



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model	(4VC-10.2Y)	Suction gas temperature	20,00 °C
Mode	Refrigeration and Air conditioning	Operating mode	Auto
Refrigerant	R404A	Power supply	400V-3-50Hz
Reference temperature	Dew point temp.	Capacity Control	100%
Liq. subc. (in condenser)	0 K	Useful superheat	100%

Result

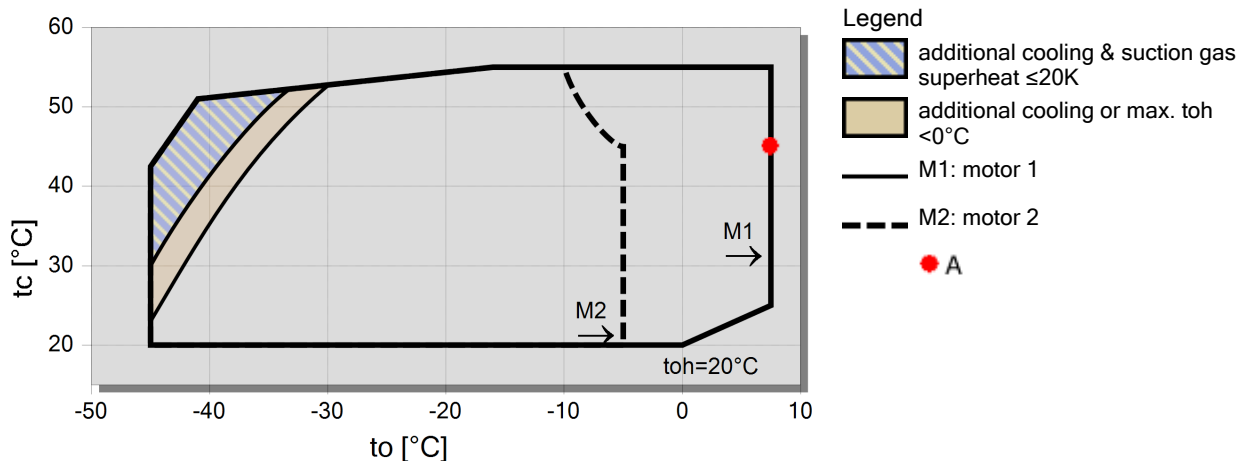
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	10°C	0°C	-10°C	-20°C	-30°C	-40°C	-50°C	-60°C
30°C	Q [W]	--	32801	22423	14613	8814	4583	--	--
	Q* [W]	--	32801	22423	14613	8814	4583	--	--
	P [kW]	--	7,01	6,41	5,45	4,27	3,00	--	--
	I [A]	--	12,87	12,04	10,77	9,33	8,02	--	--
	Qc [W]	--	39808	28830	20062	13080	7583	--	--
	COP [-]	--	4,68	3,50	2,68	2,07	1,53	--	--
	COP* [-]	--	4,68	3,50	2,68	2,07	1,53	--	--
	m [kg/h]	--	834	558	358	214	110,2	--	--
	Op.	--	Standard	Standard	Standard	Standard	Standard	--	--
	th [°C]	--	61,9	74,8	89,2	106,5	131,3	--	--
40°C	Q [W]	--	27611	18677	11945	6958	3352	--	--
	Q* [W]	--	27611	18677	11945	6958	3352	--	--
	P [kW]	--	8,18	7,14	5,80	4,31	2,80	--	--
	I [A]	--	14,55	13,06	11,23	9,38	7,84	--	--
	Qc [W]	--	35788	25816	17748	11267	6149	--	--
	COP [-]	--	3,38	2,62	2,06	1,62	1,20	--	--
	COP* [-]	--	3,38	2,62	2,06	1,62	1,20	--	--
	m [kg/h]	--	792	523	329	189,1	90,3	--	--
	Op.	--	Standard	Standard	Standard	Standard	Standard	--	--
	th [°C]	--	73,0	86,1	100,8	118,7	0	--	--
50°C	Q [W]	--	22475	15021	9410	5286	2355	--	--
	Q* [W]	--	22475	15021	9410	5286	2355	--	--
	P [kW]	--	9,13	7,68	6,01	4,26	2,57	--	--
	I [A]	--	15,94	13,84	11,50	9,32	7,65	--	--
	Qc [W]	--	31600	22705	15420	9542	4923	--	--
	COP [-]	--	2,46	1,96	1,57	1,24	0,92	--	--
	COP* [-]	--	2,46	1,96	1,57	1,24	0,92	--	--
	m [kg/h]	--	749	486	299	165,4	73,0	--	--
	Op.	--	Standard	Standard	Standard	Standard	Standard	--	--
	th [°C]	--	84,2	97,5	112,7	131,5	0	--	--

