

Residential Package Heat Pump

13 SEER

RHP13 Features and Benefits

Form No. RRHP13-100 (10/09)

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

Controls

- Integrated control with L.E.D. diagnostics
- Defrost control board with field selectable time intervals
- High and low refrigerant pressure switches for system protection



Installation

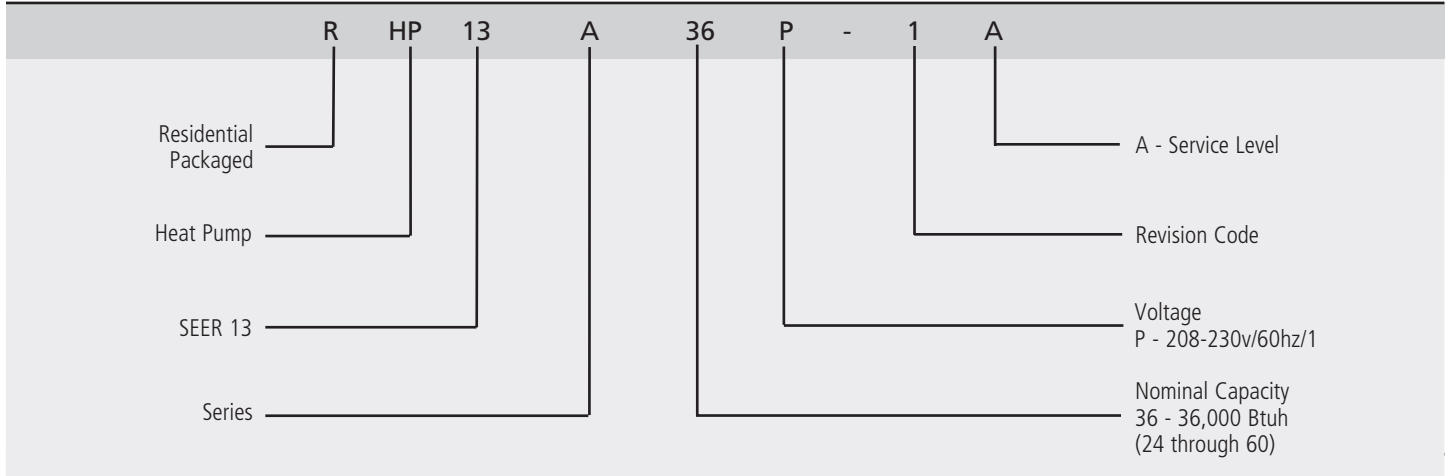
- Full perimeter base rail system for easy installation
- Horizontal or down discharge, duct covers provided
- Utility connections on "right side"
- Filter channels for 1" filter field provided

Warranty

- 10 year limited parts and compressor warranty/lifetime heat exchanger warranty available. See limited warranty document for details.

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Model Number Guide



Electrical and Physical Data

Model	Voltage/HZ/Phase	Voltage Range	Min. Circuit Amp.	Max. Over Current Device (amps)	Compressor		Condenser Fan Motor			Indoor Blower Motor		Refrig. Charge	Weight (lbs.)
					Rated Load (amps)	Locked Rotor (amps)	Rated Load (amps)	Rated HP	Nom. RPM	Rated Load (amps)	Rated HP		
RHP13A24P	208-230/60/1	197-253	21.3	30	12.8	58.3	1.2	1/4	1075	4.1	1/2	100	360
RHP13A30P	208-230/60/1	197-253	21.3	30	12.8	64	1.2	1/4	1075	4.1	1/2	115	365
RHP13A36P	208-230/60/1	197-253	26.1	35	16.6	79	1.2	1/4	1075	4.1	1/2	118	365
RHP13A42P	208-230/60/1	197-253	29.9	40	17.9	112	1.7	1/3	1075	5.8	3/4	164	465
RHP13A48P	208-230/60/1	197-253	34.7	50	21.8	117	1.7	1/3	1075	5.8	3/4	154	470
RHP13A60P	208-230/60/1	197-253	40.5	60	26.4	134	1.7	1/3	1075	5.8	3/4	150	470

