

<i>Customer</i>		<i>Date</i>	06/11/23
<i>Project</i>		<i>Engineer</i>	Miroslav Stibor
<i>HEX Type</i>	XB37H-1-80	<i>Contact Person</i>	
<i>Product Code</i>	004H7310	<i>E-mail</i>	
<i>Units Connected</i>	1 (Parallel)		

<b>Calculated Parameters</b>	<b>Unit</b>	<b>Side 1</b>	<b>Side 2</b>
<i>Flow Type</i>		CounterCurrent	
<i>Heat Load</i>	kW	35.18	
<i>Inlet Temperature</i>	°C	50.0	42.5
<i>Outlet Temperature Actual</i>	°C	43.4	48.6
<i>Mass Flow Rate</i>	kg/s	1.43	1.38
<i>Volumetric Flow Rate</i>	L/min	83.33	83.33
<i>Total Pressure Drop</i>	kPa	20.79	16.99
<i>Pressure Drop in Port</i>	kPa	4.88	4.56
<i>Surface Margin</i>	%	0.0	
<i>LMTD</i>	ΔK	1.1	
<i>HTC (Available/Required)</i>	W/m <sup>2</sup> ·K	7178 / 7177	
<i>Port Velocity</i>	m/s	3.34	3.34
<i>Shear Stress</i>	Pa	24.06	19.32

<b>Properties of Fluid</b>	<b>Unit</b>	<b>Side 1</b>	<b>Side 2</b>
<i>Fluid</i>		Ethylene glycol (35%)	Water
<i>Liquid Viscosity</i>	mPa·s	1.2525	0.5927
<i>Liquid Density</i>	kg/m <sup>3</sup>	1031.9212	990.7589
<i>Liquid Heat Capacity</i>	kJ/kg·K	3.7215	4.1767
<i>Liquid Thermal Conductivity</i>	W/m·K	0.4675	0.6341

<b>Specifications</b>	<b>Unit</b>	<b>Side 1</b>	<b>Side 2</b>
<i>HEX Type</i>		XB37H-1-80	
<i>Number of Plates</i>		80	
<i>Grouping</i>		1*39H/1*40H	
<i>Plate Material</i>		AISI316L	
<i>Effective Area</i>	m <sup>2</sup>	4.37	
<i>Brazing Material</i>		Cu	
<i>Volume</i>	l	2.7	2.8
<i>Weight, empty/operating</i>	kg	15.40 / 20.91	
<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>			