



Refrigerant	R449A Dew Point
<b>High Side Properties:</b>	
Condensing Temperature, °C	45.00
Abs. Condensing Pressure, bar	18.86
Dew Point, °C	45.00
Bubble Point, °C	40.70
Saturated vapour enthalpy, kJ/kg	414.00
Specific volume of saturated vapour, dm <sup>3</sup> /kg	11.30
<b>Low Side Properties:</b>	
Evaporating Temperature, °C	-10.00
Evaporating Abs. Pressure, bar	3.61
Dew Point, °C	-10.00
Bubble Point, °C	-15.40
With vapour at, °C	20.00
Specific volume, dm <sup>3</sup> /kg	72.50
Enthalpy, kJ/kg	421.00
<b>Operating Conditions:</b>	
Evaporating Temperature, °C	-10.00
Condensing Temperature, °C	45.00
Suction Return Temperature, °C	20.00
Subcooling, K	0.00
Compressor Selected	ZB45KCE-TFD

**PERFORMANCE AT SPECIFIED OPERATING POINT  
ZB45KCE-TFD Data at 50 Hz**

Cooling Capacity, kW	9.77
Power, kW	4.38
COP	2.23
Current at 400 V, A	8.97
Suction Mass Flow, g/s	61.50
Heating Capacity, kW	13.95

**COMPRESSOR MECHANICAL AND PHYSICAL DATA**

Displacement @ 50 Hz, m <sup>3</sup> /h	17.1
Length/Width, mm	242/242
Height, mm	438
Net Weight, kg	39.1
Rotalock Suction, inch	1 1/4
Rotalock Discharge, inch	1
Oil Quantity, l	1.9
Oil type (original charge)	POE RL32-3MAF
Oil type (approved oils)	POE RL32-3MAF, POE MOBIL EAL Arctic 22 CC
Base mounting (hole dia), mm	190 x 190 (8.5)
Sound Pressure @ 1m (MT), dBA	65
Sound Power (MT), dBA	76
Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed)	-10 / 45 / 20 °C at 50 Hz
PED Category	1
Max. Internal Free Volume, l	5.90
High Side PS gauge, bar	32
Low Side PS gauge, bar	21
Low Side TS Max., °C	50
Low Side TS Min., °C	-35
Refrigerant's GWP	1397
Refrigerant's classification	A1

**COMPRESSOR ELECTRICAL DATA (380-420 V / 3~ / 50 Hz)**

Maximum Operating Current, A	13.1
Locked Rotor Current, A	74
Winding Resistance, ohm	2.27
Default Enclosure Class	IP 21 (IEC 34)

**ACCESSORIES INCLUDED**

Discharge Temperature Protection	Internal Thermodisk
Mounting Grommets	Standard

***ACCESSORIES OPTIONAL***

Crankcase Heater  
Oil Control System  
Sound Attenuation  
Rotalock valves

70 W External  
ALCO Trax-Oil OM3  
Sound Shell (10dBA)  
suction and discharge

12	11	10	9	8	7	6	5	4	3	2	1
PART NO.	MODEL NUMBER	A ± 3.0	B ± 3.0	C ± 3.0	D	DISCHARGE FITTING	SPECIFICATIONS				
							ES NO.	DESCRIPTION	ES92-155 CONVERSION-METRIC		
497-0875-00	ZB30/38/45KO(E)-***-524	437.7 [17.23]	409.6 [16.13]	OMIT	124.7 [4.91]	E					
497-0875-01	ZB48KO(E)-***-524	443.4 [17.46]	413.7 [16.30]	OMIT	128.7 [5.07]	F					
<del>497-0875-02</del>	<del>ZB30/38KO(E)-***-558</del>	<del>437.7 [17.23]</del>	<del>409.6 [16.13]</del>	<del>91.3 [3.59]</del>	<del>124.7 [4.91]</del>	<del>E</del>					
497-0875-03	ZB30/38KO(E)-***-558 ZB45KO(E)-***-558	437.7 [17.23]	409.6 [16.13]	77.2 [3.04]	124.7 [4.91]	E					
497-0875-04	ZB48KO(E)-***-558	443.4 [17.46]	413.7 [16.30]	77.2 [3.04]	128.7 [5.07]	F					

NOTES:

1. ALL TOLERANCES ±1.50 [0.060] UNLESS OTHERWISE SPECIFIED.

DUE TO ACCUMULATED ASSEMBLY TOLERANCES THE LISTED COMPONENTS MAY VARY FROM THE MOUNTING HOLES AS SHOWN BELOW:

2. SUCTION FITTING : ±3.0 [0.12]

3. DISCHARGE FITTING: ±3.0 [0.12]

2. TUBE ENDS MUST BE PLUGGED.

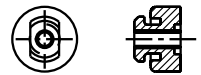
3. TORQUE T-BLOCK SCREWS TO 2.4-2.6 Nm [21-23 IN LBS].

