

3DB3R12ME-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	105
Return Gas Temp. (°F)	65.00	55
Liquid Temp. (°F)	115.00	90
Capacity (BTU/hr)	146000	139000
Power (W):	12500	9550
Current (Amps):	18.9	15.1
EER(BTU/Wh):	11.7	14.6
Mass Flow (lbs/hr):	2140	1850
Sound Data @		
Sound Power (dBA):	0 Avg	0 Max
Vibration mils(peak-peak):	0.0 Avg	4.8 Max
Record Date:	2007-06-08	
Mechanical		
Displacement (in^3/Rev):	26.58	
Displacement (ft^3/Hr):		
Overall Length (in):	27.30	
Overall Width (in):	14.90	
Overall Height (in):	19.20	
Mounting Length (in):	15.00	
Mounting Width (in):	12.00	
Mounting Height (in):	20.60	

Suction Size (in),Type:	1 3 / 8 Sweat
Discharge Size (in),Type:	1 1 / 8 Sweat
Initial Oil Charge (oz):	125
Oil Recharge (oz):	115
Oil Type:	POE
Net Weight (lbs):	385.0

Internal Free Volume (in^3):

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

Electrical

LRA High* (Amps):	106
LRA Low*(Amps):	
LRA Half Winding (Amps):	
MCC (Amps):	28
Max Operating Current (Amps):	
RLA, MCC/1.4(use for contactor selection)(Amps):	20.0
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	17.9
RPM:	1750
Box IP :	
UL File No:	SA-2337
UL File Date:	1985-07-26

*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
R-22 HCFC	380/420	3	50	Medium Temp, Low Condensing
R-22 HCFC	460	3	60	Medium Temp, Low Condensing

Refrigerant	Voltage	Phase	Frequency	Application
R-404A HFC	380/420	3	50	Medium Temp, Low Condensing
R-404A HFC	460	3	60	Medium Temp, Low Condensing
R-407A HFC	460	3	60	Air Conditioning
R-407A HFC	380/420	3	50	Medium Temp, Low Condensing
R-407A HFC	460	3	60	Medium Temp, Low Condensing
R-407C HFC	460	3	60	Air Conditioning
R-407C HFC	460	3	60	Medium Temp, Low Condensing

Service Parts

Service Parts				
Reference	Component	Quantity	Description	Comment
99	003-0107-00	1	PLATE-RESTRICTOR	
99	003-0770-00	1	PLATE-BOTTOM	
99	020-0003-28	1	GASKET-O-RING	SENTRONIC SENSOR O-RING GASKET
99	020-0028-03	1	SEAL-ROTALOCK FITTING	DISCHARGE
99	020-0146-00	1	GASKET-TERM MTG PLATE	
99	020-0297-13	1	GASKET-SENTRONIC SENSOR	
99	020-0489-00	2	GASKET-DISCH COVER PLATE	GASKET REQUIRED ON BOTH SIDES OF MUFFLER PLATE
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.
Digital Components	980-3000-11	3D DD LT UPGRADE KIT W/ISD, FOR 3D ISD MODELS ONLY, TO CONVERT A REG 3D INTO DD MODEL
Digital Components	980-3000-10	3D DD MT UPGRADE KIT W/ISD, FOR 3D ISD MODELS ONLY, TO CONVERT A REG 3D INTO DD MODEL
Digital Components	902-0317-00	3D Discus Digital Cylinder Head
Digital Components	998-6669-00	3D DISCUS DIGITAL GASKET SET

Category	Part Number	Description
Digital Components	980-3000-01	3D DISCUS DIGITAL LT UPGRADE KIT, TO CONVERT A REG 3D INTO DD MODEL
Digital Components	980-3000-00	3D DISCUS DIGITAL MT UPGRADE KIT, TO CONVERT A REG 3D INTO DD MODEL
Digital Components	998-6661-31	3D DISCUS DIGITAL VALVE PLATE KIT LOW TEMP
Digital Components	998-6661-30	3D DISCUS DIGITAL VALVE PLATE KIT MED TEMP
DIGITAL UNLOADER KIT(MT)	980-0075-01	50% OR 100% CAPACITY MODULATION TO CONVERT A REG 3D INTO DD MODEL

