# ZPD83KCE-TF5

HFC, R-410A, 60 Hz, 3 - Phase, 200/230 V

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)** | 82500 | 101000 |
| **Power (W):** | 7850 | 5660 |
| **Current (Amps):** | 23 | 17.95 |
| **EER(BTU/Wh):** | 10.5 | 17.85 |
| **Mass Flow (lbs/hr):** | 1215 | 1250 |
| **Sound Data @** | | |
| **Sound Power (dBA):** | 78 Avg | 83 Max |
| **Vibration mils(peak-peak):** | 2.0 Avg | 3.0 Max |
| **Record Date:** | 2008-07-07 | |

| Mechanical | |
|---|---|
| **Displacement (in^3/Rev):** | 4.71 |
| **Displacement (ft^3/Hr):** | |
| **Overall Length (in):** | 9.69 |
| **Overall Width (in):** | 9.69 |
| **Overall Height (in):** | 19.46 |
| **Mounting Length (in):** | 7.50 |
| **Mounting Width (in):** | 7.50 |

| | |
|---|---|
| **Mounting Height (in):** | 19.71 |
| **Suction Size (in),Type:** | 7 / 8 Stub |
| **Discharge Size (in),Type:** | 1 / 2 Stub |
| **Initial Oil Charge (oz):** | 60 |
| **Oil Recharge (oz):** | 56 |
| **Net Weight (lbs):** | 89.9 |
| **Internal Free Volume (in^3):** | |
| **Horse Power:** | |

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

**Electrical**

| | |
|---|---|
| **LRA High* (Amps):** | 186.6 |
| **LRA Low*(Amps):** | |
| **LRA Half Winding (Amps):** | |
| **MCC (Amps):** | 37.5 |
| **Max Operating Current (Amps):** | 33.0 |
| **RLA, MCC/1.4(use for contactor selection)(Amps):** | 26.8 |
| **RLA, MCC/1.56(use for breaker & wire size selection)(Amps):** | 24.0 |
| **RPM:** | 3500 |
| **Box IP :** | 21 |
| **UL File No:** | SA2337 |
| **UL File Date:** | 2003-12-17 |

*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 | 200/230 | 3 | 60 | A/C, 50% Load Of Compressor Model |
| R-410A HFC | 200/220 | 3 | 50 | A/C, 50% Load Of Compressor Model |
| R-410A HFC | 200/220 | 3 | 50 | Air Conditioning |

## Service Parts

**Service Parts**

| Reference | Component | Quantity | Description | Comment |
|---|---|---|---|---|
| 99 | 527-0116-00 | 1 | SPACER-MOUNTING ASSM | |
| 99 | 529-0060-24 | 1 | POWER CABLE-MOLDED PLUG | |
| 99 | 918-0043-00 | 1 | HEATER-CRANKCASE | 240V 70W WRAP AROUND |
| 99 | 918-0043-07 | 1 | HEATER-CRANKCASE | 120V 70W WRAP AROUND |
| 99 | 921-0234-00 | 1 | CONNECTOR BLOCK KIT | |
| 99 | 985-0199-00 | 1 | THERMISTOR KIT | 1/2" TUBE DIA FOR EXT DISCHARGE |
| 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 |
| 99 | 998-0034-15 | 1 | SERV ADAPTOR KIT 1/2 STUB | SWEAT TO ROTALOCK ADAPTER KIT DISCHARGE |
| 99 | 998-0034-18 | 1 | ADAPTER 1-14 TO 1/2 ID | ROTALOCK TO SWEAT ADAPTER KIT DISCHARGE |

## Accessories

**Accessories**

| Category | Part Number | Description |
|---|---|---|
| Crankcase Heaters | 018-0095-00 | Crankcase Heater, 240V, 70W, 21" Lead Length |
| Crankcase Heaters | 018-0095-01 | Crankcase Heater, 480V, 70W, 21" Lead Length |
| Crankcase Heaters | 018-0095-02 | Crankcase Heater, 575V, 70W, 21" Lead Length |
| Crankcase Heaters | 018-0095-03 | Crankcase Heater, 240V, 70W, 32" Lead Length |
| Crankcase Heaters | 018-0095-04 | Crankcase Heater, 240V, 70W, 48” Lead Length |
| Crankcase Heaters | 018-0095-05 | Crankcase Heater, 480V, 70W, 48” Lead Length |
| Crankcase Heaters | 018-0095-06 | Crankcase Heater, 575V, 70W, 48" Lead Length |
| Crankcase Heaters | 018-0095-07 | Crankcase Heater, 120V, 70W, 48" Lead Length |

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

## Electrical Components

**Electrical Components**

Part No: 071-0519-32

Usage Description: Internal Protector

Vendor Part Number

35HM408

Vendor Name

SENSATA

### Stator

Part No: 546-2104-22

Usage Description: Stator

Resistance: +/-7%

Start Wdg: 0.50

Run Wdg: 0.00

## Nomenclature

ZPD83KCE-TF5

**Family Series**

**Z:** Scroll

**Application Range**

**P:** A/C - R-410A/B

**Modulation**

**D:** Digital

**Capacity**

**83K:** 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 |
| --- | --- | --- | --- | --- |

| Refrigerant | Freq | Phase | Voltage | Application |
|---|---|---|---|---|
| HFC R-410A | 50 | 3 Ø | 200/220 V | R1 AC |
| HFC R-410A | 60 | 3 Ø | 200/230 V | R1 AE |

Nomenclature

ZPD83KCE-TF5

| Date | Data Group | Field | Old Data | New Data |
|---|---|---|---|---|
| 07-Jul-2008 | Status | Status | P | A |
| 07-Jul-2008 | Status | Status | P | A |
| 07-Jul-2008 | Rating | PubCode | | Y |
| 05-Feb-2008 | Rating | PubCode | | PRE |
| 07-Jul-2008 | 2 Pt Perf | Amp Cond 1 | 18 | 18.1 |
| 07-Jul-2008 | 2 Pt Perf | Amp Cond 1 | 23.5 | 23 |
| 07-Jul-2008 | 2 Pt Perf | Amp Cond 2 | 17.9 | 17.95 |
| 07-Jul-2008 | 2 Pt Perf | Amp Cond 2 | 15.7 | 15.75 |
| 07-Jul-2008 | 2 Pt Perf | Cap Cond 1 | 31500 | 32400 |
| 07-Jul-2008 | 2 Pt Perf | Cap Cond 2 | 40500 | 41500 |