

Input Values

Compressor model	(6G-30.2Y)	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)	OK	Useful superheat	100%

Result

a [MJ]	Cooling capacity	COP [-]	COP/EER
au [MJ]	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
ac [WJ]	Condenser Capacity		

ic	to	-5 °C	-10 °C	-15 °C	-20 °C	-25 °C	-30 °C	-35 °C	40 °C
30 °C	a [MJ]	98278	81168	66365	53605	42658	33320	25408	18755
	au [MJ]	98278	81168	66365	53605	42658	33320	25408	18755
	P [kW]	26,8	25,1	23,2	21,2	19,07	16,84	14,53	12,16
	I [A]	46,0	43,4	40,6	37,6	34,5	31,3	28,2	25,3
	ac [WJ]	125036	106232	89568	74803	61728	50160	39939	30919
	COP [-]	3,67	3,24	2,86	2,53	2,24	1,98	1,75	1,54
	m [kg/h]	2469	2019	1637	1313	1039	807	613	451
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
th [°C]	71,4	77,9	84,8	92,3	100,4	109,4	119,3	130,5	
40 °C	a [MJ]	83997	69321	56575	45546	36047	27911	20984	15126
	au [MJ]	83997	69321	56575	45546	36047	27911	20984	15126
	P [kW]	30,8	28,5	26,0	23,4	20,7	17,89	15,06	12,20
	I [A]	52,3	48,6	44,8	40,8	36,8	32,8	28,9	25,4
	ac [WJ]	114847	97809	82565	68922	56717	45801	36045	27329
	COP [-]	2,72	2,43	2,18	1,95	1,74	1,56	1,39	1,24
	m [kg/h]	2378	1941	1569	1253	985	759	568	408
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
th [°C]	82,7	89,4	96,4	104,0	112,3	121,3	131,3	0	

Input Values

Compressor model	(4Z-8.2Y)	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)	OK	Useful superheat	100%

Result

Q [W]	Cooling capacity	COP [-]	COP/EER
\dot{a} [W]	Cooling capacity •	$cop \cdot \dot{I}$ [- J	COP/EER*
p [kW]	Power input	m [kg/h)	Mass flow
I (A)	Current	Op.	Operating mode
Qc(W)	Condenser Capacity	t_h [°C)	Discharge gas temp. w/o cooling

t_c	t_b	5 °C	0 °C	-5 °C	-10 °C	-15 °C	-20 °C	-25 °C	-30 °C
0 °C	Q (W)	19475	15811	12687	10035	7800	5930	4379	--
	\dot{a} [W]	19475	15811	12687	10035	7800	5930	4379	--
	p [kW]	3,74	3,60	3,41	3,17	2,90	2,60	2,28	
	I (A)	7,77	7,60	7,37	7,10	6,80	6,48	6,15	
	Qc(W)	23214	19409	16094	13209	10703	8532	6656	
	COP [-]	5,21	4,40	3,72	3,16	2,69	2,28	1,92	
	$cop \cdot \dot{I}$ [- J	5,21	4,40	3,72	3,16	2,69	2,28	1,92	
	m [kg/h)	405	327	260	205	158,7	120,2	88,5	
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	t_h [°C]	62,1	69,5	77,8	87,0	97,5	109,6	123,9	
40 °C	Q [W]	16910	13684	10931	8595	6625	4978	3614	--
	\dot{a} [W]	16910	13684	10931	8595	6625	4978	3614	--
	p [kW]	4,15	3,87	3,56	3,24	2,90	2,54	2,16	
	I (A)	8,29	7,93	7,55	7,17	6,79	6,41	6,04	
	Qc(W)	21061	17551	14494	11833	9521	7514	5775	
	COP [-]	4,07	3,54	3,07	2,65	2,29	1,96	1,67	
	$cop \cdot \dot{I}$ [- J	4,07	3,54	3,07	2,65	2,29	1,96	1,67	
	m [kg/h)	385	309	245	191,7	147,1	110,1	79,7	
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	t_h [°C]	71,1	78,1	85,9	94,7	104,8	116,5	130,5	