

ZR125KC-TFD

HCFC, R-22, 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 Copeland Representative for international availability.

Summary

Performance		
Evaporator Temp. (°F)	45.00	35
Condensing Temp. (°F)	130.00	120
Return Gas Temp. (°F)	65.00	55
Liquid Temp. (°F)	115.00	105
Capacity (BTU/hr)	128000	113000
Power (W):	10900	9650
Current (Amps):	16.3	14.8
EER(BTU/Wh):	11.7	11.7
Mass Flow (lbs/hr):	1880	1600
Sound Data @		
Sound Power (dBA):	80 Avg	85 Max
Vibration mils(peak-peak):	3.0 Avg	4.5 Max
Record Date:	2016-06-10	
Mechanical		
Displacement (in^3/Rev):	10.20	
Displacement (ft^3/Hr):		
Overall Length (in):	11.20	
Overall Width (in):	11.10	
Overall Height (in):	21.00	
Mounting Length (in):	7.50	
Mounting Width (in):	7.50	
Mounting Height (in):	21.70	

Suction Size (in),Type:	1 3 / 4 Rotalock
Discharge Size (in),Type:	1 1 / 4 Rotalock
Initial Oil Charge (oz):	114
Oil Recharge (oz):	106
Oil Type:	MIN
Net Weight (lbs):	135.0
Internal Free Volume (in^3):	809.0

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

Electrical

LRA High* (Amps):	125
LRA Low*(Amps):	
LRA Half Winding (Amps):	
MCC (Amps):	26.9
Max Operating Current (Amps):	19.60
RLA, MCC/1.4(use for contactor selection)(Amps):	19.2
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	17.2
RPM:	3500
Box IP :	21
UL File No:	SA2337-19960927
UL File Date:	1996-09-27
European Pressure Equipment Directive (PED):	
Fluid Group**:	FG 2
PS Low / High Side (BAR):	20.0 / 27.5
TS Min (°C):	-35 / -35
TS Max (°C):	50 / 150
Volume (L) :	

*Low and High refer to the low and high nominal voltage ranges for which the motor is approved.

**Fluid Group 1 comprises dangerous fluids defined as: Explosive, extremely flammable, high flammable, very toxic, toxic, oxidizing.

Fluid Group 2 is for non-dangerous fluids defined as: non-explosive, non-toxic, non-flammable.

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	380/420	3	50	Air Conditioning	

Service Parts

Service Parts				
Reference	Component	Quantity	Description	Comment
99	005-1271-00	1	COVER-TERMINAL BOX	
99	527-0116-00	1	SPACER-MOUNTING ASSM	
99	910-0715-00	1	VALVE-OIL ADJUSTMENT 1/4FL X M9	
99	918-0047-00	1	HEATER-CRANKCASE	120V 90W WRAP AROUND
99	918-0047-01	1	HEATER-CRANKCASE	240V 90W WRAP AROUND
99	918-0047-02	1	HEATER-CRANKCASE	480V 90W WRAP AROUND
99	921-0227-00	1	CONNECTOR BLOCK KIT	
99	998-0010-00	1	SIGHTGLASS KIT	
99	998-0034-02	1	SERV ADAPTOR KIT 7/8 STUB	DISCHARGE SWEAT TO ROTALOCK
99	998-0034-04	1	ADAP KIT 13/8"SWT / 13/4 RL	SUCTION SWEAT TO ROTALOCK

Accessories

Accessories		
Category	Part Number	Description
Miscellaneous	020-0028-02	1 1/4" - 12 discharge valve seal
Service Valves and Adapters	510-0330-01	1 1/8" suction valve (solder)

Category	Part Number	Description
Miscellaneous	020-0028-03	1 3/4" - 12 valve seal
Electrical Components	085-0160-00	3 Phase Voltage Monitor. For use with all Copeland 3 Phase Compressors. Consult model family nomenclature for electrical definition in the model number.
Service Valves and Adapters	510-0080-04	3/4" discharge valve (solder)
Service Valves and Adapters	510-0080-07	7/8" discharge valve (solder)
(1) Variable Frequency Drive	EVH-344023-R21BEN	Copeland EVH VFD , 15 HP, 400 VAC, 3Ø, 23A, With DC link Choke & Add on EMI filter, Removeable LCD Display, IP21, BACnet/Modbus
(1) Variable Frequency Drive	EVH-344023-R54BEN	Copeland EVH VFD , 15 HP, 400 VAC, 3Ø, 23A, With DC link Choke & Add on EMI filter, Removeable LCD Display, IP54, BACnet/Modbus
(1) Variable Frequency Drive	EVH-344023-R21BDN	Copeland EVH VFD , 15 HP, 400 VAC, 3Ø, 23A, With DC link Choke (Standard EVH), Removeable LCD Display, IP21, BACnet/Modbus
(1) Variable Frequency Drive	EVH-344023-R54BDN	Copeland EVH VFD , 15 HP, 400 VAC, 3Ø, 23A, With DC link Choke (Standard EVH), Removeable LCD Display, IP54, BACnet/Modbus

Electrical Components

Electrical Components

Nomenclature

ZR125KC-TFD
Family Series
Z: Scroll
Application Range
R: A/C - R-22/407C/134a
Capacity
125K: Capacity Multiplier-1000
Model Variation
C: Model Variation
Oil Type
: --

Miscellaneous

Alternate Application				
Refrigerant	Freq	Phase	Voltage	Application
HCFC R-22	50	3 Ø	380/420 V	R1 AC
Nomenclature				
ZR125KC-TFD				

