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|------------------------|--------------|-----------------------|-----------------|
| <i>Customer</i> | | <i>Date</i> | 05/24/23 |
| <i>Project</i> | | <i>Engineer</i> | Miroslav Stibor |
| <i>HEX Type</i> | XB06H-1-30 | <i>Contact Person</i> | |
| <i>Product Code</i> | 004B2042 | <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 | 8.00 | |
| <i>Inlet Temperature</i> | °C | 50.0 | 40.1 |
| <i>Outlet Temperature</i> | °C | 42.5 | 47.1 |
| <i>Mass Flow Rate</i> | kg/s | 0.29 | 0.28 |
| <i>Volumetric Flow Rate</i> | L/min | 16.67 | 16.67 |
| <i>Total Pressure Drop</i> | kPa | 12.71 | 9.44 |
| <i>Pressure Drop in Port</i> | kPa | 0.70 | 0.68 |
| <i>Surface Margin</i> | % | 3.89 | |
| <i>LMTD</i> | ΔK | 2.7 | |
| <i>HTC (Available/Required)</i> | W/m ² ·K | 4126 / 3972 | |
| <i>Port Velocity</i> | m/s | 1.09 | 1.09 |
| <i>Shear Stress</i> | Pa | 22.24 | 16.22 |

| Properties of Fluid | Unit | Side 1 | Side 2 |
|------------------------------------|-------------------|-----------------------|---------------|
| <i>Fluid</i> | | Ethylene glycol (35%) | Water |
| <i>Liquid Viscosity</i> | mPa·s | 1.2627 | 0.6142 |
| <i>Liquid Density</i> | kg/m ³ | 1032.1755 | 991.5684 |
| <i>Liquid Heat Capacity</i> | kJ/kg·K | 3.7201 | 4.1758 |
| <i>Liquid Thermal Conductivity</i> | W/m·K | 0.4671 | 0.6317 |

| Specifications | Unit | Side 1 | Side 2 |
|------------------------------------|----------------|---------------|---------------|
| <i>HEX Type</i> | | XB06H-1-30 | |
| <i>Number of Plates</i> | | 30 | |
| <i>Grouping</i> | | 1*14H/1*15H | |
| <i>Plate Material</i> | | AISI316L | |
| <i>Effective Area</i> | m ² | 0.76 | |
| <i>Brazing Material</i> | | Cu | |
| <i>Volume</i> | l | 0.3 | 0.3 |
| <i>Weight, empty/operating</i> | kg | 3.07 / 3.66 | |
| <i>Connection</i> | | | |
| <i>Inlet</i> | | G 3/4 Thread | G 3/4 Thread |
| <i>Outlet</i> | | G 3/4 Thread | G 3/4 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> | | | |