Electrical Components

Electrical Components

Nomenclature

3DB3R12ME-TFD
FAMILY
3D: 3 Cylinders Discus
DISPLACEMENT
B: Standard Valve Plate
MODEL VARIATIONS
3: Standard (Discus II)
PRIMARY APPLICATION RANGE
R: ARI High Temp, Rated @ 45/130
NOMINAL CAPACITY AT RATING CONDITION
12: Capacity
CAPACITY MULTIPLIER
M: 10000*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
D: 460-60hz-3ph 380/400-50hz-3ph

Miscellaneous

Alternate Application				
Refrigerant	Freq	Phase	Voltage	Application
HCFC R-22	60	3 Ø	460 V	R2 MD
HCFC R-22	50	3 Ø	380/420 V	R1 AC
HCFC R-22	50	3 Ø	380/420 V	R2 MD
HFC R-407A	60	3 Ø	460 V	R1 AC
HFC R-407A	60	3 Ø	460 V	R2 MD
HFC R-407A	50	3 Ø	380/420 V	R2 MD
HFC R-404A	60	3 Ø	460 V	R2 MD
HFC R-404A	50	3 Ø	380/420 V	R2 MD
HFC R-407C	60	3 Ø	460 V	R1 AC
HFC R-407C	60	3 Ø	460 V	R2 MD
Nomenclature				
3DB3R12ME-TFD				

Bill-of-Materials

3DB3R12ME-TFD - BILL OF MATERIALS	
100 - Common U.S. OEM Bill Of Materials	
Suction Connection	Sweat
Suction Size	1 3/8"
Discharge Connection	Sweat
Discharge Size	1 1/8"
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	1 1/8"
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	497-0150-00-01.v01.pdf

201 - Common U.S. OEM Bill Of Materials

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

250 - Common U.S. OEM Bill Of Materials

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

800 - Common U.S. Service Bill Of Materials

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

Discharge Size	1 1/8"
Electrical Connection	Terminal Block
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	1 1/8"
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	1 1/8"
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	1 1/8"
Electrical Connection	Terminal Block
Mounting Assembly	Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	
Module Voltage	
Reference Drawing	497-1398-00_001.pdf

C01 - Common U.S. OEM Bill Of Materials

Suction Connection	Sweat
Suction Size	1 3/8"
Discharge Connection	Sweat
Discharge Size	1 1/8"
Electrical Connection	Terminal Block
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	1 1/8"
Electrical Connection	Terminal Block
Mounting Assembly	Not Available
Sight Glass	
Crankcase Heater	
Schrader Valve	
Tandem Ready	
Module Voltage	
Reference Drawing	497-1398-00_001.pdf

C40 - Common U.S. OEM Bill Of Materials

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

C50 - Common U.S. OEM Bill Of Materials

Suction Connection	Sweat
Suction Size	1 3/8"

