

## PolarTEC™ Thermoelectric Cooler

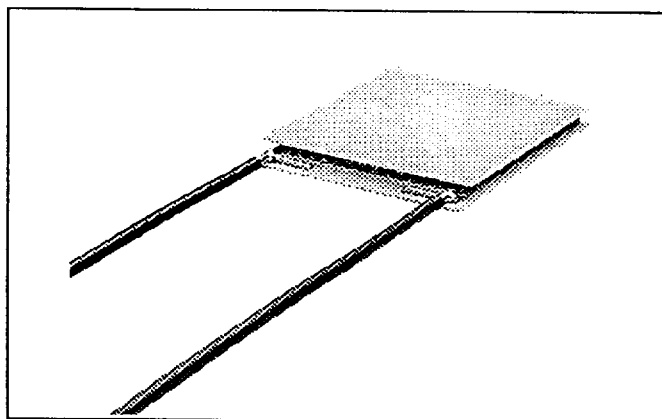
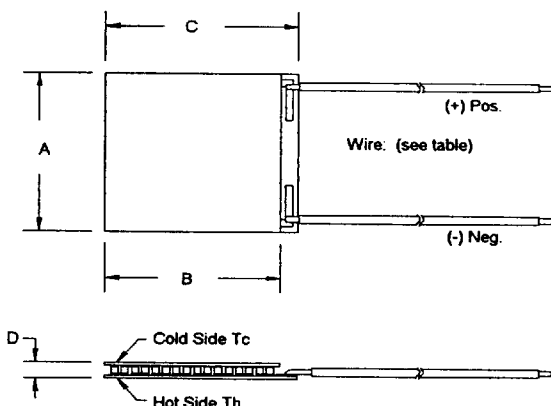
## Data Sheet

Melcor's PolarTEC™ series was developed specifically for **low cost**, high volume, commercial applications such as portable cool boxes, beverage can coolers, water coolers and small refrigerators. The series includes PolarTEC™ versions of our most popular TECs, covering a full range of size, power and heat pumping capacities.

### Some of the features of the PolarTEC™ series thermoelectric cooler

- Melcor's proven reliability
- Porch style for improved lead wire strength
- Designed for 12 volt DC operation
- Superior assembly process
- Lowest cost
- Interface material: Aluminum Oxide
- Solid-state reliability

### Mechanical Characteristics



### Performance Characteristics

**MADE IN THE USA**

| Model     | I <sub>max</sub><br>(Amps) | Th = 25°C                   |                             |                           | Dimensions (mm) |    |    |     | Wire<br>152mm (6.0")<br>PVC insulated |
|-----------|----------------------------|-----------------------------|-----------------------------|---------------------------|-----------------|----|----|-----|---------------------------------------|
|           |                            | Q <sub>max</sub><br>(Watts) | V <sub>max</sub><br>(Volts) | ΔT <sub>max</sub><br>(°C) | A               | B  | C  | D   |                                       |
| PT2-12-30 | 2.3                        | 20                          | 14.4                        | 65                        | 30              | 30 | 34 | 3.7 | 24 AWG                                |
| PT3-12-30 | 2.8                        | 24                          | 14.4                        | 65                        | 30              | 30 | 34 | 3.4 | 24 AWG                                |
| PT4-12-30 | 3.9                        | 33                          | 14.4                        | 65                        | 30              | 30 | 34 | 3.4 | 24 AWG                                |
| PT4-7-30  | 3.9                        | 18.5                        | 8.1                         | 67                        | 30              | 30 | 34 | 4.2 | 18 AWG                                |
| PT4-12-40 | 3.9                        | 33                          | 14.4                        | 67                        | 40              | 40 | 44 | 4.2 | 18 AWG                                |
| PT6-7-30  | 3.9                        | 29                          | 8.1                         | 65                        | 30              | 30 | 34 | 3.9 | 18 AWG                                |
| PT6-12-40 | 6.0                        | 52                          | 14.4                        | 65                        | 40              | 40 | 44 | 3.9 | 18 AWG                                |
| PT8-12-40 | 8.5                        | 72                          | 14.4                        | 64                        | 40              | 40 | 44 | 3.5 | 18 AWG                                |

Maximum Operating Temperature: 85°C

### Melcor Quality Pledge

We pledge to our customers and to ourselves to make our products and services the standard of excellence around the globe. The results of our efforts are products and services that meet or exceed our customer's standards for performance, delivery, reliability, and value.

