

# ZP83KCE-TF5

HFC, R-410A, 60 Hz, 3 - Phase, 200/230 V [. Also Available with Variable Frequency Drives](#)

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	45
Condensing Temp. (°F)	130	100
Return Gas Temp. (°F)	65	65
Liquid Temp. (°F)	115	85
Capacity (BTU/hr)	83000	101000
Power (W):	7650	5450
Current (Amps):	22	16.6
EER(BTU/Wh):	10.8	18.5
Mass Flow (lbs/hr):	1220	1250
Sound Data @		
Sound Power (dBA):	75 Avg	80 Max
Vibration mils(peak-peak):	2.5 Avg	3.5 Max
Record Date:	2004-05-10	
Mechanical		
Displacement (in^3/Rev):	4.71	
Displacement (ft^3/Hr):		
Overall Length (in):	9.69	
Overall Width (in):	9.69	
Overall Height (in):	17.91	
Mounting Length (in):	7.50	
Mounting Width (in):	7.50	

<b>Mounting Height (in):</b>	18.16
<b>Suction Size (in),Type:</b>	7 / 8 Stub
<b>Discharge Size (in),Type:</b>	1 / 2 Stub
<b>Initial Oil Charge (oz):</b>	60
<b>Oil Recharge (oz):</b>	56
<b>Net Weight (lbs):</b>	87.0
<b>Internal Free Volume (in^3):</b>	264.5

**Horse Power:**

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

<b>LRA High* (Amps):</b>	164.0
<b>LRA Low*(Amps):</b>	
<b>LRA Half Winding (Amps):</b>	
<b>MCC (Amps):</b>	39
<b>Max Operating Current (Amps):</b>	33.0
<b>RLA, MCC/1.4(use for contactor selection)(Amps):</b>	27.9
<b>RLA, MCC/1.56(use for breaker &amp; wire size selection)(Amps):</b>	25.0
<b>RPM:</b>	3500
<b>Box IP :</b>	21
<b>UL File No:</b>	
<b>UL File Date:</b>	1993-07-26

\*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
------	---------	---------	----------	-------	------------------

No data available in table

**Alternate Applications**

Refrigerant	Voltage	Phase	Frequency	Application
R-410A HFC	200/220	3	50	Air Conditioning

### Service Parts

Reference	Component	Quantity	Description	Comment
1	918-0043-00	1	HEATER-CRANKCASE	240V 70W WRAP AROUND
1	918-0043-01	1	HEATER-CRANKCASE	480V 70W WRAP AROUND
2	527-0116-00	1	SPACER-MOUNTING ASSM	
7	998-0510-98	1	VLV KIT 1/2"SWT/1-14UNC	DISCHARGE ROTALOCK
8	998-0510-90	1	VLV KIT 7/8"SWT / 11/4-12UNC	SUCTION ROTALOCK
9	998-7024-00	1	HEARTER JUNCTION BOX KIT	
99	529-0060-24	1	POWER CABLE-MOLDED PLUG	
99	921-0234-00	1	CONNECTOR BLOCK KIT	
99	998-0034-02	1	SERV ADAPTOR KIT 7/8 STUB	SWEAT TO ROTALOCK ADAPTER KIT SUCTION
99	998-0034-08	1	ADPTR 11/4-12 TO 7/8 ID	ROTALOCK TO SWEAT ADAPTER KIT SUCTION

### Accessories

### Accessories

Category	Part Number	Description
(1) Variable Frequency Drive	EVH-322031-R21BDN	EVH, 3Ø, 200-240v, Output 200-240v@31A, LCD Keypad, IP21, With 5% DC Link Choke, No Options, Frame 2
(1) Variable Frequency Drive	EVH-322031-R21BEN	EVH, 3Ø, 200-240v, Output 200-240v@31A, LCD Keypad, IP21, With 5% DC Link Choke + EMI Filter, No Options, Frame 2
(1) Variable Frequency Drive	EVH-322031-R54BDN	EVH, 3Ø, 200-240v, Output 200-240v@31A, LCD Keypad, IP54, With 5% DC Link Choke, No Options, Frame 2
(1) Variable Frequency Drive	EVH-322031-R54BEN	EVH, 3Ø, 200-240v, Output 200-240v@31A, LCD Keypad, IP54, With 5% DC Link Choke + EMI Filter, No Options, Frame 2
(1) Variable Frequency Drive	EVH-322031-R21BDB	EVH, 3Ø, 200-240v, Output 200-240v@31A, LCD Keypad, IP21, With 5% DC Link Choke, With Bypass, Frame H2S
(1) Variable Frequency Drive	EVH-322031-R54BDB	EVH, 3Ø, 200-240v, Output 200-240v@31A, LCD Keypad, IP54, With 5% DC Link Choke, With Bypass, Frame H3X
Crankcase Heaters	018-0095-08	Crankcase Heater, 400V, 70W, 48" Lead Length
Crankcase Heaters	018-0095-07	Crankcase Heater, 120V, 70W, 48" Lead Length
Crankcase Heaters	018-0095-06	Crankcase Heater, 575V, 70W, 48" Lead Length

Category	Part Number	Description
----------	-------------	-------------

Electrical Components

Electrical Components	
Part No: 071-0519-22	
Usage Description: Internal Protector	
<u>Vendor Part Number</u>	
35HM400	
<u>Vendor Name</u>	
SENSATA	
Part No: 071-0679-02	<b>Stator</b>
Usage Description: Internal Protector	Part No: 546-2093-63
<u>Vendor Part Number</u>	Usage Description: Stator
35HM415	Resistance: +/-7%
<u>Vendor Name</u>	Start Wdg: 0.50
SENSATA	Run Wdg: 0.00
<b>Stator</b>	
Part No: 546-2122-06	
Usage Description: Stator	
Resistance: +/-7%	
Start Wdg: 0.50	
Run Wdg: 0.00	

Nomenclature

ZP83KCE-TF5
<b>Family Series</b>
<b>Z:</b> Scroll
<b>Application Range</b>
<b>P:</b> A/C - R-410A/B
<b>Capacity</b>
<b>83K:</b> Capacity Multiplier-1000
<b>Oil Type</b>
<b>E:</b> Polyol Ester
<b>Motor Type</b>
<b>T:</b> 3 Phase

**Motor Protection****F:** Internal Inherent Protection**Voltage****5:** 60Hz (200/230-3) 50Hz (200/220-3)

## Miscellaneous

## Alternate Application

Refrigerant	Freq	Phase	Voltage	Application
<a href="#">HFC R-410A</a>	50	3 Ø	200/220 V	R1 AC

## Nomenclature

[ZP83KCE-TF5](#)

Date	Data Group	Field	Old Data	New Data
11-May-2004	Status	Status	P	A
11-May-2004	RatingRefNo	RatingRefNo	03-847	04-1070
10-May-2004	Rating	PubCode		Y
06-Oct-2003	Rating	PubCode		PRE
29-Jul-2004	Mech	CFH		572.39688
11-May-2004	2 Pt Perf	Amp Cond 1	23.4	22
11-May-2004	2 Pt Perf	Amp Cond 2	18.6	16.6
11-May-2004	2 Pt Perf	Data Sheet No	2.2fAC60-03-847	2.2fAC60-04-1070