

# Ceramic Plate Series CP2,127,10

## Thermoelectric Modules

The Ceramic Plate (CP) Series of Thermoelectric Modules (TEMs) is considered 'the standard' in the thermoelectric industry.

This broad product line of high-performance and highly reliable TEMs is available in numerous heat pumping capacities, geometric shapes, and input power ranges. Assembled with Bismuth Telluride semiconductor material and thermally conductive Aluminum Oxide ceramics, the CP Series is designed for higher current and large heat-pumping applications.

### FEATURES

- Precise Temperature Control
- Compact Geometric Sizes
- Reliable Solid State Operation
- No Sound or Vibration
- Environmentally Friendly
- DC Operation
- RoHS Compliant

### APPLICATIONS

- Medical Lasers
- Lab Science Instrumentation
- Clinical Diagnostic Systems
- Photonics Laser Systems
- Electronic Enclosure Cooling
- Food & Beverage Cooling
- Chillers (Liquid Cooling)

### PERFORMANCE SPECIFICATIONS

|                           |      |      |
|---------------------------|------|------|
| Hot Side Temperature (°C) | 25°C | 50°C |
| Qmax (Watts)              | 79.8 | 87.7 |
| Delta Tmax (°C)           | 67   | 75   |
| I <sub>max</sub> (Amps)   | 9.3  | 9.3  |
| V <sub>max</sub> (Volts)  | 14.5 | 16.4 |
| Module Resistance (Ohms)  | 1.44 | 1.62 |

| SUFFIX | THICKNESS<br>(PRIOR TO TINNING) | FLATNESS &<br>PARALLELISM | HOT<br>FACE | COLD<br>FACE | Lead<br>Length |
|--------|---------------------------------|---------------------------|-------------|--------------|----------------|
| L      | 0.220" ± 0.010"                 | 0.0015" / 0.0015"         | Lapped      | Lapped       | 4.5"           |
| L1     | 0.220" ± 0.001"                 | 0.001" / 0.001"           | Lapped      | Lapped       | 4.5"           |
| L2     | 0.220" ± 0.0005"                | N/A                       | Lapped      | Lapped       | 4.5"           |
| ML     | 0.224" ± 0.010"                 | 0.002" / 0.002"           | Metallized  | Lapped       | 4.5"           |
| LM     | 0.224" ± 0.010"                 | 0.002" / 0.002"           | Lapped      | Metallized   | 4.5"           |
| MM     | 0.228" ± 0.010"                 | 0.002" / 0.002"           | Metallized  | Metallized   | 4.5"           |

### SEALING OPTION

| SUFFIX | SEALANT | COLOR | TEMP RANGE    | DESCRIPTION                                  |
|--------|---------|-------|---------------|----------------------------------------------|
| RT     | RTV     | White | -60 to 204 °C | Non-corrosive, silicone adhesive sealant     |
| EP     | Epoxy   | Black | -55 to 150 °C | Low density syntactic foam epoxy encapsulant |

