

ZPS31K5E-PFV

HFC, R-410A, 60 Hz, 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.

Summary

Performance		
Evaporator Temp. (°F)	45	50
Condensing Temp. (°F)	130	115
Return Gas Temp. (°F)	65	70
Liquid Temp. (°F)	115	100
Capacity (BTU/hr)	31500	39000
Power (W):	3060	2510
Current (Amps):	13.6	11.15
EER(BTU/Wh):	10.3	15.55
Mass Flow (lbs/hr):	464	520
Sound Data @ 45 / 130		
Sound Power (dBA):	68 Avg	73 Max
Vibration mils(peak-peak):	2.0 Avg	3.0 Max
Record Date:	2017-03-22	
Mechanical		
Displacement (in^3/Rev):	1.84	
Displacement (ft^3/Hr):	223.1	
Overall Length (in):	9.56	
Overall Width (in):	9.56	
Overall Height (in):	15.27	
Mounting Length (in):	7.50	
Mounting Width (in):	7.50	

Mounting Height (in):	16.02
Suction Size (in),Type:	3 / 4 Stub
Discharge Size (in),Type:	1 / 2 Stub
Initial Oil Charge (oz):	25
Oil Recharge (oz):	21
Net Weight (lbs):	49.6
Internal Free Volume (in^3):	115.72

Horse Power:

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

LRA High* (Amps):	83.0
LRA Low*(Amps):	
LRA Half Winding (Amps):	
MCC (Amps):	25.1
Max Operating Current (Amps):	23.0
RLA, MCC/1.4(use for contactor selection)(Amps):	17.9
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	16.1
RPM:	3500
Box IP :	21
UL File No:	SA2337
UL File Date:	2003-12-16

*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	OPTIONAL

Alternate Applications

Refrigerant	Voltage	Phase	Frequency	Application
R-410A HFC	208/230	1	60	A/C, 67% Load Of Compressor Model

Service Parts

Service Parts				
Reference	Component	Quantity	Description	Comment
1	914-0037-12	1	RUN CAP KIT W/CLAMP	
2	914-0036-03	1	CAP START KIT	
3	940-0001-79	1	RELAY-POTENTIAL KIT	
4	527-0044-15	1	SPACER - MOUNTING ASSM	
5	918-0052-00	1	CRANKCASE HEATER KIT	240V 40W WRAP AROUND
5	918-0052-01	1	CRANKCASE HEATER KIT	120V 40W WRAP AROUND
5	918-0052-03	1	STAR CCH KIT	480V 40W WRAP AROUND
6	529-0060-24	1	POWER CABLE-MOLDED PLUG	3-PIN MOLDED PLUG
6	529-0138-01	1	CABLE-POWER ASSM	2-PIN MODULATION PLUG
99	998-0069-01	1	ADAPTER & SEAL KIT	

Accessories

Accessories		
Category	Part Number	Description
Crankcase Heaters	018-0094-00	Crankcase Heater, 240V, 40W
Crankcase Heaters	018-0094-01	Crankcase Heater, 120V, 40W
Crankcase Heaters	018-0094-03	Crankcase Heater, 480V, 40W, 21.25" Lead Length
Crankcase Heaters	018-0094-04	Crankcase Heater, 575V, 40W, 21.25" Lead Length
Crankcase Heaters	018-0094-00	Crankcase Heater, 240V, 40W

Electrical Components

Electrical Components
Part No: 071-0512-50
Usage Description: Internal Protector
<u>Vendor Part Number</u>

15HM2312

Vendor Name

SENSATA

Part No: 071-0642-09

Usage Description: Internal Protector

Vendor Part Number

UP14FY3005-C

Vendor Name

UBUKATA

Stator

Part No: 846-5016-16

Usage Description: Stator

Resistance: +/-7%

Start Wdg: 1.50

Run Wdg: 0.85

Start Capacitor

Part No: 014-0061-27

Low MFD: 88.0

Type:Start Capacitor

High MFD: 106.0

Usage Description: Start Capacitor

Volts: 330

Stator

Part No: 546-5016-16

Usage Description: Stator

Resistance: +/-7%

Start Wdg: 1.50

Run Wdg: 0.85

Potential

Part No: 040-0166-37

Usage Description: Potential Relay

Vendor Part Number

RVA2AE6D-946

Vendor Name

ELECTRICA

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

ZPS31K5E-PFV

Family Series

Z: Scroll

Application Range

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

Modulation

S: Two Step

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
HFC R-410A	60	1 Ø	208/230 V	R1 A6
Nomenclature				
ZPS31K5E-PFV				
Date	Data Group	Field	Old Data	New Data
29-May-2012	Rating	PubCode		Y
22-May-2012	Rating	PubCode	PRE	Y
27-May-2016	2 Pt Perf	Amp Cond 1	11.15	13.6
27-May-2016	2 Pt Perf	Amp Cond 2	13.6	11.15
27-May-2016	2 Pt Perf	Cap Cond 1	39000	31500
27-May-2016	2 Pt Perf	Cap Cond 2	31500	39000
27-May-2016	2 Pt Perf	EER Cond 1	15.55	10.3
27-May-2016	2 Pt Perf	EER Cond 2	10.3	15.55
27-May-2016	2 Pt Perf	MassFlow Cond 1	520	464
27-May-2016	2 Pt Perf	MassFlow Cond 2	464	520