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Project Report

Project Details: sabacool.ir
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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	D2SA-45X

**PERFORMANCE AT SPECIFIED OPERATING POINT
D2SA-45X Data at 60Hz**

Cooling Capacity, kW	11.35
Power, kW	4.63
COP	2.45
Current at 380 V, A	8.51
Mass Flow, g/s	78.70
Heat Rejection, kW	15.75
Isentropic Eff., %	58.76

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Number of cylinders	2
Displacement @ 60 Hz, m ³ /h	27
Bore/Stroke, mm	61.9/42.8
Length/Width, mm	560/330
Height, mm	395
Net Weight, kg	90
Gross Weight, kg	95
Suction, inch	1 1/8
Discharge, inch	7/8
Oil Quantity, l	2.4
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	295 x 279 (14.0)
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~ / 60 Hz)

Maximum Operating Current, A	13.7
Locked Rotor Current, A	76.1
Default Enclosure Class	IP 54 (IEC 34)

ACCESSORIES INCLUDED

ACCESSORIES OPTIONAL

Inverter

Emerson Industrial Automation,
Unidrive M200 05 400 270

D2S