Performance

Model	Cooling					Heating				
	BTUH	SEER	EER	S/T	CFM	47°		HSPF	17°	
						BTUH	COP		BTUH	COP
RHP13A24P	23,000	13.0	11.0	0.74	800	21,600	3.5	7.7	13,000	2.2
RHP13A30P	28,000	13.0	11.0	0.75	1000	27,000	3.5	7.7	16,000	2.3
RHP13A36P	34,600	13.0	11.0	0.74	1200	33,600	3.5	7.7	20,200	2.3
RHP13A42P	40,000	13.0	11.0	0.76	1450	39,000	3.4	7.7	22,400	2.2
RHP13A48P	46,000	13.0	11.0	0.76	1600	44,000	3.3	7.7	26,800	2.1
RHP13A60P	56,000	13.0	11.0	0.70	1800	54,000	3.3	7.7	34,000	2.3

Blower Performance

Model	Blower Tap	CFM @ ext. Static Pressure in inches wc without filter, dry coil						
		0.2	0.3	0.4	0.5	0.6	0.7	0.8
RHP13A24P	1	600	400	310	---	---	---	---
	2	780	740	710	630	590	560	500
	3	900	870	830	800	730	690	640
	4	900	870	830	800	730	690	640
	5	1060	1030	980	960	930	910	860
RHP13A30P	1	650	550	490	430	---	---	---
	2	1030	1000	970	930	900	860	820
	3	1150	1110	1080	1050	1010	980	960
	4	1110	1070	1040	1000	970	950	920
	5	1150	1110	1080	1050	1010	980	960
RHP13A36P	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
RHP13A42P	1	780	690	610	540	---	---	---
	2	1450	1370	1280	1200	1120	1060	990
	3	1650	1570	1510	1440	1360	1260	1160
	4	1510	1430	1380	1290	1220	1150	1090
	5	1650	1570	1510	1440	1360	1260	1160
RHP13A48P	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
RHP13A60P	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
RHP13A24P	10,100	1.71	13,000	1.73	15,400	1.71	21,600	1.80	26,200	1.87
RHP13A30P	10,700	2.03	16,000	2.04	21,100	2.14	27,000	2.26	32,700	2.33
RHP13A36P	15,900	2.53	20,200	2.58	24,900	2.66	33,600	2.82	40,200	2.93
RHP13A42P	19,600	2.92	22,400	2.99	26,600	3.20	39,000	3.36	46,800	3.48
RHP13A48P	23,900	3.57	26,800	3.74	29,300	3.73	44,000	3.91	52,900	4.08
RHP13A60P	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
RHP13A24P	85/72	28,100	0.59	1.60	26,500	0.62	1.89	25,300	0.65	2.10	23,100	0.68	2.33	20,900	0.71	2.31
	80/67	26,500	0.67	1.59	25,000	0.70	1.85	23,000	0.74	2.09	20,800	0.76	2.31	18,200	0.81	2.30
	75/63	25,000	0.71	1.58	22,600	0.74	1.87	20,700	0.76	2.08	18,500	0.81	2.30	16,200	0.85	2.29
