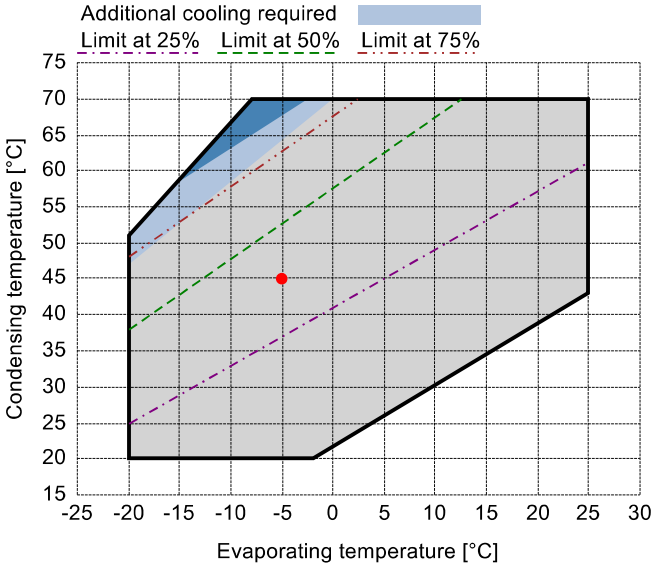
Input data

Refrigerant		R134a
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	11.6
Liquid subcooling	K	2
Liquid temperature	°C	43
Evaporating temperature	°C	-5
Evaporating pressure	bar	2.43
Suction gas temperature	°C	20
Evaporator superheating	K	5



Output data

Compressor :		**CXH02-100-298Y**
Number of compressors :		FSx1
Refrigerating capacity	kW	126.309
Refrigerating capacity [*ref]	kW	120.792
Evaporator capacity	kW	111.989
Power input	W	46214
Condenser capacity, theor.	kW	172.523
Current	A	78.53
COP/EER	W/W	2.42
Mass flow	kg/h	2916
Operating frequency	Hz	50
Connection	-	PWS
Operating mode	-	100%
Discharge temperature	°C	92.01
Ratio (%)	%	100.0%
Note	-	
Oil flow	l/min	12.63
Heat Exchanged (oil Cooler)	kW	-
Oil Temp. at Oil Cooler Outlet	°C	-
Certified by	-	Frascold

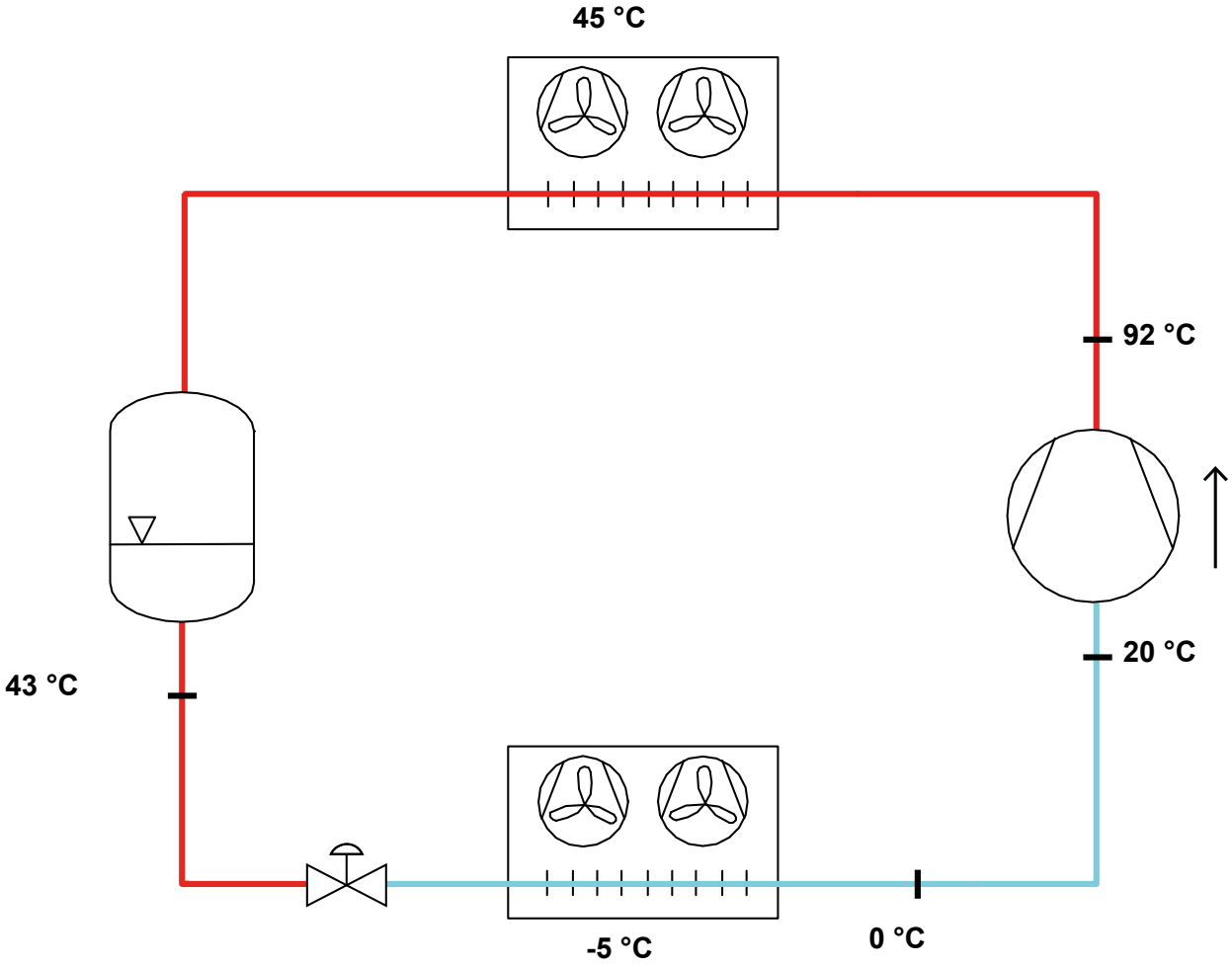
Certified by:

- Frascold tentative data

Legend:

*ref: At conditions according to EN12900
- Suction gas superheating = 10 K
- Liquid subcooling = 0 K

P&I Diagram:



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Oil separator:

Name		WK201
Number of separators		1
Results		
Number of compressors, maximum		3
Utilization (Number of separators)	%	33.33
Refrigerant mass flow, maximum	kg/h	5279
Utilization (Refrigerant mass flow)	%	55.23
Oil flow, maximum	l/min	112.5
Utilization (Oil flow)	%	11.23
Selection parameters		
Number of compressors		1
Mass flow, Compressors	kg/h	2916
Oil flow, Compressors	l/min	12.63
Operating conditions		
Evaporating temperature	°C	-5
Suction gas temperature	°C	20
Condensing temperature	°C	45
Liquid temperature	°C	43

Model: CXH02-100-298Y

Refrigerant: R134a

Power supply: 400/3/50 PWS

Technical data:

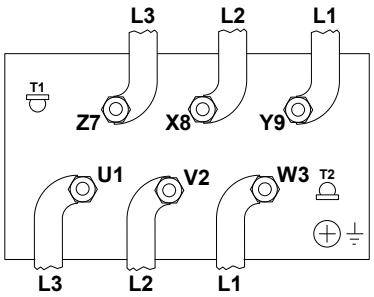
Displacement	298 m³/h
Nominal compressor speed	2900 rpm
Motor voltage	400 V
Nominal operating frequency	50 Hz
Maximum allowed operating current (MRA)	175 A
Locked rotor current (LRA)	488 A
Locked rotor current (LRA), DOL	767 A
Net weight	560 kg
Lubricant	FRASCOLD POE170
Oil charge	11 l
Maximum static pressure LP	20.5 bar
Maximum operating pressure HP	30 bar

Sound level:

Sound power level 5/50°C R407C @50Hz	87.4 dB(A)
Sound pressure (*) - Distance: 1 m	79.4 dB(A)
Sound power level 5/50°C R134a @50Hz	86 dB(A)
Sound pressure (*) - Distance: 1 m	78 dB(A)

*half sphere model

Motor connections:

