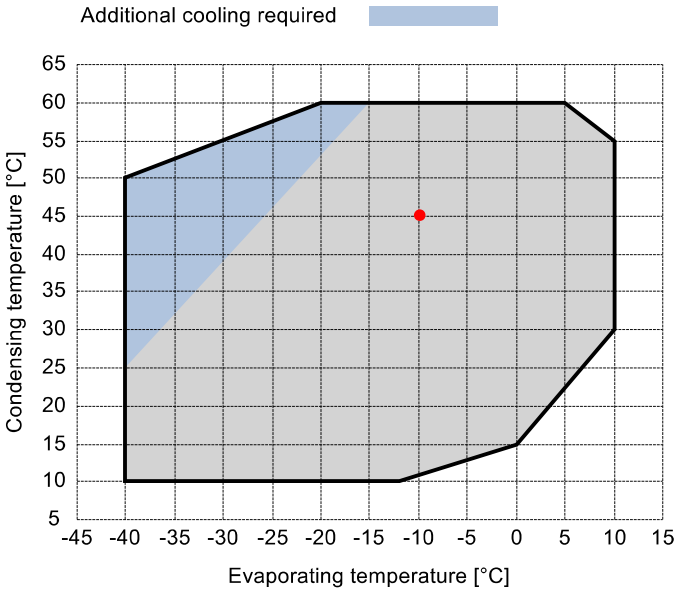
Customer: Kubitech.SRL
Project: frigotehnie.ro

Frascold Selection Software 3 v1.20.0 - joi.03.11.2022

Input data

Refrigerant		R449A
Reference temperature		Dew point temperature
Calculation mode		Refrigeration / Air Cond.
Operating mode		Subcritical
Power supply		400/3/50
Condensing temperature	°C	45
Condensing pressure	bar	18,86
Liquid subcooling	K	0
Liquid temperature	°C	40,72
Evaporating temperature	°C	-10
Evaporating pressure	bar	3,61
Suction gas superheating	K	10
Useful fraction of superheating	%	100



Output data

Compressor :		**B1.5-9.1Y**
Number of compressors :		FSx1
Refrigerating capacity	kW	3,901
Refrigerating capacity [*ref]	kW	4,007
Evaporator capacity	kW	3,901
Power input	W	1922
Condenser capacity, theor.	kW	5,823
Current	A	4,09
COP/EER	W/W	2,03
Mass flow	kg/h	100
Operating frequency	Hz	50
Connection	-	DOL-STAR
Operating mode	-	100%
Discharge temperature	°C	92,89
Ratio (%)	%	100,0%
Note	-	
Oil flow	l/min	-
Heat Exchanged (oil Cooler)	kW	-
Oil Temp. at Oil Cooler Outlet	°C	-
Certified by	-	Frascold

Certified by:

