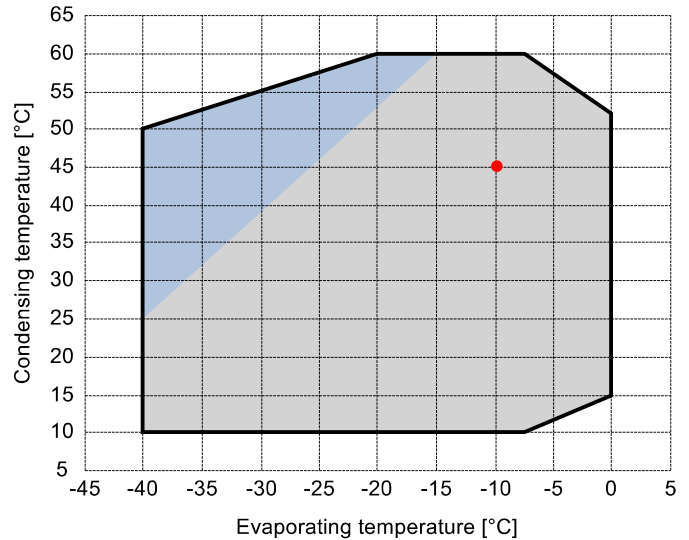


Input data

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

Additional cooling required



Output data

Compressor :	Q5-33.1Y	
Number of compressors :	FSx1	
Refrigerating capacity	kW	14,73
Refrigerating capacity [*ref]	kW	15,131
Evaporator capacity	kW	14,73
Power input	W	6745
Condenser capacity, theor.	kW	21,475
Current	A	10,95
COP/EER	W/W	2,18
Mass flow	kg/h	377
Operating frequency	Hz	50
Connection	-	DOL-STAR
Operating mode	-	100%
Discharge temperature	°C	88,54
Ratio (%)	%	100,0%
Note	-	
Oil flow	l/min	-
Heat Exchanged (oil Cooler)	kW	-
Oil Temp. at Oil Cooler Outlet	°C	-
Certified by	-	ASERCOM

Certified by:

- ASERCOM (ref. EN12900, 50 Hz, 100% cap.)

