

eTEG™ UPF40 Power Generator Evaluation Kit

Part #: NGU-4004047-0203A_KIT
Preliminary Data Sheet

Description:

Nextreme has developed an easy-to-use, self-contained evaluation kit for conducting desktop demonstrations of its UPF40 TEG device.

The evaluation kit consists of the following:

- UPF40 TEG
- Thick film heater
- Heat sink / fan assembly
- Two type K thermocouples
- 12 Vdc transformer for the fan
- 0.670 Ω load resistor (lead to lead)

To conduct testing, the following instrumentation is recommended:

- Adjustable power supply (minimum 20V/1A)
- Digital multi-meter
- Two channel, type K thermocouple readout



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Typical Performance Values:

Parameter		$\Delta T = 30^{\circ}\text{C}$	$\Delta T = 60^{\circ}\text{C}$
Output Power (to 0.67 Ω resistor)	P_{out}	18 mW	61 mW
Open Circuit Voltage	V_{oc}	200 mV	389 mV
Internal Resistance	R_{int}	580 m Ω	640 m Ω

Definitions:

P_{out} The output power of the thermoelectric generator measured across a 0.67 Ω load resistor

V_{oc} The open circuit voltage of the device

R_{int} Internal resistance of TEG

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