

Coolselector2

Project information

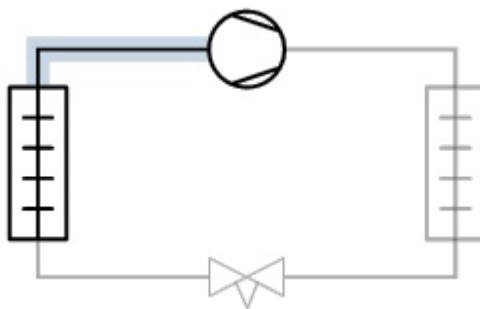
Project name: Evaporator 4
 Comments:
 Created by:
 Coolselector2 version: 3.7.1. Database: 52.52.2.23.8.33
 Printed: Tuesday, February 4, 2020
 Preferences used: All applications

Evap. 4

Operating conditions

Refrigerant:	R134a	Cooling capacity:	14.60 kW
Mass flow in line:	0.1113 kg/s	Heating capacity:	20.03 kW
Evaporating temperature:	-4.0 °C	Condensing temperature:	50.0 °C
Evaporating pressure:	2.527 bar	Condensing pressure:	13.17 bar
Useful superheat:	5.0 K	Subcooling:	2.0 K
Additional superheat:	0 K	Additional subcooling:	0 K
Discharge temperature:	71.3 °C		

System and line: Dry - Suction line



Line total

Pressure drop	0.382 bar
Saturation temperature drop	4.3 K

Position 1. Piping: Copper pipe DIN-EN 35



Length	0.10 m
Angle	0 deg
Pressure drop	0.000 bar
Saturation temperature drop	0.0 K
Velocity, in	11.32 m/s
Connection	OK

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Position 2. Control valve: KVP 35



Offset	1.456	bar
Pressure drop	0.357	bar
Saturation temperature drop	4.0	K
Velocity, in	11.32	m/s
Valve state	Open	
Connection	OK	

Position 3. Piping: Copper pipe DIN-EN 35



Length	0.17	m
Angle	0	deg
Pressure drop	0.001	bar
Saturation temperature drop	0.0	K
Velocity, in	13.28	m/s
Connection	OK	

Position 4. Piping: Copper bend 90 DIN-EN 35



Number	1	
Pressure drop	0.002	bar
Saturation temperature drop	0.0	K
Velocity, in	12.49	m/s
Connection	OK	

Position 5. Piping: Copper pipe DIN-EN 35



Length	1.80	m
Angle	0	deg
Pressure drop	0.007	bar
Saturation temperature drop	0.1	K
Velocity, in	13.30	m/s
Connection	OK	

Position 6. Piping: Copper bend 90 DIN-EN 35



Number	1	
Pressure drop	0.002	bar
Saturation temperature drop	0.0	K
Velocity, in	12.55	m/s
Connection	OK	

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Position 7. Piping: Copper pipe DIN-EN 35



Length	3.17 m
Angle	0 deg
Pressure drop	0.013 bar
Saturation temperature drop	0.2 K
Velocity, in	13.35 m/s
Connection	OK