ADVANCED THERMOELECTRIC

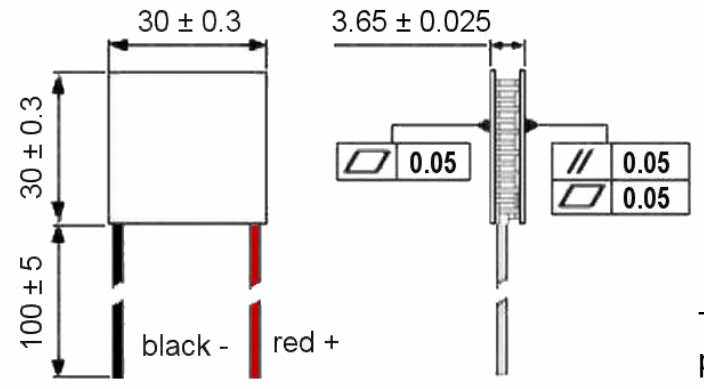
Technical Data Sheet

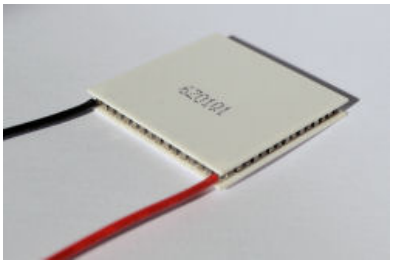
TM-127-1.0-4.0

Thermoelectric Module

Specifications (Hot-Side Temperature 27 °C)

I_{max} maximum current at ΔT_{max}	V_{max} maximum voltage at ΔT_{max}	Qc_{max} maximum cooling capacity at I_{max}, V_{max} and ΔT = 0 °C	ΔT_{max} maximum temperature difference at I_{max}, V_{max} and Qc = 0W	Internal Resistance
4.0 Amps	15.7 Volts	35.2 Watts	70 °C	3.5 Ω ± 10%





Dimensions: 30 x 30 x 3.65

Operating temperature range: -50 °C ~ +200 °C
(Solder melting point: +235 °C)

Thickness tolerance: ± 0.025mm
Flatness and parallel variance: ± 0.05mm
(Lapping to ± 0.01mm for multi-module apps available.)

Standard lead wires: 22 AWG, Tin (Sn) plated at module interface, with a maximum temperature of +105 °C
(Other wiring options available)

Maximum recommended compression: 1Mpa

Ceramics: Alumina (AL_2O_3)
Metalized (and tinned) surfaces available

Lot number (only) printed on the cold-side ceramic.

RoHS Compliant

Are you a manufacturer and need a slightly different module? Our TE modules can be customized in a variety of ways and we can likely provide precisely what you require. Let us know what you need and we'll be happy to let you know what we can do for you.

TM 127-1.0-4.0 Web Page Link

TM 127-1.0-4.0 is powerful multi-purpose single-stage thermoelectric module. It's our most popular 30 x 30 mm module intended for use with 12 to 15 volt DC power sources. TM 127-1.0-4.0 has an exceptional cooling capacity for its size… typically powered by a 12V nominal supply.

May be used for cooling, heating and temperature stabilization in a wide range of applications including consumer goods, medical, analytical, laboratory & scientific instruments, electro-optics, telecommunications, industrial and military.

Available in pre-wired and sealed strings, of your design or ours (2-12 modules long). Can be built with metalized (and tinned) surfaces. A version for thermal cycling is available.

Standard Option Designations (Suffix):

Epoxy edge sealing = "E"
RTV Edge sealing = "RTV"
Lapping to ± 0.01mm = "L"
(for example TM-127-1.0-4.0 "EL")

Contact sales@electracool.com for a quotation

Advanced Thermoelectric, PO Box 1003, White River, VT 05001
toll-free 1-866-665-5434 (603) 888-2467 sales@electracool.com