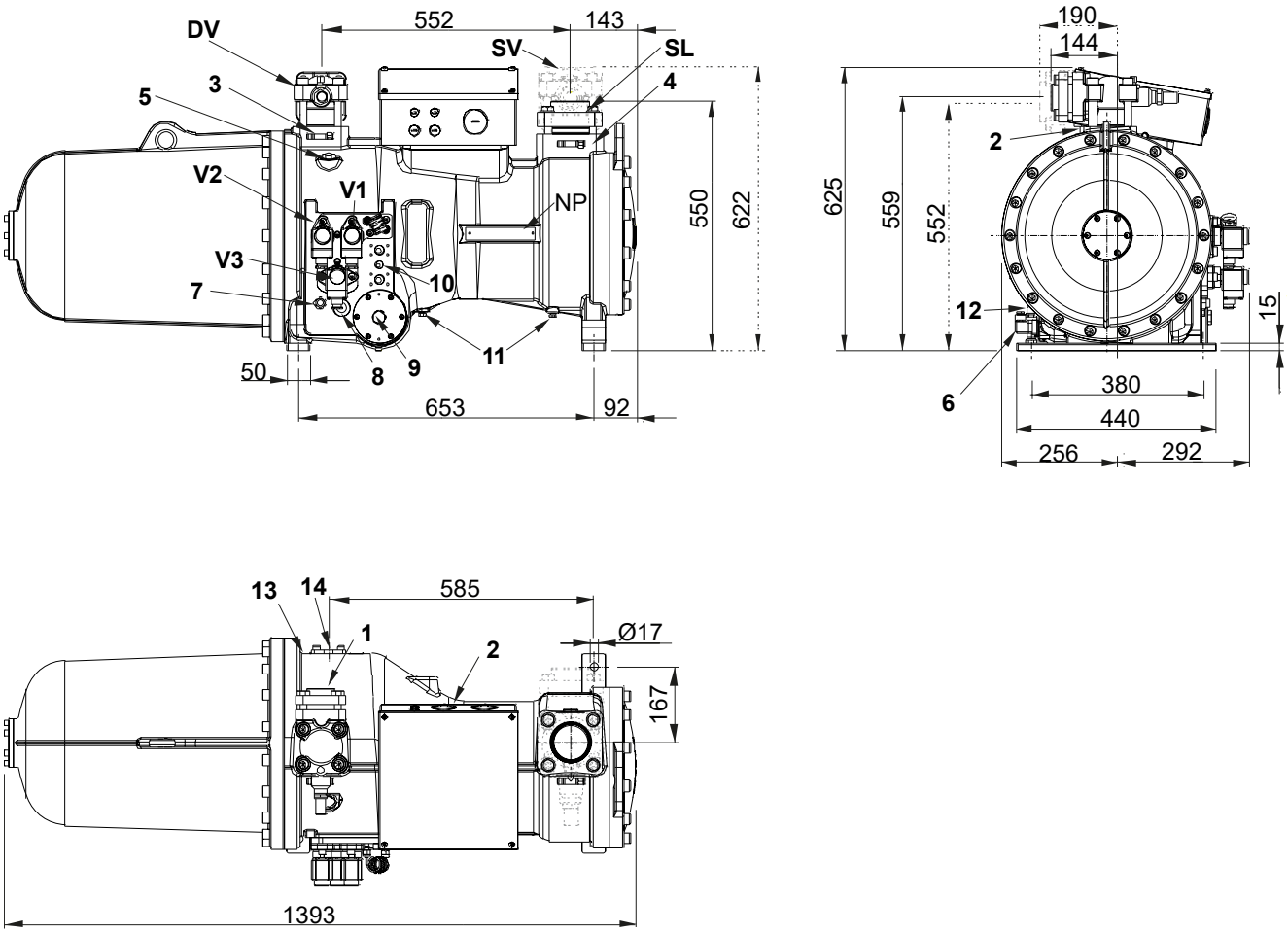


Model: CXH02-100-298Y

Refrigerant: R134a

Power supply: 400/3/50 PWS

Dimensions:



Legend:

SV: Suction Valve	3 1/8" in - 80 mm	6: Crankcase heater	-
DV: Discharge valve	2 1/8" in - 54 mm	7: Oil level regulator connection	3/4" NPT
SL: Suction line	3 1/8"	8: Oil level sight glass	-
V1: Capacity control valve	-	9: Filter clogging sensor connection	1/2" GAS
V2: Capacity control valve	-	10: Oil cooler connection	1/2" NPT
V3: Capacity control valve	-	11: Oil drain plug	1/4" NPT
1: High pressure connection	1/8" NPT	12: Oil drain valve	1/8" NPT
2: Low pressure connection	1/8" NPT	13: Maximum oil temperature sensor	-
3: High pressure connection	1/4" SAE x 1/4" SAE	14: ECO/liquid injection connection	1 1/8"
4: Low pressure connection	1/4" SAE x 1/4" SAE	NP: Nameplate	
5: Oil charge plug	3/8" GAS		

Model: CXH02-100-298Y

Refrigerant: R134a

Power supply: 400/3/50 PWS

Polynomial coefficients according to EN12900 for CXH02-100-298Y:

*S = Tevap ; D = Tcond

Reference conditions	
Refrigerant	R134a
Ambient temperature	35 °C
Suction gas superheating	10 K
Liquid subcooling	0 K
Frequency	50 Hz

	Refrigerating capacity [W]	Power input [W]
C1	2.418556E+005	2.663680E+004
C2	7.817555E+003	7.675226E+002
C3	-1.115838E+003	4.899391E+002
C4	9.877085E+001	1.213049E+001
C5	1.614363E+001	-9.393578E+000
C6	-2.118214E+001	-5.078357E+000
C7	9.314935E-001	1.059878E-001
C8	7.497834E-002	-1.149395E-001
C9	-8.163433E-001	1.061719E-001
C10	4.456293E-002	1.146960E-001

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

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