



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model Mode	(2Q-4.2Y) 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

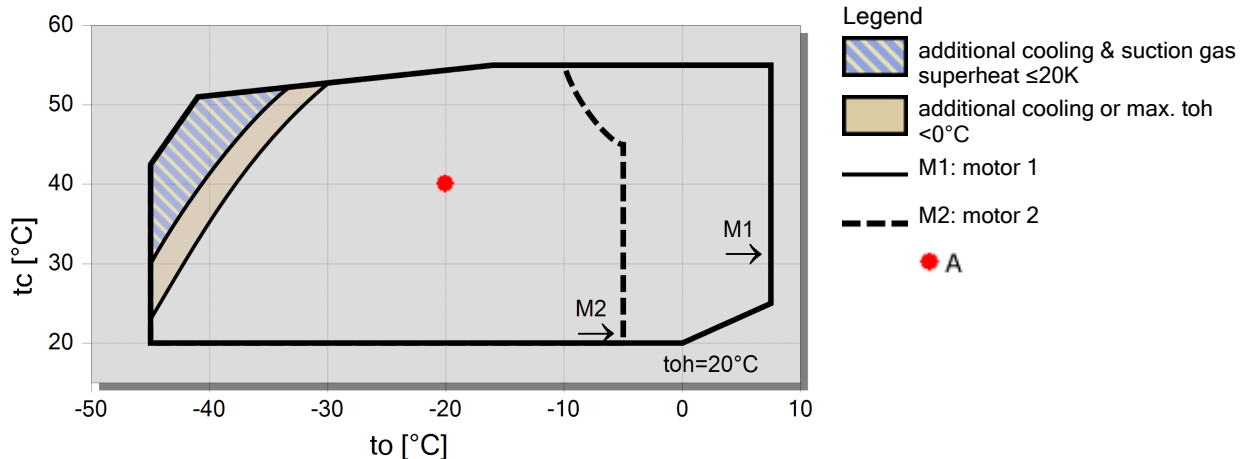
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
30°C	Q [W]	17619	14529	11862	9568	7603	5927	4501	3299
	Q* [W]	17854	14728	12028	9704	7712	6013	4567	3347
	P [kW]	4,63	4,36	4,07	3,77	3,44	3,10	2,74	2,38
	I [A]	8,33	7,96	7,57	7,16	6,74	6,32	5,91	5,52
	Qc [W]	22247	18890	15935	13333	11043	9026	7246	5676
	COP [-]	3,81	3,33	2,91	2,54	2,21	1,91	1,64	1,39
	COP* [-]	3,86	3,38	2,95	2,58	2,24	1,94	1,66	1,41
	m [kg/h]	446	365	296	238	187,9	145,9	110,4	80,7
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	70,5	76,9	84,0	91,9	100,8	111,2	123,5	138,9
40°C	Q [W]	15150	12448	10112	8101	6375	4902	3648	2591
	Q* [W]	15429	12684	10308	8260	6503	5003	3725	2647
	P [kW]	5,31	4,95	4,55	4,13	3,69	3,22	2,75	2,26
	I [A]	9,33	8,79	8,22	7,64	7,05	6,47	5,91	5,40
	Qc [W]	20464	17393	14661	12228	10060	8126	6395	4846
	COP [-]	2,85	2,52	2,22	1,96	1,73	1,52	1,33	1,15
	COP* [-]	2,90	2,56	2,27	2,00	1,76	1,55	1,36	1,17
	m [kg/h]	438	357	288	229	179,2	137,2	101,7	72,0
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	81,0	87,7	94,9	102,9	111,8	121,8	133,5	0
50°C	Q [W]	12452	10185	8219	6521	5063	3819	2759	1866
	Q* [W]	12787	10463	8447	6706	5210	3932	2843	1925
	P [kW]	6,10	5,55	5,00	4,43	3,87	3,31	2,74	2,18
	I [A]	10,50	9,68	8,86	8,06	7,29	6,57	5,91	5,33
	Qc [W]	18552	15737	13215	10956	8933	7124	5502	4051
	COP [-]	2,04	1,83	1,65	1,47	1,31	1,16	1,01	0,85
	COP* [-]	2,10	1,88	1,69	1,51	1,35	1,19	1,04	0,88
	m [kg/h]	427	346	276	218	167,9	125,9	90,6	61,0
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	93,1	99,6	106,7	114,6	123,6	134,1	0	0

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

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

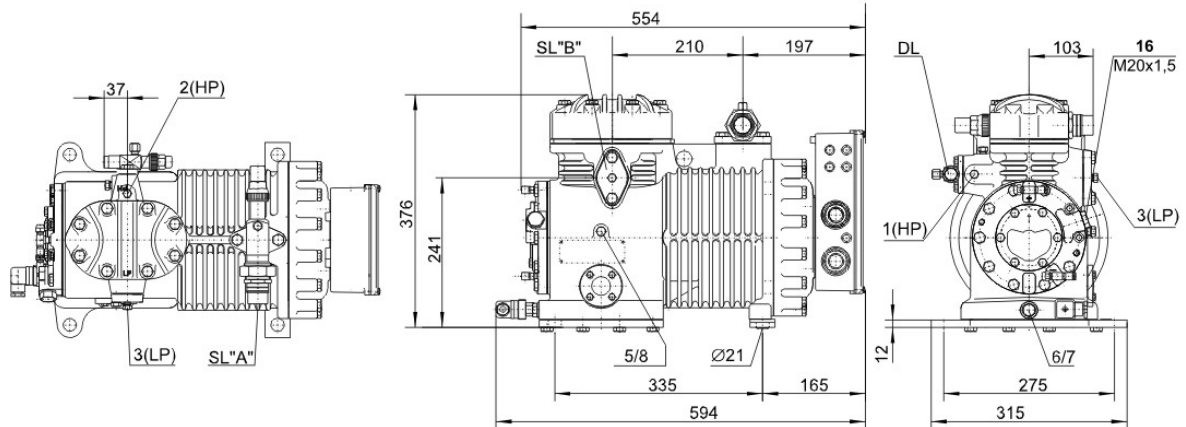
Application Limits 100%





Technical Data: (2Q-4.2Y)

Dimensions and Connections



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Displacement (1450 RPM 50Hz)	22,14 m ³ /h
Displacement (1750 RPM 60Hz)	26,72 m ³ /h
No. of cylinder x bore x stroke	2 x 60 mm x 45 mm
Weight	87 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	28 mm - 1 1/8"
Connection discharge line	16 mm - 5/8"
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 Y-3-50Hz
Max operating current	11.3 A
Starting current (Rotor locked)	47.0 A
Max. Power input	6,6 kW

Extent of delivery (Standard)

Motor protection	INT69VS (Standard), INT389 (Option)
Enclosure class	IP54 (Standard), IP66 (Option)
Vibration dampers	Standard
Oil charge	2,00 dm ³

Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Additional fan	Option
Water-cooled cylinder heads	Option
Crankcase heater	70 W (Option)
Oil pressure monitoring	MP54 (Option), Delta-PII (Option, not for R290/R1270)

Sound measurement

Sound power level (-10°C / 45°C)	71,5 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	78,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	63,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	70,5 dB(A) @ 50Hz