

2DD3R63KE-TFC

HCFC, R-22, 60 Hz, 3 - Phase, 208/230 V , [Also Available with Variable Frequency Drives](#)

Air Conditioning

Production Status: Available for sale to all U.S. customers. Please check with your local Copeland Representative for international availability.

Summary

Performance		
Evaporator Temp. (°F)	45.00	35
Condensing Temp. (°F)	130.00	105
Return Gas Temp. (°F)	65.00	55
Liquid Temp. (°F)	115.00	90
Capacity (BTU/hr)	73000	70000
Power (W):	6100	4720
Current (Amps):	18.5	15.2
EER(BTU/Wh):	11.9	14.8
Mass Flow (lbs/hr):	1070	930
Sound Data @		
Sound Power (dBA):	0 Avg	0 Max
Vibration mils(peak-peak):	0.0 Avg	5.9 Max
Record Date:	2007-06-08	
Mechanical		
Displacement (in^3/Rev):	13.55	
Displacement (ft^3/Hr):		
Overall Length (in):	23.60	
Overall Width (in):	15.40	
Overall Height (in):	18.60	
Mounting Length (in):	11.60	
Mounting Width (in):	11.00	
Mounting Height (in):	20.10	

Suction Size (in),Type:	1 3 / 8 Sweat
Discharge Size (in),Type:	7 / 8 Sweat
Initial Oil Charge (oz):	80
Oil Recharge (oz):	72
Oil Type:	POE
Net Weight (lbs):	325.0

Internal Free Volume (in^3):

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

Electrical

LRA High* (Amps):	120
LRA Low*(Amps):	
LRA Half Winding (Amps):	
MCC (Amps):	31.2
Max Operating Current (Amps):	
RLA, MCC/1.4(use for contactor selection)(Amps):	22.3
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	20.0
RPM:	1750
Box IP :	
UL File No:	SA-2337
UL File Date:	1988-07-13

*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
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No data available in table

Alternate Applications

Refrigerant	Voltage	Phase	Frequency	Application
R-22 HCFC	200/220	3	50	Air Conditioning
R-22 HCFC	208/230	3	60	Medium Temp, Low Condensing
R-22 HCFC	200/220	3	50	Medium Temp, Low Condensing

Refrigerant	Voltage	Phase	Frequency	Application
R-404A HFC	208/230	3	60	Medium Temp, Low Condensing
R-404A HFC	200/220	3	50	Medium Temp, Low Condensing
R-407A HFC	200/220	3	50	Air Conditioning
R-407A HFC	208/230	3	60	Air Conditioning
R-407A HFC	208/230	3	60	Medium Temp, Low Condensing
R-407A HFC	200/220	3	50	Medium Temp, Low Condensing
R-407A HFC	208/230	3	60	Medium Temperature

Service Parts				
Reference	Component	Quantity	Description	Comment
99	003-0020-02	1	PLATE-MUFFLER	
99	003-0099-00	1	PLATE-BOTTOM	
99	005-0163-00	1	COVER-TERMINAL BOX	
99	020-0003-28	1	GASKET-O-RING	SENTRONIC SENSOR O-RING GASKET
99	020-0104-00	1	GASKET-HOUSING COVER	
99	020-0146-00	1	GASKET-TERM MTG PLATE	
99	020-0297-13	1	GASKET-SENTRONIC SENSOR	
99	020-0489-00	1	GASKET-DISCH COVER PLATE	SUCTION
99	020-0678-00	1	GASKET-CLOSURE PLATE	
99	020-0709-00	1	GASKET-STATOR COVER	

Accessories

Accessories		
Category	Part Number	Description
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.
Miscellaneous	998-AB52-01	Akylbenzene Oil. Approved for use with specific Copeland Semi Hermetic After Market Compressors. Consult model family nomenclatures for oil identifier in the model number.
Digital Components	023-0039-01	Coil, 120V, Alco - Demand cooling valve (Unloader Valve)
Digital Components	023-0039-02	Coil, 240V, Alco - Demand cooling valve (Unloader Valve)

Category	Part Number	Description
Demand Cooling	085-0110-00	Control Module 120V 50/60 Hz - Demand Cooling
Demand Cooling	085-0110-01	Control Module 240V 50/60 Hz - Demand Cooling
Mounting	998-0700-09	Control Mounting Bracket Kit
Miscellaneous	020-1004-00	Cover plate gasket 003-0021-00. When replacing standard model 9RC or 9RS with unloading added, replace with unloader models 9RP or 9RT.
Crankcase Heaters	918-0028-00	Crankcase Heater Kit, 120V, 100W insertion. For usage on specific Copeland Copelametic, & Discus Compressors. Use with Heater Well 030-0186-01 and 030-0187-00.
Crankcase Heaters	918-0009-00	Crankcase Heater Kit, 120V, 65W, bolt on. For usage on specific Copeland Copelametic & Discus Compressor except deep sump models. Includes crankcase heater, and reference drawings.

