

CS24K6E-PFV

HFC, R-404A, 60Hz, 1- Phase, 208/230 V
Extended Medium Temp



Production Status: Available for sale to all U.S. customers. Please check with your local Emerson Climate Technologies Representative for international availability.

Performance

Evap(°F)/Cond(°F)	20 / 120	-10 / 120
RG(°F)/Liq(°F)	40.0 / 120.0	40.0 / 120.0
Capacity (Btu/hr)	23300	8220
Power (Watts):	3670	2230
Current (Amps):	17.50	11.90
EER (Btu/Wh):	6.30	3.70
Mass Flow (lbs/hr):	550	187
Sound Power (dBA):	0 Avg	0 Max
Vibration (mils(peak-peak)):	0.0 Avg	0.0 Max
Record Date:	2005-08-18	

Mechanical

Number of Cylinders:	2	Displ(in ³ /Rev):	4.95
Bore Size(in):	1.96	Displ(ft ³ /hr):	602.06
Stroke(in):	0.82		
Overall Length (in):	10.23	Mounting Length (in):	7.50
Overall Width (in):	9.65	Mounting Width (in):	7.50
Overall Height (in):	14.81	Mounting Height (in):	15.19 *
Suction Size (in):	5/8 Stub		
Discharge Size (in):	1/2 Stub		
Oil Recharge (oz):	43		
Initial Oil Charge (oz):	45		
Net Weight (lbs):	76		
Internal Free Volume (in ³):			
Horse Power:			
*Overall compressor height on Copeland Brand Product's specified mounting grommets.			

Electrical

LRA-High*:	121.0	MCC (Amps):	33.5	UL File No:	
LRA-Half Winding:		RPM:	3500	UL File Date:	28-Dec-1984
LRA Low*:		Max Operating Current:			
RLA(=MCC/1.4;use for contactor selection):			23.9		
RLA(=MCC/1.56;use for breaker & wire size selection):			21.5		
*Low and High refer to the low and high nominal voltage ranges for which the motor is approved.					
Type	Part No	Low MFD	High MFD	Volts	User Description
Start Capacitor	014-0006-13	189.0	227.0	330	HIGH TORQUE
Run Capacitor	014-0064-14	40.0	0.0	440	

Alternate Applications

Refrigerant	Freq (Hz)	Phase	Voltage	Application
R-404A HFC	50	1	200	Extended Medium Temp

Rating Conditions

40 °F Return Gas
 0 F Subcooling
 95 °F Ambient Air Over

60 Hz Operation

EXTENDED MEDIUM TEMPERATURE

HFCs Require Use of Polyol Ester
 Lubricant Approved on Form 93-11

Refer AE-1298 for restrictions

CS24K6E-PFV

COPELAWELD® HFC-404A
 COMPRESSOR
 PFV 208/230-1-60

Condensing Temperature °F (Sat. Dew Pt. Pressure, psig) Evaporating Temperature °F (Sat. Dew Pt. Pressure, psig)

	-25.0 (13)	-15.0 (20)	-10.0 (24)	-5.0 (28)	0.0 (33)	5.0 (38)	10.0 (43)	15.0 (49)	20.0 (55)	25.0 (62)	30.0 (69)
140.0 (402) C P A M E %			4,840	5,890	7,140	8,610	10,300	12,400	14,800	17,600	20,900
			1,900	2,180	2,460	2,750	3,040	3,340	3,640	3,950	4,270
			10.7	11.7	12.7	13.8	14.9	16.1	17.4	18.6	20.0
			139	171	208	254	308	373	452	545	655
			2.5	2.7	2.9	3.1	3.4	3.7	4.1	4.5	4.9
			51.3	51.7	52.5	53.6	55.1	56.8	58.6	60.5	62.3
130.0 (354) C P A M E %		5,060	6,330	7,770	9,410	11,300	13,500	16,000	18,900	22,200	26,000
		1,830	2,090	2,350	2,610	2,870	3,140	3,410	3,680	3,960	4,250
		10.5	11.4	12.3	13.3	14.3	15.3	16.4	17.5	18.7	19.9
		127	160	197	241	292	351	421	505	600	710
		2.8	3.0	3.3	3.6	3.9	4.3	4.7	5.1	5.6	6.1
	49.0	50.9	52.5	54.0	55.6	57.1	58.7	60.2	61.6	62.8	
120.0 (310) C P A M E %	3,790	6,620	8,220	10,000	12,000	14,300	16,900	19,900	23,300	27,100	31,400
	1,500	1,990	2,230	2,470	2,710	2,950	3,190	3,430	3,670	3,920	4,170
	9.5	11.0	11.9	12.7	13.6	14.5	15.5	16.5	17.5	18.5	19.6
	85	149	187	229	276	331	395	468	555	650	765
	2.5	3.3	3.7	4.1	4.4	4.9	5.3	5.8	6.3	6.9	7.5
42.7	50.3	52.6	54.5	56.2	57.7	59.1	60.4	61.5	62.4	63.1	
110.0 (270) C P A M E %	5,100	8,480	10,400	12,500	14,900	17,500	20,500	23,900	27,700	32,000	36,800
	1,650	2,100	2,320	2,540	2,760	2,970	3,190	3,400	3,620	3,830	4,050
	9.9	11.4	12.2	13.0	13.8	14.6	15.5	16.4	17.3	18.2	19.1
	104	175	215	260	312	370	436	510	600	700	810
	3.1	4.0	4.5	4.9	5.4	5.9	6.5	7.0	7.7	8.4	9.1
45.5	52.6	54.8	56.5	58.1	59.4	60.5	61.4	62.1	62.5	62.7	
100.0 (235) C P A M E %	6,630	10,500	12,700	15,100	17,800	20,800	24,200	28,000	32,200	36,900	42,100
	1,740	2,160	2,370	2,560	2,760	2,950	3,140	3,330	3,510	3,700	3,880
	10.2	11.6	12.3	13.1	13.8	14.5	15.3	16.1	16.8	17.6	18.4
	125	200	242	290	344	404	473	550	640	740	855
	3.8	4.8	5.4	5.9	6.5	7.1	7.7	8.4	9.2	10.0	10.8
48.6	54.5	56.4	58.0	59.2	60.2	61.0	61.6	61.8	61.8	61.4	
90.0 (202) C P A M E %	8,240	12,500	15,000	17,700	20,700	24,000	27,700	31,800	36,400	41,600	47,200
	1,800	2,190	2,370	2,550	2,720	2,890	3,050	3,210	3,370	3,520	3,670
	10.4	11.7	12.4	13.0	13.7	14.3	15.0	15.6	16.2	16.9	17.5
	145	222	267	316	372	434	505	585	675	775	885
	4.6	5.7	6.3	6.9	7.6	8.3	9.1	9.9	10.8	11.8	12.9
50.9	55.7	57.3	58.5	59.4	60.1	60.5	60.7	60.6	60.0	59.1	
80.0 (173) C P A M E %	9,790	14,500	17,100	20,100	23,300	27,000	31,000	35,500	40,400	45,900	52,000
	1,820	2,180	2,340	2,500	2,650	2,790	2,920	3,050	3,180	3,300	3,420
	10.5	11.7	12.2	12.8	13.4	13.9	14.5	15.0	15.5	16.0	16.5
	162	241	286	337	393	457	530	610	700	800	910
	5.4	6.6	7.3	8.0	8.8	9.7	10.6	11.6	12.7	13.9	15.2
52.0	55.8	57.0	57.9	58.5	58.9	59.0	58.7	58.1	57.0	55.5	
70.0 (147) C P A M E %	11,200	16,200	19,000	22,200	25,700	29,600	33,900	38,700	44,000	49,800	56,500
	1,810	2,130	2,280	2,410	2,540	2,650	2,760	2,860	2,960	3,050	3,130
	10.4	11.5	12.0	12.5	13.0	13.4	13.8	14.2	14.6	14.9	15.3
	174	254	300	351	408	472	545	625	715	815	930
	6.2	7.6	8.4	9.2	10.1	11.2	12.3	13.5	14.9	16.3	17.9
51.8	54.7	55.5	56.1	56.4	56.5	56.1	55.4	54.3	52.6	50.3	

