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Project Report

Project Details: sabacool.ir
Contact: 09128869515-Sarma Tajhiz Saba
Alborz Industrial City, Qazvin, Iran

Author Name:

Refrigerant	R134a
High Side Properties:	
Condensing Temperature, °C	50.00
Condensing Abs. Pressure, bar	13.17
Dew Point, °C	50.00
Bubble Point, °C	50.00
Saturated vapour enthalpy, kJ/kg	424.30
Specific volume of saturated vapour, dm ³ /kg	15.10
Liquid Temperature, °C	50.00
Liquid enthalpy, kJ/kg	272.48
Low Side Properties:	
Evaporating Temperature, °C	0.00
Evaporating Abs. Pressure, bar	2.93
Dew Point, °C	0.00
Bubble Point, °C	0.00
With vapour at, °C	20.00
Specific volume, dm ³ /kg	76.17
Enthalpy, kJ/kg	416.59
Operating Conditions:	
Evaporating Temperature, °C	0.00
Condensing Temperature, °C	50.00
Suction Return Temperature, °C	20.00
Subcooling, K	0.00
Compressor Selected	D4SF-100X

Additional restrictions, please see application guidelines

**PERFORMANCE AT SPECIFIED OPERATING POINT
D4SF-100X Data at 50Hz**

Cooling Capacity, kW	23.90
Power, kW	9.15
COP	2.61
Current at 400 V, A	15.61
Mass Flow, g/s	166.00
Heat Rejection, kW	32.60
Isentropic Eff., %	62.71

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Number of cylinders	4
Displacement @ 50 Hz, m ³ /h	56
Bore/Stroke, mm	63.5/50.8
Length/Width, mm	680/485
Height, mm	495
Net Weight, kg	178
Gross Weight, kg	194
Rotalock Discharge, inch	1 1/8
Suction, inch	1 5/8
Oil Quantity, l	3.3
Frequency Range, Hz	25 - 60
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	381 x 305 (18.0)
Sound Pressure @ 1m, dBA	72.4
Sound Power, dBA	83.4
High Side PS, bar(g)	32.5
Low Side PS, bar(g)	22.5
Refrigerant's GWP	1430
Refrigerant's classification	A1

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

Maximum Operating Current, A	27.1
Locked Rotor Current, A	105
Default Enclosure Class	IP 54 (IEC 34)

Additional restrictions, please see application guidelines

ACCESSORIES INCLUDED

Oil Pressure Switch	OPS2 Sensor
Mounting Springs	4

ACCESSORIES OPTIONAL

Additional Cooling	70 W Vertical Air Flow Fan
Capacity Control	Capacity Steps 50%
Crankcase Heater	100 W Internal
Discharge Temperature Protection	Head PTC sensor
Enclosure Class	IP 56
Oil Pressure Switch	OPS2 Electronic Switch
Unloaded start	Available
Deep Oil Sump	Mounted
Adapter Kit	For Parallel Operation
Check Valve	For unloaded start operation
Oil Control System	ALCO Trax-Oil OM3
Inverter	Emerson Industrial Automation, Unidrive M200 06 400 420

Additional restrictions, please see application guidelines

D4SF, D4SL