Electrical Components

Electrical Components

Nomenclature

2DD3R63KE-TFC
FAMILY 2D: 2 Cylinders Discus DISPLACEMENT D: Standard Valve Plate MODEL VARIATIONS 3: Standard (Discus II) PRIMARY APPLICATION RANGE R: ARI High Temp, Rated @ 45/130 NOMINAL CAPACITY AT RATING CONDITION 63: Capacity CAPACITY MULTIPLIER K: 1000*Capacity OIL TYPE E: POE Oil COMPRESSOR MOTOR TYPE T: GENERAL : 3 LEAD SINGLE VOLTAGE, 6 LEAD PART WINDING (575 VOLT), 9 LEAD DUAL VOLTAGE
COMPRESSOR MOTOR PROTECTION F: INTERNAL INHERENT PROTECTION-ONE PROTECTOR USE WITH CONTACTOR ELECTRICAL CODES C: 208-230-60hz-3, 200/220-50hz-3ph

Miscellaneous

Alternate Application				
Refrigerant	Freq	Phase	Voltage	Application
CFC R-502	50	3 Ø	200/220 V	R2 MT
CFC R-502	60	3 Ø	208/230 V	R2 MT
HCFC R-22	50	3 Ø	200/220 V	R1 AC
HCFC R-22	50	3 Ø	200/220 V	R2 MD
HCFC R-22	60	3 Ø	208/230 V	R2 MD
HFC R-407A	50	3 Ø	200/220 V	R1 AC
HFC R-407A	50	3 Ø	200/220 V	R2 MD
HFC R-407A	60	3 Ø	208/230 V	R1 AC
HFC R-407A	60	3 Ø	208/230 V	R2 MD
HFC R-407A	60	3 Ø	208/230 V	R2 MT
Nomenclature				
2DD3R63KE-TFC				

Bill-of-Materials

2DD3R63KE-TFC - BILL OF MATERIALS	
<u>100 - Common U.S. OEM Bill Of Materials</u>	
Suction Connection	Sweat
Suction Size	1 3/8"
Discharge Connection	Sweat
Discharge Size	7/8"
Electrical Connection	
Mounting Assembly	Not Available

Sight Glass
Crankcase Heater
Schrader Valve
Tandem Ready
Module Voltage
Reference Drawing

1C0 - Common U.S. OEM Bill Of Materials

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

200 - Common U.S. OEM Bill Of Materials

Suction Connection	Stub
Suction Size	1 3/8"
Discharge Connection	Stub
Discharge Size	1 1/8"
Electrical Connection	Terminal Block
Mounting Assembly	Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	

Module Voltage

Reference Drawing	497-0184-00-01.v01.pdf
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201 - Common U.S. OEM Bill Of Materials

Suction Connection	Sweat
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Suction Size	1 3/8"
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Discharge Connection	Sweat
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Discharge Size	7/8"
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Electrical Connection	Terminal Block
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Mounting Assembly	Available
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Sight Glass

Crankcase Heater

Schrader Valve

Tandem Ready

Module Voltage

Reference Drawing

210 - Common U.S. OEM Bill Of Materials

Suction Connection	Sweat
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Suction Size	1 3/8"
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Discharge Connection	Sweat
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Discharge Size	7/8"
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Electrical Connection

Mounting Assembly	Not Available
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Sight Glass

Crankcase Heater

Schrader Valve

Tandem Ready

Module Voltage

Reference Drawing

800 - Common U.S. Service Bill Of Materials

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

8R0 - Common U.S. Service Bill Of Materials

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

8S0 - Common U.S. Service Bill Of Materials

Suction Connection	Sweat
Suction Size	1 3/8"
Discharge Connection	Sweat
Discharge Size	7/8"
Electrical Connection	

Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	
Module Voltage	
Reference Drawing	