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

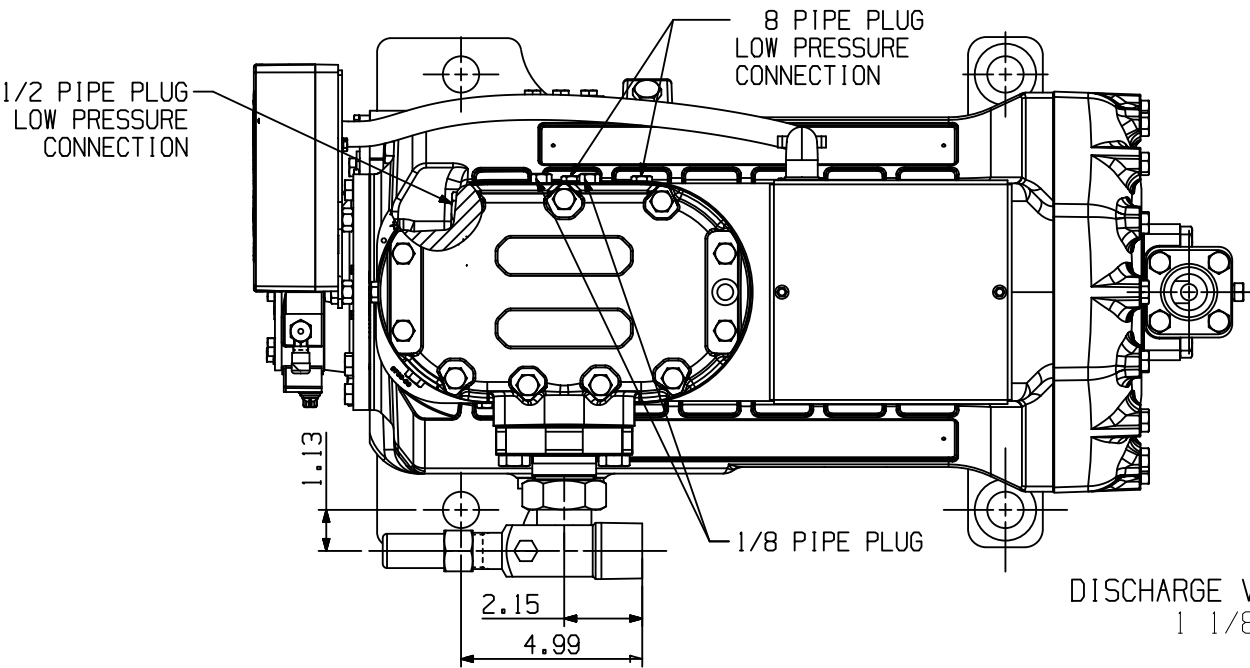
C57 - Common U.S. OEM