



### Compressor Selection: Semi-hermetic Reciprocating Compressors

#### Input Values

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

#### Result

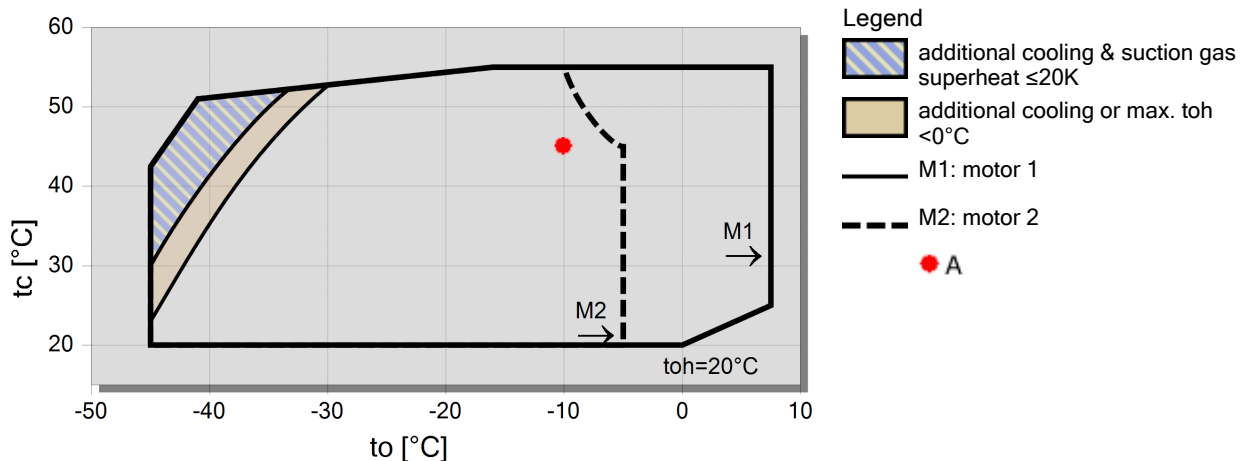
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	5°C	0°C	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C
30°C	Q [W]	37157	31111	25863	21314	17381	13993	11090	8617
	Q* [W]	37157	31111	25863	21314	17381	13993	11090	8617
	P [kW]	7,01	6,76	6,47	6,13	5,75	5,33	4,85	4,31
	I [A]	12,87	12,52	12,12	11,67	11,16	10,61	10,01	9,38
	Qc [W]	44166	37867	32329	27447	23135	19320	15937	12928
	COP [-]	5,30	4,60	4,00	3,48	3,02	2,63	2,29	2,00
	COP* [-]	5,30	4,60	4,00	3,48	3,02	2,63	2,29	2,00
	m [kg/h]	958	791	650	530	429	343	270	209
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	56,6	62,3	68,4	75,1	82,3	90,3	99,1	108,7
40°C	Q [W]	32020	26764	22188	18212	14768	11800	9255	7088
	Q* [W]	32020	26764	22188	18212	14768	11800	9255	7088
	P [kW]	8,19	7,84	7,42	6,93	6,39	5,79	5,15	4,46
	I [A]	14,56	14,05	13,45	12,76	12,01	11,21	10,38	9,55
	Qc [W]	40206	34601	29604	25143	21155	17590	14401	11550
	COP [-]	3,91	3,42	2,99	2,63	2,31	2,04	1,80	1,59
	COP* [-]	3,91	3,42	2,99	2,63	2,31	2,04	1,80	1,59
	m [kg/h]	933	768	628	510	410	325	253	192,7
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	66,5	72,6	79,0	85,9	93,3	101,4	110,2	119,9
50°C	Q [W]	26339	21986	18176	14852	11965	9470	7329	5503
	Q* [W]	26339	21986	18176	14852	11965	9470	7329	5503
	P [kW]	9,47	8,97	8,36	7,69	6,95	6,18	5,39	4,60
	I [A]	16,45	15,70	14,82	13,83	12,79	11,73	10,69	9,72
	Qc [W]	35814	30951	26539	22538	18918	15653	12720	10103
	COP [-]	2,78	2,45	2,17	1,93	1,72	1,53	1,36	1,20
	COP* [-]	2,78	2,45	2,17	1,93	1,72	1,53	1,36	1,20
	m [kg/h]	894	732	596	481	383	301	231	172,2
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	77,9	84,3	91,0	98,1	105,7	114,1	123,5	134,6

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

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

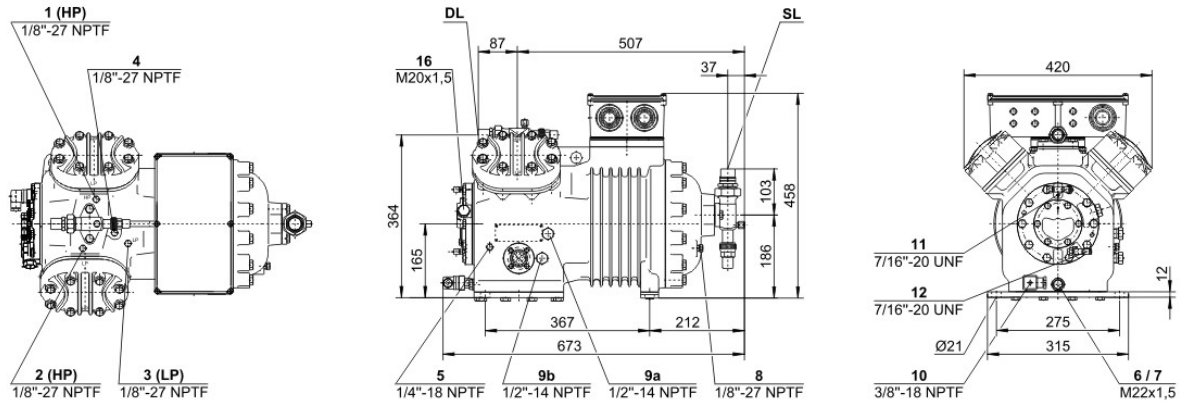
#### Application Limits 100%





## Technical Data: (4V-10.2Y)

### Dimensions and Connections



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Displacement (1450 RPM 50Hz)	33,07 m <sup>3</sup> /h
Displacement (1750 RPM 60Hz)	39,91 m <sup>3</sup> /h
No. of cylinder x bore x stroke	4 x 55 mm x 40 mm
Weight	142 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	28 mm - 1 1/8"
Connection discharge line	22 mm - 7/8"
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	11,3 kW

#### Extent of delivery (Standard)

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

#### Available Options

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

#### Sound measurement

Sound power level (+5°C / 50°C)	73,5 dB(A) @ 50Hz
Sound power level (-10°C / 45°C)	74,5 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	(80,5) dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	65,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	66,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	(72,5) dB(A) @ 50Hz