



### Selection: Semi-hermetic Reciprocating Compressors

#### Input Values

Compressor model Mode	(4DC-7.2Y) Refrigeration and Air conditioning	Suction gas temperature Operating mode	20,00 °C Auto
Refrigerant	R507A	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	10°C	5°C	0°C	-5°C	-10°C	-15°C	-20°C	-25°C
30°C	Q [W]	--	30508	25584	21304	17586	14364	11580	9187
	Qu* [W]	--	30508	25584	21304	17586	14364	11580	9187
	P [kW]	--	5,68	5,67	5,55	5,34	5,05	4,68	4,25
	I [A]	--	10,40	10,39	10,23	9,96	9,58	9,13	8,63
	Qc [W]	--	36188	31254	26857	22927	19409	16259	13438
	COP [ - ]	--	5,37	4,51	3,84	3,29	2,85	2,48	2,16
	m [kg/h]	--	813	671	552	451	365	292	231
	Op.	--	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	--	55,7	62,2	69,0	76,2	83,9	92,1	101,1
	40°C	Q [W]	--	25679	21512	17874	14703	11947	9561
Qu* [W]		--	25679	21512	17874	14703	11947	9561	7505
P [kW]		--	6,94	6,74	6,45	6,07	5,61	5,09	4,52
I [A]		--	12,13	11,85	11,44	10,92	10,31	9,64	8,95
Qc [W]		--	32615	28254	24323	20772	17561	14656	12029
COP [ - ]		--	3,70	3,19	2,77	2,42	2,13	1,88	1,66
m [kg/h]		--	776	639	524	426	343	272	212
Op.		--	Standard	Standard	Standard	Standard	Standard	Standard	Standard
th [°C]		--	67,2	73,9	80,9	88,3	96,2	104,7	113,9
50°C		Q [W]	--	20890	17474	14477	11854	9570	7589
	Qu* [W]	--	20890	17474	14477	11854	9570	7589	5882
	P [kW]	--	8,04	7,67	7,21	6,67	6,07	5,41	4,70
	I [A]	--	13,73	13,19	12,52	11,75	10,92	10,04	9,16
	Qc [W]	--	28932	25146	21688	18526	15636	12995	10586
	COP [ - ]	--	2,60	2,28	2,01	1,78	1,58	1,40	1,25
	m [kg/h]	--	739	606	494	399	319	250	192,4
	Op.	--	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	--	78,9	85,7	92,9	100,6	108,8	117,7	127,3

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

#### Application Limits 100% Octagon 4DC-7.2

