



Single-stage process

Evaporator

Refrigerating cap.	:	5.00 kW
Temperature	:	-10.00 °C
Superheating	:	0.00 K
Pressure drop	:	0.00 bar

Condenser

Temperature	:	35.00 °C
Subcooling	:	0.00 K
Pressure drop	:	0.00 bar

Compressor

Isentr. efficiency	:	0.735
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Suction line

Superheat	:	0.00 K
Pressure drop	:	1.90 bar

Discharge line

Temperature loss	:	0.00 K
Pressure drop	:	0.00 bar

Point	p bar	t °C	v dm ³ /kg	h kJ/kg	s kJ/(kgK)	x --
1	1.65	-10.00	147.71	405.48	1.8516	
2s	13.55	92.26	23.23	464.51	1.8516	
2	13.55	118.21	25.54	485.84	1.9080	
3	13.55	118.21	25.54	485.84	1.9080	
3'	13.55	35.00	17.25	415.31	1.7049	
3"4'm	13.55	35.00	N.N.	329.22	1.4256	
4'	13.55	35.00	0.87	243.14	1.1462	
4	13.55	35.00	0.87	243.14	1.1462	
5	3.55	-10.00	17.36	243.14	1.1653	0.258
5"6'm	3.55	-10.00	N.N.	322.11	1.4654	
6"	3.55	-10.00	65.18	401.09	1.7655	
6	3.55	-10.00	65.18	401.09	1.7655	

Power

Condenser	:	7.68 kW
Compressor	:	2.54 kW

Suction line	:	0.14 kW
Discharge line	:	0.000 kW

Pressure ratio	:	3.82
Pressure difference	:	10.00 bar
Mass flow	:	31.656 g/s
Volume flow (Suction line)	:	16.83 m ³ /h
Volum. capacity	:	1069 kJ/m ³
COP	:	1.97