

# ZR19M3E-TWD

HFC, R-407C, 60 Hz, 3 - Phase, 460 V [. Also Available with Variable Frequency Drives](#)

Air Conditioning

**Production Status:** This compressor and/or application of this compressor is not available to U.S. OEM customers. A field replacement is currently available through a U.S. Emerson Climate Technologies Wholesaler. 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)	185000	222000
Power (W):	16700	11400
Current (Amps):	24.15	18
EER(BTU/Wh):	11.1	19.5
Mass Flow (lbs/hr):	2690	2760
Sound Data @		
Sound Power (dBA):	83 Avg	88 Max
Vibration mils(peak-peak):	2.5 Avg	3.5 Max
Record Date:	2007-12-04	
Mechanical		
Displacement (in <sup>3</sup> /Rev):	15.00	
Displacement (ft <sup>3</sup> /Hr):		
Overall Length (in):	12.63	
Overall Width (in):	13.75	
Overall Height (in):	23.30	
Mounting Length (in):	8.65	
Mounting Width (in):	8.65	

<b>Mounting Height (in):</b>	23.47
<b>Suction Size (in),Type:</b>	2 1 / 4 Rotalock
<b>Discharge Size (in),Type:</b>	1 3 / 4 Rotalock
<b>Initial Oil Charge (oz):</b>	140
<b>Oil Recharge (oz):</b>	137
<b>Net Weight (lbs):</b>	236.0
<b>Internal Free Volume (in<sup>3</sup>):</b>	1120
<b>Horse Power:</b>	15.0

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

#### Electrical

<b>LRA High* (Amps):</b>	187
<b>LRA Low*(Amps):</b>	
<b>LRA Half Winding (Amps):</b>	
<b>MCC (Amps):</b>	45
<b>Max Operating Current (Amps):</b>	32.0
<b>RLA, MCC/1.4(use for contactor selection)(Amps):</b>	32.1
<b>RLA, MCC/1.56(use for breaker &amp; wire size selection)(Amps):</b>	28.8
<b>RPM:</b>	3500
<b>Box IP :</b>	54
<b>UL File No:</b>	SA-9747
<b>UL File Date:</b>	1994-07-12

\*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	918-0019-01	1	HEATER-CRANKCASE GROUP	120V 70W WRAP AROUND
1	918-0019-04	1	CRANKCASE HEATER 240V 70W	240V 70W WRAP AROUND
1	918-0019-08	1	CRANKCASE HEATER 480V 70W	480V 70W WRAP AROUND
1	918-0019-09	1	CRANKCASE HEATER 575 60W	575V 70W WRAP AROUND
2	527-0159-00	1	SOFT MOUNT KIT	
7	998-7015-00	1	HEATER JUNCTION BOX KIT-GLACIER/SPECTER	
9	998-0510-68	1	SERV VALVE KIT 1 5/8 SWT	SUCTION
11	998-0010-00	1	SIGHTGLASS KIT	
12	998-0520-00	1	KIT 120/240 V MODULE	120/240 VOLTS
12	998-0520-04	1	MODULE KIT 24 VOLT	24 VOLTS

## Accessories

Accessories		
Category	Part Number	Description
(1) Variable Frequency Drive	EVM-344038-E20ENN	EVM, 3Ø, 380-480v, Output 380-480v@38A, Pro, IP20, Standard, No Options, Frame 4
(1) Variable Frequency Drive	EVH-344038-R54BDB	EVH, 3Ø, 380-480v, Output 380-480v@38A, LCD Keypad, IP54, With 5% DC Link Choke, With Bypass, Frame H2S
(1) Variable Frequency Drive	EVH-344038-R54BEN	EVH, 3Ø, 380-480v, Output 380-480v@38A, LCD Keypad, IP54, With 5% DC Link Choke + EMI Filter, No Options, Frame 3
(1) Variable Frequency Drive	EVH-344038-R54BDN	EVH, 3Ø, 380-480v, Output 380-480v@38A, LCD Keypad, IP54, With 5% DC Link Choke, No Options, Frame 3

Category	Part Number	Description
(1) Variable Frequency Drive	EVH-344038-R21BEN	EVH, 3Ø, 380-480v, Output 380-480v@38A, LCD Keypad, IP21, With 5% DC Link Choke + EMI Filter, No Options, Frame 3
(1) Variable Frequency Drive	EVH-344038-R21BDB	EVH, 3Ø, 380-480v, Output 380-480v@38A, LCD Keypad, IP21, With 5% DC Link Choke, With Bypass, Frame H2S
(1) Variable Frequency Drive	EVM-344038-E20EFN	EVM, 3Ø, 380-480v, Output 380-480v@38A, Pro, IP20, With add on EMI filter, No Options, Frame 4
(1) Variable Frequency Drive	EVM-344038-N20MFN	EVM, 3Ø, 380-480v, Output 380-480v@38A, Basic, IP20, With add on EMI filter, No Options, Frame 4
(1) Variable Frequency Drive	EVM-344038-N20MNN	EVM, 3Ø, 380-480v, Output 380-480v@38A, Basic, IP20, Standard, No Options, Frame 4
(1) Variable Frequency Drive	EVH-344038-R21BDB	EVH, 3Ø, 380-480v, Output 380-480v@38A, LCD Keypad, IP21, With 5% DC Link Choke + EMI Filter, No Options, Frame 3

## Electrical Components

## Electrical Components

Part No: 071-0684-00

Usage Description: Modular Protector

Vendor Part Number

22A620

Vendor Name

KRIWAN

Part No: 071-0684-01

Usage Description: Modular Protector

Vendor Part Number

31A620

Vendor Name

KRIWAN

Part No: 071-0685-00

Usage Description: Modular Protector

Vendor Part Number

22A650 S21

Vendor Name

KRIWAN

### **Stator**

Part No: 046-1216-00

Usage Description: Stator

Resistance: +/-7%

Start Wdg: 0.72

Run Wdg: 0.00

## Nomenclature

ZR19M3E-TWD

---

### **Family Series**

**Z:** Scroll

### **Application Range**

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

### **Capacity**

**19:** Capacity

### **Oil Type**

**E:** Polyol Ester

**Motor Type**

T: 3 Phase

**Motor Protection**

W: External Electronic 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

[ZR19M3E-TWD](#)

Date	Data Group	Field	Old Data	New Data
25-Jun-2003	Sound	Discharge Pulse Max	3	0
25-Jun-2003	Sound	Sound Max	87	88
25-Jun-2003	Sound	Sound Start	0	87
25-Jun-2003	Sound	Sound Start Max	0	95
25-Jun-2003	Sound	Sound Stop	0	82
25-Jun-2003	Sound	Sound Stop Max	0	90
25-Jun-2003	Sound	Vibration Ave	0	2.5
25-Jun-2003	Sound	Vibration Max	3	3.5
04-Sep-2003	RatingRefNo	RatingRefNo	03-691	03-656
25-Jun-2003	RatingRefNo	RatingRefNo	99-579	03-691