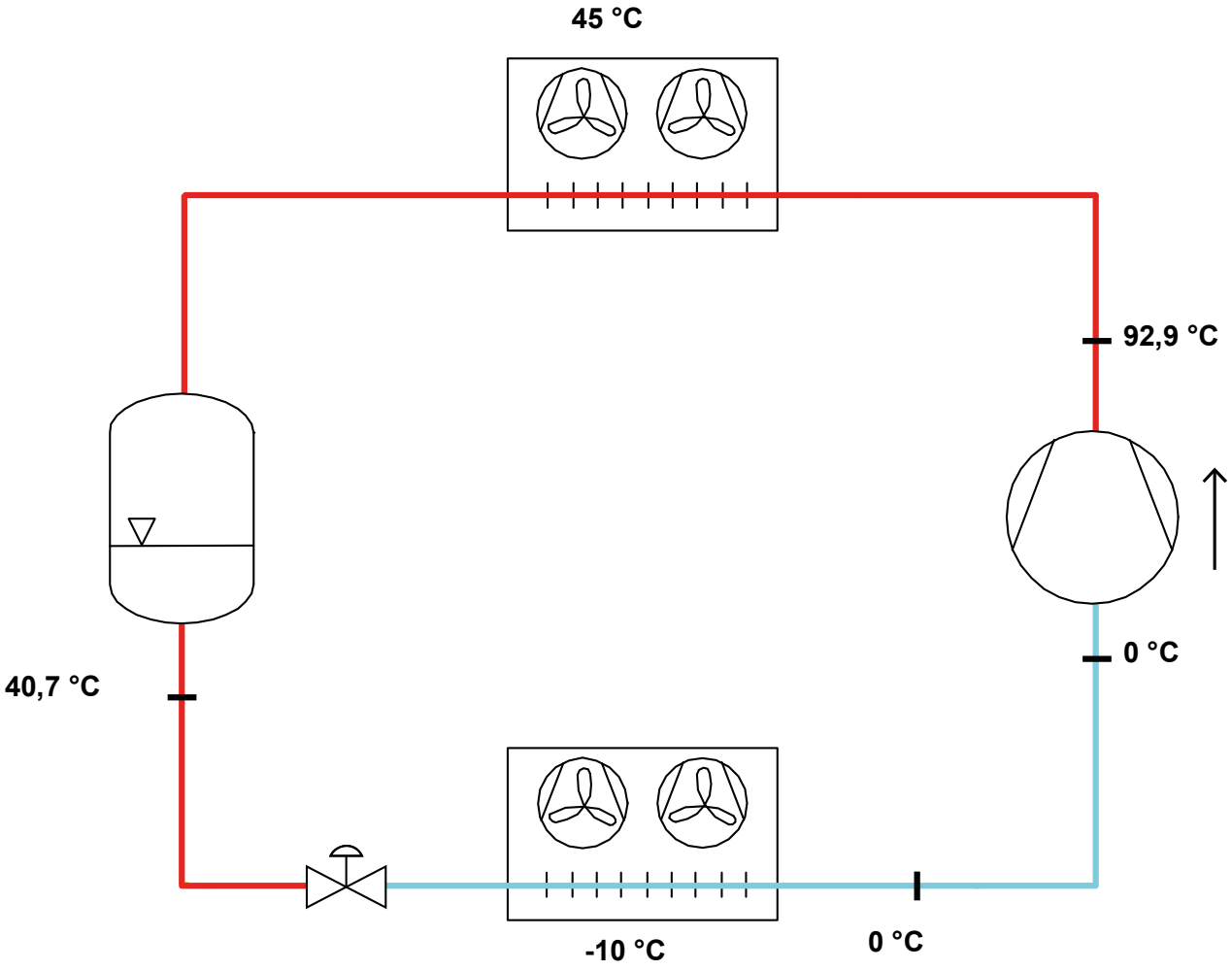
- Frascold tentative data

Legend:

*ref: At conditions according to EN12900
- Suction gas temperature = 20 °C
- Liquid subcooling = 0 K

All data subject to change without notice

P&I Diagram:



Model: B1.5-9.1Y

Refrigerant: R449A

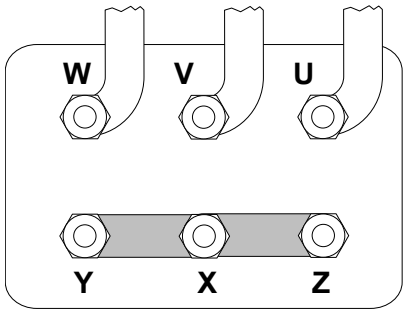
Power supply: 400/3/50 DOL-STAR

Technical data:	
Displacement	8,96 m³/h
Nominal compressor speed	1450 rpm
Motor voltage	400 V
Nominal operating frequency	50 Hz
Maximum allowed operating current (MRA)	5,9 A
Locked rotor current (LRA)	26,8 A
Number of pistons	2
Net weight	38 kg
Lubricant	FRASCOLD POE32
Oil charge	1 l
Maximum static pressure LP	20,5 bar
Maximum operating pressure HP	30 bar

Sound level:	
Sound power level -10/45°C R404A @50Hz	63 dB(A)
Sound pressure (*) - Distance: 1 m	55 dB(A)
Sound power level -35/40°C R404A @50Hz	63,5 dB(A)
Sound pressure (*) - Distance: 1 m	55,5 dB(A)

*half sphere model

Motor connections:

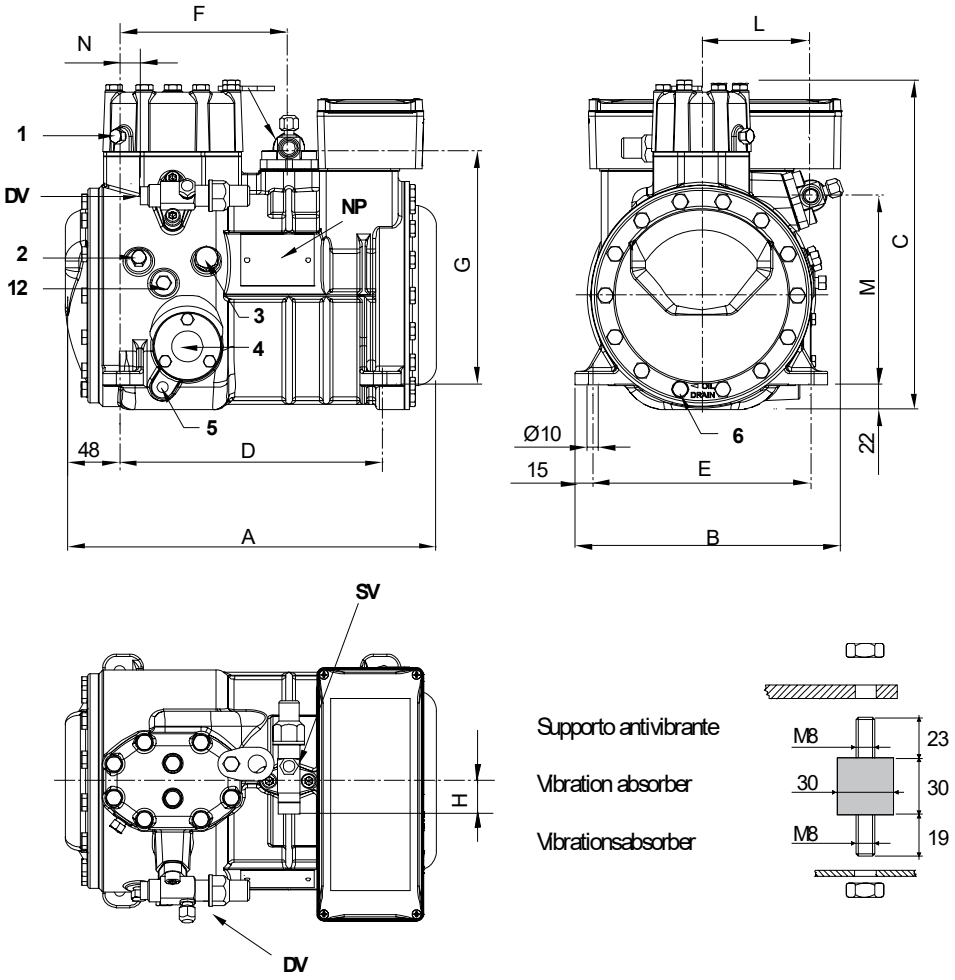


Model: B1.5-9.1Y

Refrigerant: R449A

Power supply: 400/3/50 DOL-STAR

Dimensions:



Legend:

SV: Suction Valve	5/8" in - 16 mm	M: Discharge valve	167 mm
DV: Discharge valve	1/2" in - 12,7 mm	N: Discharge valve	18 mm
A: Length	329 mm	1: High pressure connection	1/8" NPT
B: Width	237 mm	2: Low pressure connection	1/8" NPT
C: Height	292 mm	3: Oil charge plug	1/4" GAS
D: Base mounting	234 mm	4: Oil level sight glass	-
E: Base mounting	194 mm	5: Crankcase heater seat	-
F: Suction Valve	150 mm	6: Oil drain plug	M8 x 22
G: Suction Valve	209 mm	12: Oil return plug	1/8" NPT
H: Suction Valve	29 mm	NP: Nameplate	
L: Discharge valve	97 mm		

Model: B1.5-9.1Y

Refrigerant: R449A

Power supply: 400/3/50 DOL-STAR

Polynomial coefficients according to EN12900 for B1.5-9.1Y:

*S = Tevap ; D = Tcond

Reference conditions	
Refrigerant	R449A
Ambient temperature	35 °C
Suction gas temperature	20 °C
Liquid subcooling	0 K
Frequency	50 Hz

	Refrigerating capacity [W]	Power input [W]
C1	1,066420E+004	9,854190E+001
C2	4,322290E+002	-5,346310E+001
C3	-7,552050E+001	8,436650E+001
C4	5,887850E+000	-1,683100E+000
C5	-3,864620E+000	2,028760E+000
C6	-6,887920E-001	-1,191990E+000
C7	2,704980E-002	-1,161760E-002
C8	-4,403460E-002	1,983210E-002
C9	-5,276500E-004	-6,454780E-003
C10	3,789590E-003	8,288620E-003

$Y = C1 + C2*S + C3*D + C4*S^2 + C5*S*D + C6*D^2 + C7*S^3 + C8*D*S^2 + C9*S*D^2 + C10*D^3$