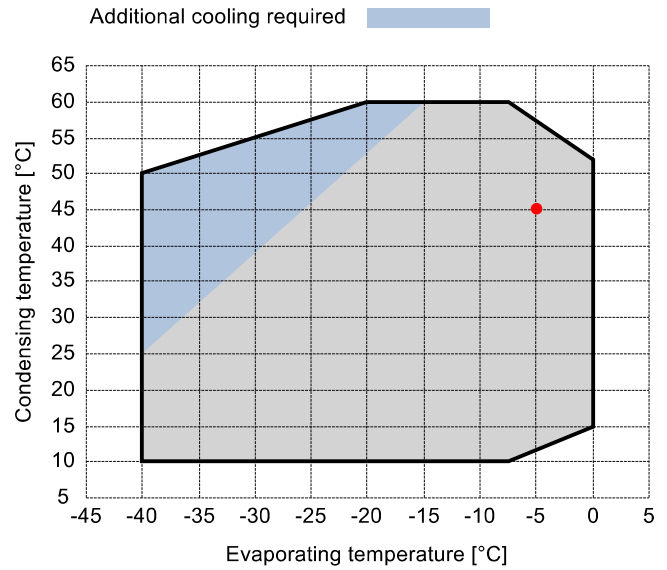


Input data

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	2
Liquid temperature	°C	38.72
Evaporating temperature	°C	-5
Evaporating pressure	bar	4.33
Suction gas temperature	°C	20
Evaporator superheating	K	5



Output data

Compressor :	D3-18.1Y	
Number of compressors :	FSx1	
Refrigerating capacity	kW	11.192
Refrigerating capacity [*ref]	kW	10.958
Evaporator capacity	kW	9.913
Power input	W	4139
Condenser capacity, theor.	kW	15.332
Current	A	7.87
COP/EER	W/W	2.39
Mass flow	kg/h	251
Operating frequency	Hz	50
Connection	-	DOL-STAR
Operating mode	-	100%
Discharge temperature	°C	98.85
Ratio (%)	%	100.0%
Note	-	
Oil flow	l/min	-
Heat Exchanged (oil Cooler)	kW	-
Oil Temp. at Oil Cooler Outlet	°C	-
Certified by	-	Frascold

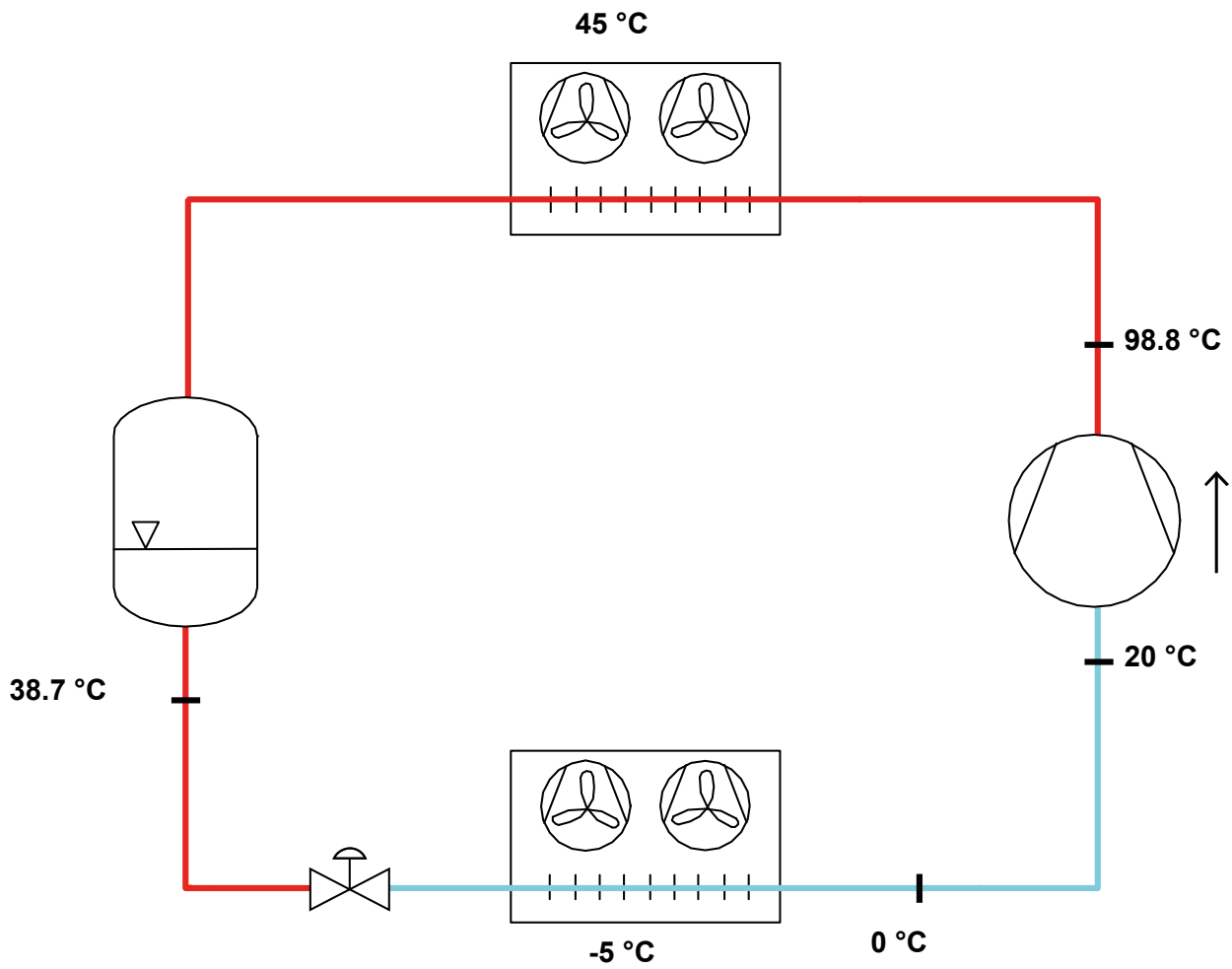
Certified by:

- Frascold tentative data

Legend:

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

P&I Diagram:



Model: D3-18.1Y

Refrigerant: R449A

Power supply: 400/3/50 DOL-STAR

Technical data:

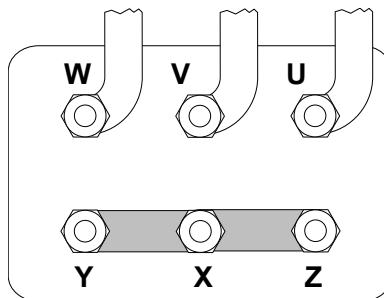
Displacement	17.93 m³/h
Nominal compressor speed	1450 rpm
Motor voltage	400 V
Nominal operating frequency	50 Hz
Maximum allowed operating current (MRA)	10 A
Locked rotor current (LRA)	43.7 A
Number of pistons	2
Net weight	55 kg
Lubricant	FRASCOLD POE32
Oil charge	1.2 l
Maximum static pressure LP	20.5 bar
Maximum operating pressure HP	30 bar

Sound level:

Sound power level -10/45°C R404A @50Hz	67 dB(A)
Sound pressure (*) - Distance: 1 m	59 dB(A)
Sound power level -35/40°C R404A @50Hz	70.3 dB(A)
Sound pressure (*) - Distance: 1 m	62.3 dB(A)

*half sphere model

Motor connections:



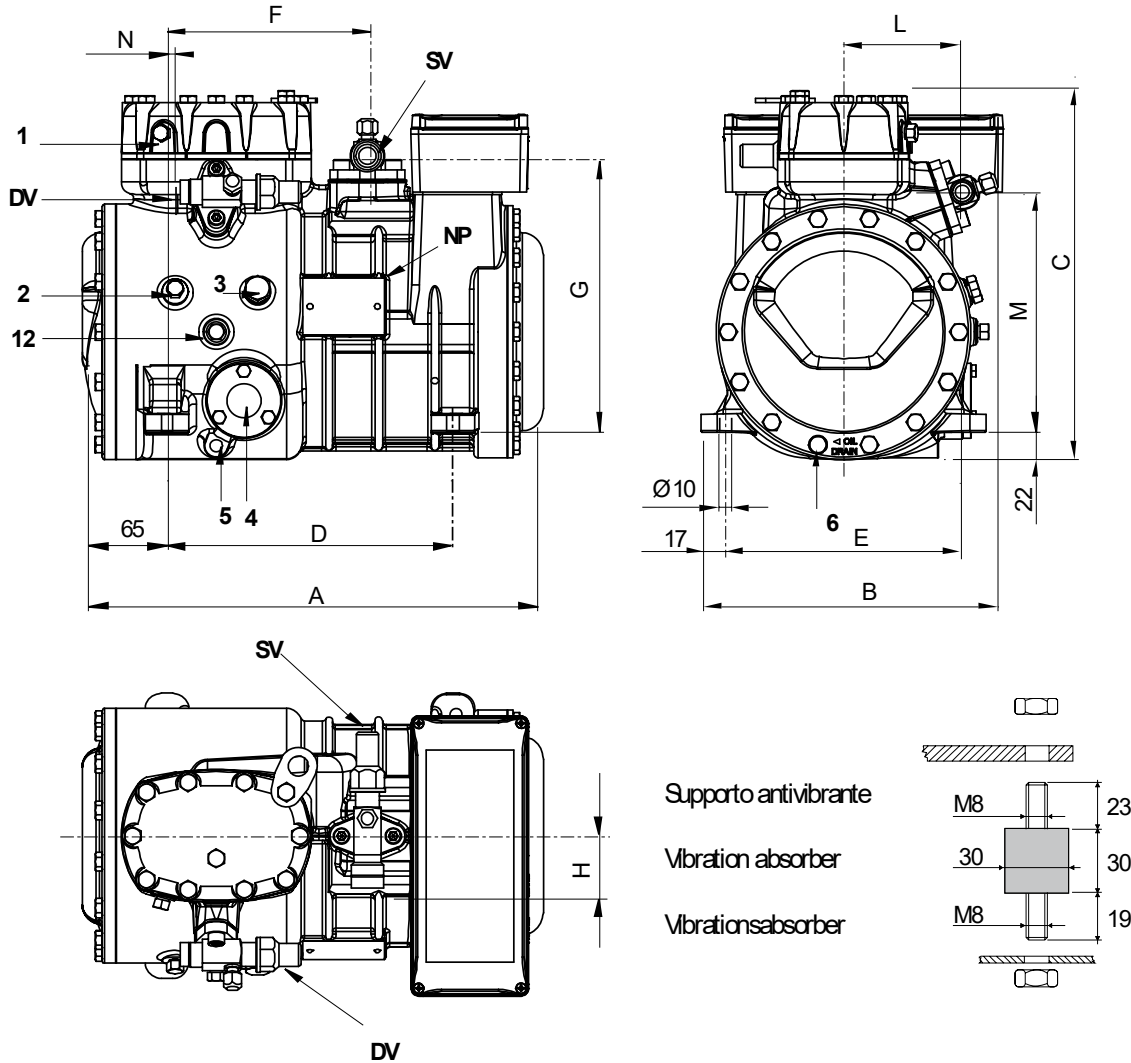
All data subject to change without notice

Model: D3-18.1Y

Refrigerant: R449A

Power supply: 400/3/50 DOL-STAR

Dimensions:



Legend:

SV: Suction Valve	1 1/8" in - 28.575 mm	M: Discharge valve	192 mm
DV: Discharge valve	5/8" in - 16 mm	N: Discharge valve	13 mm
A: Length	374 mm	1: High pressure connection	1/8" NPT
B: Width	242 mm	2: Low pressure connection	1/8" NPT
C: Height	317 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	165 mm	6: Oil drain plug	M8 x 22
G: Suction Valve	225 mm	12: Oil return plug	1/8" NPT
H: Suction Valve	53 mm	NP: Nameplate	
I: Suction Valve	94 mm		

All data subject to change without notice

Model: D3-18.1Y

Refrigerant: R449A

Power supply: 400/3/50 DOL-STAR

Polynomial coefficients according to EN12900 for D3-18.1Y:

*S = T_{evap} ; D = T_{cond}

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	2.228030E+004	6.148170E+002
C2	8.182940E+002	-7.797650E+001
C3	-1.737790E+002	1.301920E+002
C4	1.112720E+001	-2.195590E+000
C5	-5.590630E+000	3.484500E+000
C6	-6.967480E-001	-1.389670E+000
C7	6.141670E-002	-1.488460E-002
C8	-5.208050E-002	2.677000E-002
C9	-5.986220E-003	-9.741720E-003
C10	5.154280E-003	8.759130E-003

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