ADVANCED THERMOELECTRIC

Technical Data Sheet

TM-127-1.4-8.5

Thermoelectric Module

Specifications (Hot-Side Temperature 27 °C)

I_{max} maximum current at ΔT_{max}	V _{max} maximum voltage at ΔT _{max}	\mathbf{Qc}_{max} maximum cooling capacity at I _{max} , V _{max} and $\Delta T = 0$ °C	ΔT _{max} maximum temperature difference at I _{max} , V _{max} and Qc = 0W	Internal Resistance
8.5 Amps	16 Volts	78 Watts	70 °C	$1.50 \ \Omega \pm 10\%$



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

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

Standard lead wires: 20 AWG, Tin (Sn) plated at module interface, with a maximum temperature of +105 °C (Other wiring options available)

Maximum recommended compression: 1Mpa

Ceramics: Alumina (AL₂O₃)

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-127-1.4-8.5 is a general purpose workhorse. With a Qc_{max} of 78 watts, it's our most powerful 40 x 40 mm single-stage thermoelectric module. Typically this module is powered by a 12V DC power source.

May be used for cooling, heating and temperature stabilization and is employed in a wide range of applications including refrigeration, consumer goods, instrumentation, medical, analytical, laboratory & scientific instruments, electrooptics, 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. Contact us for details.

Option Prices and Designations (Suffix):

RTV Edge sealing = "RTV" Epoxy edge sealing = "E" Lapping to ± 0.01mm = "L" (for example TM-127-1.4-8.5 "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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