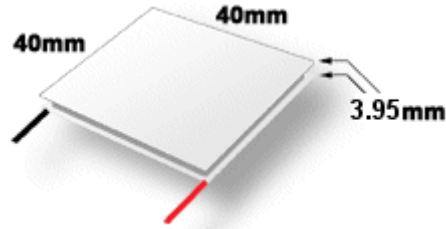


**TEC SPECIFICATIONS**  
**January 2010**



**TM127-1.4-8.5**  
**Illustrated**

**“TM” Series Single-Stage Thermoelectric Module Specifications**

Part Number	$I_{max}$ Amps	$V_{max}$ Volts	$Q_{max}$ Watts	$\Delta T_{max}$ °C	Dimensions L x W (mm)	Height mm
TM 31-1.0-3	3.0	4.2	7.0	72	15 x 15	3.2
TM 71-1.0-3	3.0	9.75	15.75	71	22.4 x 22.4	3.2
TM 127-1.0-3	3.0	17.5	28	71	30 x 30	3.95
TM 31-1.0-4	4.0	4.2	9.2	71	15 x 15	4.2
TM 71-1.0-4	4.0	9.75	19.3	71	22.4 x 22.4	4.2
TM 127-1.0-4	4.0	17.5	38	72	30 x 30	3.95
TM 127-1.4-4	4.0	17.5	38	72	40 x 40	4.2
TM 31-1.0-6	6.0	4.4	15	72	20 x 20	4.2
TM 71-1.0-6	6.0	9.75	32	72	22.4 x 22.4	3.6
TM 71-1.4-6	6.0	9.75	32	72	30 x 30	4.2
TM 127-1.0-6	6.0	17.5	57	72	30 x 30	3.6
TM 127-1.4-6	6.0	17.5	57	72	40 x 40	4.2
TM 31-1.0-8.5	8.5	4.4	20	72	20 x 20	3.95
TM 71-1.4-8.5	8.5	9.75	45	72	30 x 30	3.95
TM 127-1.4-8.5	8.5	17.5	80	70	40 x 40	3.95

All modules now manufactured were previously our “HP” High Performance versions

**Toll Free Order Line for the US and Canada**

**1 (866) 665-5434**

Excluding stock, a minimum order of 100 pieces is required.  
 Lead-time is typically 4 weeks ARO or less.



ADVANCED THERMOELECTRIC · PO Box 7091 · Nashua, NH 03060 · USA  
 (603) 888-2467 · fax: (603) 724-6740 · e-mail: sales@electracool.com

**Module Characteristics and Value Descriptions:**

$I_{\max}$  is the maximum (optimal) input current in amperes.

$V_{\max}$  is the maximum input voltage in volts when the current input is optimal ( $I_{\max}$ ).

$Q_{\max}$  is the maximum amount of heat the module is capable of pumping. This value is achieved when there is no difference in temperature ( $DT=0$ ) on the modules two surfaces. If your application requires cooling, the heat pumping capacity will be less.

$\Delta T_{\max}$   $DT_{\max}$  or Delta  $T_{\max}$  is the maximum temperature difference between the hot and cold side of the module with no heat load. The greater the thermal mass of the object cooled, the lower the  $\Delta T$ .



Keep in mind that the hot side will be warmer than ambient with a forced convection heatsink so your NET temperature differential will equal  $\Delta T_{\max}$  minus the hot side rise in temperature. Our curves are prepared using a liquid heatsink that is maintained at a constant temperature. If you use a forced convection heatsink your NET  $\Delta T$  will be less.

Epoxy or RTV moisture sealing and advanced anti-corrosion potting are available upon request.

Option Suffix Designations: Lapping "L", Epoxy sealing "E", RTV sealing "R", Potting "P". (For example: ST-127-1.4-6.0-"E")

Maximum operating temperature: +200°C

Height tolerance:  $\pm 0.02$  mm (Lapping to a close-height tolerance of  $\pm 0.01$  mm available).

Flatness and Parallel variance not more than: 0.020mm

Our thermoelectric modules are RoHs compliant.



Prices, specifications, drawings and data are subject to change without notice.

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