

Technical specification



Project ref: Alfa Laval
 Line ref:
 Model: AC-30EQ-30H-F
 Item Id: 3288101016
 No of units: 1

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 Date: 2019-07-12

		Hot side S1 -> S2	Cold Side S3 -> S4
Process data			
Capacity:	kW	10.5	
Fluid:		Water	fluidR22
Mass flow rate:	kg/h	1 798	229
Inlet temperature:	°C	12,0	2,3
Outlet temperature:	°C	7,0	7,0
Evaporating temperature (dew):			2,0
Evaporating pressure:	bara		5,3
Super heating:			5
Inlet quality:			0,2001
Total pressure drop calculated (allowed)	kPa	47,7 (80,00)	165,4 (300,00)
Connection velocity in/out:	m/s	1,20/1,20	0,85/9,18
Margin calculated (specified):	%	10(0)	

Heat exchanger specification			
Relative directions of fluids:		Countercurrent	
Number of plates:		30	
Channel volume:	dm ³	0,4	0,4
Number of circuits:		1	1
Design pressure at -196 °C	bar	35	35
Design pressure at 225 °C	bar	30	30
Design temperature (min/max):	°C	-196 / 225	
Pressure vessel code:		PED	
Material Channel plates / Sealing:		ALLOY 316 / Cu	
Connection S1 (Hot-In):		Threaded (External) 1" ISO 228/1-G	
Connection S2 (Hot-Out):		Threaded (External) 1" ISO 228/1-G	
Connection S3 (Cold-In):		Soldering 1/2"	
Connection S4 (Cold-Out):		Soldering 22.3(7/8")	
Unit dimensions (length x width x height):	mm	79 x 95 x 325	
Net weight, empty / operating:	kg	3,8 / 4,19	
Packed length x width x height:	mm	160,0 x 110 x 343,0	
Packed weight:	kg	4,08	

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Fluid properties	Hot side		Cold Side	
	Liquid	Vapor	Liquid	Vapor
Density (in/out): kg/m ³	999,51/1 000,64		1 281,12/1 266,98	22,78/21,40
Specific heat capacity: kJ/(kg*K)	4,20		1,23	0,75/0,74
Thermal conductivity: W/(m*K)	0,586		0,098	0,010/0,010
Viscosity (in/out): cP	1,2402/1,4297		0,2301/0,2243	0,0124/0,0125

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