4. FOR MORE INFORMATION SEE PRODUCT CATALOG.

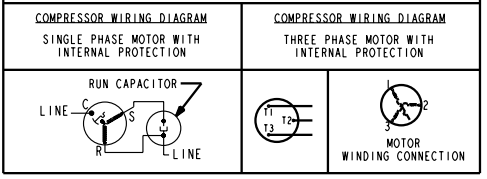
5. FULL HEIGHT OF COMPRESSOR DOES NOT INCLUDE MOUNTING SPACERS.

6. MOUNTING KIT:

GROMMET DUROMETER	4 FOOT KIT
35-45	527-0116-00



USE COPPER CONDUCTORS ONLY. USE MINIMUM 75° C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION - ALLOW TIME FOR RESET. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS - SEE SYSTEM NAMEPLATE. CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE. TO CORRECT IMPROPER ROTATION OF THREE PHASE MODELS, SWITCH ANY TWO SUPPLY LINES. REFER TO THE APPLICABLE SYSTEM WIRING DIAGRAM.



ECN000148	2	ADDED CPC SYMBOL	07-27-11	FT	LJC	CA
ECN000218	1	CHANGE FROM 10 IN AL QUALITY 40 WHITE BINE BUSH	09-08-10	FT	LJC	SA
ECN001009	0	RELEASED -00 TO -04	06-15-09	FT	LJC	SA
ENG NOTICE NO.	REV. NO.	REVISIONS	DATE	BY	CHKD	APPD
0						

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EMERSON Climate Technologies  
Copeland

CRITICAL PRODUCT CHARACTERISTIC  
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE MILLIMETER OR INCHES  
DIMENSIONS: 1-PLACE \* 2-PLACE \* ANGULAR \*

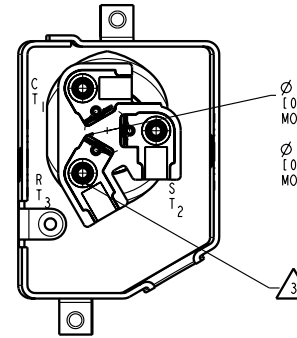
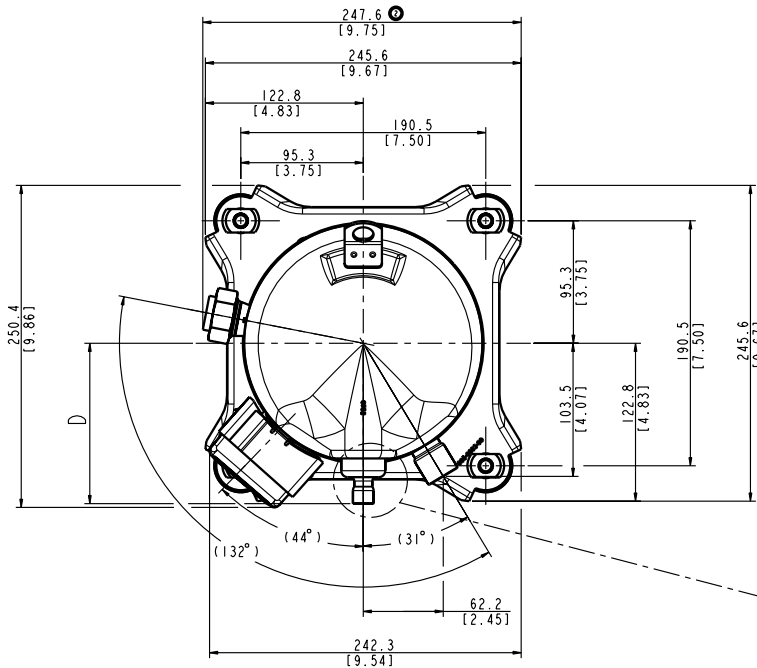
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DATE: 06-11-09  
SCALE: 3:4  
DATE FORMAT: MM-DD-YY

