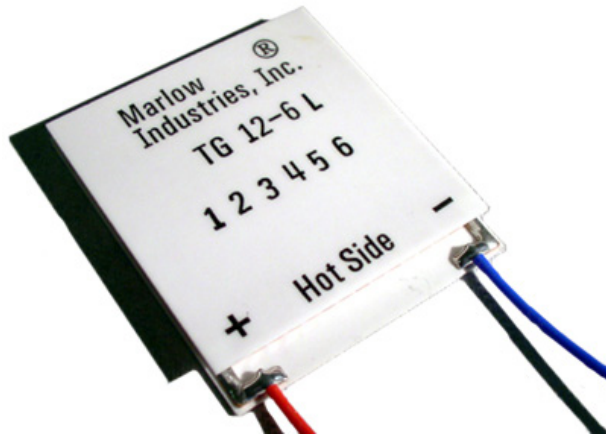




Technical Data Sheet for TG12-6

Single-Stage Thermoelectric Generator



NOMINAL PERFORMANCE IN NITROGEN

Cold Side Temperature (°C)	27 ± 2
AC Resistance (ohms):	1.95 – 2.38
Device ZT	0.73

PRODUCT FEATURES

- RoHS EU Compliant
- Rated operating temperature of 200°C.
- Ceramic Material: Aluminum Oxide
- Porch configuration for high strength leadwire connection.
- Superior nickel diffusion barriers on elements.
- High strength for rugged environment.
- RTV sealing option available.
- Lapped option available for multiple module applications.

ORDERING OPTIONS

Model Number	Description
TG12-6-01	Leadwires
TG12-6-01L	Leadwires, Lapped
TG12-6-01S	Leadwires, Sealed
TG12-6-01LS	Leadwires, Lapped, Sealed
TG12-6-01LSG	Leadwires, Lapped, Sealed, Graphite Pads

OPERATION CAUTIONS

For maximum reliability, continuous operation below 200°C (cold side and hot side) is recommended. Intermittent operation up to 230°C on the hot side of the TG is permissible.

INSTALLATION

Recommended mounting methods: Clamp with uniform pressure to a flat surface with thermal interface material. Recommend 1.4 MPa (200 psi) with thermal grease or flexible graphite pads. For additional information, please contact an applications engineer.

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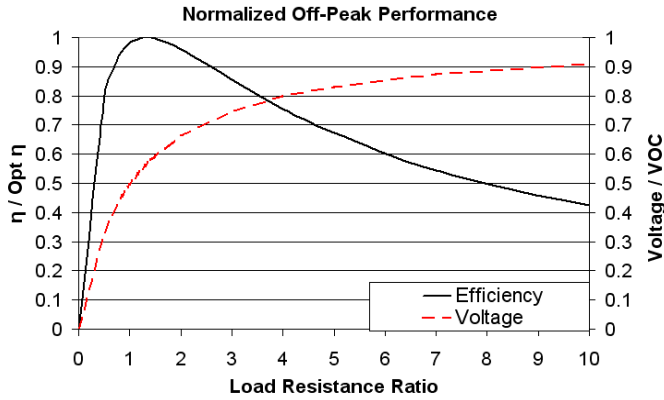
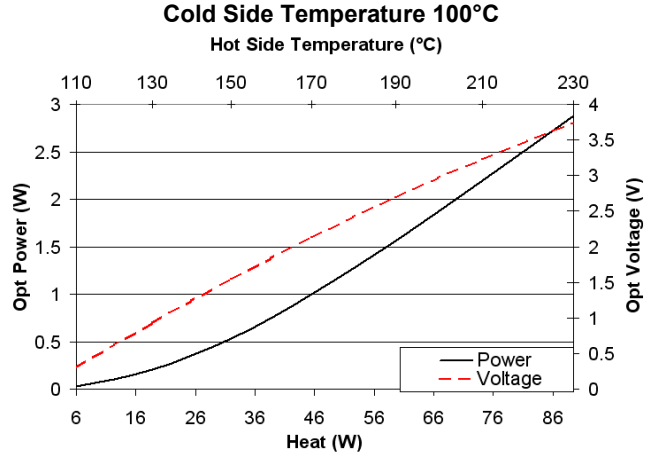
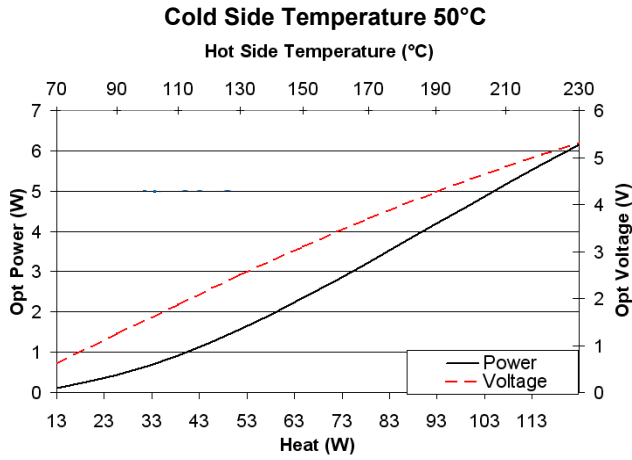
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TYPICAL PERFORMANCE CURVES

