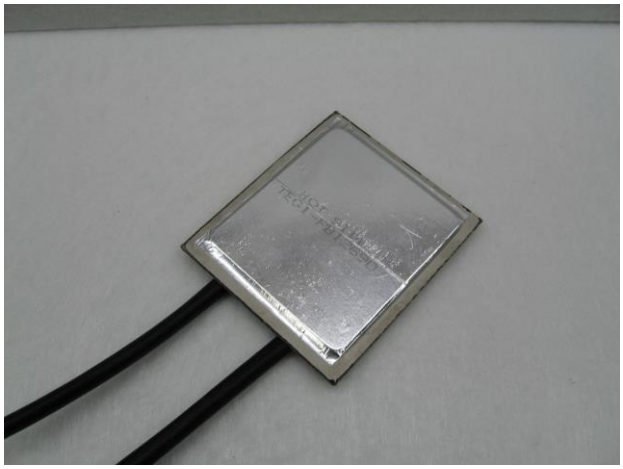
CARBON REDUCING TECHNOLOGY

MODULE TEG1-PB12690

OPERATING PARAMETERS:

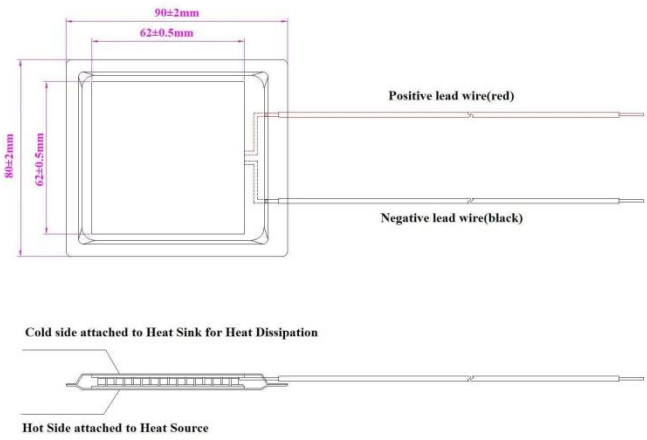
Description

Our high temperature power module is designed and manufactured to convert a heat source directly into electricity. The module is a lead tin telluride based thermoelectric module that can work optimally at 500 °C (932 ºF) continuously, and up to 600°C (1112 ºF) intermittently. The encapsulated thermoelectric module generates DC electricity as long as there is a temperature difference (dT) across the module. More power is generated when the temperature difference across the module becomes larger, and the efficiency of converting heat energy into electricity will increase. The encapsulated module is hermitically sealed in a metal casing to prevent oxidation and to protect the module integrity, resulting in long service life.

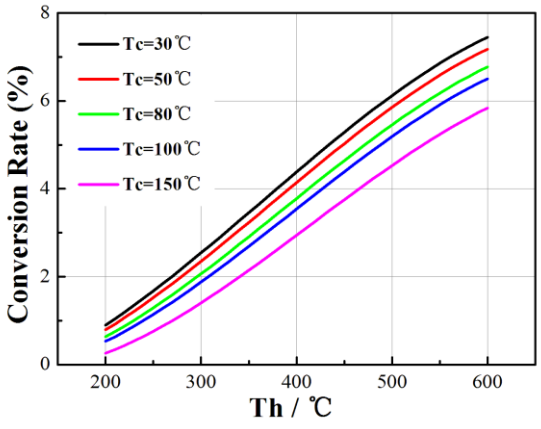


Hot Side Temperature / Th	600
Cold Side Temperature / Tc	30
Open Circuit Voltage (V)	13.3
Matched Load Resistance (Ohms)	2.05
Matched load output (V)	6.65
Matched load output current (A)	3.27
Matched load output power (W)	21.7
Heat flow across the module (W)	≈ 273
Heat flow density (W cm^{-2})	≈ 7.1
AC Resistance (ohms) Measured under 27 ˚C at 1,000 Hz	0.7-1.1

Geometric Characteristics Dimensions in millimeter



Conversion Rates for the module Vs Th under various Tc



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

TEL: 905-751-1362 FAX: 905-751-1364 EMAIL:info@espressomilkcooler.com www.thermoelectric-generator.com