**"Uses for MELCOR Thermoelectrics are as Limitless as the Imagination"**

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<http://www.melcor.com>

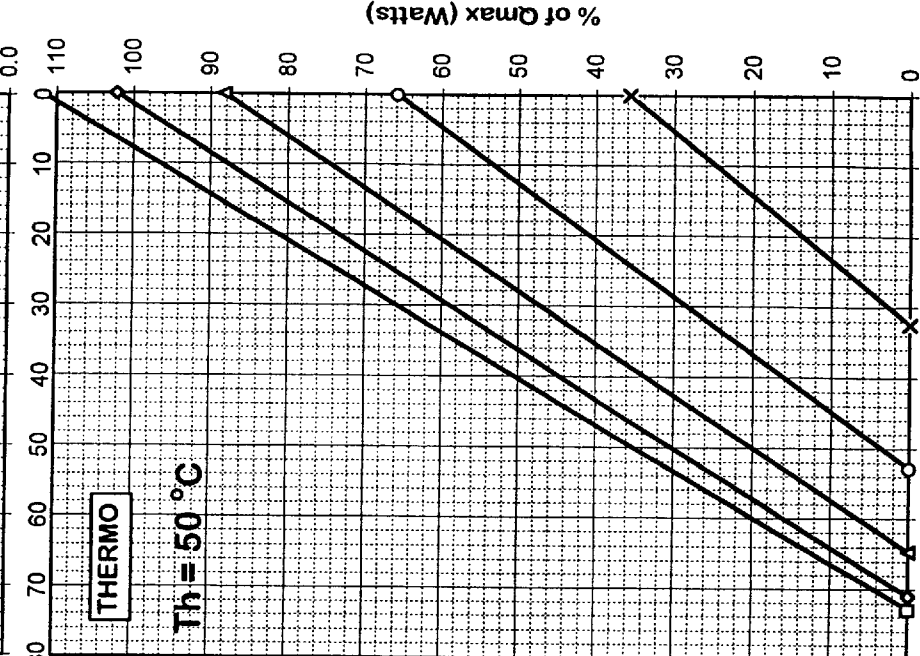