TITLE: REF DWG-WELD COMP ASSM  
DRAWING NUMBER: 497-0875-00  
SHEET 1 OF 2

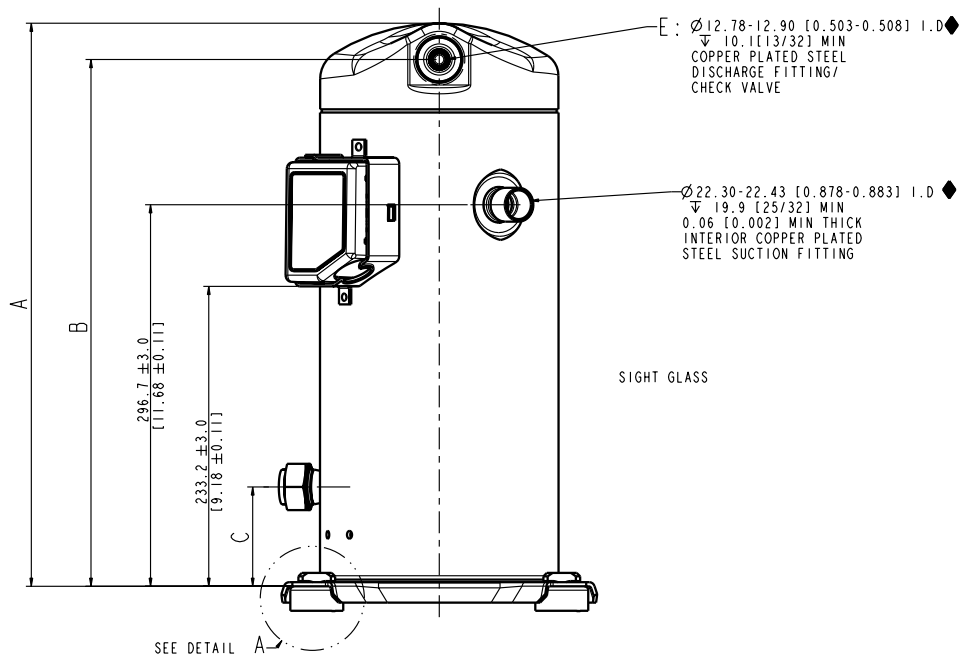
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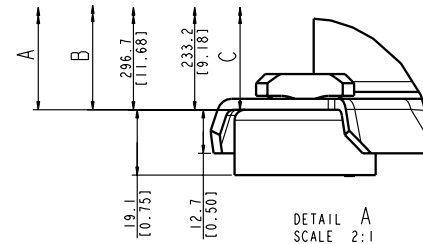


SCALE 3:2

F: Ø19.10-19.25 [0.75-0.76] I.D. ♦  
 ▽ 16.9 [0.66] MIN  
 COPPER DISCHARGE FITTING/  
 STEEL CHECK VALVE



SEE DETAIL A



DETAIL A  
 SCALE 2:1

REV. NO.	DESCRIPTION	DATE	BY	APP'D.
2	UPDATED SIGHT GLASS ASSEMBLY	07-27-11	FT	LZC
1	SEE SHEET 1	09-08-10	FT	LZC
0	RELEASED - 00 TO -04	06-15-09	FT	LZC

REV. NO.	DESCRIPTION	DATE	BY	APP'D.
0	RELEASED - 00 TO -04	06-15-09	FT	LZC

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DATE: 06-11-09	SCALE: 3:4
TITLE: REF DWG-WELD COMP ASSM	DRAWING NUMBER: SHEET 2 OF 2
497-0875-00	