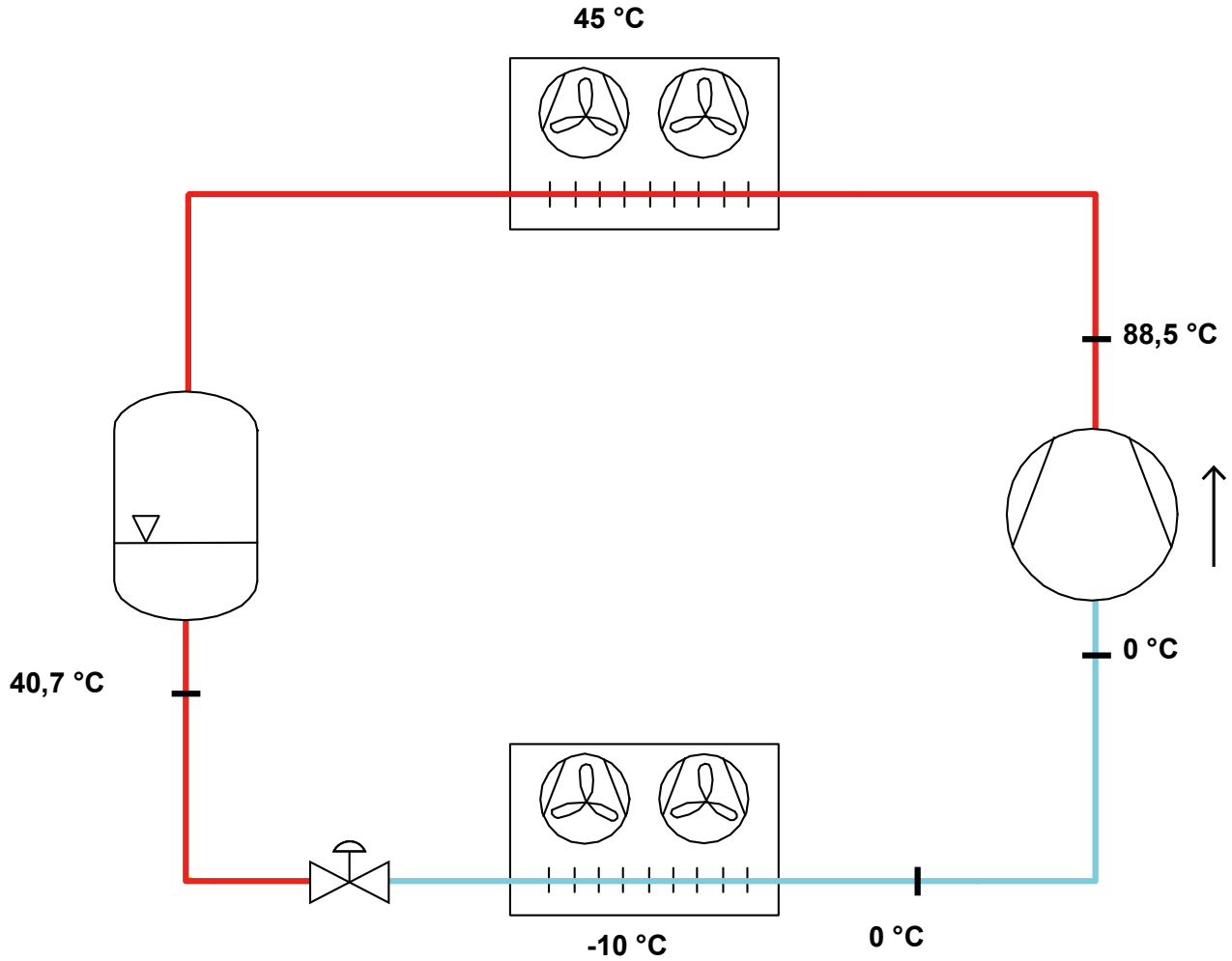


Legend:

- *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:



All data subject to change without notice

Model: Q5-33.1Y

Refrigerant: R449A

Power supply: 400/3/50 DOL-STAR

Technical data:

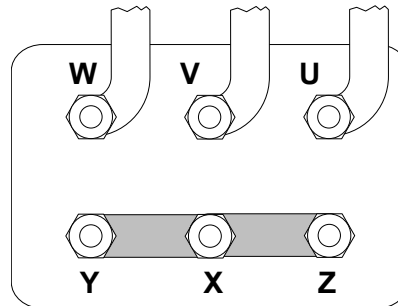
Displacement	32,66 m³/h
Nominal compressor speed	1450 rpm
Motor voltage	400 V
Nominal operating frequency	50 Hz
Maximum allowed operating current (MRA)	14,4 A
Locked rotor current (LRA)	63,1 A
Number of pistons	4
Net weight	79 kg
Lubricant	FRASCOLD POE32
Oil charge	1,6 l
Maximum static pressure LP	20,5 bar
Maximum operating pressure HP	30 bar

Sound level:

Sound power level -10/45°C R404A @50Hz	72,5 dB(A)
Sound pressure (*) - Distance: 1 m	64,5 dB(A)
Sound power level -35/40°C R404A @50Hz	76 dB(A)
Sound pressure (*) - Distance: 1 m	68 dB(A)

*half sphere model

Motor connections:



