

CR38K6-TFD

HCFC, R-22, 60 Hz, 3 - Phase, 380/460 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	45
Condensing Temp. (°F)	130.00	100
Return Gas Temp. (°F)	65.00	65
Liquid Temp. (°F)	115.00	85
Capacity (BTU/hr)	37900	49600
Power (W):	3440	2740
Current (Amps):	5.3	4.5
EER(BTU/Wh):	11	18.1
Mass Flow (lbs/hr):	555	640
Sound Data @		
Sound Power (dBA):	76 Avg	81 Max
Vibration mils(peak-peak):	3.6 Avg	4.6 Max
Record Date:	1993-06-18	
Mechanical		
Displacement (in^3/Rev):	4.05	
Displacement (ft^3/Hr):		
Overall Length (in):	10.20	
Overall Width (in):	9.70	
Overall Height (in):	14.30	
Mounting Length (in):	7.50	
Mounting Width (in):	7.50	
Mounting Height (in):	14.70	

Suction Size (in),Type:	3 / 4 Stub
Discharge Size (in),Type:	1 / 2 Stub
Initial Oil Charge (oz):	45
Oil Recharge (oz):	43
Oil Type:	MIN
Net Weight (lbs):	67.0

Internal Free Volume (in^3):

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

Electrical

LRA High* (Amps):	42
LRA Low*(Amps):	
LRA Half Winding (Amps):	
MCC (Amps):	8.2
Max Operating Current (Amps):	
RLA, MCC/1.4(use for contactor selection)(Amps):	5.9
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	5.3
RPM:	3500
Box IP :	
UL File No:	
UL File Date:	1984-12-28

*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-22 HCFC	380/420	3	50	Air Conditioning

Service Parts

Service Parts				
Reference	Component	Quantity	Description	Comment
99	005-1210-00	1	COVER-TERMINAL BOX	
99	527-0044-08	1	SPACER-MOUNTING ASSM	
99	529-0060-24	1	POWER CABLE-MOLDED PLUG	
99	918-0088-01	1	HEATER-CRANKCASE KIT	40W 480V FLEXIBLE

Accessories

Accessories		
Category	Part Number	Description
(1) Variable Frequency Drive	EVH-3447D6-R21BDN	Copeland EVH VFD , 4 HP, 400 VAC, 3Ø, 7.6A, With DC link Choke (Standard EVH), Removeable LCD Display, IP21, BACnet/Modbus
(1) Variable Frequency Drive	EVH-3447D6-R21BDB	Copeland EVH VFD , 4 HP, 400 VAC, 3Ø, 7.6A, With DC link Choke (Standard EVH), Removeable LCD Display, IP21, BACnet/Modbus
(1) Variable Frequency Drive	EVH-3447D6-R54BDN	Copeland EVH VFD , 4 HP, 400 VAC, 3Ø, 7.6A, With DC link Choke (Standard EVH), Removeable LCD Display, IP54, BACnet/Modbus
(1) Variable Frequency Drive	EVH-3447D6-R54BDB	Copeland EVH VFD , 4 HP, 400 VAC, 3Ø, 7.6A, With DC link Choke (Standard EVH), Removeable LCD Display, IP54, BACnet/Modbus
(1) Variable Frequency Drive	EVH-3447D6-R21BEN	Copeland EVH VFD , 4.0 HP, 400 VAC, 3Ø, 7.6A, With DC link Choke & Add on EMI filter, Removeable LCD Display, IP21, BACnet/Modbus
(1) Variable Frequency Drive	EVH-3447D6-R54BEN	Copeland EVH VFD , 4.0 HP, 400 VAC, 3Ø, 7.6A, With DC link Choke & Add on EMI filter, Removeable LCD Display, IP54, BACnet/Modbus
(1) Variable Frequency Drive	EVM-3447D6-N20MFN	Copeland EVM VFD , HP, VAC, 3Ø, 7.6A, IP20, Modbus RTU Only
(1) Variable Frequency Drive	EVM-3447D6-E20ENN	Copeland EVM VFD , 4 HP, 400 VAC, 3Ø, 7.6A, No EMI filter, No Choke (Standard EVM), Seven Segment Embedded Display, IP20, Ethernet/BACnet/Modbus
(1) Variable Frequency Drive	EVM-3447D6-E20EFN	Copeland EVM VFD , 4 HP, 400 VAC, 3Ø, 7.6A, With add on EMI filter, Seven Segment Embedded Display, IP20, Ethernet/BACnet/Modbus

