

# ZPS20K5E-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)	20200	25100
Power (W):	2040	1675
Current (Amps):	9	7.4
EER(BTU/Wh):	9.9	15
Mass Flow (lbs/hr):	298	333
Sound Data @ 45 / 130		
Sound Power (dBA):	66 Avg	71 Max
Vibration mils(peak-peak):	2.0 Avg	3.0 Max
Record Date:	2017-03-22	
Mechanical		
Displacement (in^3/Rev):	1.21	
Displacement (ft^3/Hr):	147.0	
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	

<b>Mounting Height (in):</b>	16.03
<b>Suction Size (in),Type:</b>	3 / 4 Stub
<b>Discharge Size (in),Type:</b>	1 / 2 Stub
<b>Initial Oil Charge (oz):</b>	25
<b>Oil Recharge (oz):</b>	21
<b>Net Weight (lbs):</b>	47.3
<b>Internal Free Volume (in^3):</b>	131.1

**Horse Power:**

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

<b>LRA High* (Amps):</b>	58.3
<b>LRA Low*(Amps):</b>	
<b>LRA Half Winding (Amps):</b>	
<b>MCC (Amps):</b>	18.2
<b>Max Operating Current (Amps):</b>	17.0
<b>RLA, MCC/1.4(use for contactor selection)(Amps):</b>	13.0
<b>RLA, MCC/1.56(use for breaker &amp; wire size selection)(Amps):</b>	11.7
<b>RPM:</b>	3500
<b>Box IP :</b>	21
<b>UL File No:</b>	SA2337
<b>UL File Date:</b>	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	014-0064-07	35.0	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	914-0037-11	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: 071-0512-41	<b>Stator</b>
Usage Description: Internal Protector	Part No: 546-5016-02
<u>Vendor Part Number</u>	Usage Description: Stator

15HM2458-102

Vendor Name

SENSATA

### Potential

Part No: 040-0166-37

Usage Description: Potential Relay

Vendor Part Number

RVA2AE6D-946

Vendor Name

ELECTRICA

### Run Capacitor

Part No: 014-0064-07

Low MFD: 35.0

Type:Run Capacitor

High MFD: 0.0

Usage Description: Run Capacitor

Volts: 370

Resistance: +/-7%

Start Wdg: 1.64

Run Wdg: 1.30

### Start Capacitor

Part No: 014-0061-27

Low MFD: 88.0

Type:Start Capacitor

High MFD: 106.0

Usage Description: Start Capacitor

Volts: 330

## Nomenclature

ZPS20K5E-PFV

#### Family Series

**Z:** Scroll

#### Application Range

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

#### Modulation

**S:** Two Step

#### Capacity

**20K:** 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
<a href="#">HFC R-410A</a>	60	1 Ø	208/230 V	R1 A6
Nomenclature				
<a href="#">ZPS20K5E-PFV</a>				

Date	Data Group	Field	Old Data	New Data
05-Jan-2011	Status	Status	P	A
05-Jan-2011	Status	Status	P	A
22-Dec-2011	Sound	Sound Start	71	68
22-Dec-2011	Sound	Sound Start	71	68
22-Dec-2011	Sound	Sound Start Max	79	76
22-Dec-2011	Sound	Sound Start Max	79	76
22-Dec-2011	Sound	Sound Stop	63	60
22-Dec-2011	Sound	Sound Stop	63	60
22-Dec-2011	Sound	Sound Stop Max	72	69
22-Dec-2011	Sound	Sound Stop Max	72	69