

# ZR38K5E-TF5

HCFC, R-22, 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	50
Condensing Temp. (°F)	130	100
Return Gas Temp. (°F)	65	70
Liquid Temp. (°F)	115	85
Capacity (BTU/hr)	38000	49400
Power (W):	3400	2300
Current (Amps):	10.35	8
EER(BTU/Wh):	11.2	21.4
Mass Flow (lbs/hr):	556	632
Sound Data @ 45 / 130		
Sound Power (dBA):	73 Avg	78 Max
Vibration mils(peak-peak):	2.0 Avg	3.0 Max
Record Date:	2015-10-13	
Mechanical		
Displacement (in^3/Rev):	3.11	
Displacement (ft^3/Hr):		
Overall Length (in):	9.69	
Overall Width (in):	9.69	
Overall Height (in):	19.94	
Mounting Length (in):	7.50	
Mounting Width (in):	7.50	

<b>Mounting Height (in):</b>	17.17
<b>Suction Size (in),Type:</b>	7 / 8 Stub
<b>Discharge Size (in),Type:</b>	1 / 2 Stub
<b>Initial Oil Charge (oz):</b>	42
<b>Oil Recharge (oz):</b>	34
<b>Net Weight (lbs):</b>	60.5
<b>Internal Free Volume (in^3):</b>	226
<b>Horse Power:</b>	

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

<b>LRA High* (Amps):</b>	93.0
<b>LRA Low*(Amps):</b>	
<b>LRA Half Winding (Amps):</b>	
<b>MCC (Amps):</b>	19
<b>Max Operating Current (Amps):</b>	14.0
<b>RLA, MCC/1.4(use for contactor selection)(Amps):</b>	13.6
<b>RLA, MCC/1.56(use for breaker &amp; wire size selection)(Amps):</b>	12.2
<b>RPM:</b>	3500
<b>Box IP :</b>	21
<b>UL File No:</b>	SA-2337
<b>UL File Date:</b>	

\*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-22 HCFC	200/220	3	50	Air Conditioning
R-407C HFC	200/220	3	50	Air Conditioning
R-407C HFC	200/230	3	60	Air Conditioning

## Service Parts

Service Parts				
Reference	Component	Quantity	Description	Comment
1	918-0041-00	1	HEATER-CRANKCASE	240V 40W WRAP AROUND
1	918-0041-01	1	HEATER-CRANKCASE	120V 40W WRAP AROUND
2	527-0116-00	1	SPACER-MOUNTING ASSM	
14	529-0060-24	1	POWER CABLE-MOLDED PLUG	

## Accessories

Accessories		
Category	Part Number	Description
(1) Variable Frequency Drive	EVM-322017-E20ENN	EVM, 3Ø, 200-240v, Output 200-240v@17A, Pro, IP20, Standard, No Options, Frame 2
(1) Variable Frequency Drive	EVH-322017-R54BDB	EVH, 3Ø, 200-240v, Output 200-240v@17A, LCD Keypad, IP54, With 5% DC Link Choke, With Bypass, Frame H3X
(1) Variable Frequency Drive	EVH-322017-R21BDB	EVH, 3Ø, 200-240v, Output 200-240v@17A, LCD Keypad, IP21, With 5% DC Link Choke, With Bypass, Frame H2S
(1) Variable Frequency Drive	EVH-322017-R54BDN	EVH, 3Ø, 200-240v, Output 200-240v@17A, LCD Keypad, IP54, With 5% DC Link Choke, No Options, Frame 2
(1) Variable Frequency Drive	EVH-322017-R21BEN	EVH, 3Ø, 200-240v, Output 200-240v@17A, LCD Keypad, IP21, With 5% DC Link Choke + EMI Filter, No Options, Frame 2
(1) Variable Frequency Drive	EVH-322017-R21BDN	EVH, 3Ø, 200-240v, Output 200-240v@17A, LCD Keypad, IP21, With 5% DC Link Choke, No Options, Frame 2
(1) Variable Frequency Drive	EVH-322017-R54BEN	EVH, 3Ø, 200-240v, Output 200-240v@17A, LCD Keypad, IP54, With 5% DC Link Choke + EMI Filter, No Options, Frame 2
(1) Variable Frequency Drive	EVM-322017-E20EFN	EVM, 3Ø, 200-240v, Output 200-240v@17A, Pro, IP20, With add on EMI filter, No Options, Frame 2
(1) Variable Frequency Drive	EVM-322017-N20MFN	EVM, 3Ø, 200-240v, Output 200-240v@17A, Basic, IP20, With add on EMI filter, No Options, Frame 2
(1) Variable Frequency Drive	EVM-322017-N20MNN	EVM, 3Ø, 200-240v, Output 200-240v@17A, Basic, IP20, Standard, No Options, Frame 2

## Electrical Components

## Electrical Components

Part No: 071-0501-10

Usage Description: Internal Protector

Vendor Part Number

34HM111

Vendor Name

SENSATA

Part No: 071-0501-18

Usage Description: Internal Protector

Vendor Part Number

34HM119

Vendor Name

SENSATA

## Stator

Part No: 546-2090-05

Usage Description: Stator

Resistance: +/-7%

Start Wdg: 0.97

Run Wdg: 0.00

## Stator

Part No: 546-2115-01

Usage Description: Stator

Resistance: +/-7%

Start Wdg: 1.20

Run Wdg: 0.00

## Nomenclature

ZR38K5E-TF5

### Family Series

**Z:** Scroll

### Application Range

**R:** A/C - R-22/407C/134a

### Capacity

**38K:** Capacity Multiplier-1000

### Oil Type

**E:** Polyol Ester

### Motor Type

**T:** 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="#">HCFC R-22</a>	50	3 Ø	200/220 V	R1 AC
<a href="#">HFC R-407C</a>	50	3 Ø	200/220 V	R1 AC
<a href="#">HFC R-407C</a>	60	3 Ø	200/230 V	R1 AC
Nomenclature				
<a href="#">ZR38K5E-TF5</a>				
Date	Data Group	Field	Old Data	New Data
15-Apr-2014	RatingRefNo	RatingRefNo	14-93e	08-1165e
13-Oct-2015	Rating	PubCode		Y
15-Apr-2014	2 Pt Perf	Amp Cond 1	9.8	10.35
15-Apr-2014	2 Pt Perf	Amp Cond 2	7.6	8
15-Apr-2014	2 Pt Perf	MassFlow Cond 1	555	556
15-Apr-2014	2 Pt Perf	MassFlow Cond 2	630	632