C00 - Common U.S. OEM Bill Of Materials

Suction Connection	Sweat
Suction Size	1 3/8"
Discharge Connection	Sweat
Discharge Size	7/8"
Electrical Connection	Terminal Block
Mounting Assembly	Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	
Module Voltage	
Reference Drawing	497-1319-00_004.pdf

C01 - Common U.S. OEM Bill Of Materials

Suction Connection	Sweat
Suction Size	1 3/8"
Discharge Connection	Sweat
Discharge Size	7/8"
Electrical Connection	
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	

Tandem Ready
Module Voltage
Reference Drawing

C33 - Common U.S. OEM Bill Of Materials

Suction Connection	Sweat
Suction Size	1 3/8"
Discharge Connection	Sweat
Discharge Size	7/8"
Electrical Connection	Terminal Block
Mounting Assembly	Available
Sight Glass	
Crankcase Heater	
Schrader Valve	

Tandem Ready
Module Voltage
Reference Drawing

C40 - Common U.S. OEM Bill Of Materials

Suction Connection	Sweat
Suction Size	1 3/8"
Discharge Connection	Sweat
Discharge Size	7/8"
Electrical Connection	Terminal Block
Mounting Assembly	Available
Sight Glass	
Crankcase Heater	
Schrader Valve	

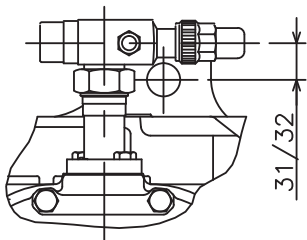
Tandem Ready	
Module Voltage	
Reference Drawing	497-1319-00_004.pdf

C57 - Common U.S. OEM Bill Of Materials

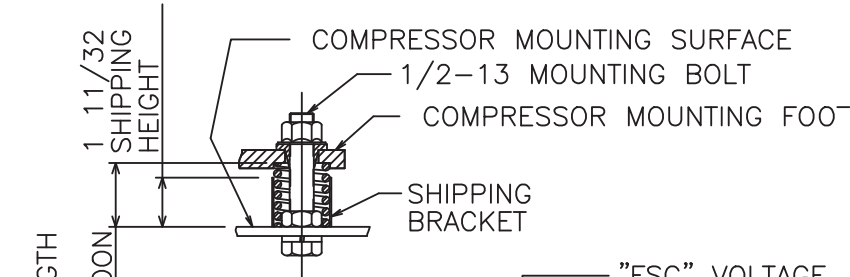
Suction Connection	Sweat
Suction Size	1 3/8"
Discharge Connection	Sweat
Discharge Size	7/8"
Electrical Connection	Terminal Block
Mounting Assembly	Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	
Module Voltage	
Reference Drawing	

MODEL	A	B	OLD MODEL NUMBER
2DA3R58K	2 1/2	19 1/2	2DA3-050
2DA3F23K	3 1/2	20 1/2	2DA3-060
2DA3R89K	3 1/2	20 1/2	2DA3-075
2DB3R61K	2 1/2	19 1/2	2DB3-050
2DB3F25K	3 1/2	20 1/2	2DB3-060
2DC3R53K	3 1/2	20 1/2	2DC3-050
2DCJR53K	3 1/2	20 1/2	2DCJ-050
2DF3F16K	3 1/2	20 1/2	2DF3-030
2DD3R63K	3 1/2	20 1/2	2DD3-050
2DL3F20K	3 1/2	20 1/2	2DL3-040
2DL3R78K	3 1/2	20 1/2	2DL3-075

