



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model	(4EC-4.2Y)	Suction gas temperature	20,00 °C
Mode	Refrigeration and Air conditioning	Operating mode	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

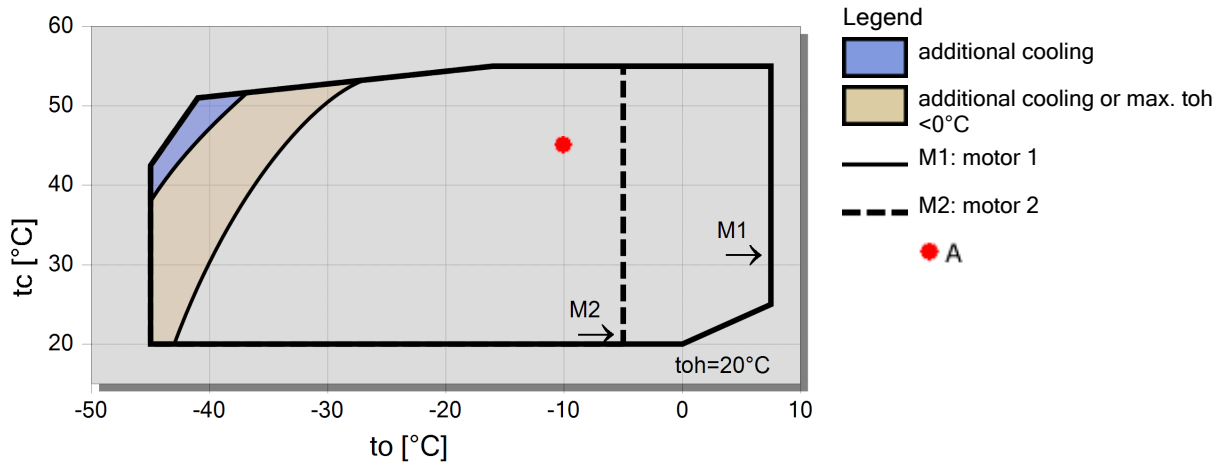
Q [W]	Cooling capacity	COP [-]	COP/EER
Qu* [W]	Evaporator capacity	m [kg/h]	Mass flow
P [kW]	Power input	Op.	Operating mode
I [A]	Current	th [°C]	Discharge gas temp. w/o cooling
Qc [W]	Condenser Capacity		

tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
30°C	Q [W]	17327	14291	11663	9398	7454	5796	4390	3206
	Qu* [W]	17327	14291	11663	9398	7454	5796	4390	3206
	P [kW]	4,61	4,39	4,12	3,81	3,45	3,06	2,65	2,22
	I [A]	7,90	7,58	7,19	6,73	6,23	5,69	5,15	4,63
	Qc [W]	21935	18684	15787	13204	10903	8856	7036	5423
	COP [-]	3,76	3,25	2,83	2,47	2,16	1,89	1,66	1,45
	m [kg/h]	435	355	288	230	181,5	140,4	105,9	77,1
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	70,5	77,7	85,3	93,6	102,5	112,5	123,5	136,3
	40°C	Q [W]	14438	11872	9645	7721	6067	4652	3451
Qu* [W]		14438	11872	9645	7721	6067	4652	3451	2439
P [kW]		5,28	4,93	4,53	4,10	3,64	3,15	2,65	2,14
I [A]		8,89	8,37	7,79	7,16	6,49	5,81	5,15	4,54
Qc [W]		19714	16799	14178	11821	9703	7802	6099	4578
COP [-]		2,74	2,41	2,13	1,88	1,67	1,48	1,30	1,14
m [kg/h]		409	332	267	212	165,8	126,4	93,4	65,7
Op.		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
th [°C]		82,5	89,8	97,7	106,1	115,3	125,6	137,1	0
50°C		Q [W]	11653	9551	7721	6134	4765	3591	2592
	Qu* [W]	11653	9551	7721	6134	4765	3591	2592	1748
	P [kW]	5,86	5,39	4,87	4,33	3,77	3,19	2,60	2,02
	I [A]	9,76	9,05	8,29	7,49	6,68	5,86	5,09	4,41
	Qc [W]	17515	14937	12593	10464	8531	6779	5195	3766
	COP [-]	1,99	1,77	1,58	1,42	1,27	1,13	1,00	0,87
	m [kg/h]	382	309	247	194,7	150,1	112,4	80,7	54,2
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	94,9	102,4	110,5	119,3	128,9	139,7	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



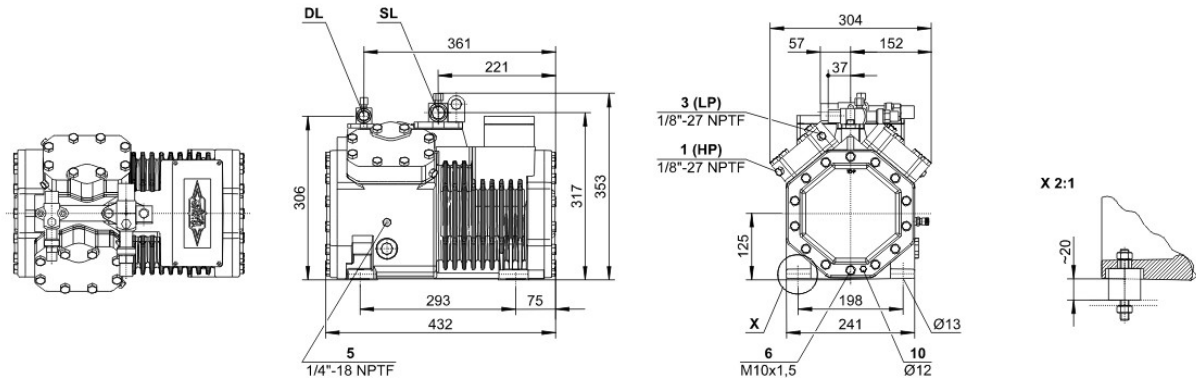
Legend

- additional cooling
- additional cooling or max. toh < 0°C
- M1: motor 1
- M2: motor 2
- A



Technical Data: (4EC-4.2Y)

Dimensions and Connections



Technical Data

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Displacement (1450 RPM 50Hz)	22,72 m3/h
Displacement (1750 RPM 60Hz)	27,42 m3/h
No. of cylinder x bore x stroke	4 x 46 mm x 39,3 mm
Weight	84 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	28 mm - 1 1/8"
Connection discharge line	16 mm - 5/8"
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	10.7 A
Starting current (Rotor locked)	53.5 A
Max. Power input	6,4 kW

Extent of delivery (Standard)

Motor protection	SE-B1
Enclosure class	IP65
Vibration dampers	Standard
Oil charge	2,00 dm3

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 (-10°C / 45°C)	70,0 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	72,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	62,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	64,0 dB(A) @ 50Hz