

ZP31K5E-PFV

HFC, R-410A, 60Hz, 1- Phase, 208/230 V

Air Conditioning



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)	45 / 130	50 / 100
RG(°F)/Liq(°F)	65.0 / 115.0	70.0 / 85.0
Capacity (Btu/hr)	31100	42500
Power (Watts):	3070	2020
Current (Amps):	13.50	9.10
EER (Btu/Wh):	10.10	21.10
Mass Flow (lbs/hr):	459	525
Sound Power (dBA):	68 Avg	73 Max
Vibration (mils(peak-peak)):	2.0 Avg	3.0 Max
Record Date:	2012-12-10	

Mechanical

Number of Cylinders:	0	Displ(in^3/Rev):	1.80
Bore Size(in):	0.00	Displ(ft^3/hr):	218.75
Stroke(in):	0.00		
Overall Length (in):	9.56	Mounting Length (in):	7.50
Overall Width (in):	9.56	Mounting Width (in):	7.50
Overall Height (in):	15.27	Mounting Height (in):	16.02 *
Suction Size (in):	3/4 Stub		
Discharge Size (in):	1/2 Stub		
Oil Recharge (oz):	21		
Initial Oil Charge (oz):	25		
Net Weight (lbs):	49.6		
Internal Free Volume (in^3):	119.4		
Horse Power:			
*Overall compressor height on Copeland Brand Product's specified mounting grommets.			

Electrical

LRA-High*:	79.0	MCC (Amps):	26.0	UL File No:	SA-2337
LRA-Half Winding:		RPM:	3500	UL File Date:	16-Dec-2003
LRA Low*:		Max Operating Current:	17.8		
RLA(=MCC/1.4;use for contactor selection):	18.6				
RLA(=MCC/1.56;use for breaker & wire size selection):	16.7				
*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	014-0061-27	88.0	106.0	330	OPTIONAL
Run Capacitor	014-0064-25	45.0	0.0	370	

Alternate Applications

Refrigerant	Freq (Hz)	Phase	Voltage	Application
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Service Parts

<u>Reference</u>	<u>Component</u>	<u>Quantity</u>	<u>Description</u>	<u>Comment</u>
2	527-0044-15	1	SPACER-MOUNTING ASSM	
99	529-0060-24	1	POWER CABLE-MOLDED PLUG	
5	914-0037-36	1	RUN CAP KIT	
1	918-0052-00	1	CRANKCASE HEATER KIT	240V 40W WRAP AROUND
1	918-0052-01	1	CRANKCASE HEATER KIT	120V 40W WRAP AROUND
99	998-0034-01	1	ADAPTR 3/4 ID TO 11/4-12	SWEAT TO ROTALOCK ADAPTER KIT
99	998-0034-07	1	ADPTR 11/4-12 TO 3/4 ID	ROTALOCK TO SWEAT ADAPTER KIT
99	998-0034-15	1	ADAPTER 1/2 ID TO 1-14	SWEAT TO ROTALOCK ADAPTER KIT
99	998-0034-18	1	ADAPTER 1-14 TO 1/2 ID	ROTALOCK TO SWEAT ADAPTER KIT
8	998-0510-38	1	SERV VALVE KIT 3/4 SWT	SUCTION ROTALOCK
7	998-0510-98	1	SERV VALVE KIT 1/2 SWT	DISCHARGE ROTALOCK
99	998-7022-02	1	DISCH LINE T'STAT	FITS 1/2 TUBE

Scott Kohler

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Accessories

<u>Category</u>	<u>PartNumber</u>	<u>Description</u>
Capacitors	014-0036-17	Start Capacitor, 175-216uF, 330V, All models.
	014-0036-19	Start Capacitor, 88-106uF, 330V, For use on ZP16-31K5E-PFV Compressors.
	014-0037-10	Run Capacitor, 30uF, 370V, For use on ZP16K5E-PFV Compressor.
	014-0037-11	Run Capacitor, 35uF, 370V, For use on ZP20K5E-PFV Compressors.
	014-0037-12	Run Capacitor, 40uF, 370V, For use on ZP21-25K5E-PFV Compressors.
	014-0037-36	Run Capacitor, 45uF, 370V, For use on ZP29-31K5E-PFV Compressors.
CoreSense	571-0066-00	CoreSense™ Diagnostics Module (2 wire)
	571-0066-01	CoreSense Diagnostics (Fixed Speed AC)
	571-0067-00	CoreSense™ Diagnostics Module (3 wire)
	571-0067-01	CoreSense Diagnostics (Fixed Speed HP)
	571-0072-00	CoreSense Diagnostics (Two Stage UT)
Crankcase Heaters	018-0094-00	Crankcase Heater, 240V, 40W
	018-0094-01	Crankcase Heater, 120V, 40W
	018-0094-03	Crankcase Heater, 480V, 40W, 21.25" Lead Length
	018-0094-04	Crankcase Heater, 575V, 40W, 21.25" Lead Length
	018-0094-00	Crankcase Heater, 240V, 40W
	018-0094-01	Crankcase Heater, 120V, 40W
	018-0094-02	Crankcase Heater
	018-0094-03	Crankcase Heater, 480V, 40W, 21.25" Lead Length
	018-0094-04	Crankcase Heater, 575V, 40W, 21.25" Lead Length
Digital Components	543-0024-01	Digital Compressor Controller
Electrical Components	040-0166-37	Potential Relay, 170-180 PU Volts, 40-90 DO Volts, 332 Coil Volts
Molded Plugs	529-0060-04	Molded Plug Kit, 10 GA Wire, 42" Length, Black / Yellow / Red

<u>Category</u>	<u>PartNumber</u>	<u>Description</u>
Motor Protection	543-0010-01	Comfort Alert (Fixed Speed Two Wire)
	543-0012-00	Comfort Alert (Fixed Speed Heat Pump)
	543-0032-00	Comfort Alert (Fixed Speed L Terminal)
	543-0033-01	Comfort Alert (Two Stage UT)
	543-0033-02	Comfort Alert (Two Stage UT with power savings)
	543-0038-01	Commercial Comfort Alert (Two Stage)
	543-0038-02	Commercial Comfort Alert (Single Stage)
	543-0067-00	Comfort Alert (Fixed Speed Geothermal)
	543-0069-01	Comfort Alert (Two Stage Geothermal)
	543-0071-00	Commercial Comfort Alert (Two Stage Modified)
	543-0120-00	SecureStart™
Mounting	527-0044-15	Spacer Mounting Kit, 30-35 Durometer, 1.45" OD, 0.44" ID, 0.75" Height

Common U.S. Service 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
800	Stub	3/4"	Stub	1/2"		Yes	-	-	-	-	-
803	Stub	3/4"	Stub	1/2"		-	-	-	-	-	-
806	Rotalock	1 1/4"	Rotalock	1"		-	-	-	-	-	-
830	Stub	3/4"	Stub	1/2"		Yes	-	-	-	-	-
83R	Stub	3/4"	Stub	1/2"		Yes	-	-	-	-	-
860	Rotalock	1 1/4"	Rotalock	1"		Yes	-	-	-	-	-
899	Stub	3/4"	Stub	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.