### global solutions: local support™

Americas: +1 888.246.9050

Europe: +46.31.420530

Asia: +86.755.2714.1166

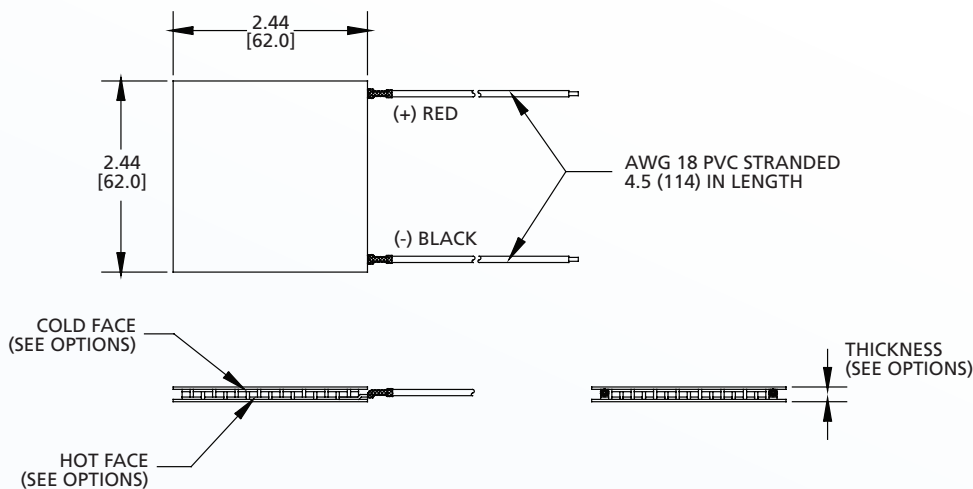
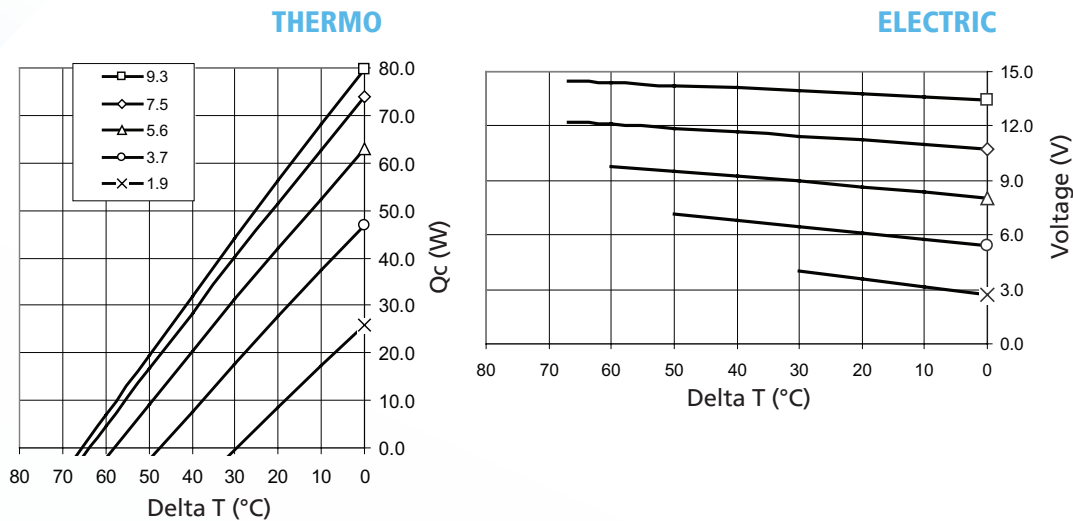
clv.customerpos@lairdtech.com

www.lairdtech.com

# Ceramic Plate Series CP2,127,10

## Thermoelectric Modules

Performance Curves at  $T_h = 25^\circ\text{C}$



Ceramic Material: Alumina ( $\text{Al}_2\text{O}_3$ )  
Solder Construction:  $138^\circ\text{C}$ , Bismuth Tin (BiSn)

### OPERATING TIPS

- Max Operating Temperature:  $80^\circ\text{C}$
- Do not exceed  $I_{\text{max}}$  or  $V_{\text{max}}$  when operating module
- Reference assembly guidelines for recommended installation
- Solder tinning also available on metallized ceramics

THR-DS-CP2,127,10 0409

Any information furnished by Laird Technologies and its agents is believed to be accurate and reliable. Responsibility for the use and application of Laird Technologies materials rests with the end user since Laird Technologies and its agents cannot be aware of all potential uses. Laird Technologies makes no warranties as to the fitness, merchantability, or suitability of any Laird Technologies materials or products for any specific or general uses. Laird Technologies shall not be liable for incidental or consequential damages of any kind. All Laird Technologies products are sold pursuant to the Laird Technologies terms and conditions of sale in effect from time to time, a copy of which will be furnished upon request. For further information please visit our website at [www.lairdtech.com](http://www.lairdtech.com) Alternatively contact: [sales@lairdtech.com](mailto:sales@lairdtech.com). Bluetooth® is a trademark owned by Bluetooth SIG, Inc., USA and licensed to Laird Technologies.

© 2008 All Rights Reserved. Laird Technologies is a registered trademark of Laird Technologies, Inc.

# AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit [www.ameya360.com](http://www.ameya360.com)

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd  
Minhang District, Shanghai , China

➤ Sales :

Direct    +86 (21) 6401-6692  
Email     amall@ameya360.com  
QQ        800077892  
Skype     ameyasales1 ameyasales2

➤ Customer Service :

Email     service@ameya360.com

➤ Partnership :

Tel        +86 (21) 64016692-8333  
Email     mkt@ameya360.com