

v.1.5.6

MDKlima
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SWEP SSP CBE

HEAT EXCHANGER: B80x40H/1P

CONDENSER - Neuauslegung

Customer:
 Reference:

Date: 19.11.2008
 Our Ref.:

DUTY REQUIREMENTS

		SIDE 1	SIDE 2
Fluid Side 1	R410A		
Fluid Side 2	Wasser		
Inlet temperature	°C	: 75,00	50,00
Condensation temperature (dew)	°C	: 59,00	
Subcooling	K	: 2,00	
Outlet temperature	°C	: 56,92	55,00
Flow rate	kg/s	: 0,09507	0,6695
Fluid condensed	kg/s	: 0,09507	
Max. pressure drop	kPa	: 50,0	10,0
Operating pressure - outlet	bar(a)	: 37,4	

PHYSICAL PROPERTIES

Reference temperature	°C	: 58,96	52,50	
Liquid	Dynamic viscosity	cP	: 0,0688	0,525
	Density	kg/m ³	: 832,8	986,9
	Specific heat capacity	kJ/kg, °C	: 2,952	4,182
	Thermal conductivity	W/m, °C	: 0,07308	0,6465
Vapor	Dynamic viscosity	cP	: 0,0149	
	Density	kg/m ³	: 171,3	
	Specific heat capacity	kJ/kg, °C	: 2,224	
	Thermal conductivity	W/m, °C	: 0,01456	

PLATE HEAT EXCHANGER

Heat load	kW	:	14,00	
Total heat transfer area	m ²	:	2,28	
Heat flux	kW/m ²	:	6,140	
Mean temperature difference	K	:	6,33	
Overall H.T.C. (available/required)	W/m ² , °C	:	1420/971	
Pressure drop - total	kPa	:	-0,241	7,33
- in ports	kPa	:	-0,0119	0,294
Port diameter	mm	:	33,0	33,0
Number of channels		:	19	20
Number of plates		:	40	
Oversurfacing	%	:	47	
Fouling factor	m ² , °C/kW	:	0,327	

Note:

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