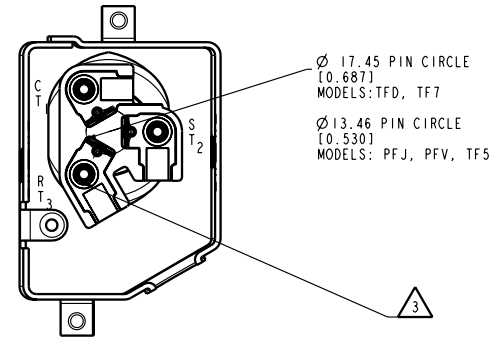
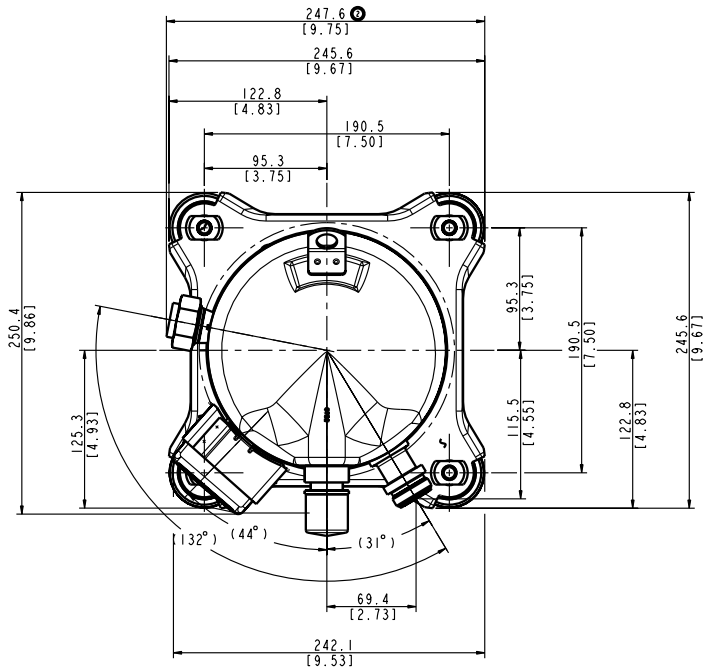


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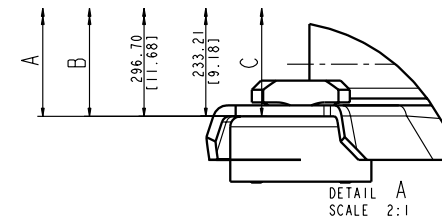
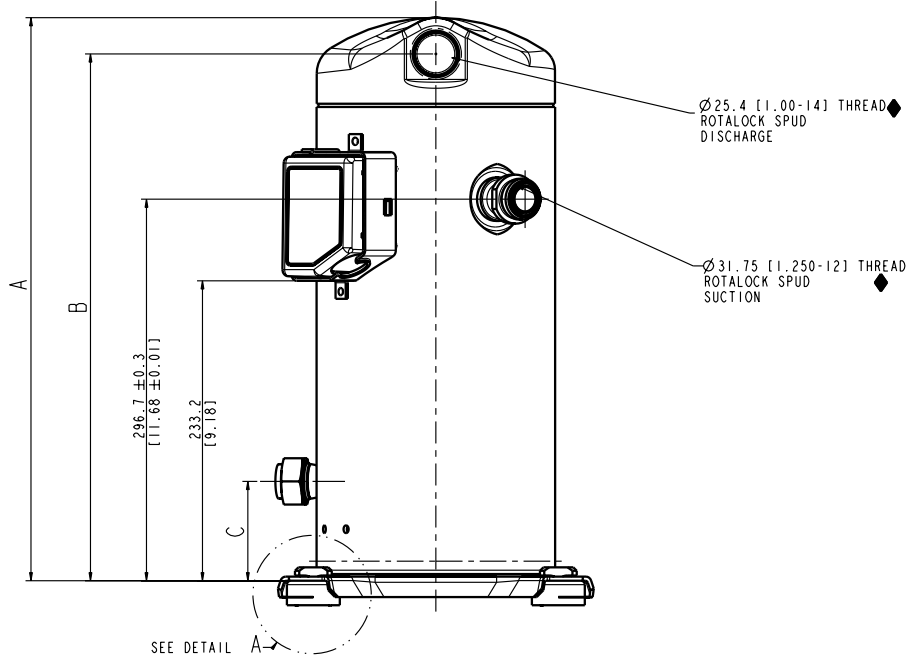
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TERMINAL BOX LAYOUT OPTIONS  
TERMINAL BOX COVER NOT SHOWN  
SCALE 3:2



ENG NOTICE NO.	REV. NO.	DESCRIPTION	DATE	BY	APP'D
ECN00140	2	UPDATED SIGHT GLASS ASSEMBLY	01-26-11	FY	LJC
ECN00018	1	SEE SHEET 1	09-21-10	FY	LJC
ECN001009	0	RELEASED	01-02-09	FY	LJC

INITIALS	DATE	SCALE	DATE FORMAT
N/A	07-02-09	3:2	MM-DD-YY

TITLE	DRAWING NUMBER	SHEET 2 OF 2
REF DWG - WELD COMP ASSM	497-0877-00	6



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