

REFRIGERANT SYSTEM

- Heavy-duty, high efficiency scroll compressor
- Copper tubing with enhanced fin coils
- R410a refrigerant environmentally friendly

CABINET

- Insulation to minimize heat loss
- Baked polyester paint finish over galvanized steel for maximum durability
- Easy service access
- Louvered grille to protect condenser coil
- One piece "no leak" top design
- Weather protected heavy-duty condenser fan motor

BLOWER

- Insulated compartment to reduce sound
- Easy service split-ring design with quick plug-in wiring
- PSC prelubricated multi-speed motor for low maintenance and maximum efficiency
- Dynamically balanced blower wheel with resilient motor mounts for smooth and quiet operation

CONTROLS

- Integrated control with LED diagnostics
- Trade available components
- Defrost control features built in diagnostics for easier service
- Defrost control has short cycle protection to protect the compressor
- Defrost cycle is field selectable 30/60/90 minutes
- Defrost control is Quiet Shift™ capable
- High pressure switch for system protection
- Color coded wiring for easy service

INSTALLATION

- Horizontal or down discharge

ACCESSORIES

- Hinged Roofcurb 8" and 14"
- Lifting Brackets
- Filter Rack Kit
- Electric Strip Heat Kits (5 - 20 kW)
- Single Point Power Entry Kit

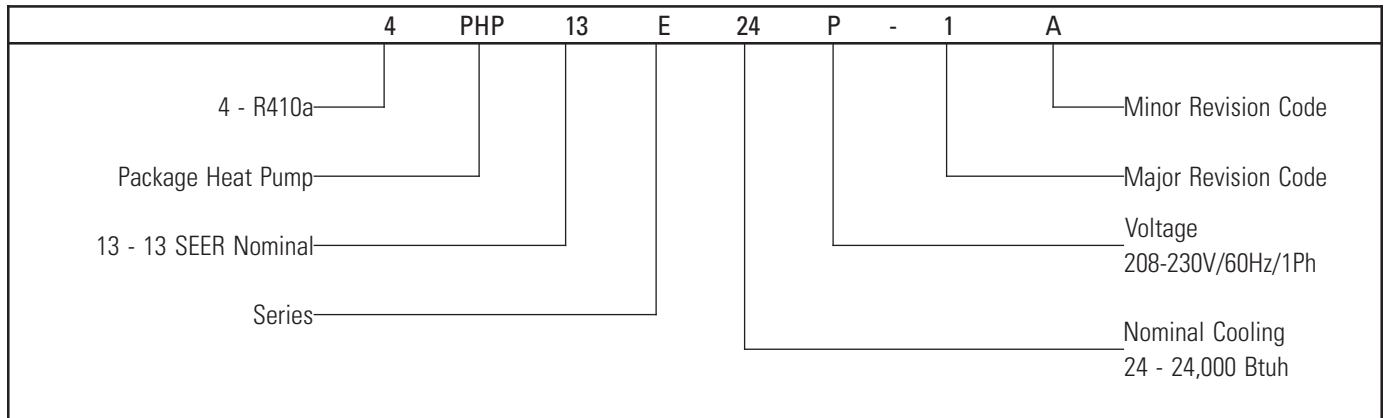
4PHP13E



**10 year limited parts
warranty available**



Model Number Guide



Physical Data

Model	Outside Fan		Indoor Blower Wheel dia. X width (in.)	Refrigerant Charge (oz.)	Weight (lbs.)
	Diameter (in.)	Nominal RPM			
4PHP13E24P	22	1075	10 x 6	123	380
4PHP13E30P	22	1075	10 x 6	129	380
4PHP13E36P	22	1075	10 x 8	141	400
4PHP13E42P	26	825	10 x 10	169	509
4PHP13E48P	26	825	10 x 10	201	520
4PHP13E60P	26	825	10 x 10	211	520

Electrical Data

Model	Voltage/Hz/ Phase	Normal Voltage Range	Min. Circuit Ampacity	Max. Fuse/HACR Brkr.	Compressor		Fan Motor		Indoor Blower	
					Rated Load (amps)	Locked Rotor (amps)	Rated Load (amps)	Rated HP	Rated Load (amps)	Rated HP
4PHP13E24P	208-230/60/1	197-253	22	30	13.5	59	1.1	1/5	2.2	1/2
4PHP13E30P	208-230/60/1	197-253	23	30	14.1	73	1.1	1/5	2.2	1/2
4PHP13E36P	208-230/60/1	197-253	26	35	16.6	79	1.1	1/5	2.2	1/2
4PHP13E42P	208-230/60/1	197-253	30	40	17.9	112	1.7	1/4	3.6	3/4
4PHP13E48P	208-230/60/1	197-253	35	50	21.8	117	1.7	1/4	3.6	3/4
4PHP13E60P	208-230/60/1	197-253	40	60	26.4	134	1.7	1/4	3.6	3/4