Bill Of Materials

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

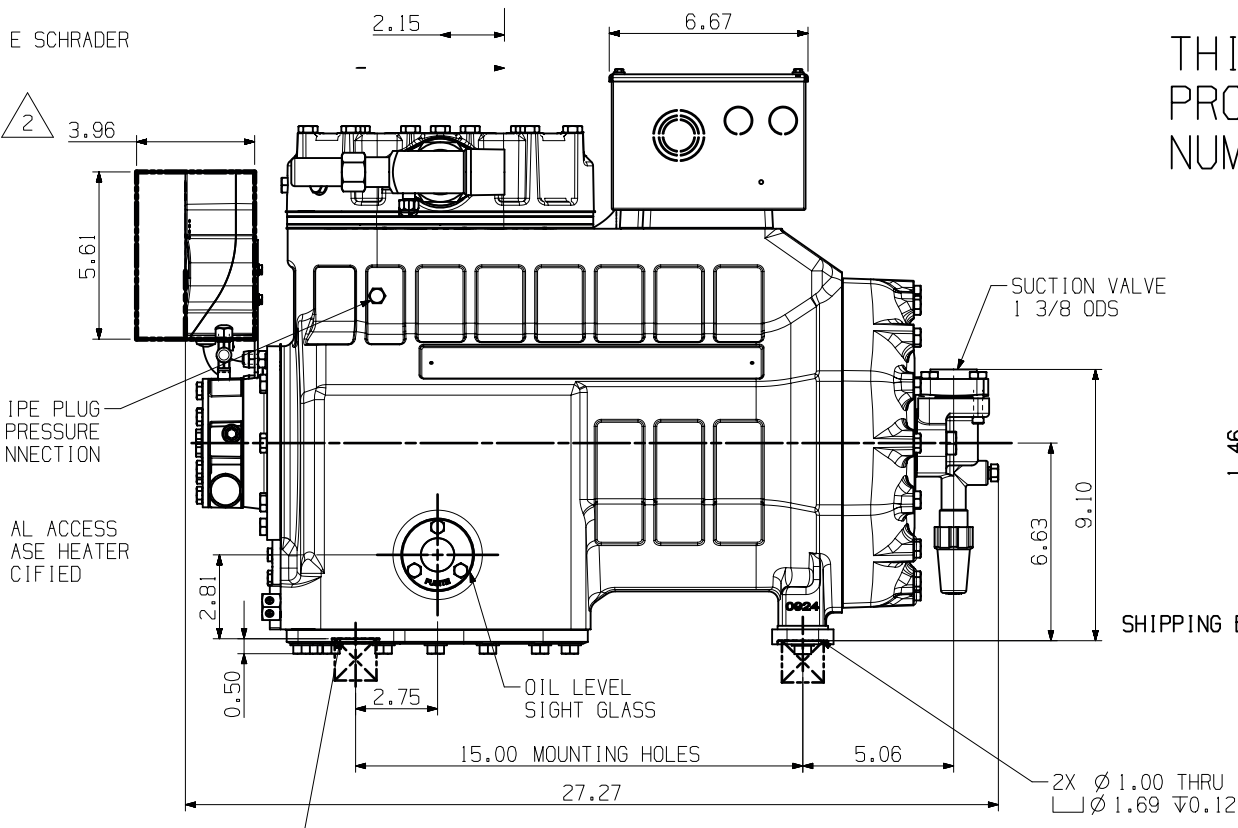
