



### Compressor Selection: Semi-hermetic Reciprocating Compressors

#### Input Values

Compressor model	(4CC-9.2Y)	Suction gas temperature	20,00 °C
Mode	Refrigeration and Air conditioning	Operating mode	Auto
Refrigerant	R134a	Power supply	400V-3-50Hz
Reference temperature	Dew point temp.	Capacity Control	100%
Liq. subc. (in condenser)	0 K	Useful superheat	100%

#### Result

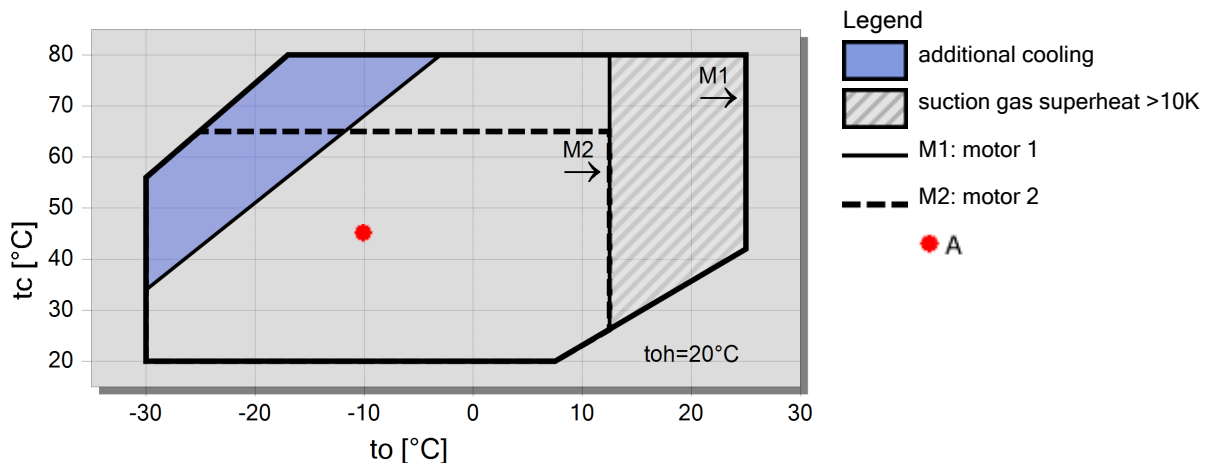
Q [W]	Cooling capacity	COP [ - ]	COP/EER
Q* [W]	Cooling capacity *	COP* [ - ]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	10°C	0°C	-10°C	-20°C	-30°C	-40°C	-50°C	-60°C
30°C	Q [W]	26863	18159	11774	7173	3942	--	--	--
	Q* [W]	26863	18159	11774	7173	3942	--	--	--
	P [kW]	4,22	3,90	3,36	2,69	1,96	--	--	--
	I [A]	8,59	8,24	7,68	7,06	6,51	--	--	--
	Qc [W]	31083	22062	15139	9862	5902	--	--	--
	COP [ - ]	6,37	4,65	3,50	2,67	2,01	--	--	--
	COP* [ - ]	6,37	4,65	3,50	2,67	2,01	--	--	--
	m [kg/h]	564	375	241	145,4	79,5	--	--	--
	Op.	Standard	Standard	Standard	Standard	Standard	--	--	--
	th [°C]	54,5	67,4	81,8	98,7	120,7	--	--	--
40°C	Q [W]	23649	15911	10217	6102	3205	--	--	--
	Q* [W]	23649	15911	10217	6102	3205	--	--	--
	P [kW]	5,11	4,55	3,81	2,94	2,01	--	--	--
	I [A]	9,66	8,98	8,14	7,28	6,54	--	--	--
	Qc [W]	28757	20460	14022	9041	5213	--	--	--
	COP [ - ]	4,63	3,50	2,68	2,08	1,60	--	--	--
	COP* [ - ]	4,63	3,50	2,68	2,08	1,60	--	--	--
	m [kg/h]	543	359	228	135,0	70,5	--	--	--
	Op.	Standard	Standard	Standard	Standard	Standard	--	--	--
	th [°C]	65,1	78,6	94,0	112,3	135,4	--	--	--
50°C	Q [W]	20539	13748	8735	5105	2546	--	--	--
	Q* [W]	20539	13748	8735	5105	2546	--	--	--
	P [kW]	5,90	5,12	4,18	3,12	1,99	--	--	--
	I [A]	10,70	9,67	8,55	7,45	6,53	--	--	--
	Qc [W]	26444	18865	12913	8229	4537	--	--	--
	COP [ - ]	3,48	2,69	2,09	1,63	1,28	--	--	--
	COP* [ - ]	3,48	2,69	2,09	1,63	1,28	--	--	--
	m [kg/h]	523	343	215	124,6	61,8	--	--	--
	Op.	Standard	Standard	Standard	Standard	Standard	--	--	--
	th [°C]	75,8	89,8	106,2	125,9	0	--	--	--

