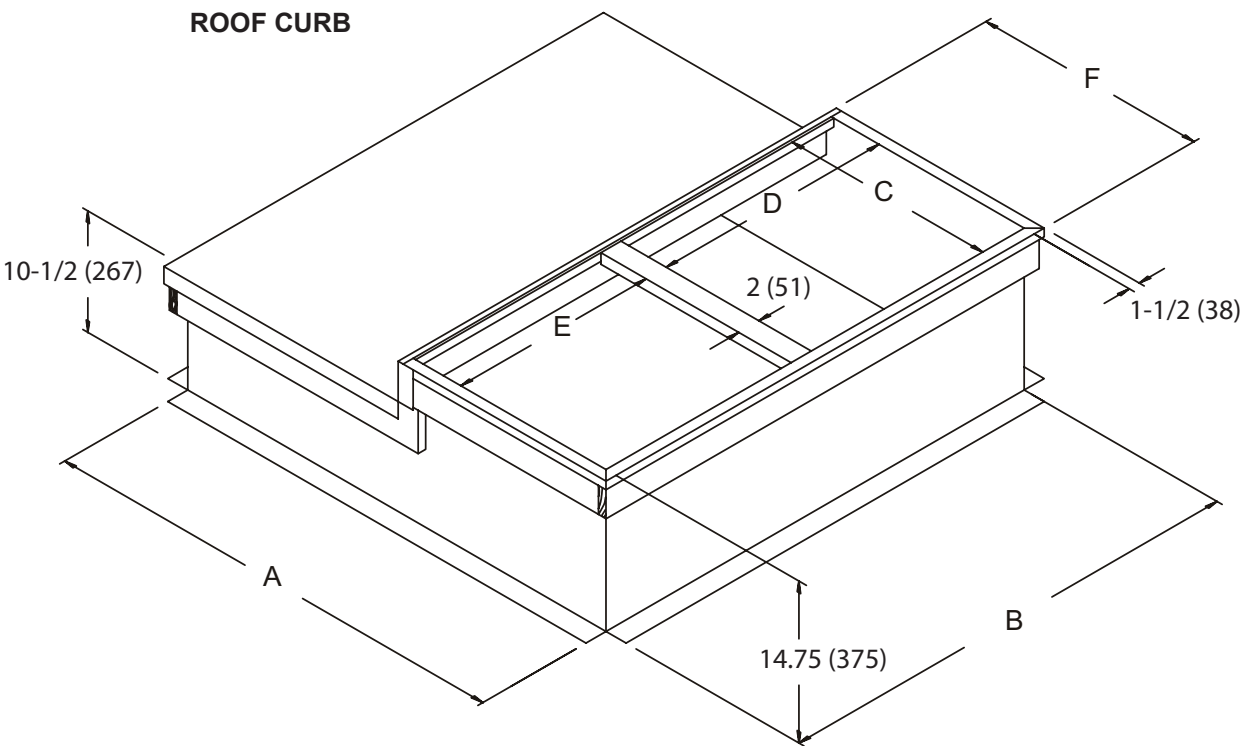
MANUAL



MOTORIZED



Accessories Dimensions inches (mm)



Model No.	A		B		C		D		E		F	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
RHP13A36	40	1016	40	1016	17-1/2	445	20	508	18	457	20	508
RHP13A48 RHP13A60	44-1/8	1121	49	1245	18	457	23-1/2	597	23-1/2	597	20-1/2	521

Revisions		
Section	Page #	Description
Performance	2	Rating tables revised



All specifications and illustrations
subject to change without notice
and without incurring obligations.

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