

ZR144KCE-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) | 142000 | 122500 |
| Power (W): | 12350 | 10850 |
| Current (Amps): | 18.15 | 16.3 |
| EER(BTU/Wh): | 11.5 | 11.3 |
| Mass Flow (lbs/hr): | 2070 | 1715 |
| Sound Data @ | | |
| Sound Power (dBA): | 80 Avg | 85 Max |
| Vibration mils(peak-peak): | 3.0 Avg | 4.5 Max |
| Record Date: | 2017-03-22 | |
| Mechanical | | |
| Displacement (in^3/Rev): | 11.65 | |
| 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 | |

| | |
|-------------------------------------|--------------|
| Mounting Height (in): | 21.75 |
| Suction Size (in),Type: | 1 3 / 8 Stub |
| Discharge Size (in),Type: | 7 / 8 Stub |
| Initial Oil Charge (oz): | 110 |
| Oil Recharge (oz): | 106 |
| Net Weight (lbs): | 135.0 |
| Internal Free Volume (in^3): | 809 |
| Horse Power: | |

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

| | |
|--|------------|
| LRA High* (Amps): | 125.0 |
| LRA Low*(Amps): | |
| LRA Half Winding (Amps): | |
| MCC (Amps): | 29 |
| Max Operating Current (Amps): | 22.3 |
| RLA, MCC/1.4(use for contactor selection)(Amps): | 20.7 |
| RLA, MCC/1.56(use for breaker & wire size selection)(Amps): | 18.6 |
| RPM: | 3500 |
| Box IP : | 21 |
| UL File No: | SA-2337 |
| UL File Date: | 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: 071-0519-34 | |
| Usage Description: Internal Protector | |
| <u>Vendor Part Number</u> | |
| 35HM528 | |
| <u>Vendor Name</u> | |
| SENSATA | |
| Part No: 071-0519-58 | |
| Usage Description: Internal Protector | |
| <u>Vendor Part Number</u> | |
| 35HM550 | |
| <u>Vendor Name</u> | |
| SENSATA | |
| Part No: 071-0573-03 | Stator |
| Usage Description: Internal Protector | Part No: 546-2081-44 |
| <u>Vendor Part Number</u> | Usage Description: Stator |
| UP28PY051-700 | Resistance: +/-7% |
| <u>Vendor Name</u> | Start Wdg: 1.24 |
| UBUKATA | Run Wdg: 0.00 |
| Stator | Stator |
| Part No: 546-2111-02 | Part No: 846-2081-42 |
| Usage Description: Stator | Usage Description: Stator |

Resistance: +/-7%

Resistance: +/-7%

Start Wdg: 1.27

Start Wdg: 1.24

Run Wdg: 0.00

Run Wdg: 0.00

Nomenclature

ZR144KCE-TFD

Family Series

Z: Scroll

Application Range

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

Capacity

144K: 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 |
|----------------------------|------|-------|-----------|-------------|
| HFC R-134a | 60 | 3 Ø | 460 V | R1 AC |
| HFC R-134a | 50 | 3 Ø | 380/420 V | R1 AC |
| HFC R-407C | 50 | 3 Ø | 380/420 V | R1 AC |

Nomenclature

[ZR144KCE-TFD](#)

| Date | Data Group | Field | Old Data | New Data |
|-------------|------------|-----------------|----------|----------|
| 18-Jul-2005 | Sound | Vibration Ave | 3.5 | 3 |
| 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 |

| Date | Data Group | Field | Old Data | New Data |
|-------------|-------------|----------------|-----------|------------|
| 09-Jan-2003 | Sound | Sound Stop Max | 0 | 83 |
| 27-Aug-2007 | RatingRefNo | RatingRefNo | 04-774 | 07-802 |
| 24-Sep-2004 | RatingRefNo | RatingRefNo | 01-922 | 04-774 |
| 23-Sep-2004 | Rating | PubCode | | Y |
| 31-Jan-2005 | Mech | CFH | 1415.8012 | 1415.19356 |