



# Select 8

**Copeland**<sup>™</sup>  
brand products



**EMERSON**<sup>™</sup>



## Project Report

Refrigerant	R407C Dew Point
<b>High Side Properties:</b>	
Condensing Temperature, °C	45.00
Abs. Condensing Pressure, bar	17.51
Dew Point, °C	45.00
Bubble Point, °C	40.10
Saturated vapour enthalpy, kJ/kg	425.00
Specific volume of saturated vapour, dm <sup>3</sup> /kg	12.70
Liquid Temperature, °C	40.10
Liquid enthalpy, kJ/kg	260.00
<b>Low Side Properties:</b>	
Evaporating Temperature, °C	-10.00
Evaporating Abs. Pressure, bar	3.20
Dew Point, °C	-10.00
Bubble Point, °C	-16.50
With vapour at, °C	0.00
Specific volume, dm <sup>3</sup> /kg	76.00
Enthalpy, kJ/kg	413.00
<b>Operating Conditions:</b>	
Evaporating Temperature, °C	-10.00
Condensing Temperature, °C	45.00
Suction Superheat, K	10.00
Subcooling, K	0.00
Compressor Selected	ZR48K3E-TFD

**PERFORMANCE AT SPECIFIED OPERATING POINT**  
**ZR48K3E-TFD Data at 50 Hz**

Cooling Capacity, kW	5.71
Power, kW	2.94
COP	1.94
Current at 400 V, A	5.90
Suction Mass Flow, g/s	37.50
Heating Capacity, kW	8.50
Isentropic Eff., %	56.22

**COMPRESSOR MECHANICAL AND PHYSICAL DATA**

Displacement @ 50 Hz, m <sup>3</sup> /h	11.4
Length/Width, mm	246/246
Height, mm	431
Net Weight, kg	32.7
Gross Weight, kg	32.7
Stub Suction, inch	7/8
Stub Discharge, inch	1/2
Oil Quantity, l	1.36
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 (HT), dBA	57
Sound Power (HT), dBA	68
Sound Power with Sound Shell (HT), dBA	62
Sound Conditions (HT, Temperatures:	7 / 54 / 18 °C at 50 Hz
Evap./Cond./Suction at freq./speed)	
PED Category	1
Max. Internal Free Volume, l	3.40
High Side PS gauge, bar	29.5
Low Side PS gauge, bar	20
Low Side TS Max., °C	50
Refrigerant's GWP	1774
Refrigerant's classification	A1

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

Maximum Operating Current, A	10
Locked Rotor Current, A	50
Winding Resistance, ohm	3.88
Default Enclosure Class	IP 21 (IEC 34)

***ACCESSORIES INCLUDED***

Mounting Grommets

Discharge Temperature Protection

Standard

Internal Thermodisk

***ACCESSORIES OPTIONAL***

Crankcase Heater

70 W External

# ZR48K3E

