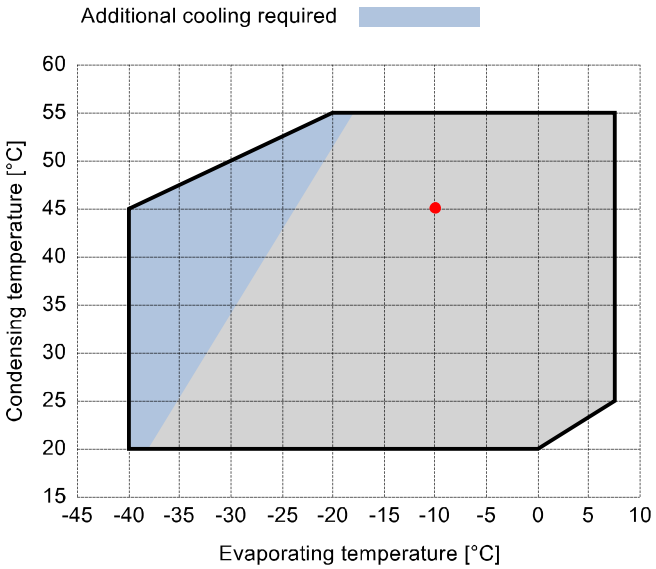
Input data

Refrigerant		R404A
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	20,47
Liquid subcooling	K	0
Liquid temperature	°C	44,67
Evaporating temperature	°C	-10
Evaporating pressure	bar	4,34
Suction gas superheating	K	10
Useful fraction of superheating	%	100



Output data

Compressor :		**V20-59Y**
Number of compressors :		FSx1
Refrigerating capacity	kW	26,999
Refrigerating capacity [*ref]	kW	28,928
Evaporator capacity	kW	26,999
Power input	W	13142
Condenser capacity, theor.	kW	40,141
Current	A	25,32
COP/EER	W/W	2,05
Mass flow	kg/h	957
Operating frequency	Hz	50
Connection	-	PWS
Operating mode	-	100%
Discharge temperature	°C	73,08
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:

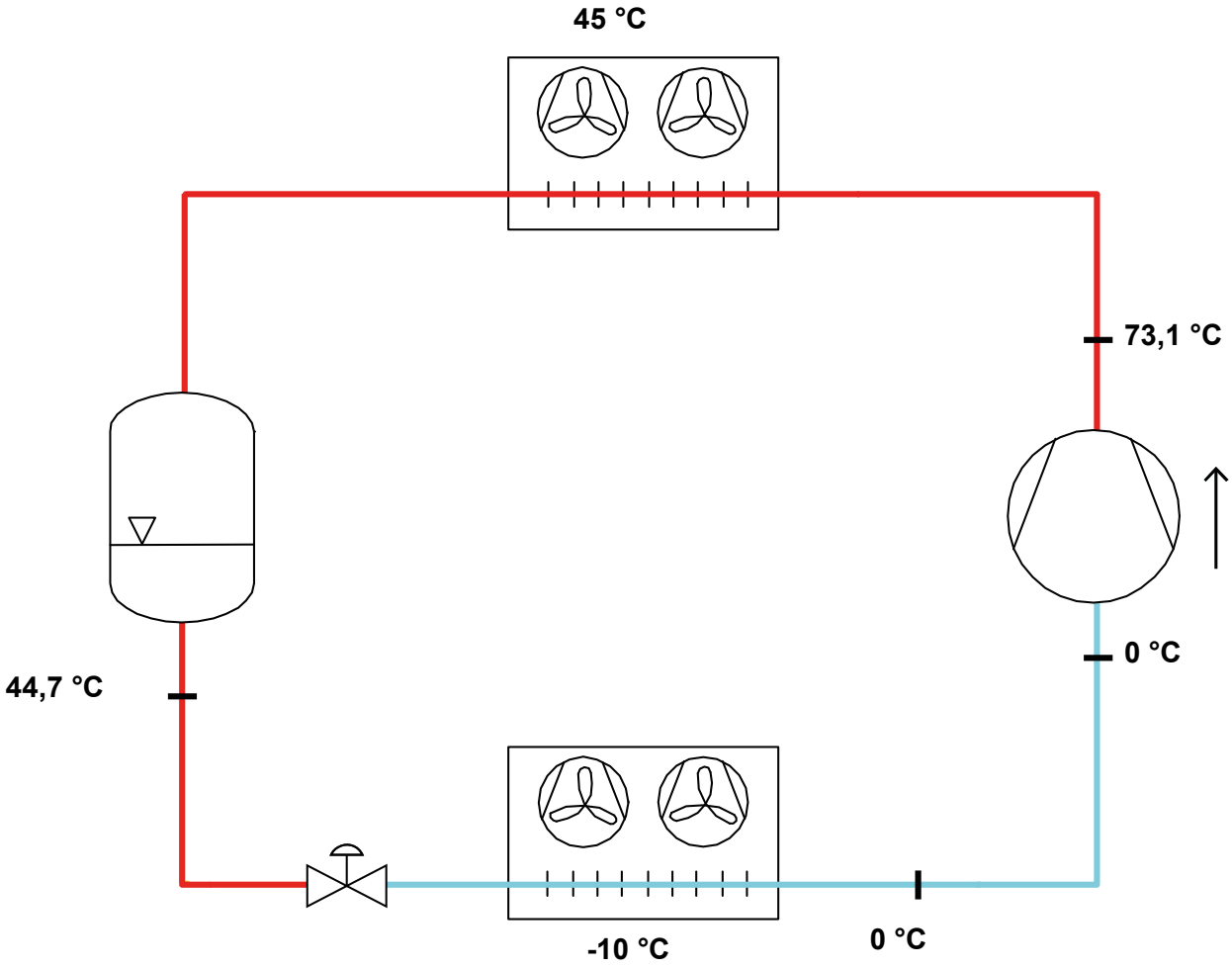
- ASERCOM (ref. EN12900, 50 Hz, 100% cap.)