-- No calculation possible (see message in single point selection)

*According to EN12900 (20°C suction gas temp., 0K liquid subcooling)

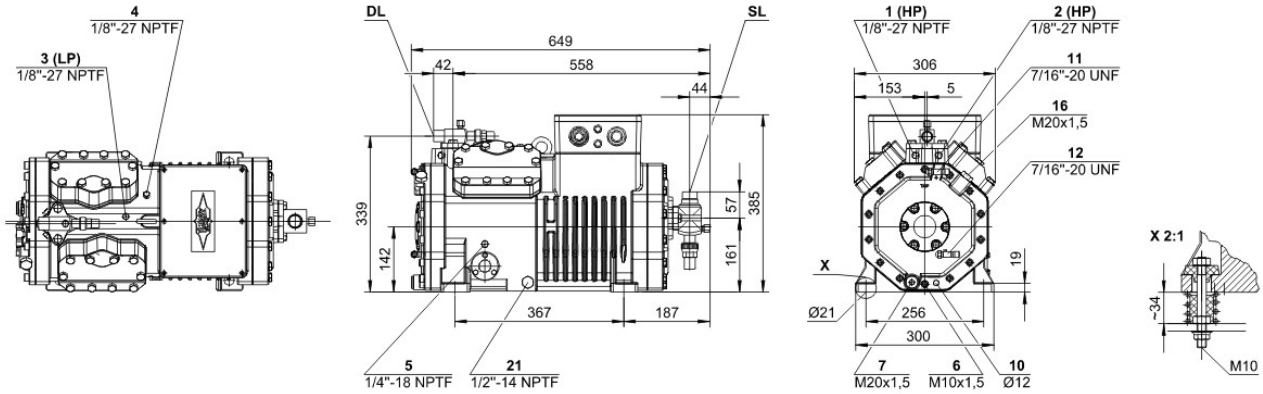
Application Limits 100%





Technical Data: (4VC-10.2Y)

Dimensions and Connections



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Displacement (1450 RPM 50Hz)	34,73 m ³ /h
Displacement (1750 RPM 60Hz)	41,92 m ³ /h
No. of cylinder x bore x stroke	4 x 55 mm x 42 mm
Weight	141 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	28 mm - 1 1/8"
Connection discharge line	22 mm - 7/8"
Oil type R134a/R407C/R404A/R507A/R407A/R407F	tc<55°C: BSE32 / tc>55°C: BSE55 (Option)
Oil type R22 (R12/R502)	B5.2 (Standard)
Oil type R290/R1270	SHC226E (Standard)

Motor data

Motor voltage (more on request)	380-420V PW-3-50Hz
Max operating current	21.0 A
Winding ratio	50/50
Starting current (Rotor locked)	59.0 A Y / 99.0 A YY
Max. Power input	11,3 kW

Extent of delivery (Standard)

Motor protection	SE-B1
Enclosure class	IP65
Vibration dampers	Standard
Oil charge	2,60 dm ³

Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Capacity control	100-50% (Option)
Additional fan	Option
Oil service valve	Option
Crankcase heater	0..140 W PTC (Option)
Oil pressure monitoring	MP54 (Option), Delta-PII (Option, not for R290/R1270)

Sound measurement

Sound power level (+5°C / 50°C)	71,5 dB(A) @ 50Hz
Sound power level (-10°C / 45°C)	72,5 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	(77,5) dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	63,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	64,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	(69,5) dB(A) @ 50Hz