



marlow industries, inc.®  
Subsidiary of II-VI INCORPORATED

# TECHNICAL DATA SHEET



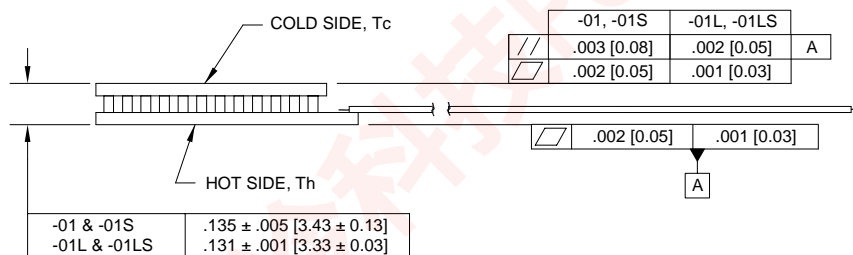
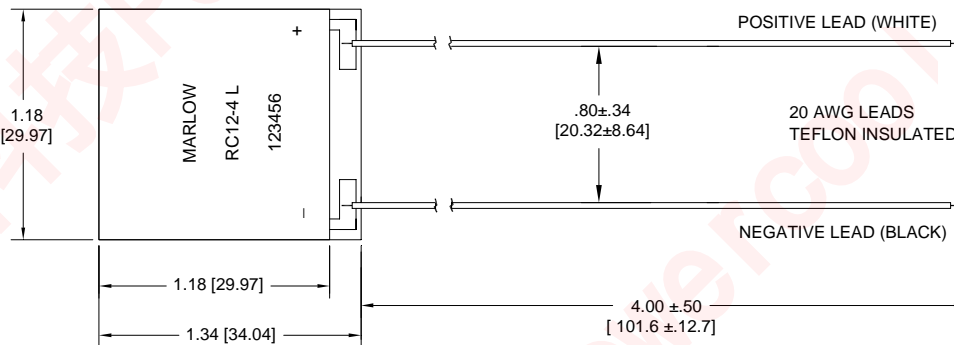
## RC12-4

Single-Stage Thermoelectric Cooler  
RoHS 2002/95/EC Compliant

### PERFORMANCE VALUES

Hot Side Temperature (°C)	27°C	50°C
Δ Tmax (°C-dry N <sub>2</sub> ):	66	74
Qmax (watts):	36	39
Imax (amps):	3.7	3.7
Vmax (vdc):	14.7	16.4
AC Resistance (ohms):	3.2	---

### MECHANICAL CHARACTERISTICS



Ceramic Material: Alumina (AC)