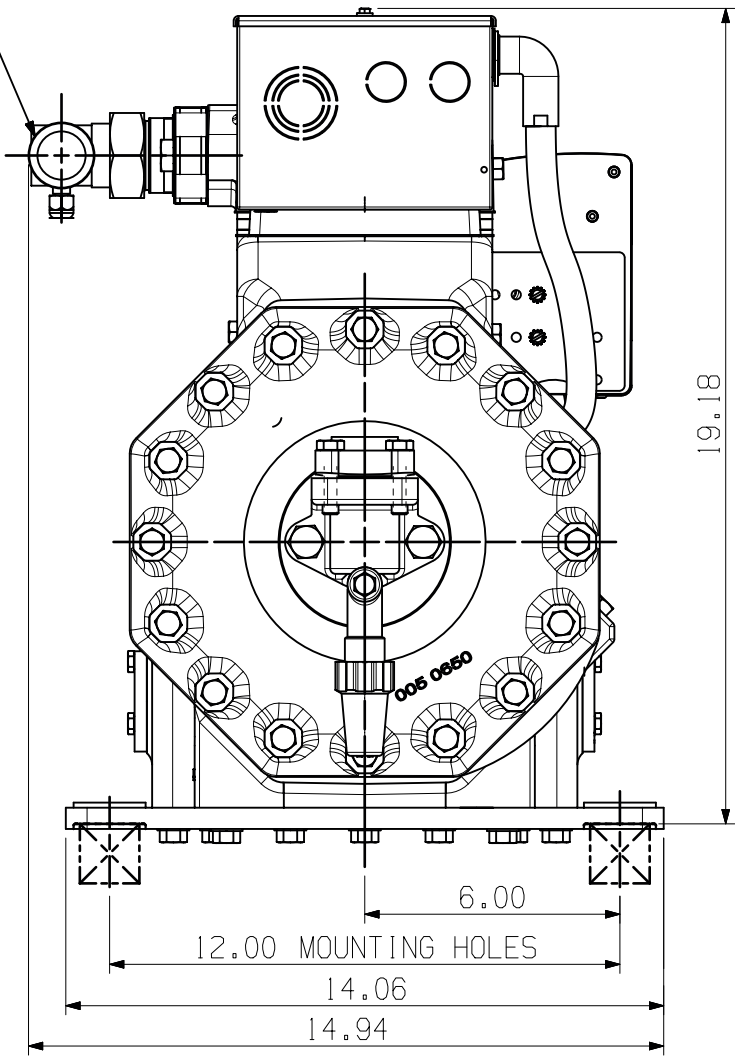
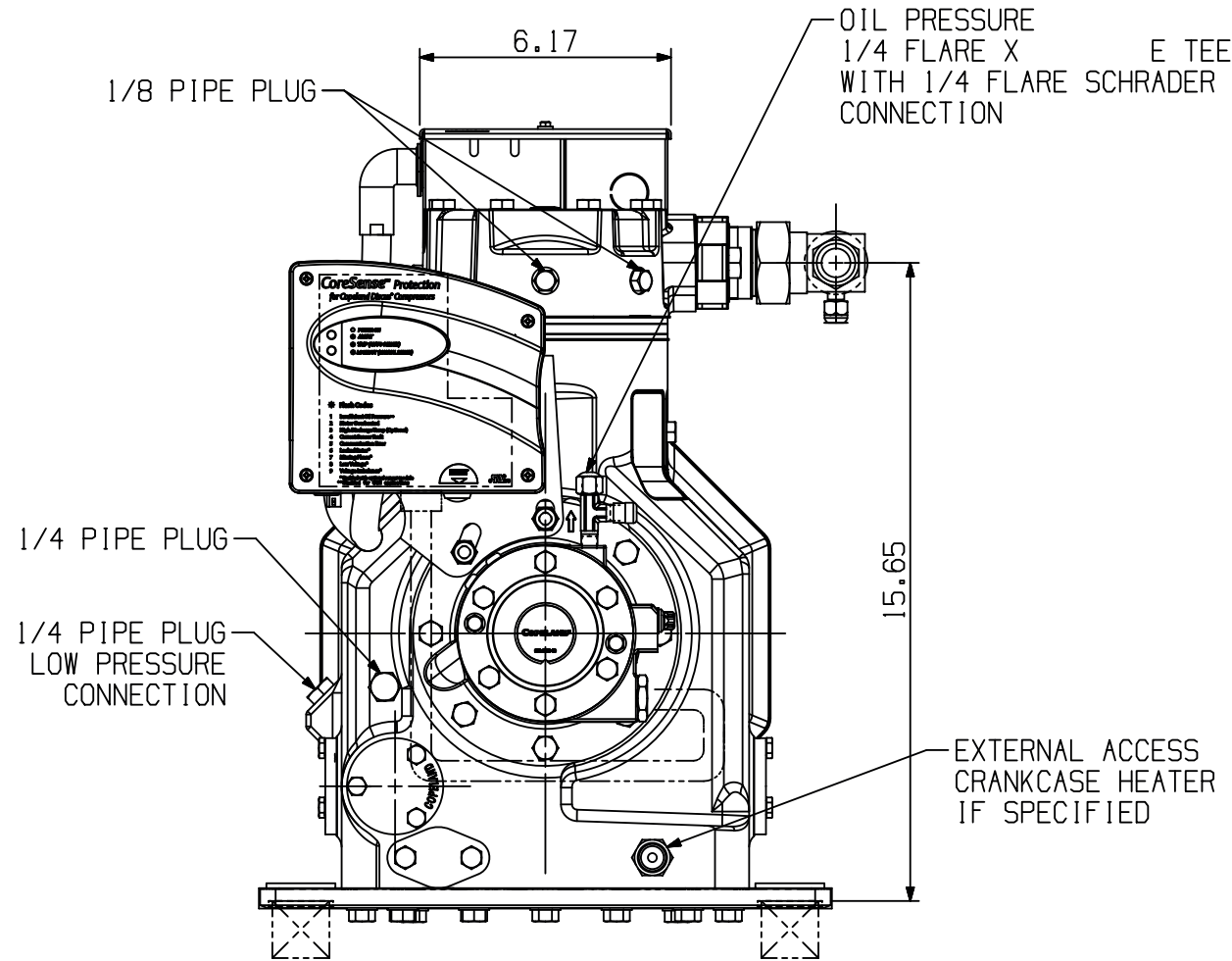
C58 - Common U.S. OEM Bill Of Materials