SUCTION VALVE
1 3/8 ODS



OPTIONAL ROTALOCK
DISCHARGE VALVE



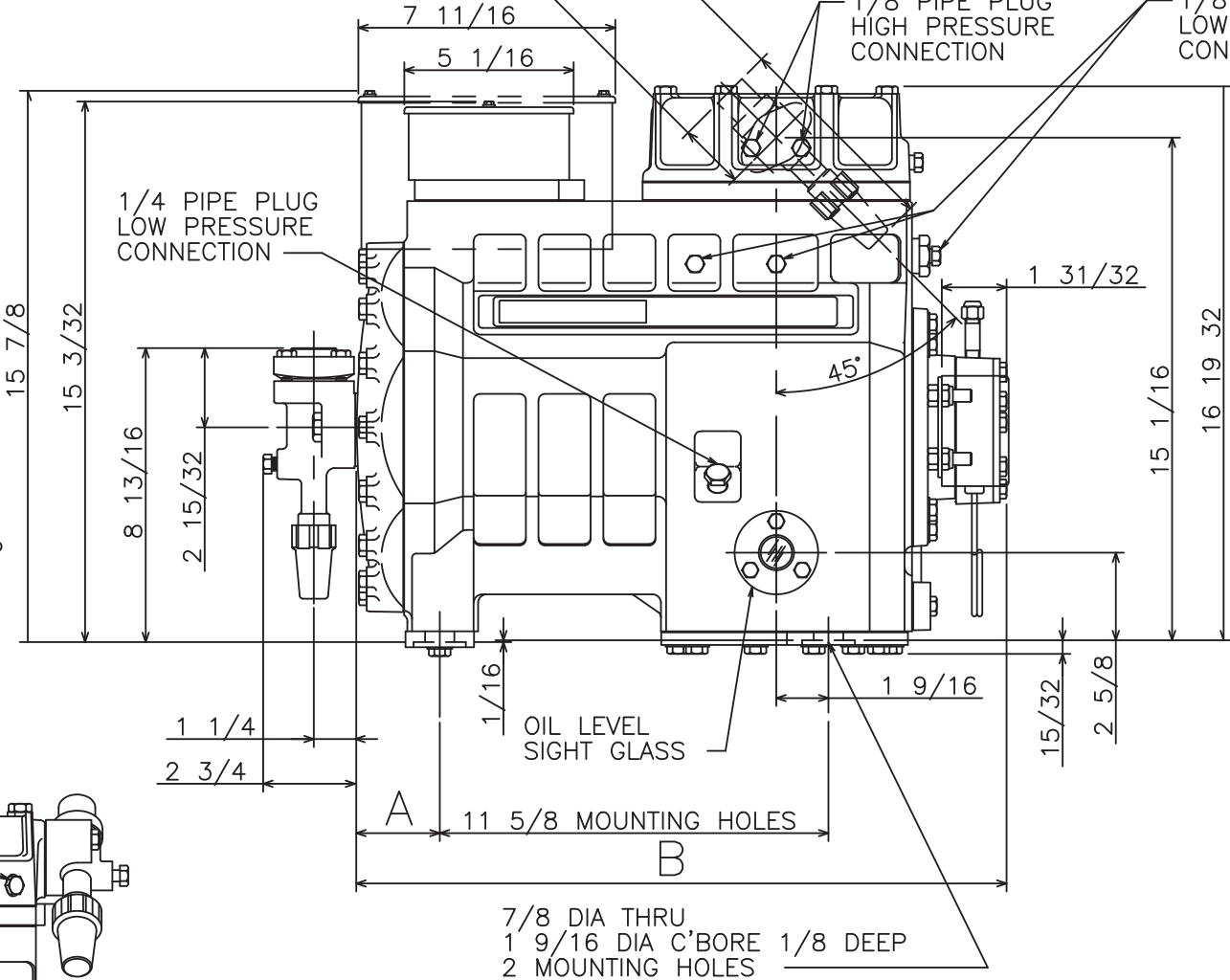
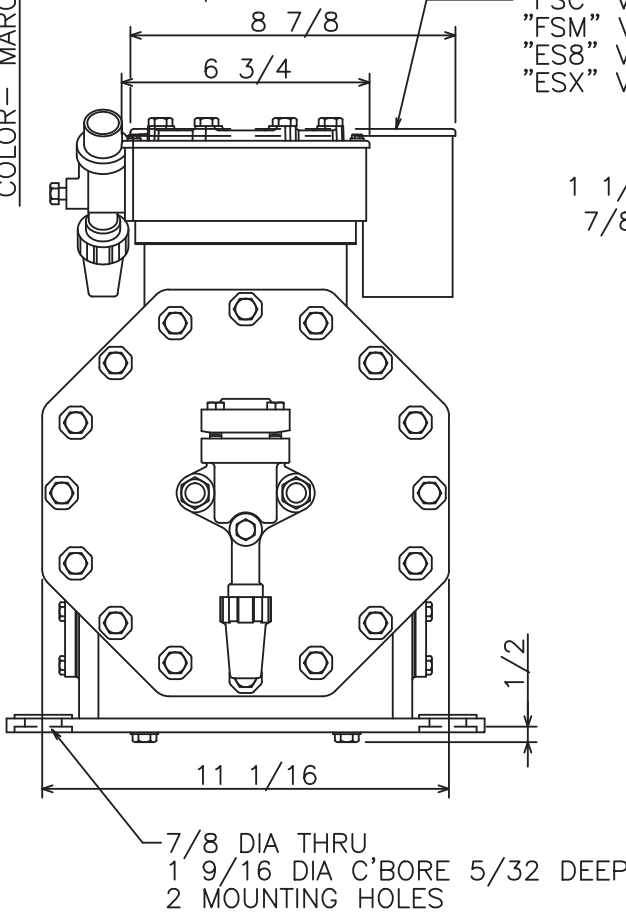
"FSC" VOLTAGE
"FSM" VOLTAGE
"ES8" VOLTAGE
"ESX" VOLTAGE