Dimensions in [ ] are millimeters

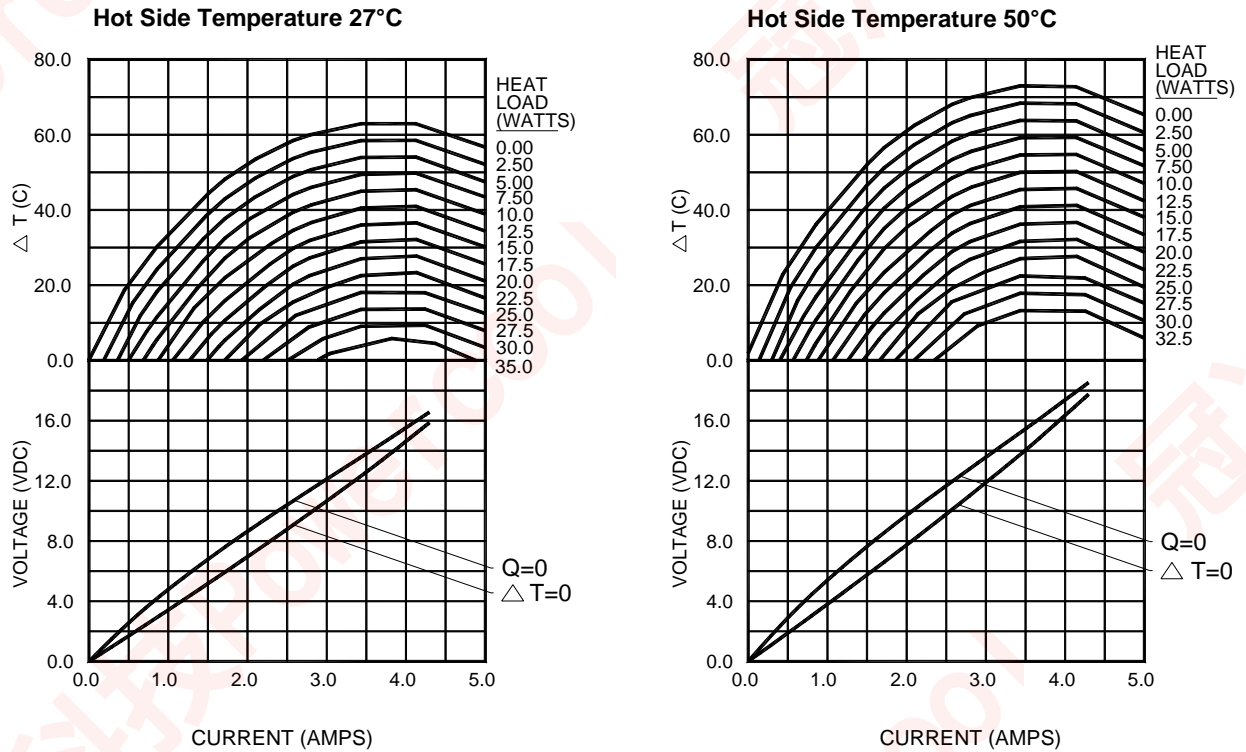
### ORDERING OPTIONS

Model Number	Description
RC12-4-01	Base Model w/ leads
RC12-4-01L	Lapped Model
RC12-4-01S	Sealed Model
RC12-4-01LS	Lapped and Sealed Model

### AVAILABLE MODIFICATIONS

Solid-state reliability.  
Built with high temperature solder with the ability to withstand higher assembly processing temperatures for short periods of time (<160°C).  
Superior nickel diffusion barriers on elements.  
High strength for rugged environment.  
Porched configuration for enhanced leadwire strength.  
RTV sealing available (Optional).  
Lapped option available for multiple module applications.

ENVIRONMENT: ONE ATMOSPHERE DRY NITROGEN



For performance information in a vacuum or with hot side temperatures other than 27°C or 50°C, consult one of our Applications Engineers.

Installation

Recommended mounting methods: Bonding with thermal epoxy or soldering with metallized ceramics. For additional information, please refer to our TEC Installation Guide.

Operation Cautions

For maximum reliability, storage and operation below 85°C in a non-condensing environment is recommended. To minimize thermal stress, use linear/proportional temperature control or a similar method rather than an ON/OFF method.

CONTACT US:

For customer support or general questions please contact a local office below or consult our website for distributor information.

Marlow Industries, Inc.  
10451 Vista Park Road  
Dallas Texas 75238-1645  
214-340-4900 (tel)  
214-341-5212 (fax)  
www.marlow.com

Marlow Industries Europe  
Aberdeen House, South Road  
Haywards Heath  
West Sussex RH164NG UK  
+44 (0)1444-443404 (tel)  
+44 (0)1444-443334(fax)

II-VI Japan Inc.  
WBG Marive East 17F  
2-6 Nakase, Mihama-ku  
Chiba-Shi, Chiba 261-7117  
Japan  
81 43 297 2693 (tel)  
81 43 297 3003 (fax)  
center@ii-vi.co.jp  
www.ii-vi.co.jp

II-VI Singapore Pte., Ltd.  
Blk. 5012, Techplace II  
#04-07 & 05-07/12, Ang Mo Kio Ave. 5  
Singapore 569876  
(65) 6481 8215 (tel)  
(65) 6481 8702 (fax)  
info@ii-vi.com.sg  
www.ii-vi.com.sg

Marlow Industries China, II-VI  
Technologies Beijing  
A subsidiary of II-VI Incorporated  
Rm 202, 1# Lize 2nd Middle Road  
Wangjing, Chaoyang District  
Beijing 100102 China  
010-64398226 ext 105 (tel)  
010-64399315 (fax)  
info@iivibj.com