Suction Connection	Sweat
Suction Size	1 3/8"
Discharge Connection	Sweat
Discharge Size	1 1/8"
Electrical Connection	Terminal Block
Mounting Assembly	Not Available

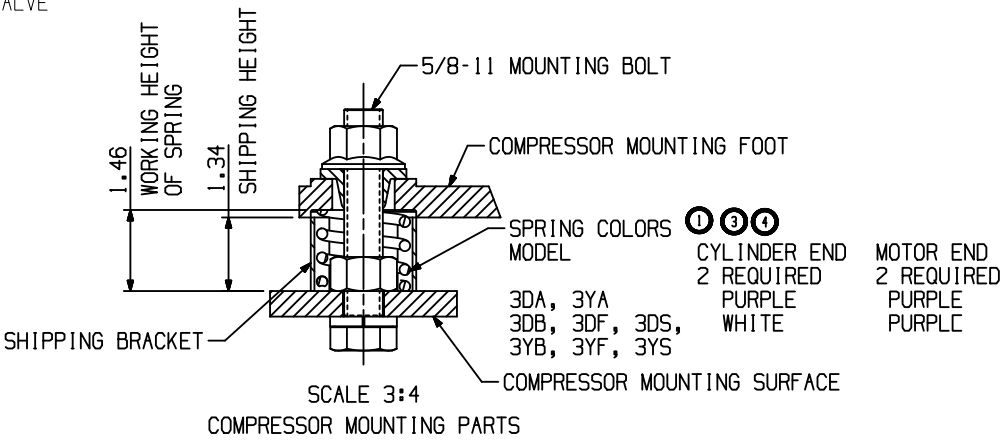
Reference Drawing



- NOTES:
- 1 ALL TOLERANCES ARE ± 0.10 EXCEPT INDUSTRY STANDARDS APPLY TO FITTINGS AND VALVES.
 - 2 THIS DIMENSION IS NECESSARY FOR COVER REMOVAL
 - 3. ALL PIPE PLUGS AND FITTINGS IN THE CYLINDER HEAD ARE HIGH PRESSURE CONNECTIONS.



THIS DRAWING REFERENCES CORESENSE PROTECTION COMPRESSORS WITH A MODEL NUMBER ENDING WITH -C58



MODEL	A2L MODEL	3
3DS3F46K	3YB3R11M	1
3DA3R10M	3YS3F33K	1
3DB3R12M	3YF3R14M	1
3DF3F40K	3YA3R99K	1 4
3DF3R15M	-	1

COPELAND

INTERPRET PER ASME Y14.5M-1994 AND COPELAND DESIGN STANDARDS DS2002

DO NOT SCALE DRAWING

CRITICAL PRODUCT CHARACTERISTICS

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE INCH OR (MILLIMETER)

1-PLACE: 1

2-PLACE: 1

3-PLACE: 1

4-PLACE: 1

5-PLACE: 1

6-PLACE: 1

7-PLACE: 1

8-PLACE: 1

9-PLACE: 1

10-PLACE: 1

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94-PLACE: 1

95-PLACE: 1

96-PLACE: 1

97-PLACE: 1

98-PLACE: 1

99-PLACE: 1

100-PLACE: 1

ECN326613	4	ADDED A2L MODELS 3YA3R99K*	12-13-24	SCJ	VDD
ECN326136	3	ADDED A2L MODELS	11-27-24	SCJ	VDD
ECN325315	2	UPDATED TITLE BLOCK	09-12-23		
ECN321224	1	ADDED MODELS	06-21-22	MNH	OSP
ECN320941	0	RELEASED	05-18-22	MNH	OSP
ENG NOTICE NO.	REV.NO.	REVISIONS	DATE	BY	CHKD
CONFIDENTIALITY NOTICE					
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MATERIAL SPECIFICATION		DRAWN BY MNH	SUPERSEDES DWG NO / REV NO - - - / -		
N/A		DATE 05-18-22	SCALE 3/8	DATE FORMAT: MM-DD-YY	
TITLE			DRAWING NUMBER		
REF DWG-COPE COMP ASSM			SHEET 1 OF 1 497-3956-00		
			DWG 4 SIZE		