Performance

Model	Cooling				Heating				CFM	
	Btuh	SEER	EER	S/T	HSPF	47°F		17°F		
						Btuh	COP	Btuh		COP
4PHP13E24P	23,200	13.00	11.50	.76	7.70	23,200	3.35	14,600	2.20	800
4PHP13E30P	28,600	13.00	11.50	.77	7.70	29,000	3.50	17,400	2.22	1000
4PHP13E36P	35,200	13.00	11.00	.77	7.70	34,600	3.50	20,300	2.22	1200
4PHP13E42P	40,000	13.00	11.50	.74	7.70	42,000	3.25	24,800	2.12	1400
4PHP13E48P	48,000	13.00	11.00	.76	7.70	49,000	3.30	30,600	2.30	1600
4PHP13E60P	57,500	13.00	11.00	.72	7.70	60,000	3.25	37,600	2.30	1800

Blower Performance

Model	Blower Speed	CFM @ ext. static pressure - in w.c. w/o filter(s) ¹						
		0.2	0.3	0.4	0.5	0.6	0.7	0.8
4PHP13E 24,30	High	1470	1420	1360	1290	1220	1140	1050
	Med.	1070	1060	1020	1000	950	900	830
	Low	880	870	850	820	790	740	690
4PHP13E 36	High	1510	1460	1400	1330	1250	1180	1100
	Med.	1060	1050	1030	990	950	900	850
	Low	870	860	840	820	790	750	680
4PHP13E 42,48,60	High	2090	2000	1930	1820	1710	1590	1480
	Med.	1820	1780	1730	1650	1570	1480	1370
	Low	1520	1480	1450	1440	1410	1360	1260

¹ All air data is measured external to unit without air filters.

¹ Add 0.05 to static pressure for bottom duct connection.

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
4PHP13E24	85/72	27,400	.64	1.74	25,300	.66	1.84	24,900	.69	2.06	23,100	.72	2.24	21,300	.75	2.44
	80/67	25,500	.71	1.58	24,400	.71	1.79	23,200	.76	2.02	20,900	.81	2.22	18,600	.86	2.42
	75/63	24,400	.72	1.55	23,200	.71	1.76	20,900	.80	1.99	18,700	.85	2.19	16,500	.91	2.38
4PHP13E30	85/72	33,800	.65	2.15	31,200	.67	2.27	30,700	.70	2.54	28,500	.73	2.76	26,300	.76	3.01
	80/67	31,500	.72	1.94	30,100	.72	2.21	28,600	.77	2.49	25,800	.82	2.73	22,900	.87	2.98
	75/63	30,000	.73	1.92	28,600	.72	2.17	25,800	.81	2.45	23,100	.86	2.70	20,400	.92	2.94
4PHP13E36	85/72	41,500	.65	2.76	38,400	.67	2.91	37,800	.70	3.26	35,100	.73	3.55	32,300	.76	3.87
	80/67	38,700	.72	2.50	37,100	.72	2.84	35,200	.77	3.20	31,700	.82	3.51	28,200	.87	3.83
	75/63	37,000	.73	2.46	35,200	.72	2.78	31,700	.81	3.15	28,400	.86	3.46	25,100	.92	3.78
4PHP13E42	85/72	47,200	.63	3.00	43,700	.64	3.17	42,900	.67	3.55	39,800	.70	3.86	36,700	.73	4.20
	80/67	44,000	.70	2.71	42,100	.69	3.09	40,000	.74	3.48	36,000	.79	3.82	32,100	.83	4.16
	75/63	42,000	.71	2.68	40,000	.70	3.03	36,000	.78	3.43	32,300	.83	3.77	28,500	.88	4.11
4PHP13E48	85/72	56,700	.64	3.76	52,400	.66	3.97	51,500	.69	4.45	47,800	.72	4.83	44,100	.75	5.27
	80/67	52,800	.71	3.40	50,500	.71	3.87	48,000	.76	4.36	43,300	.81	4.79	38,500	.86	5.21
	75/63	50,400	.72	3.35	48,100	.71	3.79	43,200	.80	4.29	38,700	.85	4.72	34,200	.91	5.15
4PHP13E60	85/72	67,900	.61	4.51	62,800	.63	4.76	61,700	.66	5.33	57,300	.68	5.80	52,800	.71	6.32
	80/67	63,300	.68	4.08	60,500	.67	4.64	57,500	.72	5.23	51,800	.77	5.74	46,100	.81	6.25
	75/63	60,400	.69	4.02	57,600	.68	4.55	51,800	.76	5.15	46,400	.81	5.66	41,000	.86	6.17

