



Single-stage process

Evaporator

Refrigerating cap. : 5,00 kW
 Temperature : -30,00 °C
 Superheating : 5,00 K
 Pressure drop : 0,00 bar

Condenser

Temperature : 45,00 °C
 Subcooling : 0,00 K
 Pressure drop : 0,00 bar

Compressor

Isentr. efficiency : 0,800

Suction line

Superheat : 10,00 K
 Pressure drop : 0,00 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	2,02	-15,00	102,42	362,17	1,6773	
2s	20,44	68,68	10,77	412,90	1,6773	
2	20,44	79,13	11,57	425,58	1,7139	
3	20,44	79,13	11,57	425,57	1,7139	
3'	20,44	45,00	8,48	380,67	1,5795	
3"4'm	20,44	44,84	4,77	324,20	1,4026	
4'	20,44	44,69	1,07	267,73	1,2256	
4	20,44	44,69	1,07	267,73	1,2256	
5	2,02	-30,28	54,49	267,73	1,2905	0,571
56"m	2,02	-30,14	74,68	308,67	1,4589	
6"	2,02	-30,00	94,87	349,61	1,6272	
6	2,02	-25,00	97,42	353,78	1,6442	

Power

Condenser : 9,17 kW
 Compressor : 3,68 kW

Suction line : 0,49 kW
 Discharge line : 0,000 kW

Pressure ratio : 10,11
 Pressure difference : 18,42 bar
 Mass flow : 58,104 g/s
 Volume flow (Suction line) : 21,42 m³/h
 Volum. capacity : 840 kJ/m³
 COP : 1,36