C: Capacity (Btu/hr), P: Power (W), A: Current (Amps), M: Mass Flow (lb/hr), E: EER (Btu/Wh), %: Isentropic Efficiency (%)

Nominal Performance Values (±5%) based on 72 hours run-in. Subject to change without notice. Current @ 230 V

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Service Parts

<u>Reference</u>	<u>Component</u>	<u>Quantity</u>	<u>Description</u>	<u>Comment</u>
6	032-0463-00	1	RETAINER-HEATER	
1	527-0044-00	1	SPACER-MOUNTING ASSM	
2	914-0006-03	1	CAP START KIT	
3	914-0037-18	1	RUN CAP KIT W/CLAMP	
99	918-0088-00	1	HEATER-CRANKCASE KIT	40/49W 240/265V FLEXIBLE
4	940-0001-64	1	RELAY-POTENTIAL KIT	

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Accessories

<u>Category</u>	<u>PartNumber</u>	<u>Description</u>
Crankcase Heaters	018-0088-00	Crankcase Heater, 240/265V, 40W, EHP Flexible
	018-0088-01	Crankcase Heater, 480/575V, 45/57W, EHP Flexible
	018-0088-06	Crankcase Heater, 120V, 40W, EHP Flexible
	018-0099-00	Crankcase Heater, 240V, 60W, SS Rigid w/conduit box
	018-0099-01	Crankcase Heater, 480V, 60W, SS Rigid w/conduit box
Electrical Components	085-0160-00	3 Phase Voltage Monitor. For use with all Copeland 3 Phase Compressors. Consult model family nomenclature for electrical definition in the model number.
Miscellaneous	998-AB52-01	Akylbenzene Oil. Approved for use with specific Copeland Semi Hermetic After Market Compressors. Consult model family nomenclatures for oil identifier in the model number.
	998-E022-01	Polyol Ester Oil. Approved for use with specific Copeland Hermetic & Semi Hermetic models. Consult specific model family nomenclatures for oil identifier in the model number.
Mounting	527-0044-00	Spacer Mounting Assembly, CI13/16-PFZ ONLY, ALL CR47/53KQ, 60 Hz

Common U.S. OEM Bill Of Materials

	Suction Connection	Suction Size	Discharge Connection	Discharge Size	Electrical Connection	Mounting Assembly	Sight Glass	Crankcase Heater	Schraeder Valve	Tandem Ready	Module Voltage
235		3/4"		1/2"		-	-	-	-	-	-
236		3/4"		1/2"		-	-	-	-	-	-
24S				1/2"		Yes	-	-	-	-	-
255		5/8"		1/2"		-	-	-	-	-	-
256		5/8"		1/2"		-	-	-	-	-	-
270	Stub	3/4"		1/2"		-	-	Yes	-	-	-
275		3/4"		1/2"		-	-	Yes	-	-	-
276		3/4"		1/2"		-	-	Yes	-	-	-

* Note: For all other Bill Of Material descriptions (Including International and Customer Specific Bills of Materials) contact your sales representative or the Application Engineering Department.