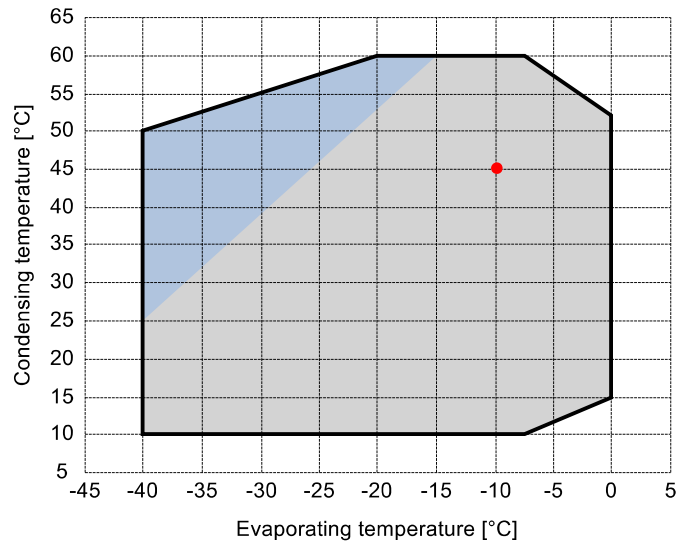


## Input data

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

<b>Compressor :</b>	<b>Z40-154Y</b>	
Number of compressors :	FSx1	
Refrigerating capacity	kW	76,069
Refrigerating capacity [ *ref ]	kW	78,138
Evaporator capacity	kW	76,069
Power input	W	32154
Condenser capacity, theor.	kW	108,223
Current	A	56,91
COP/EER	W/W	2,37
Mass flow	kg/h	1946
Operating frequency	Hz	50
Connection	-	PWS
Operating mode	-	100%
Discharge temperature	°C	84,15
Ratio (%)	%	100,0%
Note	-	
Oil flow	l/min	-
Heat Exchanged (oil Cooler)	kW	-
Oil Temp. at Oil Cooler Outlet	°C	-
Certified by	-	Frascold

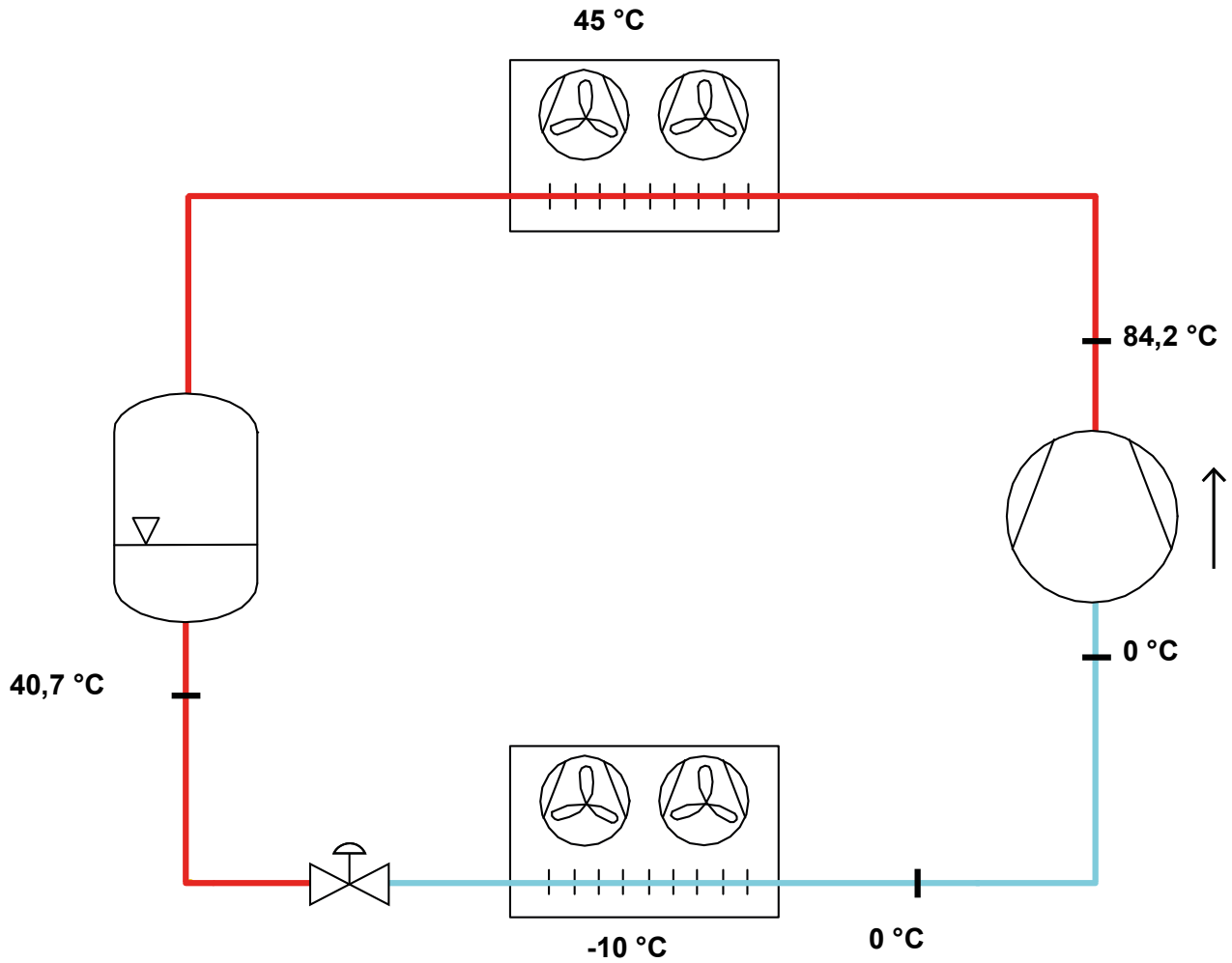
## Certified by:

- Frascold tentative data

## Legend:

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

## P&I Diagram:



*All data subject to change without notice*

**Model: Z40-154Y**

Refrigerant: R449A

Power supply: 400/3/50 PWS

**Technical data:**

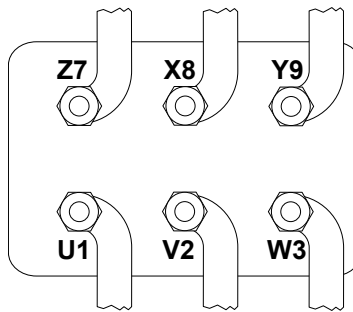
Displacement	154,38 m³/h
Nominal compressor speed	1450 rpm
Motor voltage	400 V
Nominal operating frequency	50 Hz
Maximum allowed operating current (MRA)	77,9 A
Locked rotor current (LRA)	159,2 A
Locked rotor current (LRA), DOL	273 A
Number of pistons	6
Net weight	240 kg
Lubricant	FRASCOLD POE68
Oil charge	7,2 l
Maximum static pressure LP	20,5 bar
Maximum operating pressure HP	30 bar

**Sound level:**

Sound power level -10/45°C R404A @50Hz	83 dB(A)
Sound pressure (*) - Distance: 1 m	75 dB(A)
Sound power level -35/40°C R404A @50Hz	91,5 dB(A)
Sound pressure (*) - Distance: 1 m	83,5 dB(A)

