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brand products



EMERSON[™]



Project Report

Refrigerant	R407C Dew Point
High Side Properties:	
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 ³ /kg	12.70
Liquid Temperature, °C	40.10
Liquid enthalpy, kJ/kg	260.00
Low Side Properties:	
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 ³ /kg	76.00
Enthalpy, kJ/kg	413.00
Operating Conditions:	
Evaporating Temperature, °C	-10.00
Condensing Temperature, °C	45.00
Suction Superheat, K	10.00
Subcooling, K	0.00
Compressor Selected	ZR190KCE-TFD

**PERFORMANCE AT SPECIFIED OPERATING POINT
ZR190KCE-TFD Data at 50 Hz**

Cooling Capacity, kW	21.90
Power, kW	10.90
COP	2.01
Current at 400 V, A	23.27
Suction Mass Flow, g/s	143.50
Heating Capacity, kW	32.20
Isentropic Eff., %	58.15

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m ³ /h	43.3
Length/Width, mm	281/285
Height, mm	552
Net Weight, kg	66.2
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	69
Sound Power (HT), dBA	80
Sound Power with Sound Shell (HT), dBA	69
Sound Conditions (HT, Temperatures:	7 / 54 / 18 °C at 50 Hz
Evap./Cond./Suction at freq./speed)	
PED Category	2
Max. Internal Free Volume, l	14.0
High Side PS gauge, bar	32
Low Side PS gauge, bar	20
Low Side TS Max., °C	52
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	35
Locked Rotor Current, A	174
Winding Resistance, ohm	0.83
Default Enclosure Class	IP 21 (IEC 34)

ACCESSORIES INCLUDED

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

ASTP Therm-O-Disc In Scroll
Schraeder Valve
Discharge Low Leak Check Valve
IP21

ACCESSORIES OPTIONAL

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

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

ZR160, 190 KCE
ZP154, 182 KCE
ZH 64, 75 KCE