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
4PHP13E24P	9,700	1.90	14,600	1.95	19,800	2.00	23,200	2.03	27,500	2.14
4PHP13E30P	10,800	2.22	17,400	2.30	24,400	2.38	29,000	2.43	34,800	2.59
4PHP13E36P	12,200	2.56	20,300	2.68	28,900	2.81	34,600	2.90	41,800	3.17
4PHP13E42P	15,100	3.23	24,800	3.43	35,100	3.64	42,000	3.79	50,600	4.24
4PHP13E48P	20,200	3.64	30,600	3.90	41,600	4.17	49,000	4.35	58,200	4.92
4PHP13E60P	24,900	4.44	37,600	4.79	51,000	5.16	60,000	5.41	71,200	6.19

Heat Strip Electrical (24-42)

Model	Heater Model	Unit Supply Voltage Single Phase	kW	Min. Circuit Ampacity 1	Max. Fuse/HACR Brkr. 1	Min. Circuit Ampacity 2	Max. Fuse/HACR Brkr. 2	Min. Circuit Ampacity Single*	Max. Fuse/HACR Brkr. Single*
4PHP13E24P	PHK05BP	240	5.00	31.3	35	--	--	48.2	50
		208	3.76	27.8	30	--	--	44.7	50
	PHK07BP	240	7.50	44.3	45	--	--	61.2	70
		208	5.63	39.1	40	--	--	56.0	60
	PHK10BP	240	10.00	57.3	60	--	--	74.3	80
		208	7.51	50.4	60	--	--	67.3	70
4PHP13E30P	PHK05BP	240	5.00	31.3	35	--	--	49.0	60
		208	3.76	27.8	30	--	--	45.5	50
	PHK07BP	240	7.50	44.3	45	--	--	62.0	70
		208	5.63	39.1	40	--	--	56.8	60
	PHK10BP	240	10.00	57.3	60	--	--	75.0	80
		208	7.51	50.4	60	--	--	68.1	70
4PHP13E36P	PHK05BP	240	5.00	31.3	35	--	--	52.1	60
		208	3.76	27.8	30	--	--	48.6	60
	PHK07BP	240	7.50	44.3	45	--	--	65.1	70
		208	5.63	39.1	40	--	--	59.9	70
	PHK10BP	240	10.00	57.3	60	--	--	78.1	80
		208	7.51	50.4	60	--	--	71.2	80
PHK15CP	240	15.00	57.3	60	26.0	30	104.2	110	
	208	11.27	50.4	60	22.6	25	93.8	100	
4PHP13E42P	PHK05BP	240	5.00	33.0	35	--	--	55.7	60
		208	3.76	29.6	30	--	--	52.2	60
	PHK07BP	240	7.50	46.1	50	--	--	68.7	70
		208	5.63	40.9	45	--	--	63.5	70
	PHK10BP	240	10.00	59.1	60	--	--	81.8	90
		208	7.51	52.1	60	--	--	74.8	80
	PHK15CP	240	15.00	59.1	60	26.0	30	107.8	110
		208	11.27	52.1	60	22.6	25	97.4	100
PHK20CP	240	20.00	59.1	60	52.1	60	133.8	150	
	208	15.02	52.1	60	45.1	50	120.0	125	

*Applicable with single point power connection

Heat Strip Electrical (48-60)