	75/57	23,100	1.00	1.56	21,600	1.00	1.84	20,500	1.00	2.05	18,300	1.00	2.27	16,200	1.00	2.25
RHP13A30P	85/72	33,700	0.61	1.97	31,900	0.64	2.30	30,500	0.67	2.56	28,200	0.70	2.84	25,900	0.73	2.82
	80/67	32,100	0.68	1.96	29,900	0.72	2.27	28,000	0.75	2.55	25,700	0.79	2.81	22,500	0.84	2.79
	75/63	30,200	0.72	1.95	27,400	0.76	2.28	25,200	0.79	2.53	22,600	0.84	2.79	19,900	0.88	2.77
	75/57	27,900	1.00	1.92	26,200	1.00	2.25	24,900	1.00	2.50	22,500	1.00	2.76	20,000	1.00	2.73
RHP13A36P	85/72	41,800	0.61	2.39	39,400	0.63	2.82	37,500	0.65	3.15	34,900	0.68	3.50	32,300	0.70	3.49
	80/67	39,400	0.68	2.37	37,500	0.71	2.80	34,600	0.74	3.14	31,200	0.76	3.47	26,700	0.80	3.43
	75/63	37,100	0.72	2.36	33,900	0.75	2.79	31,500	0.77	3.12	28,600	0.82	3.45	25,600	0.86	3.42
	75/57	34,300	1.00	2.32	32,300	1.00	2.75	30,800	1.00	3.08	28,200	1.00	3.40	25,500	1.00	3.36
RHP13A42P	85/72	46,300	0.64	2.69	44,600	0.66	3.22	43,200	0.68	3.64	39,900	0.70	4.06	36,600	0.72	4.10
	80/67	44,000	0.71	2.68	43,200	0.74	3.18	40,000	0.76	3.63	37,300	0.78	3.98	32,800	0.81	4.03
	75/63	42,100	0.74	2.67	39,200	0.77	3.17	36,900	0.79	3.56	33,100	0.83	3.96	29,400	0.87	3.98
	75/57	38,300	1.00	2.63	38,800	1.00	3.15	35,600	1.00	3.56	32,400	1.00	3.94	29,200	1.00	3.95
RHP13A48P	85/72	54,400	0.65	3.10	52,100	0.66	3.72	50,200	0.67	4.19	46,500	0.69	4.66	42,800	0.71	4.71
	80/67	51,900	0.71	3.08	49,500	0.73	3.64	46,000	0.76	4.18	42,800	0.78	4.55	37,800	0.80	4.65
	75/63	49,900	0.73	3.06	45,600	0.76	3.64	42,300	0.78	4.09	38,000	0.82	4.55	33,700	0.85	4.60
	75/57	45,200	1.00	3.02	42,800	1.00	3.63	40,900	1.00	4.10	37,300	1.00	4.53	33,600	1.00	4.56
RHP13A60P	85/72	68,500	0.60	3.87	64,500	0.62	4.61	61,300	0.63	5.17	56,200	0.65	5.76	51,000	0.66	5.75
	80/67	64,800	0.66	3.83	60,800	0.68	4.49	56,500	0.70	5.09	51,700	0.72	5.62	44,000	0.77	5.61
	75/63	60,900	0.69	3.81	54,500	0.72	4.50	49,600	0.75	5.03	44,300	0.78	5.56	39,000	0.81	5.52
	75/57	56,400	1.00	3.75	52,700	1.00	4.45	49,800	1.00	4.99	44,500	1.00	5.53	39,200	1.00	5.50