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

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

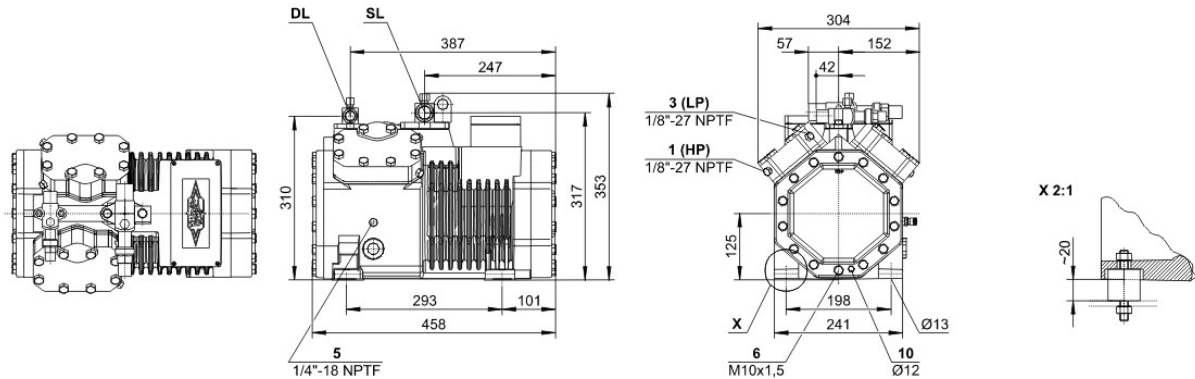
#### Application Limits 100% Octagon





## Technical Data: (4CC-9.2Y)

### Dimensions and Connections



### Technical Data

#### Technical Data

Displacement (1450 RPM 50Hz)	32,48 m <sup>3</sup> /h
Displacement (1750 RPM 60Hz)	39,20 m <sup>3</sup> /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 / 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 Y-3-50Hz
Max operating current	20.0 A
Starting current (Rotor locked)	82.4 A
Max. Power input	11,8 kW

#### Extent of delivery (Standard)

Motor protection	SE-B1
Enclosure class	IP65
Vibration dampers	Standard
Oil charge	2,00 dm <sup>3</sup>

#### Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Capacity control	100-50% (Option)
Additional fan	Option
Crankcase heater	0..120 W PTC (Option)
Oil level monitoring	OLC-K1 (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)	72,5 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	(76,0) dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	65,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	64,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	(68,0) dB(A) @ 50Hz



### Compressor Selection: Semi-hermetic Reciprocating Compressors

#### Input Values

Compressor model Mode	(2FC-2.2Y) 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%