\*half sphere model

**Motor connections:**



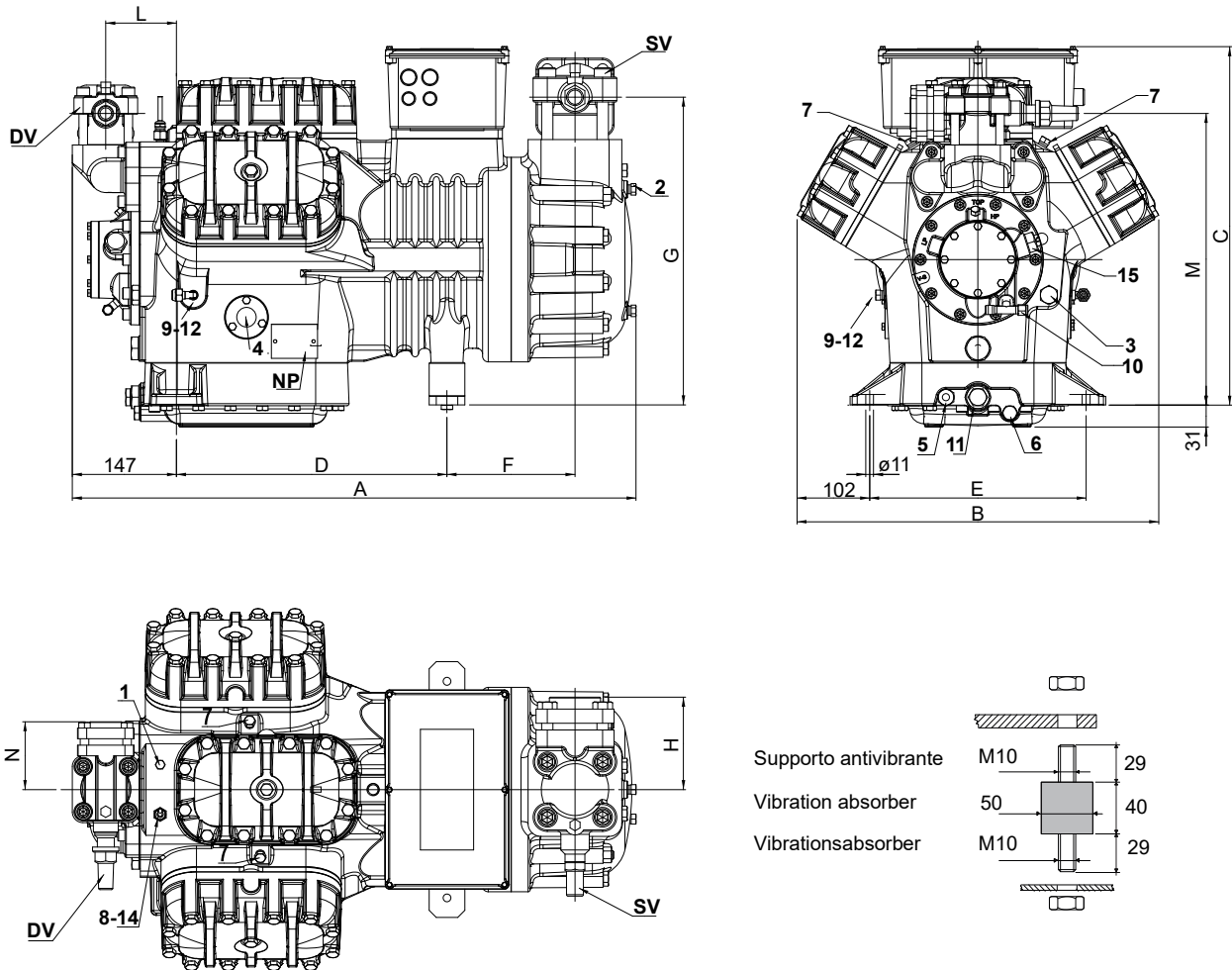
All data subject to change without notice

## Model: Z40-154Y

Refrigerant: R449A

Power supply: 400/3/50 PWS

### Dimensions:



### Legend:

SV: Suction Valve	2 5/8" in - 67 mm	2: Low pressure connection	1/4" NPT
DV: Discharge valve	1 5/8" in - 42 mm	3: Oil charge plug	3/8" GAS
A: Length	794 mm	4: Oil level sight glass	-
B: Width	509 mm	5: Crankcase heater seat	-
C: Height	536 mm	6: Oil drain plug	1/4" GAS
D: Base mounting	381 mm	7: Liquid injection plug	1/8" NPT
E: Base mounting	305 mm	8: Liquid injection sensor plug	1/8" NPT
F: Suction Valve	180 mm	9: Oil pressure switch connection (LP)	1/4" NPT
G: Suction Valve	433 mm	10: Oil pressure switch connection (HP)	1/4" SAE
H: Suction Valve	130 mm	11: Oil filter	3/8" GAS
L: Discharge valve	100 mm	12: Oil return plug	1/4" NPT
M: Discharge valve	411 mm	14: Max discharge temperature sensor connection	1/8" NPT
N: Discharge valve	95 mm	15: Electronic oil pressure switch connection	-
1: High pressure connection	1/8" NPT	NP: Nameplate	-

*All data subject to change without notice*

**Model: Z40-154Y**

Refrigerant: R449A

Power supply: 400/3/50 PWS

**Polynomial coefficients according to EN12900 for Z40-154Y:**

\*S = T<sub>evap</sub> ; D = T<sub>cond</sub>

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	1,946300E+005	1,039010E+004
C2	7,149050E+003	-3,646660E+002
C3	-1,739460E+003	6,363190E+002
C4	9,139040E+001	-1,206080E+001
C5	-6,212020E+001	2,032870E+001
C6	8,094710E-001	8,036400E-001
C7	3,678800E-001	-1,092530E-001
C8	-6,913900E-001	8,017380E-002
C9	6,394070E-003	-6,197920E-002
C10	-2,029590E-002	-3,857570E-002

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