

ZP31K7E-PFV

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

Air Conditioning

Production Status: This compressor and/or application of this compressor is not available to U.S. OEM customers. A field replacement is currently available through a U.S. Copeland Wholesaler. Please check with your local Copeland Representative for international availability.

Summary

Performance		
Evaporator Temp. (°F)	45.00	50
Condensing Temp. (°F)	130.00	100
Return Gas Temp. (°F)	65.00	70
Liquid Temp. (°F)	115.00	85
Capacity (BTU/hr)	31000	42500
Power (W):	2950	1910
Current (Amps):	13.1	8.7
EER(BTU/Wh):	10.5	22.25
Mass Flow (lbs/hr):	453	517
Sound Data @ 50 / 115		
Sound Power (dBA):	68 Avg	73 Max
Vibration mils(peak-peak):	2.0 Avg	3.0 Max
Record Date:	2021-12-08	
Mechanical		
Displacement (in ³ /Rev):	1.79	
Displacement (ft ³ /Hr):		
Overall Length (in):	9.00	
Overall Width (in):	9.00	
Overall Height (in):	15.50	
Mounting Length (in):	7.50	
Mounting Width (in):	7.50	

Mounting Height (in):	16.30
Suction Size (in),Type:	3 / 4 Stub
Discharge Size (in),Type:	1 / 2 Stub
Initial Oil Charge (oz):	25
Oil Recharge (oz):	21
Oil Type:	3MA
Net Weight (lbs):	52.6

Internal Free Volume (in³):

*Overall compressor height on Copeland Brand Product's specified mounting grommets.

Electrical

LRA High* (Amps):	91.9
LRA Low*(Amps):	
LRA Half Winding (Amps):	
MCC (Amps):	25
Max Operating Current (Amps):	19
RLA, MCC/1.4(use for contactor selection)(Amps):	17.9
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	16.0
RPM:	3500
Box IP :	21
UL File No:	SA2337- 20200323
UL File Date:	2020-03-23

*Low and High refer to the low and high nominal voltage ranges for which the motor is approved.

Capacitors

Type	Part No	Low MFD	High MFD	Volts	User Description
Run Capacitor	014-0064-08	40.0	0.0	370	
Start Capacitor	014-0061-27	88.0	106.0	330	

Alternate Applications

Refrigerant	Voltage	Phase	Frequency	Application
No data available in table				

Service Parts

Accessories

Accessories		
Category	Part Number	Description
Motor Protection	543-0067-00	Comfort Alert (Fixed Speed Geothermal)
Motor Protection	543-0032-00	Comfort Alert (Fixed Speed L Terminal)
Motor Protection	543-0010-01	Comfort Alert (Fixed Speed Two Wire)
Motor Protection	543-0038-02	Commercial Comfort Alert (Single Stage)
CoreSense	971-0066-00	CoreSense™ Diagnostics Module (2-Wire Module, 1-Phase Only)
CoreSense	971-0067-00	CoreSense™ Diagnostics Module (3-Wire Module, 1-Phase Only)
Crankcase Heaters	998-7026-00	Crankcase Heater Enclosure Box
Crankcase Heaters	018-0094-01	Crankcase Heater, 120V, 40W
Crankcase Heaters	018-0094-00	Crankcase Heater, 240V, 40W
Crankcase Heaters	018-0094-03	Crankcase Heater, 480V, 40W, 21.25" Lead Length

Electrical Components

Electrical Components	
Stator	Potential
Part No: 546-5143-09	Part No: 040-0166-37
Resistance: +/-7%	Usage Description: Potential Relay
208	<u>Vendor Part Number</u>
230	RVA2AE6D-946
Half Wdg:	<u>Vendor Name</u>

ELECTRICA

1.43

0.72

ACL:

0.000

Part No: 014-0061-27

Low MFD: 88.0

Type:Start Capacitor

High MFD: 106.0

Usage Description:

Volts: 330

Run Capacitor

Part No: 014-0064-08

Low MFD: 40.0

Type:Run Capacitor

High MFD: 0.0

Usage Description: Run Capacitor

Volts: 370

Nomenclature

ZP31K7E-PFV

Family Series

Z: Scroll

Application Range

P: A/C - R-410A/B

Capacity

31K: Capacity Multiplier-1000

Oil Type

E: Polyol Ester

Motor Type

P: 1 Phase/Capacitor Run, Permanent Split Capacitor

Motor Protection

F: Internal Inherent Protection

Voltage

V: 60Hz (208/230-1) 50Hz (-)

Miscellaneous

Alternate Application

Refrigerant	Freq	Phase	Voltage	Application
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No data available in table

Nomenclature

Bill-of-Materials

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