

# **TECHNICAL DATA SHEET**



## NL2012T

Thermoelectric Cooler RoHS EU Compliant

### TYPICAL PERFORMANCE VALUES

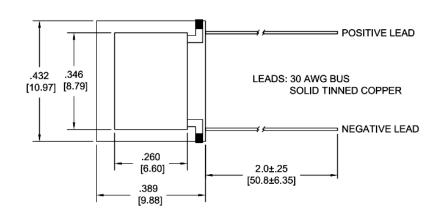
Hot Side Temperature (°C)	27°C	50°C
Δ Tmax (°C-dry N₂):	77	88
Qmax (watts):	2.4	2.5
Imax (amps):	1.2	1.2
Vmax (vdc):	5.4	6.1
AC Resistance (ohms):	4.18	

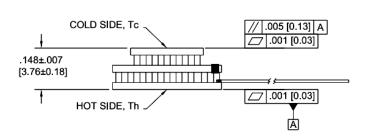
### MECHANICAL CHARACTERISTICS

# Beryllium Oxide Handling Precautions

Beryllium oxide can be toxic only when dust, mist, or fumes containing particles small enough to enter the lungs are inhaled. For the user, precautions required are to avoid grinding, machining or pulverizing the material by mechanical, thermal, or chemical processing.

marlow industries, inc.





CERAMIC MATERIAL : ALUMINA (AC) OR ALUMINA/BERYLLIA (AB) COMBINATION

### ORDERING OPTIONS

Model Number Description

NL2012T-01 both surfaces are metallized NL2012T-02 hot side exterior is metallized

NL2012T-03 no metallization

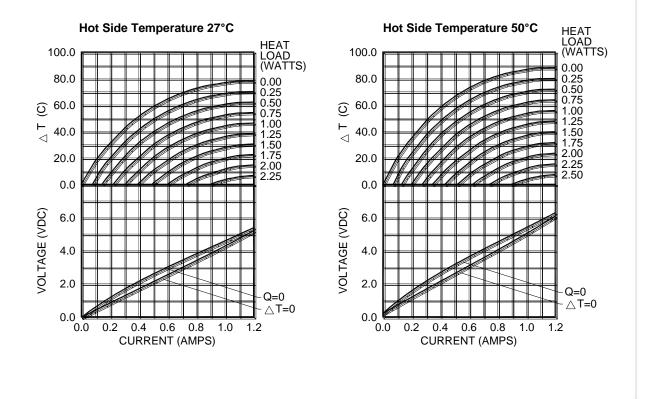
### **AVAILABLE MODIFICATIONS**

Pretinned metallized ceramic surface(s) with 117°C solder. Thermistor mounted on edge of cold side ceramic. (Calibration available.)

Elevated temperature burn-in with test data provided.

# TYPICAL PERFORMANCE CURVES

### 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

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 Marlow Industries Europe GmbH

Brunnenweg 19-21 64331 Weiterstadt Germany

Tel.: +49 (0) 6150 5439 - 403 Fax: +49 (0) 6150 5439 - 400 info@marlow-europe.eu

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 8215 (tel) (65) 6481 8702 (fax) info@ii-vi.com.sg www.ii-vi.com.sq Marlow Industries China, II-VI Technologies Beijing A subsidiary of II-VI Incorpora

A subsidiary of IĬ-VĬ 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