Electrical Components

Electrical Components

Nomenclature

CR38K6-TFD
Family Series
C: Family of Compressors
Application Range

R: R22, R134A, R407C

Nominal Capacity at Rating Condition

38K: Capacity Multiplier-100

Model Series Variation (Efficiency)

6: Generation 2 (BASE)

Identifier

: CK Model

Nominal Capacity at Rating Condition

: Mineral Oil

Miscellaneous

Alternate Application				
Refrigerant	Freq	Phase	Voltage	Application
HCFC R-22	50	3 Ø	380/420 V	R1 AC
Nomenclature				
CR38K6-TFD				

Bill-of-Materials

CR38K6-TFD - BILL OF MATERIALS	
<u>125 - Common U.S. OEM Bill Of Materials</u>	
Suction Connection	Stub
Suction Size	3/4"
Discharge Connection	Stub
Discharge Size	1/2"
Electrical Connection	Molded Plug
Mounting Assembly	Available
Sight Glass	
Crankcase Heater	Available
Schrader Valve	
Tandem Ready	
Module Voltage	

Reference Drawing	497-3830-02_007.pdf 497-3830-02_006.pdf 497-3830-02_005.pdf
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175 - Common U.S. OEM Bill Of Materials

Suction Connection	Stub
Suction Size	3/4"
Discharge Connection	Stub
Discharge Size	1/2"
Electrical Connection	Flag Terminal
Mounting Assembly	Available
Sight Glass	
Crankcase Heater	Available
Schrader Valve	
Tandem Ready	
Module Voltage	

Reference Drawing	497-3830-17_007.pdf
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815 - Common U.S. Service Bill Of Materials

Suction Connection	Stub
Suction Size	3/4"
Discharge Connection	Stub
Discharge Size	1/2"
Electrical Connection	
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	
Module Voltage	

Reference Drawing	
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875 - Common U.S. Service Bill Of Materials

Suction Connection	Stub
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Suction Size	3/4"
Discharge Connection	Stub
Discharge Size	1/2"
Electrical Connection	Molded Plug
Mounting Assembly	Available
Sight Glass	
Crankcase Heater	Available
Schrader Valve	
Tandem Ready	
Module Voltage	
Reference Drawing	497-3831-01_007.pdf

960 - Common U.S. Service Bill Of Materials

Suction Connection	Stub
Suction Size	3/4"
Discharge Connection	Stub
Discharge Size	1/2"
Electrical Connection	
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	
Module Voltage	
Reference Drawing	

970 - Common U.S. Service Bill Of Materials

Suction Connection	Stub
Suction Size	3/4"
Discharge Connection	Stub
Discharge Size	1/2"
Electrical Connection	

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

975 - Common U.S. Service Bill Of Materials

Suction Connection	Stub
Suction Size	3/4"
Discharge Connection	Stub
Discharge Size	1/2"
Electrical Connection	
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	
Module Voltage	
Reference Drawing	