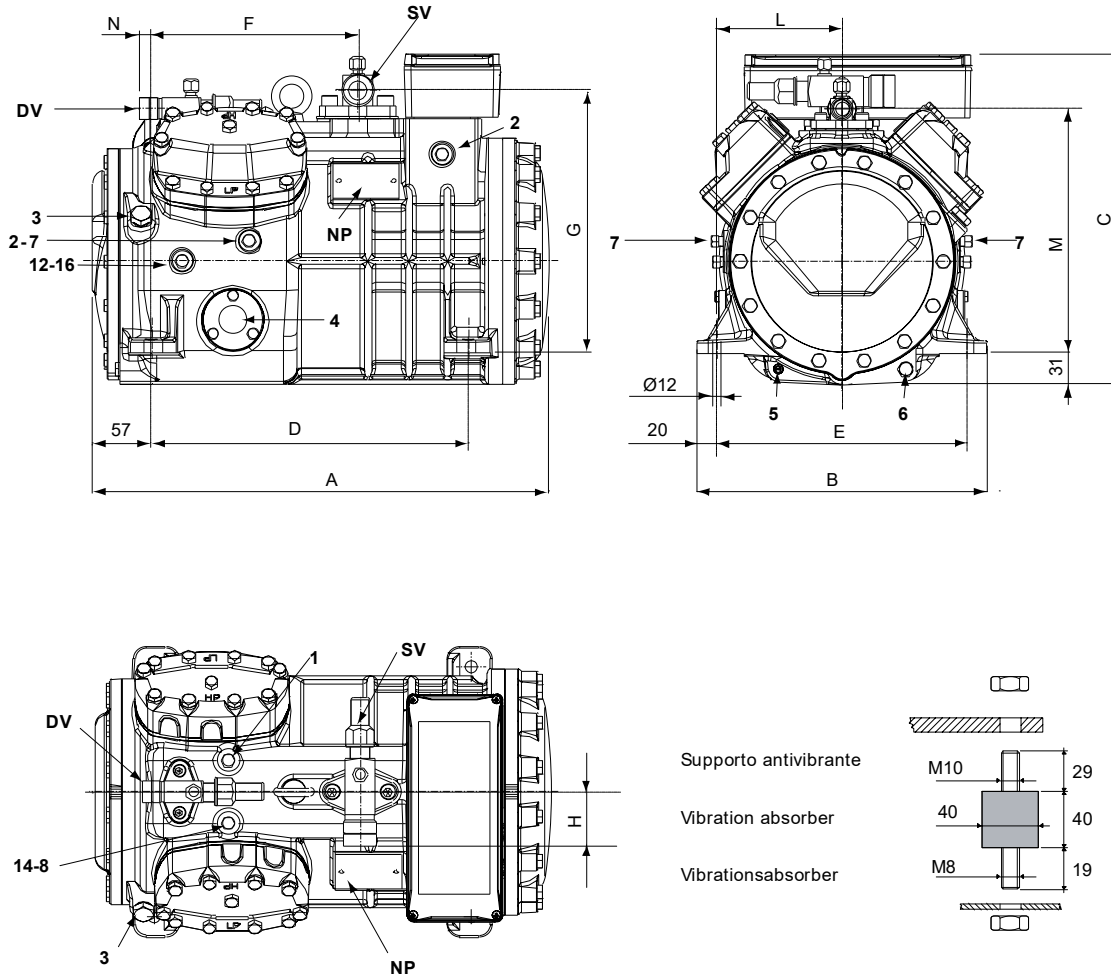
All data subject to change without notice

Model: Q5-33.1Y

Refrigerant: R449A

Power supply: 400/3/50 DOL-STAR

Dimensions:



Legend:

SV: Suction Valve	1 3/8" in - 35 mm	1: High pressure connection	1/8" NPT
DV: Discharge valve	1 1/8" in - 28,575 mm	2: Low pressure connection	1/8" NPT
A: Length	449 mm	3: Oil charge plug	1/4" GAS
B: Width	286 mm	4: Oil level sight glass	-
C: Height	328 mm	5: Crankcase heater seat	-
D: Base mounting	312 mm	6: Oil drain plug	M8 x 22
E: Base mounting	246 mm	7: Liquid injection plug	1/8" NPT
F: Suction Valve	203 mm	8: Liquid injection sensor plug	1/8" NPT
G: Suction Valve	261 mm	12: Oil return plug	1/8" NPT
H: Suction Valve	58 mm	14: Max discharge temperature sensor connection	1/8" NPT
L: Discharge valve	123 mm	16: Crankcase pressure plug	1/8" NPT
M: Discharge valve	239 mm	NP: Nameplate	
N: Discharge valve	28 mm		

All data subject to change without notice

Model: Q5-33.1Y

Refrigerant: R449A

Power supply: 400/3/50 DOL-STAR

Polynomial coefficients according to EN12900 for Q5-33.1Y:

*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	4,332380E+004	2,722278E+003
C2	1,686090E+003	-5,441031E+001
C3	-5,616660E+002	1,123635E+002
C4	2,274740E+001	-2,280808E+000
C5	-2,028040E+001	3,093598E+000
C6	3,097830E+000	3,478325E-001
C7	9,443980E-002	-1,392705E-002
C8	-2,216530E-001	2,088332E-002
C9	5,227950E-002	1,089999E-002
C10	-1,734620E-002	-6,025875E-003

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

All data subject to change without notice