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brand products



EMERSON[™]



Project Report

Refrigerant	R407C Dew Point
High Side Properties:	
Condensing Temperature, °C	40.00
Abs. Condensing Pressure, bar	15.39
Dew Point, °C	40.00
Bubble Point, °C	34.90
Saturated vapour enthalpy, kJ/kg	424.00
Specific volume of saturated vapour, dm³/kg	14.70
Liquid Temperature, °C	33.90
Liquid enthalpy, kJ/kg	250.00
Low Side Properties:	
Evaporating Temperature, °C	11.00
Evaporating Abs. Pressure, bar	6.66
Dew Point, °C	11.00
Bubble Point, °C	5.00
With vapour at, °C	20.00
Specific volume, dm³/kg	37.20
Enthalpy, kJ/kg	423.00
Operating Conditions:	
Evaporating Temperature, °C	11.00
Condensing Temperature, °C	40.00
Suction Return Temperature, °C	20.00
Subcooling, K	1.00
Required Capacity, kW	38.00
Compressor Selected	ZR125KRE-TFD

PERFORMANCE AT SPECIFIED OPERATING POINT
ZR125KRE-TFD Data at 50 Hz

Cooling Capacity, kW	38.40
Power, kW	6.52
COP	5.88
Current at 400 V, A	12.89
Suction Mass Flow, g/s	223.00
Heating Capacity, kW	44.60
Isentropic Eff., %	72.30

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	29.1
Length/Width, mm	281/284
Height, mm	533
Net Weight, kg	61.2
Stub Suction, inch	1 3/8
Stub Discharge, inch	7/8
Oil Quantity, l	3.38
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 (0)
Sound Pressure @ 1m (HT), dBA	63
Sound Power (HT), dBA	74
Sound Conditions (HT, Temperatures: Evap./Cond./Suction at freq./speed)	5 / 50 / 15 °C at 50 Hz
PED Category	2
Internal Free Volume, l	12.8
High Side PS gauge, bar	32
Low Side PS gauge, bar	20
Low Side TS Max., °C	53
Low Side TS Min., °C	-35
Refrigerant's GWP	1774
Refrigerant's classification	A1

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

Maximum Operating Current, A	19.6
Locked Rotor Current, A	118
Winding Resistance, ohm	1.23
Default Enclosure Class	IP 21/65

ACCESSORIES INCLUDED

Discharge Temperature Protection
Enclosure Class
Oil Charge
Oil Service Valve
Check Valve

ASTP Therm-O-Disc In Scroll
IP21

Schraeder Valve
Discharge Low Leak Check Valve

ACCESSORIES OPTIONAL

Crankcase Heater
Enclosure Class
Mounting Grommets
Mounting Grommets
Adapter Kit
Oil Control System
Sound Attenuation

90 W External
IP66 With Molded Plug
Hard Mounts for Paralleling
Rubber Grommet For Single
R1"1/4 -B 1"1/8 For TPTL for
Parallel Operation
ALCO Trax-Oil OM3
Sound Shell (12dBA)

MODEL NUMBER
ZR144KRE-TFD-411
ZR125KRE-TFD-411
ZR108KRE-TFD-411