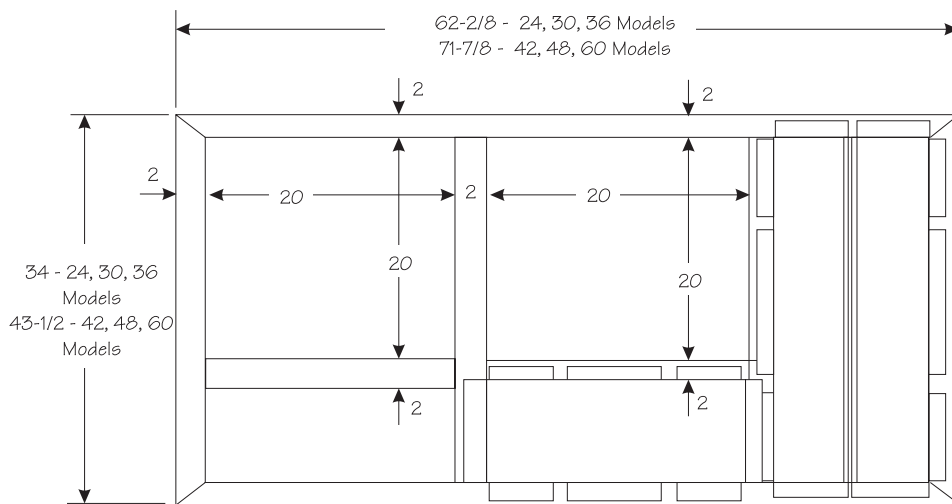
Model	Heater Model	Unit Supply Voltage Single Phase	kW	Min. Circuit Ampacity 1	Max. Fuse/HACR Brkr. 1	Min. Circuit Ampacity 2	Max. Fuse/HACR Brkr. 2	Min. Circuit Ampacity Single*	Max. Fuse/HACR Brkr. Single*
4PHP13E48P	PHK05BP	240	5.00	33.0	35	--	--	60.6	70
		208	3.76	29.6	30	--	--	57.1	70
	PHK07BP	240	7.50	46.1	50	--	--	73.6	80
		208	5.63	40.9	45	--	--	68.4	80
	PHK10BP	240	10.00	59.1	60	--	--	86.6	90
		208	7.51	52.1	60	--	--	79.7	90
	PHK15CP	240	15.00	59.1	60	26.0	30	112.7	125
		208	11.27	52.1	60	22.6	25	102.3	110
	PHK20CP	240	20.00	59.1	60	52.1	60	138.7	150
		208	15.02	52.1	60	45.1	50	124.8	125
4PHP13E60P	PHK05BP	240	5.00	33.0	35	--	--	66.3	80
		208	3.76	29.6	30	--	--	62.9	80
	PHK07BP	240	7.50	46.1	50	--	--	79.4	90
		208	5.63	40.9	45	--	--	74.2	90
	PHK10BP	240	10.00	59.1	60	--	--	92.4	100
		208	7.51	52.1	60	--	--	85.4	90
	PHK15CP	240	15.00	59.1	60	26.0	30	118.4	125
		208	11.27	52.1	60	22.6	25	108.0	110
	PHK20CP	240	20.00	59.1	60	52.1	60	144.5	150
		208	15.02	52.1	60	45.1	50	130.6	150

*Applicable with single point power connection

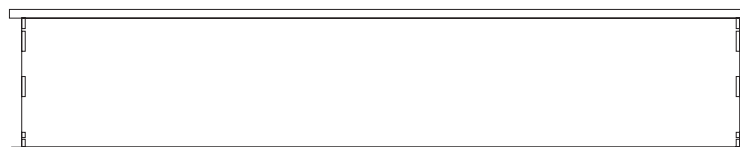
Accessories

Kit Number	Description	Used with
92M51	Lift Bracket	All
92M54	Internal Filter Kit	4PHP13E 24,30,36
92M55	Internal Filter Kit	4PHP13E 42,48,60
92M99	Roof Curb 8 inch height	4PHP13E 24,30,36
93M00	Roof Curb 14 inch height	4PHP13E 24,30,36
93M01	Roof Curb 8 inch height	4PHP13E 42,48,60
93M02	Roof Curb 14 inch height	4PHP13E 42,48,60
10W47	5 kw Electric Heater Kit	All
10W48	7.5 kw Electric Heater Kit	All
10W49	10 kw Electric Heater Kit	All
10W50	15 kw Electric Heater Kit	4PHP13E 36-60
10W51	20 kw Electric Heater Kit	4PHP13E 42-60
13W88	Single point power PHK05	with PHK05BP
13W89	Single point power PHK07	with PHK07BP
13W90	Single point power PHK10	with PHK10BP
13W91	Single point power PHK15,20	with PHK15,20CP
AECON817G	Downflow Economizer	All
AECON818G	Horizontal Economizer	All
ADMPR819G	Outside Air Damper	4PHP13E 24,30,36
ADMPR820G	Outside Air Damper	4PHP13E 42,48,60
ADMPR821G	Motorized Outside	4PHP13E 24,30,36
ADMPR822G	Motorized Outside	4PHP13E 42,48,60