Bill-of-Materials

ZR125KC-TFD - BILL OF MATERIALS	
<u>250 - Common U.S. OEM Bill Of Materials</u>	
Suction Connection	Stub
Suction Size	1 3/8"
Discharge Connection	Stub
Discharge Size	7/8"
Electrical Connection	Terminal Block
Mounting Assembly	Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	
Module Voltage	
Reference Drawing	497-1675-02_009.pdf
<u>265 - Common U.S. OEM Bill Of Materials</u>	
Suction Connection	Rotalock
Suction Size	1 3/4"
Discharge Connection	Rotalock
Discharge Size	1 1/4"
Electrical Connection	
Mounting Assembly	Available

Sight Glass
Crankcase Heater
Schrader Valve
Tandem Ready
Module Voltage
Reference Drawing 497-1675-03_009.pdf

421 - Common U.S. OEM Bill Of Materials

Suction Connection	Rotalock
Suction Size	1 3/4"
Discharge Connection	Rotalock
Discharge Size	1 1/4"
Electrical Connection	Terminal Block
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	Yes
Module Voltage	
Reference Drawing	497-1675-13_009.pdf

422 - Common U.S. OEM Bill Of Materials

Suction Connection	Rotalock
Suction Size	1 3/4"
Discharge Connection	Rotalock
Discharge Size	1 1/4"
Electrical Connection	Terminal Block
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	Yes

Module Voltage

Reference Drawing	497-1675-13_009.pdf
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425 - Common U.S. OEM Bill Of Materials

Suction Connection	Stub
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Suction Size	1 3/8"
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Discharge Connection	Stub
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Discharge Size	7/8"
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Electrical Connection	Terminal Block
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Mounting Assembly	Not Available
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Sight Glass

Crankcase Heater

Schrader Valve	Available
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Tandem Ready	Yes
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Module Voltage

Reference Drawing	497-1675-08_009.pdf
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42E - Common U.S. OEM Bill Of Materials

Suction Connection	Rotalock
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Suction Size	1 3/4"
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Discharge Connection	Rotalock
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Discharge Size	1 1/4"
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Electrical Connection	Terminal Block
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Mounting Assembly	Not Available
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Sight Glass

Crankcase Heater

Schrader Valve

Tandem Ready	Yes
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Module Voltage

Reference Drawing	497-1675-13_009.pdf
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450 - Common U.S. OEM Bill Of Materials

Suction Connection	Stub
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Suction Size	1 3/8"
Discharge Connection	Stub
Discharge Size	7/8"
Electrical Connection	Terminal Block
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	Yes
Module Voltage	
Reference Drawing	

452 - Common U.S. OEM Bill Of Materials

Suction Connection	Rotalock
Suction Size	1 3/4"
Discharge Connection	Rotalock
Discharge Size	1 1/4"
Electrical Connection	Terminal Block
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	Yes
Module Voltage	
Reference Drawing	497-1675-13_009.pdf

455 - Common U.S. OEM Bill Of Materials

Suction Connection	Stub
Suction Size	1 3/8"
Discharge Connection	Stub
Discharge Size	7/8"
Electrical Connection	Terminal Block

Mounting Assembly	Available
Sight Glass	
Crankcase Heater	
Schrader Valve	Available
Tandem Ready	Yes
Module Voltage	
Reference Drawing	497-1675-08_009.pdf

461 - Common U.S. OEM Bill Of Materials

Suction Connection	Stub
Suction Size	1 3/8"
Discharge Connection	Stub
Discharge Size	7/8"
Electrical Connection	Terminal Block
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	Available
Tandem Ready	Yes
Module Voltage	
Reference Drawing	497-1675-08_009.pdf

465 - Common U.S. OEM Bill Of Materials

Suction Connection	Rotalock
Suction Size	1 3/4"
Discharge Connection	Rotalock
Discharge Size	1 1/4"
Electrical Connection	Terminal Block
Mounting Assembly	Available
Sight Glass	
Crankcase Heater	
Schrader Valve	Available

Tandem Ready	
Module Voltage	
Reference Drawing	497-1675-09_009.pdf

922 - Common U.S. Service Bill Of Materials

Suction Connection	
Suction Size	
Discharge Connection	
Discharge Size	
Electrical Connection	
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	
Module Voltage	
Reference Drawing	497-1745-02_006.pdf

923 - Common U.S. Service Bill Of Materials

Suction Connection	
Suction Size	
Discharge Connection	
Discharge Size	
Electrical Connection	
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	
Module Voltage	
Reference Drawing	497-1745-03_006.pdf

934 - Common U.S. Service Bill Of Materials

Suction Connection	Stub
Suction Size	1 3/8"
Discharge Connection	Stub
Discharge Size	7/8"
Electrical Connection	
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	Available
Tandem Ready	Yes
Module Voltage	
Reference Drawing	497-1745-08_006.pdf

949 - Common U.S. Service Bill Of Materials

Suction Connection	Stub
Suction Size	1 3/8"
Discharge Connection	Stub
Discharge Size	7/8"
Electrical Connection	
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	Available
Tandem Ready	
Module Voltage	
Reference Drawing	497-1745-08_006.pdf

950 - Common U.S. Service Bill Of Materials

Suction Connection	Stub
Suction Size	1 3/8"
Discharge Connection	Stub
Discharge Size	7/8"

Electrical Connection	Terminal Block
Mounting Assembly	Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	
Module Voltage	
Reference Drawing	

951 - Common U.S. Service Bill Of Materials

Suction Connection	
Suction Size	
Discharge Connection	
Discharge Size	
Electrical Connection	
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	Available
Tandem Ready	
Module Voltage	
Reference Drawing	497-1745-09_006.pdf

965 - Common U.S. Service Bill Of Materials

Suction Connection	Rotalock
Suction Size	1 3/4"
Discharge Connection	Rotalock
Discharge Size	1 1/4"
Electrical Connection	Terminal Block
Mounting Assembly	Available
Sight Glass	
Crankcase Heater	