Heat Strip Electric

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
RHP13A24P RHP13A30P RHP13A36P	AHS05A	240	5.0	31.2	35	----	---
		208	3.7	27.8	30	----	---
	AHS07A	240	7.0	41.7	50	----	---
		208	5.3	36.8	40	----	---
	AHS010A	240	10.0	57.3	60	----	---
		208	7.5	50.3	60	----	---
AHS015A	240	15.0	57.3	60	26	30	
	208	11.3	50.3	60	22.5	25	
RHP13A42P RHP13A48P RHP13A60P	AHS05A	240	5.0	33.3	35	----	---
		208	3.7	29.9	30	----	---
	AHS07A	240	7.0	43.8	50	----	---
		208	5.3	38.9	40	----	---
	AHS010A	240	10.0	59.4	60	----	---
		208	7.5	52.4	60	----	---
	AHS015A	240	15.0	59.4	60	26	30
		208	11.3	52.4	60	22.5	25
	AHS020A	240	20.0	59.4	60	52.1	60
		208	15.0	52.4	60	45.1	50

Sound Ratings

Model No.	Sound dBA
RPHP13A24P	77
RPHP13A30P	77
RPHP13A36P	77
RPHP13A42P	80
RPHP13A48P	80
RPHP13A60P	80

Field Provided 1" Filter Dimensions

Small Base	2, 2.5, 3 Ton	24" width 28" height
Large Base	3.5, 4, 5 Ton	30" width 30" height

Accessories

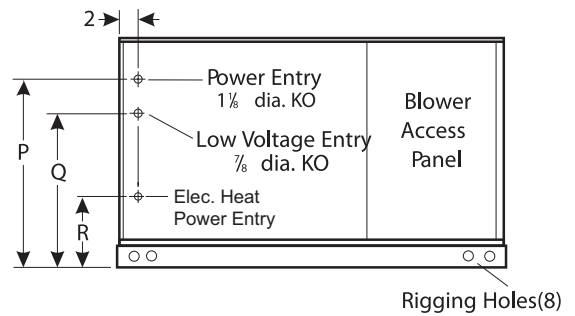
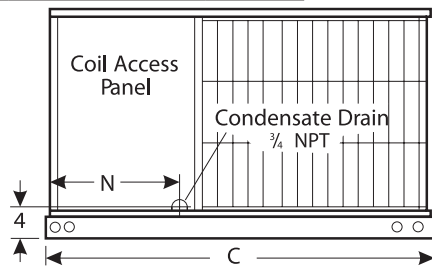
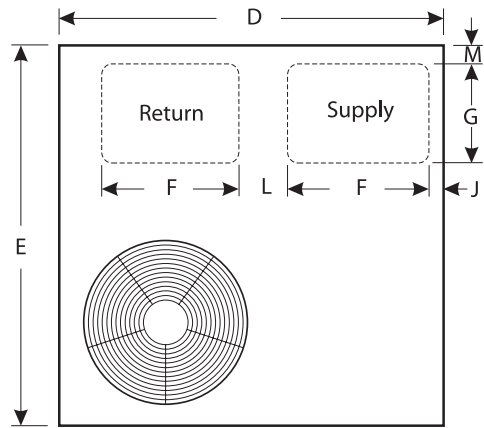
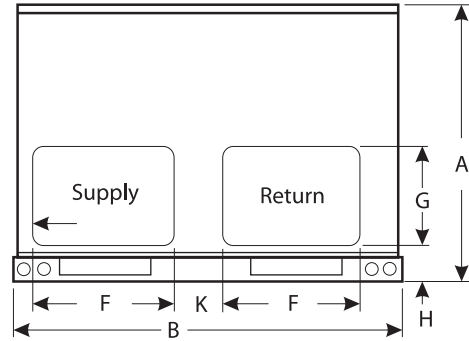
Description	Where Used	Kit Number
5 kW Electric Heater	All Models	AHS05A-1
7 kW Electric Heater	All Models	AHS07A-1
10 kW Electric Heater	All Models	AHS010A-1
15 kW Electric Heater	All Models	AHS015A-1
20 kW Electric Heater	42, 48 & 60	AHS020A-1
Roof Curb	24, 30 & 36	ACURB161-1
Roof Curb	42, 48 & 60	ACURB163-1

Dimensions (in.)

Model No.	A	B	C	D	E	F
RHP13-24	32-1/2	46-1/2	46-1/2	45-5/8	45-5/8	17-1/2
RHP13-30						
RHP13-36						
RHP13-42	34-1/2	55-1/2	50-1/2	54-5/8	49-5/8	21-1/2
RHP13-48						
RHP13-60						

Model No.	G	H	J	K	L
RHP13-24	11-1/2	5-1/2	1-5/8	4	4
RHP13-30					
RHP13-36					
RHP13-42	12	5-1/2	1-5/8	6-1/4	5-5/8
RHP13-48					
RHP13-60					

Model No.	M	N	P	Q	R
RHP13-24	1-3/4	15-5/8	27-3/4	24-7/8	9-3/4
RHP13-30					
RHP13-36					
RHP13-42	2-3/8	17-1/8	29-3/4	26-7/8	15-1/2
RHP13-48					
RHP13-60					



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