Roof Curb



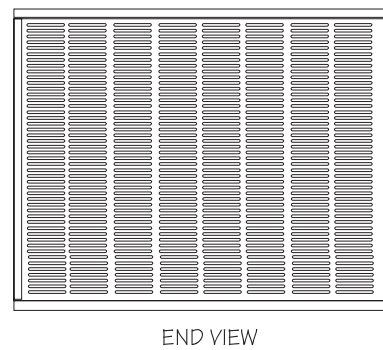
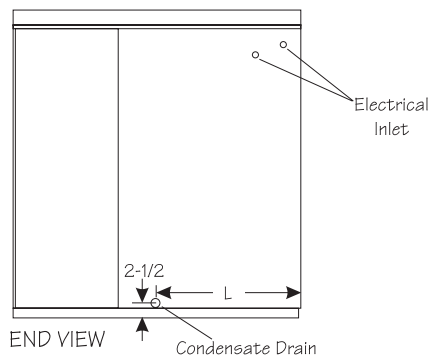
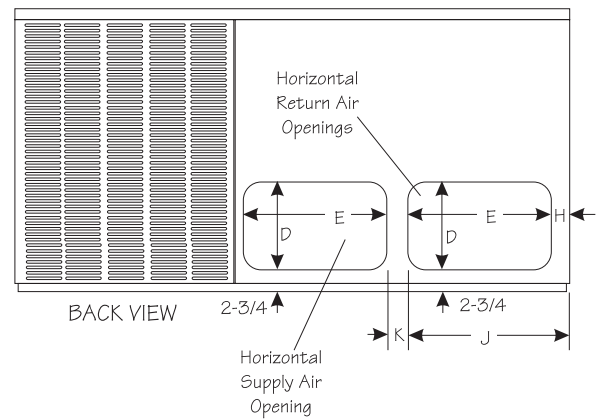
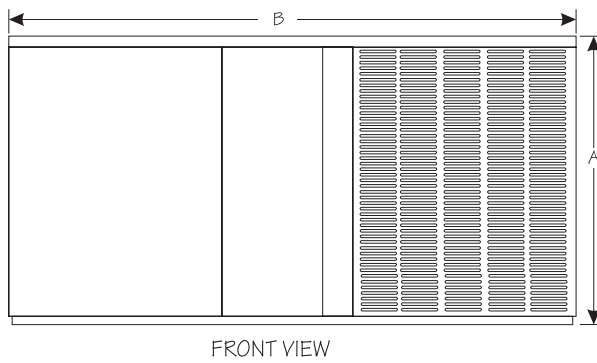
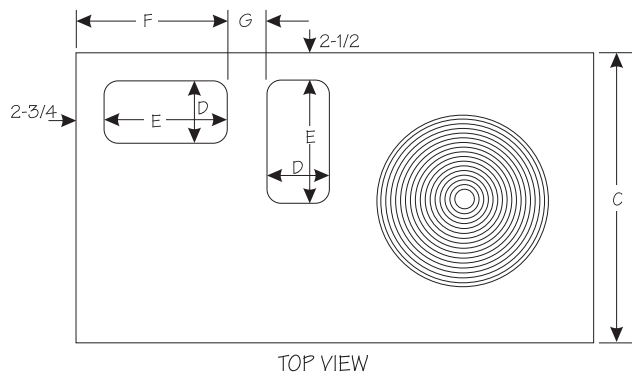
TOP VIEW



SIDE VIEW

Dimensions (in.)

Model	A	B	C	D	E	F	G	H	J	K	L
4PHP13E24	34 1/4	65 3/8	36 1/2	11 1/4	17 1/4	20	8 1/2	3	20 1/4	4 1/2	19
4PHP13E30											
4PHP13E36											
4PHP13E42	38 1/4	75	46	11 1/4	19 1/4	22	9 1/4	3 1/4	22 1/4	4	16 1/4
4PHP13E48											
4PHP13E60											





1-800-448-5872
www.armstrongair.com

Form #A4PHP13E-100 (11/08)
Printed in U.S.A. D&S

©2008 Allied Air Enterprises Inc., a Lennox International Inc. Company

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