



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model Mode	(4P-10.2Y) Refrigeration and Air conditioning	Suction gas temperature Operating mode	20,00 °C 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

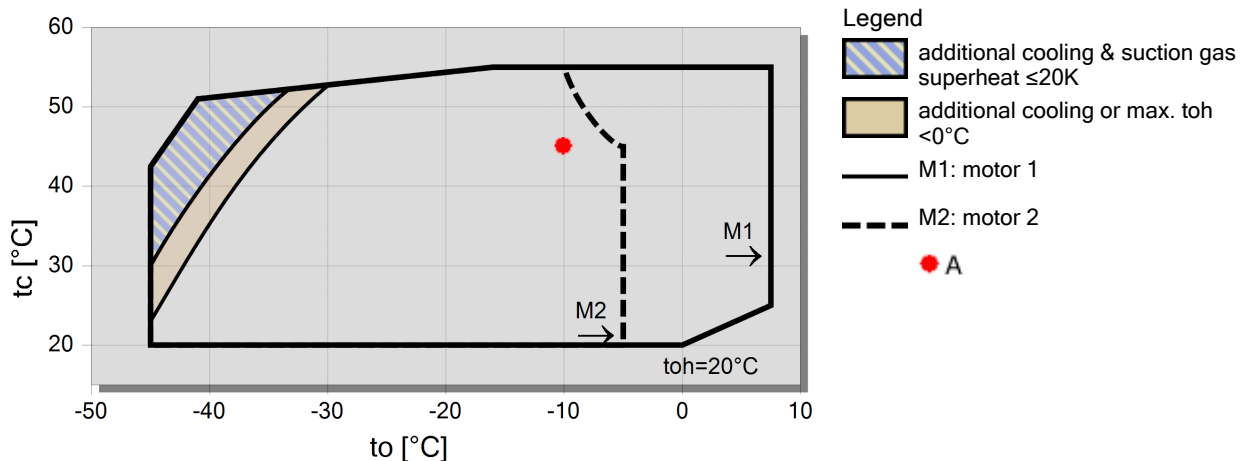
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
30°C	Q [W]	37749	31078	25314	20355	16110	12500	9452	6901
	Q* [W]	37749	31078	25314	20355	16110	12500	9452	6901
	P [kW]	9,58	9,03	8,41	7,72	6,97	6,17	5,31	4,41
	I [A]	16,60	15,79	14,88	13,88	12,82	11,71	10,59	9,50
	Qc [W]	47325	40106	33722	28076	23083	18668	14765	11314
	COP [-]	3,94	3,44	3,01	2,64	2,31	2,03	1,78	1,56
	COP* [-]	3,94	3,44	3,01	2,64	2,31	2,03	1,78	1,56
	m [kg/h]	948	773	624	499	392	303	228	165,9
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	68,9	75,4	82,4	90,1	98,5	107,7	118,0	129,3
40°C	Q [W]	32510	26665	21609	17256	13530	10363	7694	5466
	Q* [W]	32510	26665	21609	17256	13530	10363	7694	5466
	P [kW]	11,08	10,29	9,41	8,48	7,49	6,45	5,38	4,29
	I [A]	18,86	17,66	16,36	14,98	13,55	12,10	10,68	9,35
	Qc [W]	43594	36952	31024	25735	21018	16816	13076	9752
	COP [-]	2,93	2,59	2,30	2,04	1,81	1,61	1,43	1,28
	COP* [-]	2,93	2,59	2,30	2,04	1,81	1,61	1,43	1,28
	m [kg/h]	920	746	599	475	370	282	208	147,3
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	79,8	86,5	93,7	101,5	109,9	119,1	129,1	140,0
50°C	Q [W]	--	21926	17663	13986	10836	8157	5901	4019
	Q* [W]	--	21926	17663	13986	10836	8157	5901	4019
	P [kW]	--	11,60	10,41	9,18	7,92	6,65	5,35	4,05
	I [A]	--	19,64	17,84	16,02	14,18	12,37	10,64	9,09
	Qc [W]	--	33531	28071	23165	18760	14805	11255	8067
	COP [-]	--	1,89	1,70	1,52	1,37	1,23	1,10	0,99
	COP* [-]	--	1,89	1,70	1,52	1,37	1,23	1,10	0,99
	m [kg/h]	--	710	566	444	341	255	183,6	124,5
	Op.	--	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	--	99,2	106,5	114,4	123,1	132,5	0	0

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

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

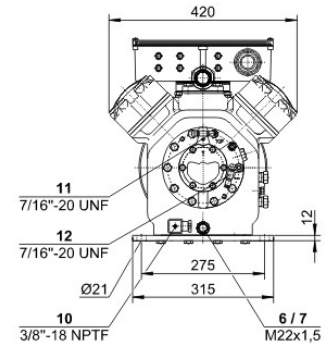
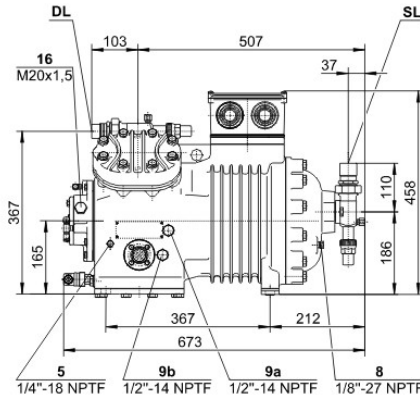
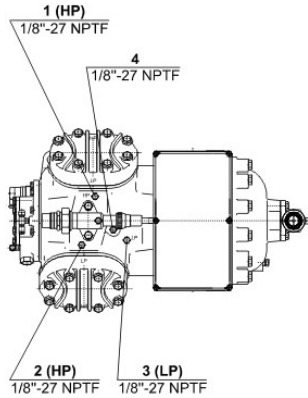
Application Limits 100%





Technical Data: (4P-10.2Y)

Dimensions and Connections



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Displacement (1450 RPM 50Hz)	47,14 m ³ /h
Displacement (1750 RPM 60Hz)	56,89 m ³ /h
No. of cylinder x bore x stroke	4 x 55 mm x 57 mm
Weight	145 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	35 mm - 1 3/8"
Connection discharge line	28 mm - 1 1/8"
Connection cooling water	R 1/2"
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	11,7 kW

Extent of delivery (Standard)

Motor protection	SE-B2
Enclosure class	IP54 (Standard), IP66 (Option)
Vibration dampers	Standard
Oil charge	3,00 dm ³

Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Capacity control	100-50% (Option)
Additional fan	Option
Water-cooled cylinder heads	Option
CIC System	Option
Oil service valve	Option
Crankcase heater	100 W (Option)
Oil pressure monitoring	MP54 (Option), Delta-Pil (Option, not for R290/R1270)

Sound measurement

Sound power level (-10°C / 45°C)	78,5 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	83,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	70,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	75,5 dB(A) @ 50Hz