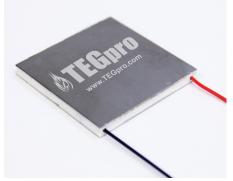


#### **Product Overview**

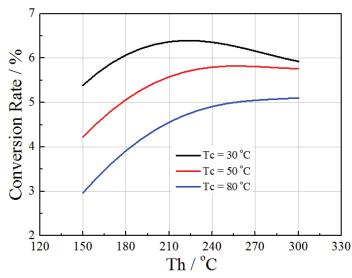
Our TEG power module is specifically designed and manufactured to convert high temperature heat sources directly into electricity. The Bi-Te based thermoelectric modules can operate at temperatures as high as 330 °C (626 K) continuously and up to 400 °C (752 K) intermittently. The module will generate DC voltage if there is a temperature difference across the module. Power is generated as the temperature difference across the module increases. The efficiency of the module will also increase as well. Thermally conductivity graphite sheets have been applied to both sides of the ceramic plates to provide low contact thermal resistance. Therefore you do not need to apply thermal grease or other heat transfer compound when you install the module. The graphite sheet works very well in high temperatures.



## **Specifications**

Hot Side Temperature (°C)	300
Cold Side Temperature (°C)	30
Open Circuit Voltage (V)	14.4
Matched Load Resistance (ohms)	2.4
Matched load output voltage (V)	7.2
Matched load output current (A)	3.0
Matched load output power (W)	21.6
Heat flow across the module(W)	≈ 415
Heat flow density(W cm-2)	≈ 13.2
AC Resistance (ohms) Measured under 27 °C at 1000 Hz	1.1 ~ 1.35

# **Specification of the Module**



Note: Conversion rate = Matched load output power/Heat flow through the module

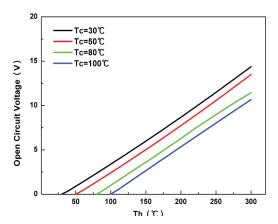
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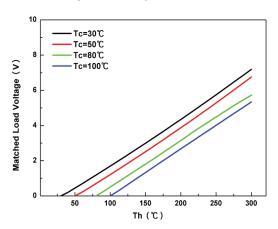




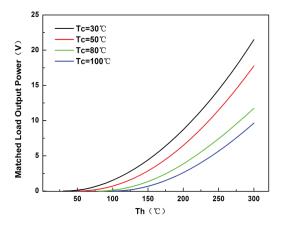
### **Performance**



The chart for open circuit voltage Vs Th under various Tc

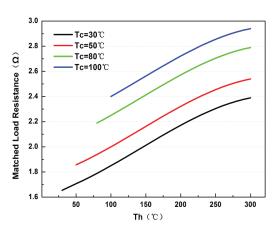


The chart for matched load voltage Vs  $T_h$  under various  $T_c$ 

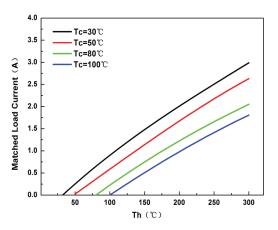


The chart for matched load output power Vs  $T_{h}\, under \, various \, T_{c}$ 

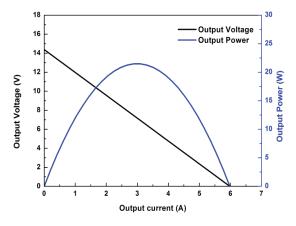
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The chart for matched load resistance Vs  $T_h$  under various  $T_c$ 



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



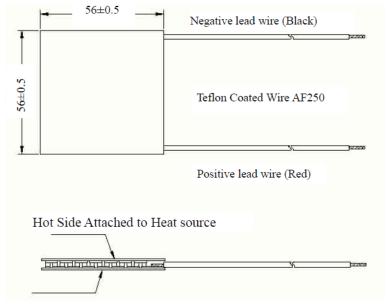
The chart for output voltage and output power Vs output current under  $T_h \!\!=\!\! 300~^{\circ}\text{C}$  and  $T_c \!\!=\!\! 30~^{\circ}\text{C}$ 



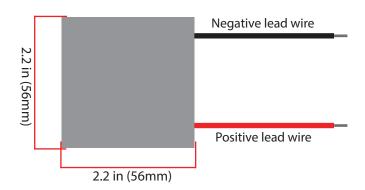


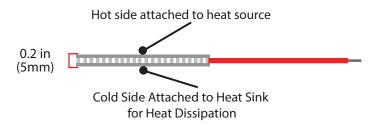


### **Dimensions**



Cold Side Attached to Heat Sink for Heat Dissipation





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