1 1/8 ODS DISCHARGE VALVE-2 1/16
7/8 ODS DISCHARGE VALVE-1 15/16

1 1/8 ODS DISCHARGE VALVE-6 3/8
7/8 ODS DISCHARGE VALVE-6 5/16

1/8 PIPE PLUG
HIGH PRESSURE
CONNECTION

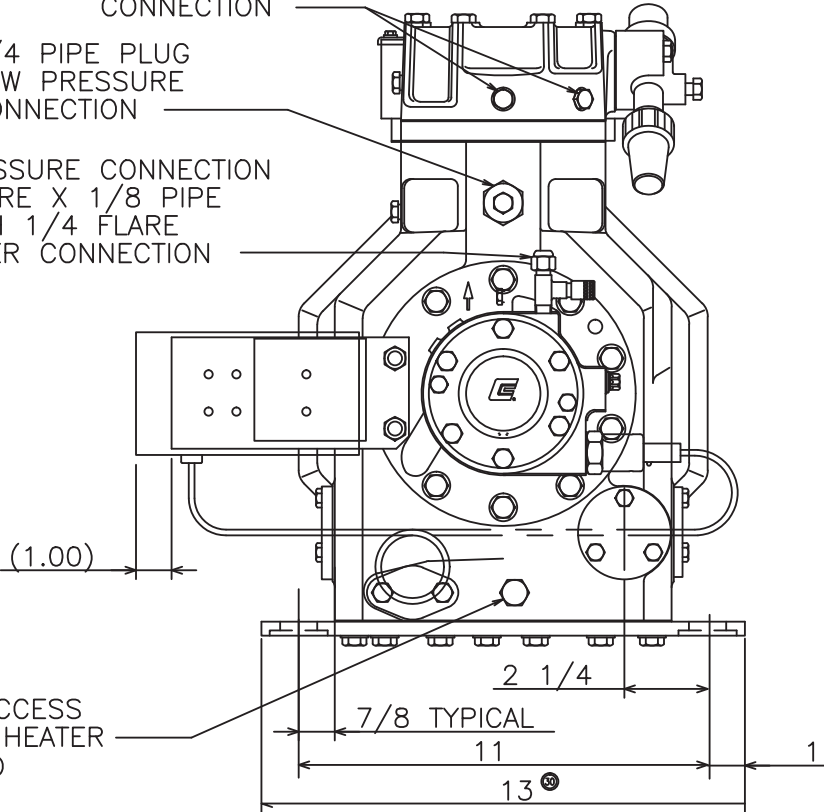
1/8 PIPE PLUG
LOW PRESSURE
CONNECTION



1/8 PIPE PLUG
HIGH PRESSURE
CONNECTION

3/4 PIPE PLUG
LOW PRESSURE
CONNECTION

OIL PRESSURE CONNECTION
1/4 FLARE X 1/8 PIPE
TEE WITH 1/4 FLARE
SCHRADER CONNECTION



EXTERNAL ACCESS
CRANKCASE HEATER
IF SPECIFIED

NOTE:



ALL TOLERANCES ARE ±3/32 EXCEPT
INDUSTRY STANDARDS APPLY TO
FITTINGS AND VALVES.

ECN006470	30	CHANGED DIMENSION WAS:17 & REMOVED ES SPECS	11-20-12	UCM	RM	
31-0907-049	29	REDRAWN; CHG FORMAT FOR PROJECT INC	11-23-07	MMB	CHK	RST
31-0289-036	0	RELEASED	01-19-89	EG		
ENG NOTICE NO.	REV.NO.	REVISIONS	DATE	BY	CHKD	APPR

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