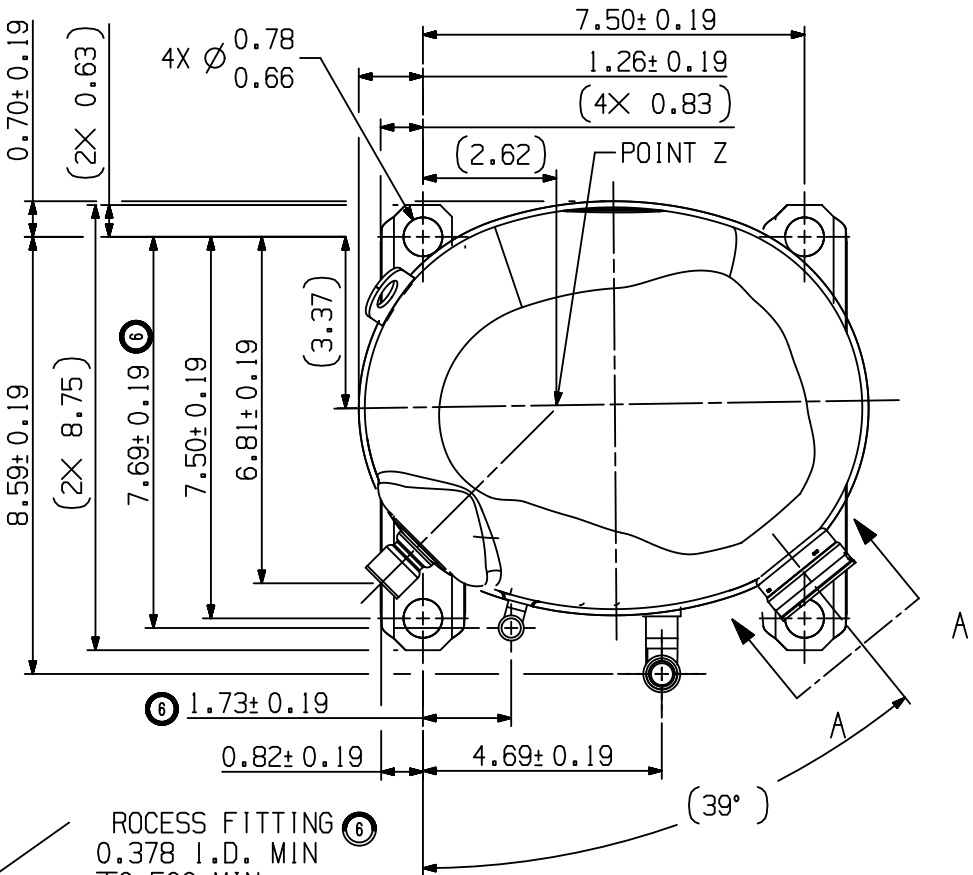
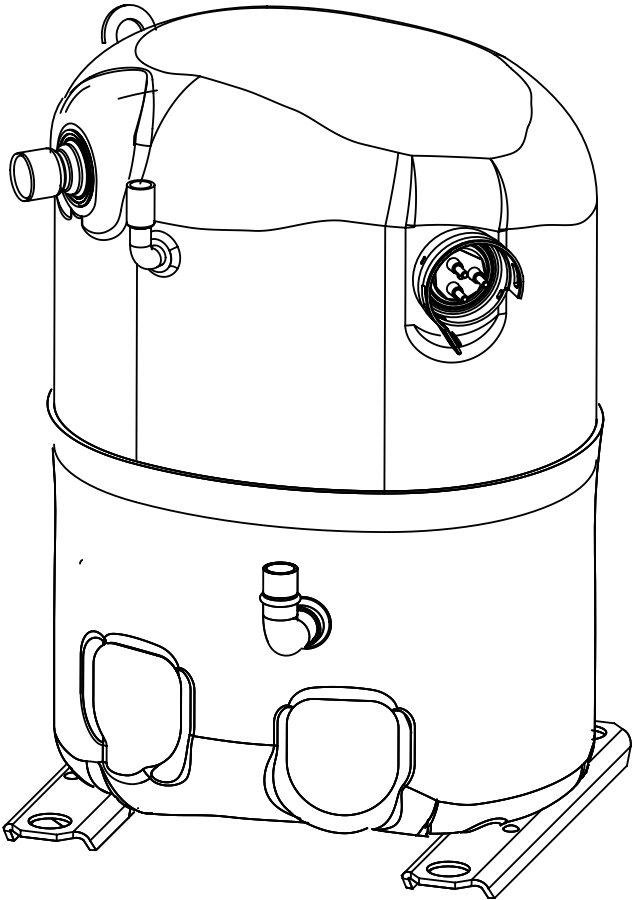
MODEL/PART CROSS REF		
MODEL NUMBER	PART NUMBER	PART NUMBEP
CR38K6-TFD	497-3830-02	497-3830-17

NOTES:

1. TOLERANCES TO BE ±0.12 UNLESS OTHERWISE SPECIFIED.
2. TUBE ENDS MUST BE PLUGGED.

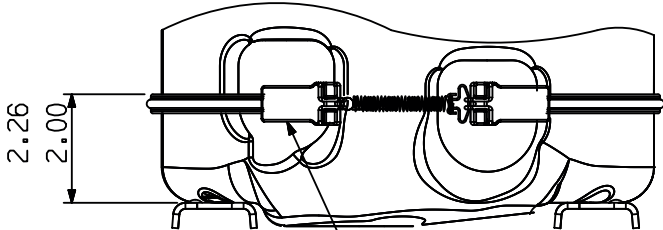
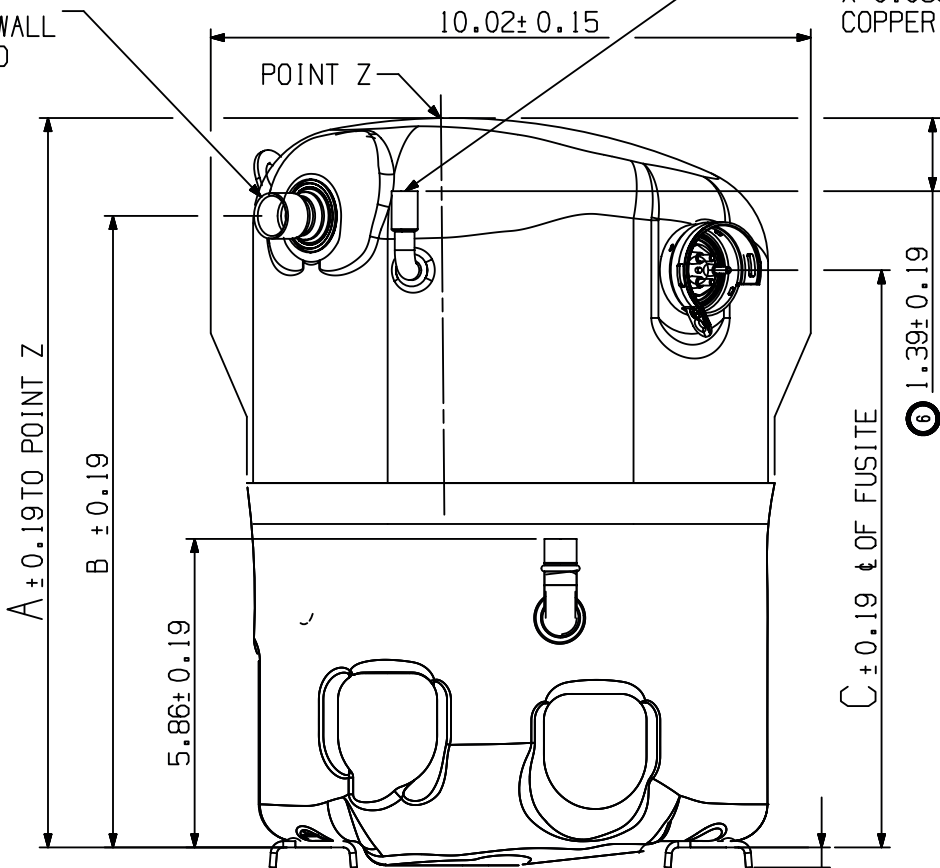
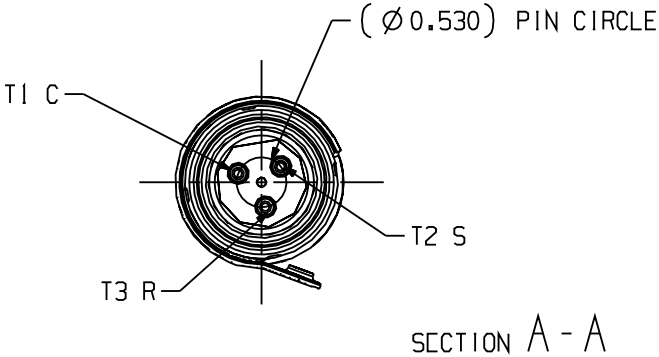
3 FOR MODEL APPLICATION REFER TO CHART.

