



## Compressor Selection: Semi-hermetic Reciprocating Compressors

### Input Values

Compressor model Mode	(4TC-12.2Y) 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	10°C	0°C	-10°C	-20°C	-30°C	-40°C	-50°C	-60°C
30°C	Q [W]	--	39446	26920	17547	10650	5699	--	--
	Qu* [W]	--	39446	26920	17547	10650	5699	--	--
	P [kW]	--	8,49	7,81	6,68	5,26	3,68	--	--
	I [A]	--	15,04	14,07	12,55	10,78	9,08	--	--
	Qc [W]	--	47940	34729	24230	15910	9382	--	--
	COP [ - ]	--	4,64	3,45	2,63	2,02	1,55	--	--
	m [kg/h]	--	1003	670	430	258	137,0	--	--
	Op.	--	Standard	Standard	Standard	Standard	Standard	--	--
	th [°C]	--	62,1	75,4	90,3	107,8	130,2	--	--
40°C	Q [W]	--	33276	22573	14526	8590	4323	--	--
	Qu* [W]	--	33276	22573	14526	8590	4323	--	--
	P [kW]	--	9,99	8,72	7,15	5,40	3,62	--	--
	I [A]	--	17,23	15,36	13,16	10,95	9,01	--	--
	Qc [W]	--	43262	31289	21673	13994	7942	--	--
	COP [ - ]	--	3,33	2,59	2,03	1,59	1,19	--	--
	m [kg/h]	--	955	632	400	233	116,5	--	--
	Op.	--	Standard	Standard	Standard	Standard	Standard	--	--
	th [°C]	--	73,4	86,5	101,5	119,9	0	--	--
50°C	Q [W]	--	27046	18227	11546	6591	3015	--	--
	Qu* [W]	--	27046	18227	11546	6591	3015	--	--
	P [kW]	--	11,17	9,42	7,45	5,39	3,36	--	--
	I [A]	--	19,02	16,38	13,57	10,93	8,77	--	--
	Qc [W]	--	38216	27642	18995	11980	6371	--	--
	COP [ - ]	--	2,42	1,94	1,55	1,22	0,90	--	--
	m [kg/h]	--	901	590	366	206	93,4	--	--
	Op.	--	Standard	Standard	Standard	Standard	Standard	--	--
	th [°C]	--	84,8	98,0	113,3	132,8	0	--	--

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

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

### Application Limits 100%