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:



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Model: V20-59Y

Refrigerant: R404A

Power supply: 400/3/50 PWS

Technical data:

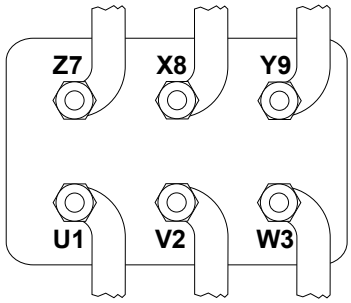
Displacement	58,48 m³/h
Nominal compressor speed	1450 rpm
Motor voltage	400 V
Nominal operating frequency	50 Hz
Maximum allowed operating current (MRA)	35,3 A
Locked rotor current (LRA)	106,6 A
Locked rotor current (LRA), DOL	180,5 A
Number of pistons	4
Net weight	174 kg
Lubricant	FRASCOLD POE68
Oil charge	4 l
Maximum static pressure LP	20,5 bar
Maximum operating pressure HP	30 bar

Sound level:

Sound power level 5/50°C R404A @50Hz	75 dB(A)
Sound pressure (*) - Distance: 1 m	67 dB(A)
Sound power level -10/45°C R404A @50Hz	77,5 dB(A)
Sound pressure (*) - Distance: 1 m	69,5 dB(A)

*half sphere model

Motor connections:

