

<i>Customer</i>		<i>Date</i>	05/24/23
<i>Project</i>		<i>Engineer</i>	Miroslav Stibor
<i>HEX Type</i>	XB12H-1-50	<i>Contact Person</i>	
<i>Product Code</i>	004H7693	<i>E-mail</i>	
<i>Units Connected</i>	1 (Parallel)		

Calculated Parameters	Unit	Side 1	Side 2
<i>Flow Type</i>		CounterCurrent	
<i>Heat Load</i>	kW	20.00	
<i>Inlet Temperature</i>	°C	50.0	41.7
<i>Outlet Temperature</i>	°C	43.8	47.5
<i>Mass Flow Rate</i>	kg/s	0.86	0.83
<i>Volumetric Flow Rate</i>	L/min	50.00	50.00
<i>Total Pressure Drop</i>	kPa	17.65	14.10
<i>Pressure Drop in Port</i>	kPa	0.44	0.41
<i>Surface Margin</i>	%	1.32	
<i>LMTD</i>	ΔK	2.3	
<i>HTC (Available/Required)</i>	W/m ² ·K	6645 / 6559	
<i>Port Velocity</i>	m/s	1.04	1.04
<i>Shear Stress</i>	Pa	43.14	35.62

Properties of Fluid	Unit	Side 1	Side 2
<i>Fluid</i>		Ethylene glycol (35%)	Water
<i>Liquid Viscosity</i>	mPa·s	1.2486	0.6030
<i>Liquid Density</i>	kg/m ³	1031.8222	991.1551
<i>Liquid Heat Capacity</i>	kJ/kg·K	3.7221	4.1762
<i>Liquid Thermal Conductivity</i>	W/m·K	0.4676	0.6329

Specifications	Unit	Side 1	Side 2
<i>HEX Type</i>		XB12H-1-50	
<i>Number of Plates</i>		50	
<i>Grouping</i>		1*24H/1*25H	
<i>Plate Material</i>		AISI316L	
<i>Effective Area</i>	m ²	1.34	
<i>Brazing Material</i>		Cu	
<i>Volume</i>	l	0.7	0.7
<i>Weight, empty/operating</i>	kg	5.53 / 6.97	
<i>Connection</i>			
<i>Inlet</i>		G 1 Thread	G 1 Thread
<i>Outlet</i>		G 1 Thread	G 1 Thread
<i>Certification/Approval Type</i>			
<i>Minimum Design Temperature</i>	°C	-10.0	
<i>Maximum Design Temperature</i>	°C	180.0	
<i>Maximum Design Pressure</i>	bar(g)	25.0	25.0
<i>H420.2-1.3.21</i>			