

# ZR108KCE-TFD

HFC, R-407C, 60 Hz, 3 - Phase, 460 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	35
Condensing Temp. (°F)	130	120
Return Gas Temp. (°F)	65	55
Liquid Temp. (°F)	115	105
Capacity (BTU/hr)	106000	91200
Power (W):	9220	8110
Current (Amps):	14	12.7
EER(BTU/Wh):	11.5	11.25
Mass Flow (lbs/hr):	1545	1275
Sound Data @		
Sound Power (dBA):	80 Avg	85 Max
Vibration mils(peak-peak):	3.0 Avg	4.0 Max
Record Date:	2017-03-22	
Mechanical		
Displacement (in^3/Rev):	8.72	
Displacement (ft^3/Hr):		
Overall Length (in):	10.38	
Overall Width (in):	11.23	
Overall Height (in):	21.00	
Mounting Length (in):	7.50	
Mounting Width (in):	7.50	

<b>Mounting Height (in):</b>	21.75
<b>Suction Size (in),Type:</b>	1 3 / 8 Stub
<b>Discharge Size (in),Type:</b>	7 / 8 Stub
<b>Initial Oil Charge (oz):</b>	110
<b>Oil Recharge (oz):</b>	106
<b>Net Weight (lbs):</b>	132.0
<b>Internal Free Volume (in^3):</b>	809
<b>Horse Power:</b>	9.0

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

<b>LRA High* (Amps):</b>	114
<b>LRA Low*(Amps):</b>	
<b>LRA Half Winding (Amps):</b>	
<b>MCC (Amps):</b>	24.2
<b>Max Operating Current (Amps):</b>	17.7
<b>RLA, MCC/1.4(use for contactor selection)(Amps):</b>	17.3
<b>RLA, MCC/1.56(use for breaker &amp; wire size selection)(Amps):</b>	15.5
<b>RPM:</b>	3500
<b>Box IP :</b>	21
<b>UL File No:</b>	SA-2337
<b>UL File Date:</b>	1996-09-27

\*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-134a HFC	460	3	60	Air Conditioning
R-134a HFC	380/420	3	50	Air Conditioning
R-407C HFC	380/420	3	50	Air Conditioning

Service Parts

Service Parts				
Reference	Component	Quantity	Description	Comment
1	918-0047-00	1	HEATER-CRANKCASE	120V 90W WRAP AROUND
1	918-0047-01	1	HEATER-CRANKCASE	240V 90W WRAP AROUND
1	918-0047-02	1	HEATER-CRANKCASE	480V 90W WRAP AROUND
2	527-0116-00	1	SPACER-MOUNTING ASSM	
11	998-0010-00	1	SIGHTGLASS KIT	
13	998-0034-02	1	SERV ADAPTOR KIT 7/8 STUB	DISCHARGE SWEAT TO ROTALOCK
13	998-0034-04	1	ADAP KIT 13/8"SWT / 13/4 RL	SUCTION SWEAT TO ROTALOCK
13	998-0034-07	1	ADAP KIT 11/4 RL / 3/4"SWT	DISCHARGE ROTALOCK TO SWEAT
13	998-0034-08	1	ADPTR 11/4-12 TO 7/8 ID	DISCHARGE ROTALOCK TO SWEAT
13	998-0034-10	1	ADAP KIT 13/4 RL / 11/8"SWT	SUCTION ROTALOCK TO SWEAT

Accessories

Accessories		
Category	Part Number	Description
(1) Variable Frequency Drive	EVM-344023-E20ENN	EVM, 3Ø, 380-480v, Output 380-480v@23A, Pro, IP20, Standard, No Options, Frame 2
(1) Variable Frequency Drive	EVM-344023-N20MNN	EVM, 3Ø, 380-480v, Output 380-480v@23A, Basic, IP20, Standard, No Options, Frame 2
(1) Variable Frequency Drive	EVM-344023-N20MFN	EVM, 3Ø, 380-480v, Output 380-480v@23A, Basic, IP20, With add on EMI filter, No Options, Frame 2
(1) Variable Frequency Drive	EVM-344023-E20EFN	EVM, 3Ø, 380-480v, Output 380-480v@23A, Pro, IP20, With add on EMI filter, No Options, Frame 2
(1) Variable Frequency Drive	EVH-344023-R21BDN	EVH, 3Ø, 380-480v, Output 380-480v@23A, LCD Keypad, IP21, With 5% DC Link Choke, No Options, Frame 2

Category	Part Number	Description
(1) Variable Frequency Drive	EVH-344023-R21BEN	EVH, 3Ø, 380-480v, Output 380-480v@23A, LCD Keypad, IP21, With 5% DC Link Choke + EMI Filter, No Options, Frame 2
(1) Variable Frequency Drive	EVH-344023-R54BDN	EVH, 3Ø, 380-480v, Output 380-480v@23A, LCD Keypad, IP54, With 5% DC Link Choke, No Options, Frame 2
(1) Variable Frequency Drive	EVH-344023-R54BEN	EVH, 3Ø, 380-480v, Output 380-480v@23A, LCD Keypad, IP54, With 5% DC Link Choke + EMI Filter, No Options, Frame 2
(1) Variable Frequency Drive	EVH-344023-R21BDB	EVH, 3Ø, 380-480v, Output 380-480v@23A, LCD Keypad, IP21, With 5% DC Link Choke, With Bypass, Frame H2S

### Electrical Components

Electrical Components	
Part No: 071-0519-36	<b>Stator</b>
Usage Description: Internal Protector	Part No: 546-2081-46
<u>Vendor Part Number</u>	Usage Description: Stator
35HM531	Resistance: +/-7%
<u>Vendor Name</u>	Start Wdg: 1.37
SENSATA	Run Wdg: 0.00
<b>Stator</b>	
Part No: 546-2111-01	
Usage Description: Stator	
Resistance: +/-7%	
Start Wdg: 1.47	
Run Wdg: 0.00	

### Nomenclature

ZR108KCE-TFD
<b>Family Series</b>
<b>Z:</b> Scroll
<b>Application Range</b>
<b>R:</b> A/C - R-22/407C/134a
<b>Capacity</b>
<b>108K:</b> Capacity Multiplier-1000

**Oil Type****E:** Polyol Ester**Motor Type****T:** 3 Phase**Motor Protection****F:** Internal Inherent Protection**Voltage****D:** 60Hz (460-3) 50Hz (380/420-3)

## Miscellaneous

## Alternate Application

Refrigerant	Freq	Phase	Voltage	Application
<a href="#">HFC R-134a</a>	60	3 Ø	460 V	R1 AC
<a href="#">HFC R-134a</a>	50	3 Ø	380/420 V	R1 AC
<a href="#">HFC R-407C</a>	50	3 Ø	380/420 V	R1 AC

## Nomenclature

[ZR108KCE-TFD](#)

Date	Data Group	Field	Old Data	New Data
07-Feb-2007	Sound	Discharge Pulse Ave	3	0
07-Feb-2007	Sound	Vibration Max	4.5	4
18-Jul-2005	Sound	Vibration Ave	2.5	3
18-Jul-2005	Sound	Vibration Max	3.5	4.5
09-Jan-2003	Sound	Sound Start	0	83
09-Jan-2003	Sound	Sound Start Max	0	91
09-Jan-2003	Sound	Sound Stop	0	75
09-Jan-2003	Sound	Sound Stop Max	0	83
20-Jul-2007	RatingRefNo	RatingRefNo	04-767	07-595
24-Sep-2004	RatingRefNo	RatingRefNo	01-929	04-767