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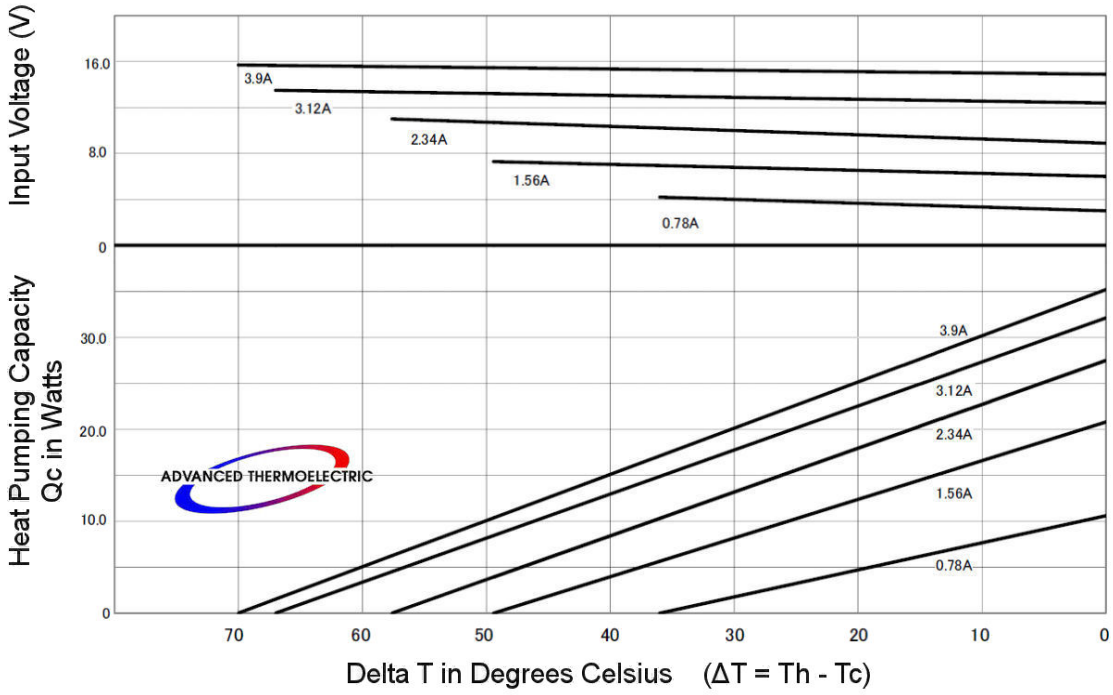
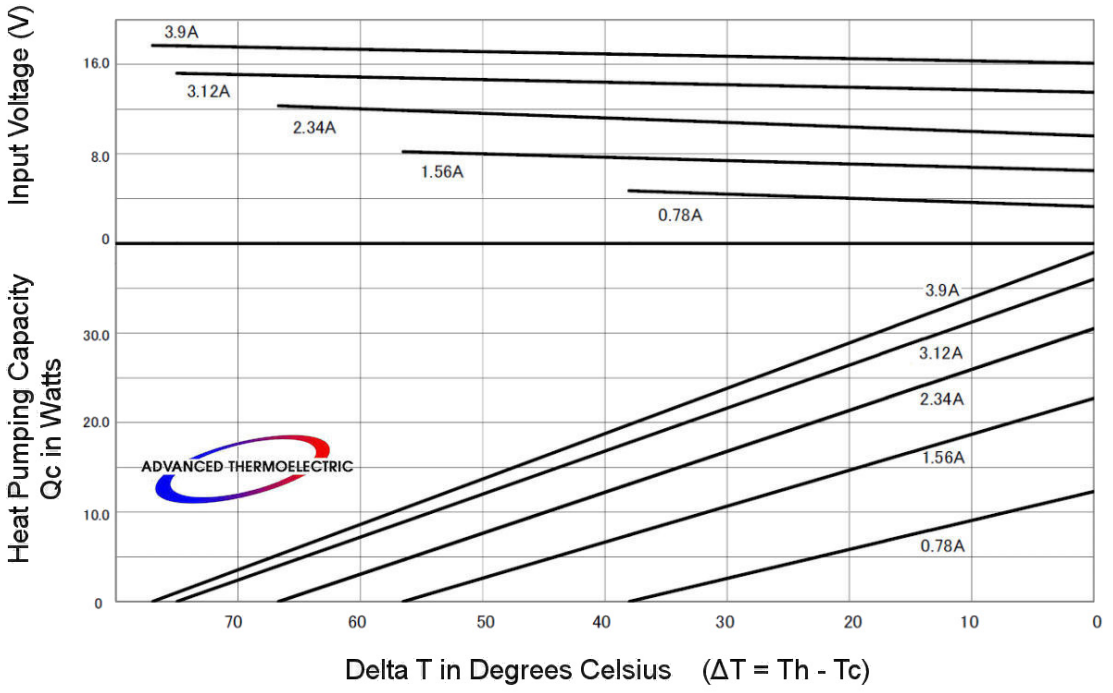
Thermoelectric Module

TM 127-1.0-4.0 Performance Curves Th=27 °C



TM 127-1.0-4.0 Performance Curves Th=50 °C



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