4 MODEL SE INCLUDES CRANKCASE HEATER



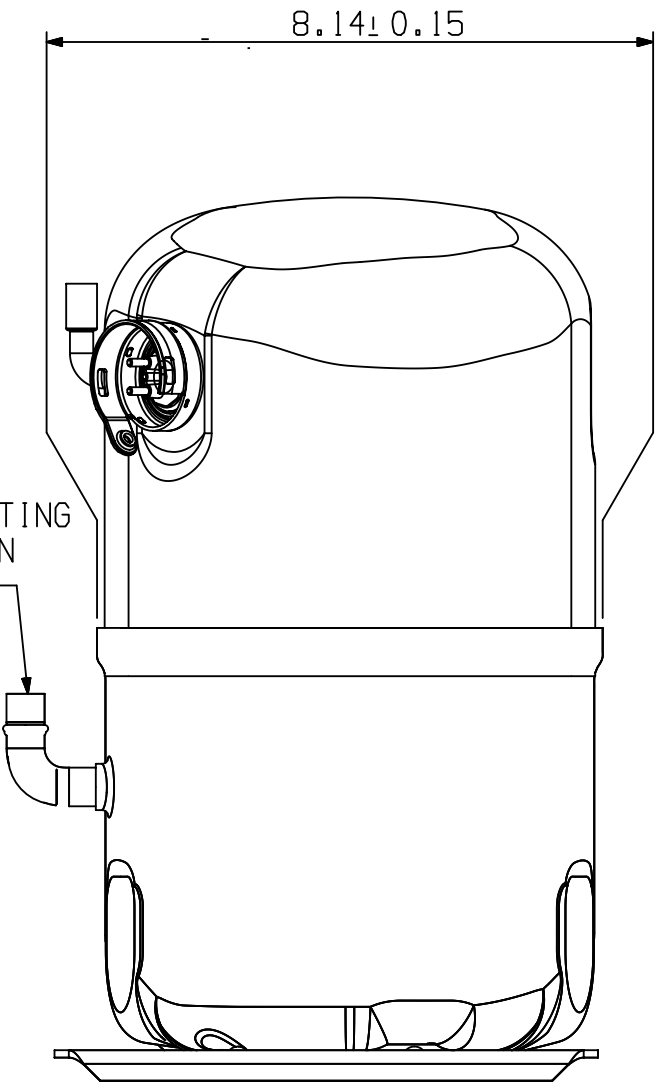
SUCTION FITTING
0.753 I.D. MIN.
▽ 0.560 MIN
X 0.045 MIN WALL
COPPER PLATED
STEEL TUBE

ROCESS FITTING 6
0.378 I.D. MIN
▽0.500 MIN
X 0.058 WALL
COPPER TUBE



CRANKCASE HEATER
PER BILL OF MATERIAL 4

DISCHARGE FITTING
0.503 I.D. MIN
▽ 0.500 MIN
X 0.062 WALL
COPPER TUBE



INTERPRET PER ASME
Y14.5M-1994 AND
EMERSON DESIGN
STANDARDS DS2002
DO NOT SCALE DRAWING
CRITICAL PRODUCT
CHARACTERISTICS
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE INCH OR (MILLIMETER)
TOLERANCES:
FRACTIONS ± N/A
DECIMALS ± N/A
ANGULAR ± N/A

ECN317516	7	RELEASED -30 & ADDED MODEL NUMBER IN TABLE	05-06-21	SAS	BAH
ECN317759	6	REDRAWN WITH CHANGES	04-30-21	SAS	BAH
ECN004534	0	RELEASED	10-05-11	KRB	BAH
ENG NOTICE NO.	REV.NO.	REVISIONS		DATE	BY CHKD
CONFIDENTIALITY NOTICE					
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MATERIAL SPECIFICATION		DRAWN BY SAS	SUPERSEDES DWG NO / REV NO 497-3830-00 / 005		
		DATE 04-30-21	SCALE 1:2	DATE FORMAT: MM-DD-YY	
TITLE REF DWG - WELD COMP ASSM			DRAWING NUMBER 497-3830-00	SHEET 1 OF 2 DWG 4 SIZE	