POWER GENERATION PERFORMANCE CURVES

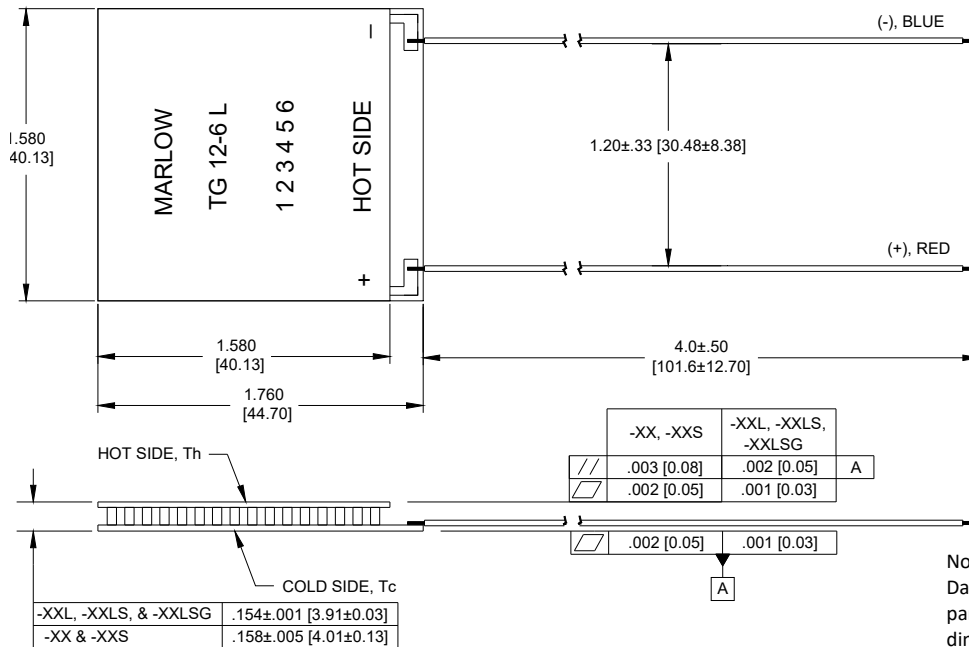
ENVIRONMENT: ONE ATMOSPHERE DRY NITROGEN



Hot Side Temperature (°C)	230	170	110
Cold Side Temperature (°C)	50	50	50
Optimum Efficiency, η (%)	5.03	4.14	2.42
Optimum Power (W)	6.16	3.23	0.92
Optimum Voltage (V)	5.30	3.69	1.88
Load Resistance for Opt η (Ω)	4.56	4.22	3.82
Open Circuit Voltage, VOC (V)	9.51	6.53	3.29
Short Circuit Current, ISC (A)	2.59	2.00	1.14
Thermal Resistance (°C/W)	1.47	1.54	1.58

For performance information in a vacuum or with cold side temperatures other than 50°C or 100°C, contact one of our Applications Engineers at 877-627-5691.

MECHANICAL CHARACTERISTICS



Note:
Dash-XXLSG: Height, parallelism, and flatness dimensions are measured before adding graphite pads.

All units are in inches. All units in [] are in millimeters.

For customer support or general questions please contact a local office or visit our website at www.marlow.com.
Marlow reserves the right to make product changes without notice.