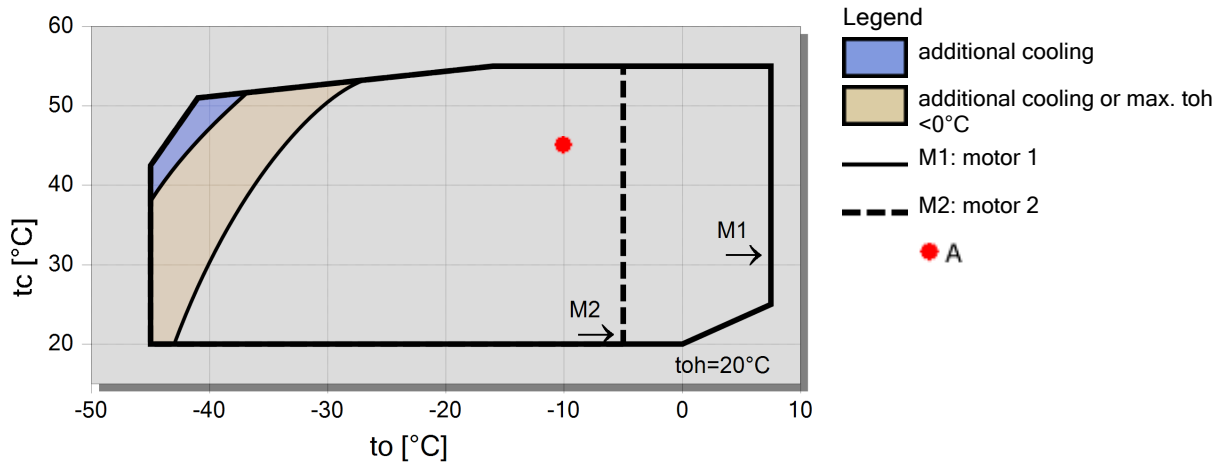
#### Result

Q [W] Qu* [W] P [kW] I [A] Qc [W]	Cooling capacity Evaporator capacity Power input Current Condenser Capacity	COP [ - ] m [kg/h] Op. th [°C]	COP/EER Mass flow Operating mode Discharge gas temp. w/o cooling
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tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
30°C	Q [W]	7135	5890	4812	3881	3081	2397	1816	1326
	Qu* [W]	7135	5890	4812	3881	3081	2397	1816	1326
	P [kW]	1,98	1,91	1,80	1,67	1,51	1,35	1,17	0,98
	I [A]	3,77	3,68	3,56	3,41	3,24	3,06	2,89	2,72
	Qc [W]	9116	7796	6611	5548	4595	3743	2983	2309
	COP [ - ]	3,60	3,09	2,67	2,33	2,03	1,78	1,56	1,35
	m [kg/h]	179,2	146,5	118,7	95,1	75,0	58,1	43,8	31,9
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	72,1	79,8	88,1	96,9	106,5	117,0	128,9	0
	40°C	Q [W]	5951	4895	3978	3185	2502	1918	1422
Qu* [W]		5951	4895	3978	3185	2502	1918	1422	1002
P [kW]		2,27	2,13	1,97	1,79	1,60	1,39	1,18	0,97
I [A]		4,11	3,95	3,76	3,55	3,33	3,11	2,90	2,71
Qc [W]		8218	7027	5950	4977	4099	3310	2603	1974
COP [ - ]		2,63	2,30	2,02	1,78	1,57	1,38	1,20	1,03
m [kg/h]		168,5	137,0	110,3	87,6	68,4	52,1	38,5	27,0
Op.		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
th [°C]		84,2	92,1	100,6	109,8	119,9	131,3	0	0
50°C		Q [W]	4811	3938	3178	2520	1953	1467	1054
	Qu* [W]	4811	3938	3178	2520	1953	1467	1054	706
	P [kW]	2,55	2,36	2,15	1,92	1,68	1,44	1,20	0,97
	I [A]	4,48	4,23	3,97	3,70	3,43	3,16	2,92	2,71
	Qc [W]	7363	6297	5325	4440	3636	2909	2256	1672
	COP [ - ]	1,89	1,67	1,48	1,31	1,16	1,02	0,88	0,73
	m [kg/h]	157,8	127,5	101,8	80,0	61,5	45,9	32,8	21,9
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	97,5	105,8	114,8	124,7	136,0	0	0	0

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

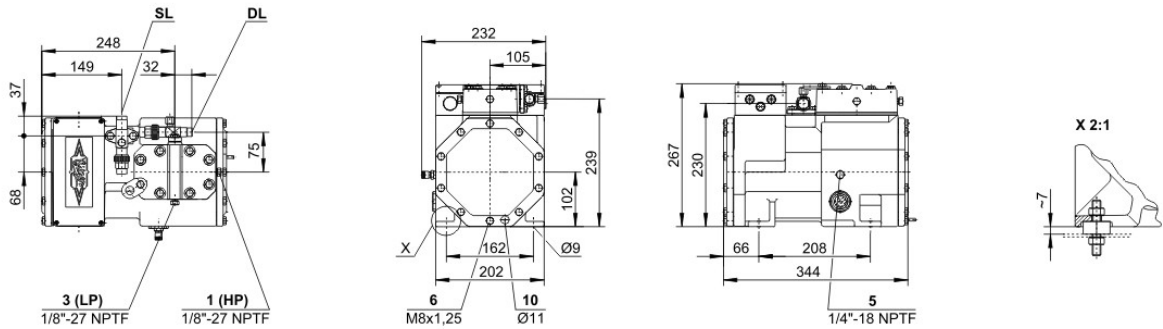
#### Application Limits 100% Octagon





## Technical Data: (2FC-2.2Y)

### Dimensions and Connections



### Technical Data

#### Technical Data

Displacement (1450 RPM 50Hz)	9,54 m <sup>3</sup> /h
Displacement (1750 RPM 60Hz)	11,51 m <sup>3</sup> /h
No. of cylinder x bore x stroke	2 x 46 mm x 33 mm
Weight	45 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	16 mm - 5/8"
Connection discharge line	12 mm - 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	4.9 A
Starting current (Rotor locked)	22.5 A
Max. Power input	2,8 kW

#### Extent of delivery (Standard)

Motor protection	SE-B1
Enclosure class	IP65
Vibration dampers	Standard
Oil charge	1,00 dm <sup>3</sup>

#### Available Options

Additional fan	Option
Crankcase heater	0..60 W PTC (Option)

#### Sound measurement

Sound power level (-10°C / 45°C)	65,5 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	65,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	57,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	57,5 dB(A) @ 50Hz