## Thermoelectric module (TM) specification

<table>
<thead>
<tr>
<th>PO position #</th>
<th>TM</th>
<th>Internal Solder Melting Temp, °C</th>
<th>Max operating temperature, °C</th>
<th>Parameters in vacuum at hot side temperature 25 °C</th>
<th>Rac at 25 °C</th>
<th>Ceramic size, mm</th>
<th>TM Height</th>
<th>Wire</th>
<th>Sealing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S-017-08-15</td>
<td>138</td>
<td>130</td>
<td>115</td>
<td>2.0</td>
<td>2.2</td>
<td>2.7</td>
<td>74.5</td>
<td>0.82</td>
</tr>
</tbody>
</table>

**Clamping force:** 1.3 - 2.7 kg

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**Power supply:**
- + Power supply
- + Power supply (red)
Max $dT$ is reduced by 2-3K for silicon sealed and 1-2K for epoxy sealed versions.

**Q(dT) at Thot=298K**

- $0.1*I_{max}$ (0.2 A)
- $0.25*I_{max}$ (0.5 A)
- $0.5*I_{max}$ (1 A)
- $0.75*I_{max}$ (1.5 A)
- $1*I_{max}$ (2 A)
U(dT) at Thot=298K

- 0.1*Imax (0.2 A)
- 0.25*Imax (0.5 A)
- 0.5*Imax (1 A)
- 0.75*Imax (1.5 A)
- 1*Imax (2 A)
The graph shows the COP (Coefficient of Performance) as a function of the temperature difference (dT) in Kelvin (K) for different currents (I) relative to the maximum current (Imax).

- **0.1*Imax (0.2 A)**: This line is represented by a dark blue line. It indicates a COP of approximately 6 at dT = 0 and decreases sharply as dT increases.
- **0.25*Imax (0.5 A)**: This line is represented by a purple line. It shows a slightly lower COP compared to the 0.1*Imax line.
- **0.5*Imax (1 A)**: This line is represented by a green line. It has an even lower COP compared to the previous lines.
- **0.75*Imax (1.5 A)**: This line is represented by a brown line. It continues the trend seen in the previous lines but at even lower COP values.
- **1*Imax (2 A)**: This line is represented by a pink line. It indicates the lowest COP of all the current levels shown.

The COP values decrease as the temperature difference increases, with each line representing a lower current level. The graph provides a visual representation of how COP is affected by varying temperatures and currents.