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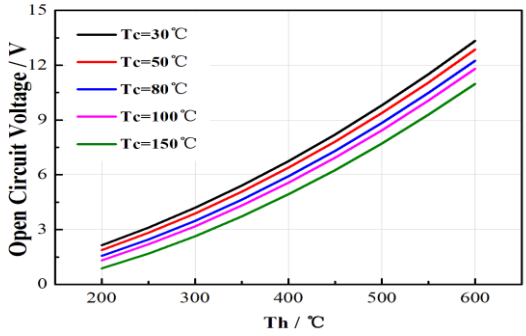
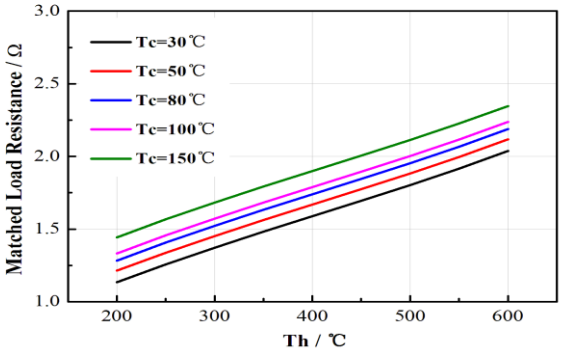
PERFORMANCE CURVES:

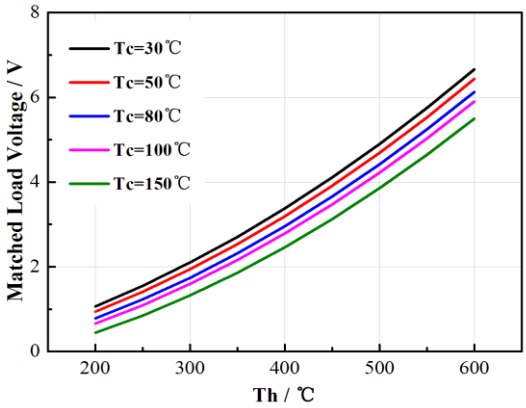
TEG1-PB1269



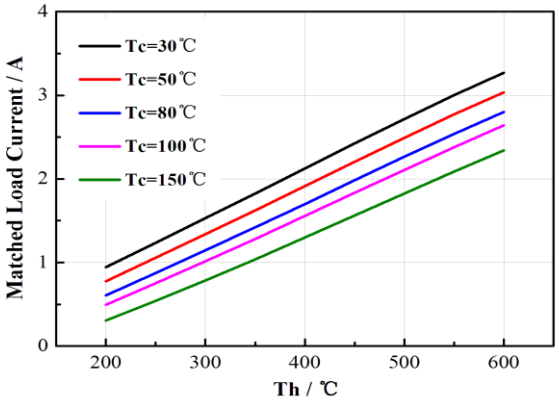
Open circuit voltage Vs T_h under various T_c



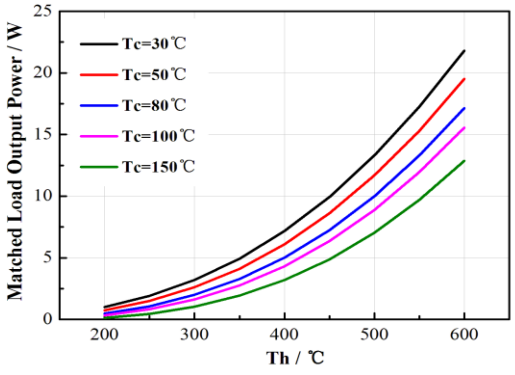
Matched load resistance Vs T_h under various T_c



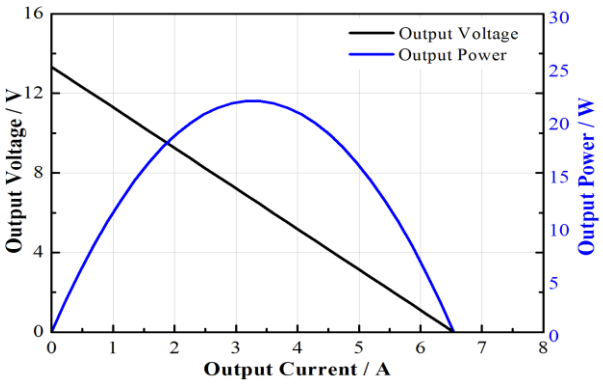
Matched load voltage Vs T_h under various T_c



Matched load current Vs T_h under various T_c



Matched load output power Vs T_h under various T_c



Output voltage and output power Vs output current at T_h=600 ˚C and T_c=30 ˚C

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