



### Selection: Open-Type Reciprocating Compressors

#### Input Values

Compressor model	4T.2Y-K	Useful superheat	100%
Refrigerant	R404A	Motor speed	1450 /min
Reference temperature	Dew point temp.	Drive	Coupling (1:1)
Liq. subc. (in condenser)	0 K	Capacity control	100%
Suction gas temperature	20,00 °C		

#### Result

Q [W]	Cooling capacity	COP [ - ]	COP/EER
Q* [W]	Cooling capacity *	COP* [ - ]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
Qc [W]	Condenser capacity	n [/min]	Compr. speed

tc	to	0°C	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C
30°C	Q [W]	38121	31817	26355	21634	17572	14094	11134	8633
	Q* [W]	38121	31817	26355	21634	17572	14094	11134	8633
	P [kW]	8,23	7,99	7,61	7,11	6,55	5,95	5,35	4,78
	Qc [W]	46355	39808	33961	28749	24123	20044	16483	13417
	COP [ - ]	4,63	3,98	3,46	3,04	2,68	2,37	2,08	1,80
	COP* [ - ]	4,63	3,98	3,46	3,04	2,68	2,37	2,08	1,80
	m [kg/h]	969	799	656	534	430	343	270	208
	n [/min]	1450	1450	1450	1450	1450	1450	1450	1450
40°C	Q [W]	33057	27567	22790	18645	15064	11985	9353	7118
	Q* [W]	33057	27567	22790	18645	15064	11985	9353	7118
	P [kW]	9,33	8,85	8,26	7,62	6,94	6,28	5,66	5,11
	Qc [W]	42387	36413	31053	26262	22008	18263	15009	12232
	COP [ - ]	3,54	3,12	2,76	2,45	2,17	1,91	1,65	1,39
	COP* [ - ]	3,54	3,12	2,76	2,45	2,17	1,91	1,65	1,39
	m [kg/h]	948	780	638	517	414	328	254	192,6
	n [/min]	1450	1450	1450	1450	1450	1450	1450	1450
50°C	Q [W]	27768	23136	19081	15544	12471	9814	7530	5577
	Q* [W]	27768	23136	19081	15544	12471	9814	7530	5577
	P [kW]	10,40	9,73	9,00	8,26	7,53	6,86	6,27	5,80
	Qc [W]	38165	32863	28084	23804	20004	16673	13799	11378
	COP [ - ]	2,67	2,38	2,12	1,88	1,66	1,43	1,20	0,96
	COP* [ - ]	2,67	2,38	2,12	1,88	1,66	1,43	1,20	0,96
	m [kg/h]	925	759	618	498	396	309	236	173,6
	n [/min]	1450	1450	1450	1450	1450	1450	1450	1450

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

### Application Limits Standard

