Product Overview

The Tegpro high temperature thermoelectric module was designed specifically for converting high temperature heat sources directly into electricity. Our Bi-Te based thermoelectric modules operate continuously at temperatures as high as 330 °C (626 °F) and up to 400 °C (752 °F) intermittently. The thermoelectric modules will generate DC power as long as there's a temperature difference across both sides of the module. The output power and efficiency will increase as the temperature difference increases across both sides of the module. Highly conductive graphite is applied to both sides of the module to increase thermal conductivity so there's no need to apply thermal grease or other heat transfer compound during installation.

Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot Side Temperature (°C)</td>
<td>300</td>
</tr>
<tr>
<td>Cold Side Temperature (°C)</td>
<td>30</td>
</tr>
<tr>
<td>Open Circuit Voltage (V)</td>
<td>8</td>
</tr>
<tr>
<td>Matched Load Resistance (ohms)</td>
<td>1.59</td>
</tr>
<tr>
<td>Matched load output voltage (V)</td>
<td>4</td>
</tr>
<tr>
<td>Matched load output current (A)</td>
<td>2.4</td>
</tr>
<tr>
<td>Matched load output power (W)</td>
<td>9.8</td>
</tr>
<tr>
<td>Heat flow across the module(W)</td>
<td>≈ 188</td>
</tr>
<tr>
<td>Heat flow density(W cm-2)</td>
<td>≈ 11.8</td>
</tr>
</tbody>
</table>
| AC Resistance (ohms) Measured under 27 °C at 1000 Hz | 0.8 ~ 1.0  

Module Efficiency

Note: Heat flow density(W cm-2)
Performance

The chart for open circuit voltage Vs $T_h$ under various $T_c$

The chart for matched load resistance Vs $T_h$ under various $T_c$

The chart for matched load voltage Vs $T_h$ under various $T_c$

The chart for matched load current Vs $T_h$ under various $T_c$

The chart for matched load output power Vs $T_h$ under various $T_c$

The chart for output voltage and output power Vs output current under $T_h=300 \degree C$ and $T_c=30 \degree C$
TEGpro
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Dimensions

- 40 ± 0.5 mm
- Negative lead wire (Black)
- Teflon Coated Wire AF250
- Positive lead wire (Red)
- Hot Side Attached to Heat source
- Cold Side Attached to Heat Sink for Heat Dissipation

- 1.6 in (40mm)
- Negative lead wire
- Positive lead wire

- 0.2 in (5mm)
- Hot side attached to heat source
- Cold Side Attached to Heat Sink for Heat Dissipation

Specifications subject to change without notice. Nov, 2014 - Rev 1.0