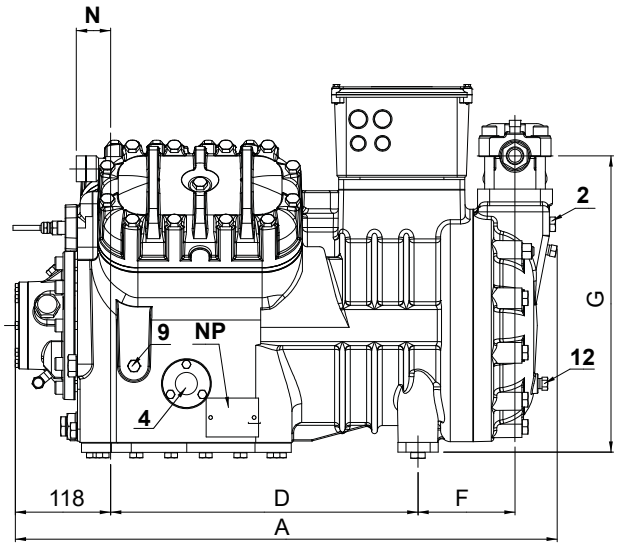


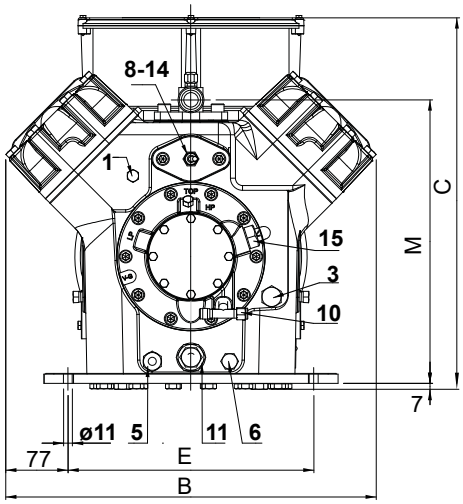
Model: V20-59Y

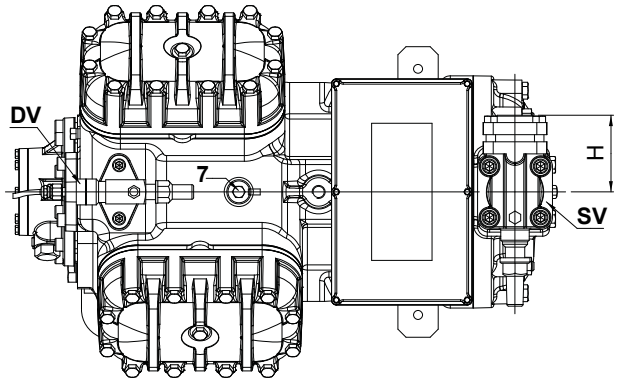
Refrigerant: R404A

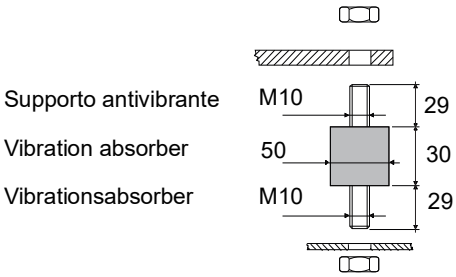
Power supply: 400/3/50 PWS

Dimensions:









Legend:

SV: Suction Valve	1 5/8" in - 42 mm	3: Oil charge plug	3/8" GAS
DV: Discharge valve	1 1/8" - 28,575 mm	4: Oil level sight glass	-
A: Length	672 mm	5: Crankcase heater seat	-
B: Width	460 mm	6: Oil drain plug	1/4" GAS
C: Height	463 mm	7: Liquid injection plug	1/4" NPT
D: Base mounting	381 mm	8: Liquid injection sensor plug	1/8" NPT
E: Base mounting	305 mm	9: Oil pressure switch connection (LP)	1/4" NPT
F: Suction Valve	120 mm	10: Oil pressure switch connection (HP)	1/4" SAE
G: Suction Valve	367 mm	11: Oil filter	3/8" GAS
H: Suction Valve	95 mm	12: Oil return plug	1/4" NPT
L: Discharge valve	152 mm	14: Max discharge temperature sensor connection	1/8" NPT
M: Discharge valve	352 mm	15: Electronic oil pressure switch connection	3/4 UNF
N: Discharge valve	43 mm	NP: Nameplate	
1: High pressure connection	1/8" NPT	DIMENSION UNITS:	mm
2: Low pressure connection	1/4" NPT	SECONDARY DIMENSION UNITS:	[in]

All data subject to change without notice

Model: V20-59Y

Refrigerant: R404A

Power supply: 400/3/50 PWS

Polynomial coefficients according to EN12900 for V20-59Y:

*S = Tevap ; D = Tcond

Reference conditions	
Refrigerant	R404A
Ambient temperature	35 °C
Suction gas temperature	20 °C
Liquid subcooling	0 K
Frequency	50 Hz

	Refrigerating capacity [W]	Power input [W]
C1	7,990678E+004	2,910263E+003
C2	2,842042E+003	-2,389414E+002
C3	-6,928237E+002	3,566824E+002
C4	3,459241E+001	-6,455395E+000
C5	-2,412134E+001	1,056283E+001
C6	-3,459748E+000	-1,680503E+000
C7	1,260648E-001	-4,153917E-002
C8	-2,678180E-001	7,626651E-002
C9	-4,426153E-002	-2,585613E-002
C10	1,916033E-002	-3,455553E-003

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

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