



## Thermoelectric Cooler

DT12-6

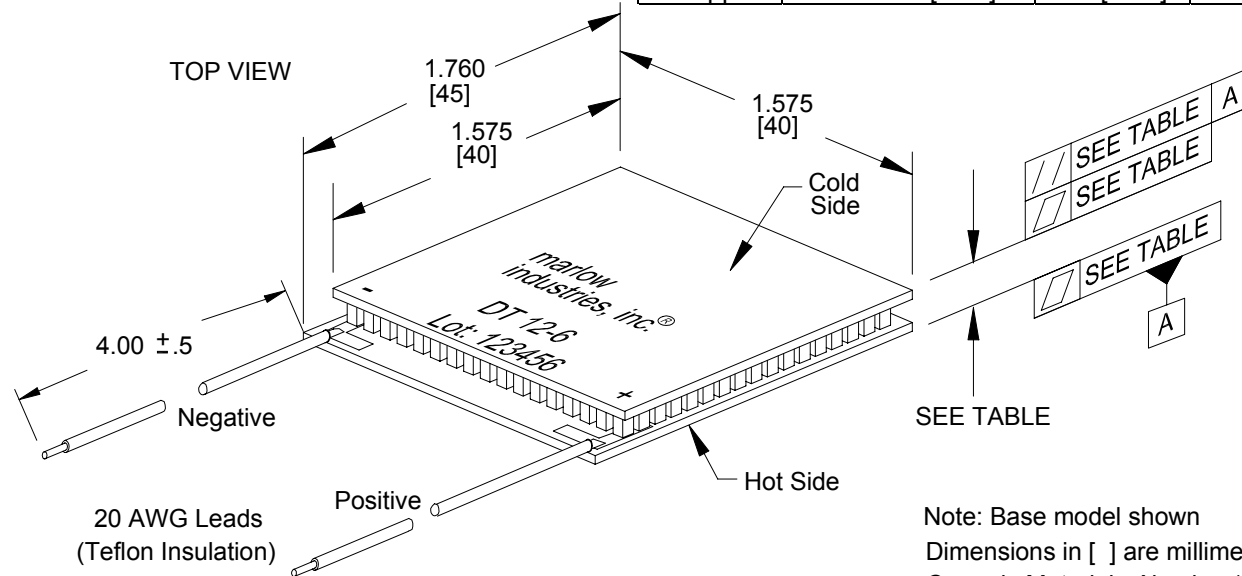
### Performance Values

| Hot Side Temperature (°C)        | 27°C | 50°C |
|----------------------------------|------|------|
| Δ Tmax (°C-dry N <sub>2</sub> ): | 66   | 74   |
| Qmax (watts):                    | 54   | 60   |
| I <sub>max</sub> (amps):         | 5.6  | 5.6  |
| V <sub>max</sub> (vdc):          | 14.7 | 16.4 |
| AC Resistance (ohms):            | 2.2  | ---  |



### Mechanical Characteristics

|          | Height            | Flatness   | Parallelism |
|----------|-------------------|------------|-------------|
| Lapped   | .154 ± .001[0.03] | .001[0.03] | .002[0.05]  |
| Unlapped | .158 ± .005[0.13] | .002[0.05] | .003[0.08]  |



### Ordering Options

| Model Number | Description             |
|--------------|-------------------------|
| DT12-6-01    | Base Model              |
| DT12-6-01L   | Lapped Model            |
| DT12-6-01S   | Sealed Model            |
| DT12-6-01LS  | Lapped and Sealed Model |

### Features

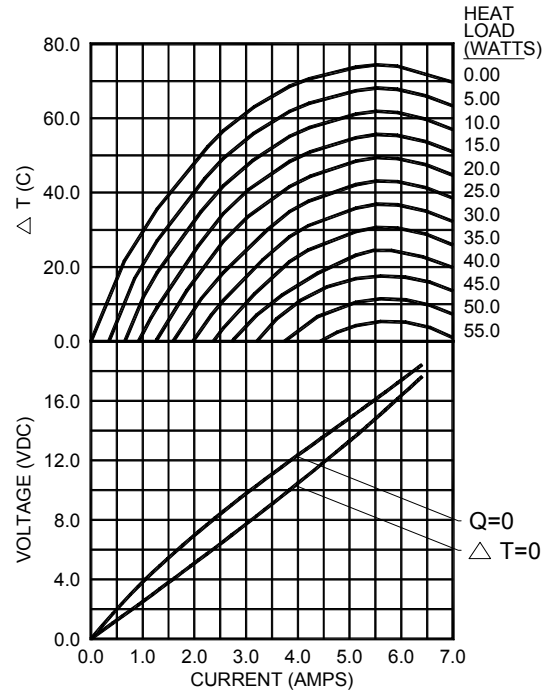
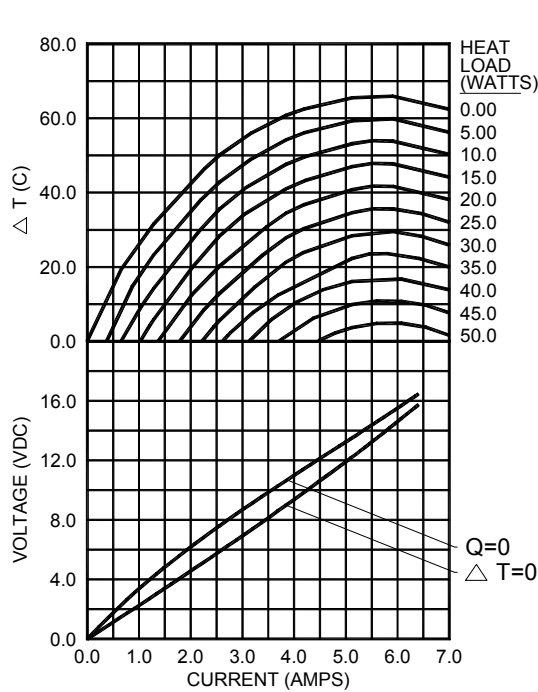
- Solid state reliability
- Built with high temperature solder with the ability to withstand higher assembly processing temperatures for short periods of time (<160°C)
- Superior nickel diffusion barriers on elements
- High strength for rugged environment
- Porched configuration for improved leadwire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

**Performance Curves**

**Environment: One atmosphere dry nitrogen**

Hot Side Temperature: 27°C

Hot Side Temperature: 50°C



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**

Consult Marlow Industries' Thermoelectric Installation Guide or reliability report for more details. For additional information, please contact one of our application engineers for technical support.

**Operation Cautions**

Maximum storage and operation +150°C.

For maximum reliability, storage and operation below 85°C is recommended. Excessive power cycling and powering through thermostatic (on/off) control is not recommended.



**Marlow Industries, Inc.**  
 10451 Vista Park Road  
 Dallas Texas 75238-1645  
 TEL: 214-340-4900  
 FAX: 214-341-5212  
 Internet: [www.marlow.com](http://www.marlow.com)

**Marlow Industries Europe**  
 Aberdeen House, South Road  
 Haywards Heath  
 West Sussex RH164NG UK  
 TEL: +44 (0)1444-443404  
 FAX: +44 (0)1444-443334

**Marlow Industries Asia**  
 1-1-8-401  
 Uehara, Shibuya-ku  
 Tokyo, Japan 151-0064  
 TEL: +81 (3) 5454-5280  
 FAX: +81 (3) 5454-5281