



Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model Mode	4CES-9Y 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%

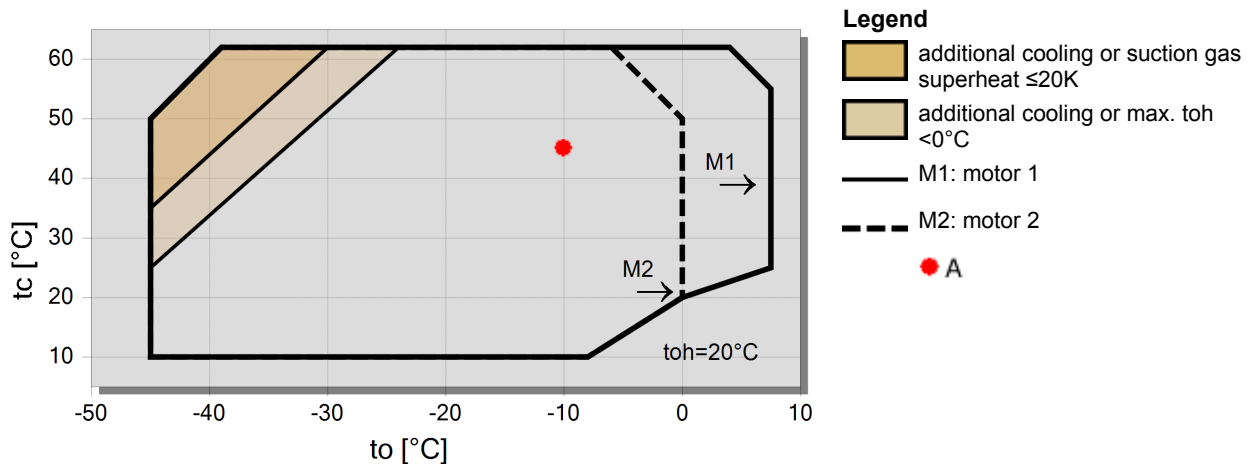
Result

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

tc	to	5°C	-5°C	-15°C	-25°C	-35°C	-45°C	-55°C	-65°C
30°C	Q [W]	38000	26315	17606	11217	6654	3516	--	--
	Qu* [W]	38000	26315	17606	11217	6654	3516	--	--
	P [kW]	6,91	6,61	5,88	4,87	3,74	2,64	--	--
	I [A]	12,08	11,67	10,67	9,36	8,06	7,02	--	--
	Qc [W]	44905	32925	23486	16088	10392	6153	--	--
	COP [-]	5,50	3,98	2,99	2,30	1,78	1,33	--	--
	m [kg/h]	980	661	434	273	160,5	84,3	--	--
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	--	--
	th [°C]	55,7	68,6	82,7	98,7	117,9	0	--	--
	40°C	Q [W]	32600	22428	14848	9315	5399	2747	--
Qu* [W]		32600	22428	14848	9315	5399	2747	--	--
P [kW]		8,42	7,66	6,54	5,22	3,86	2,60	--	--
I [A]		14,30	13,17	11,57	9,81	8,19	6,99	--	--
Qc [W]		41025	30091	21393	14539	9257	5349	--	--
COP [-]		3,87	2,93	2,27	1,78	1,40	1,06	--	--
m [kg/h]		950	635	412	255	146,0	73,8	--	--
Op.		Standard	Standard	Standard	Standard	Standard	Standard	--	--
th [°C]		66,8	79,9	94,3	110,8	130,9	0	--	--
50°C		Q [W]	27091	18519	12125	7476	4218	2046	--
	Qu* [W]	27091	18519	12125	7476	4218	2046	--	--
	P [kW]	9,75	8,55	7,07	5,47	3,90	2,51	--	--
	I [A]	16,28	14,48	12,31	10,12	8,23	6,91	--	--
	Qc [W]	36836	27065	19193	12942	8113	4557	--	--
	COP [-]	2,78	2,17	1,72	1,37	1,08	0,81	--	--
	m [kg/h]	919	607	388	235	131,3	63,1	--	--
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	--	--
	th [°C]	77,9	91,1	105,9	123,0	0	0	--	--

-- No calculation possible (see message in single point selection)
 *According to EN12900 (20°C suction gas temp., 0K liquid subcooling)

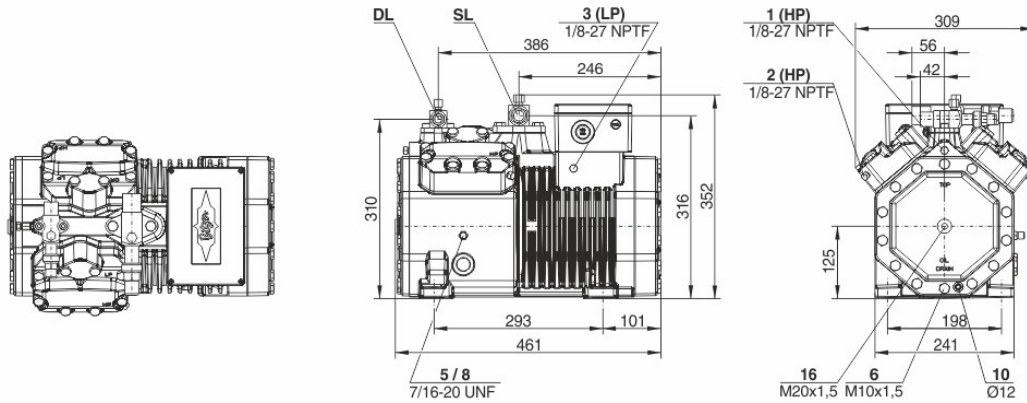
Application Limits 100% 4CES-9





Technical Data: 4CES-9Y

Dimensions and Connections



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Displacement (1450 RPM 50Hz)	32,48 m3/h
Displacement (1750 RPM 60Hz)	39,20 m3/h
No. of cylinder x bore x stroke	4 x 55 mm x 39,3 mm
Weight	90,5 kg
Max. pressure (LP/HP)	19 / 32bar
Connection suction line	28 mm - 1 1/8"
Connection discharge line	22 mm - 7/8"
Oil type R134a/R407C/R404A/R507A/R407A/R407F	BSE32(Standard) R134a tc>70°C: BSE55 (Option)
Oil type R22 (R12/R502)	B5.2 (Option)
Oil type R1234yf/R1234ze	BSE32 (Standard) R1234ze tc>70°C & to>0°C: BSE55 (Option) R1234ze to>15°C: BSE85K (Option)
Ölfüllung R454C/R455A	BSE32 (Standard)

Motor data

Motor version	1
Motor voltage (more on request)	380-420V Y-3-50Hz
Max operating current	20.2 A
Starting current (Rotor locked)	82.4 A
Max. Power input	11,3 kW

Extent of delivery (Standard)

Motor protection	SE-B1
Enclosure class	IP66
Vibration dampers	Standard
Oil charge	2,00 dm ³
Discharge shut-off valve	Standard
Suction shut-off valve	Standard

Available Options

Discharge gas temperature sensor	Option
Capacity control	100-50% (Option)
Capacity Control - infinite	100-10% (Option)
Additional fan	Option
Crankcase heater	0..120 W PTC (Option)
Oil level monitoring	OLC-K1 (Option)

Sound measurement

Sound power level (+5°C / 50°C)	73,2 dB(A) @ 50Hz
Sound power level (-10°C / 45°C)	74,1dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	76,5 dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	65,2 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	66,11dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	68,5 dB(A) @ 50Hz