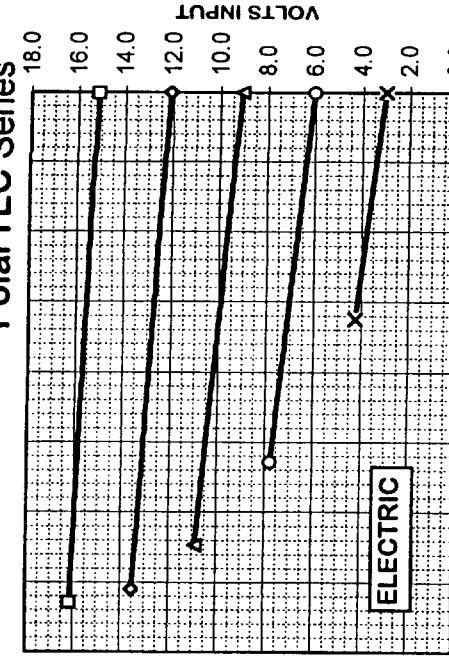
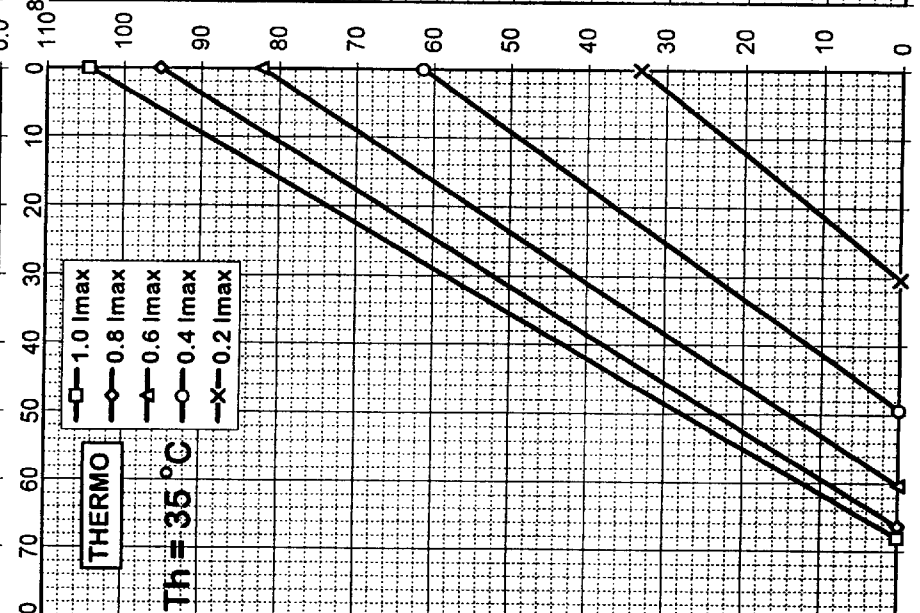
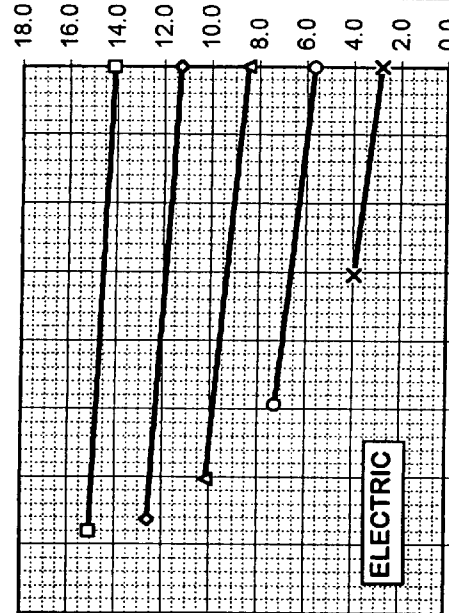
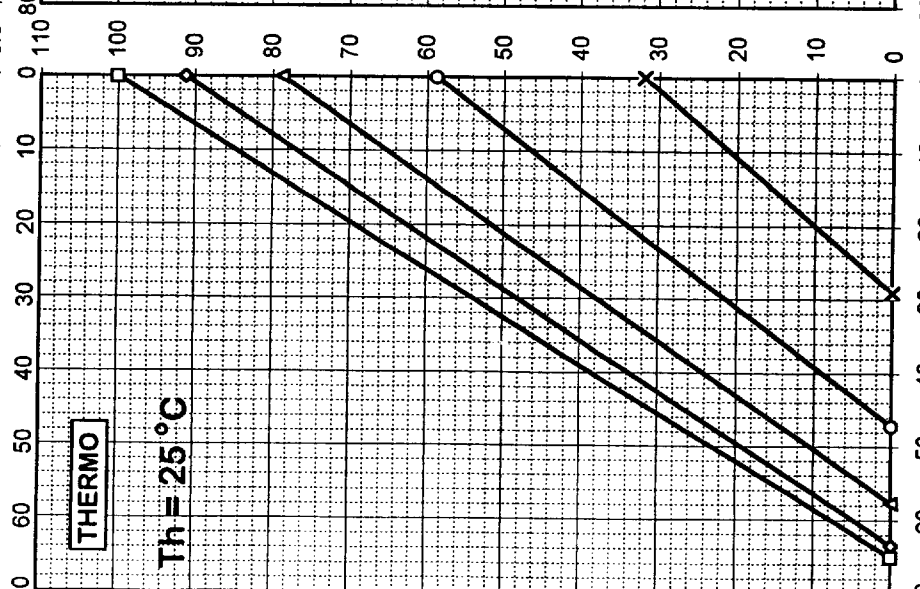
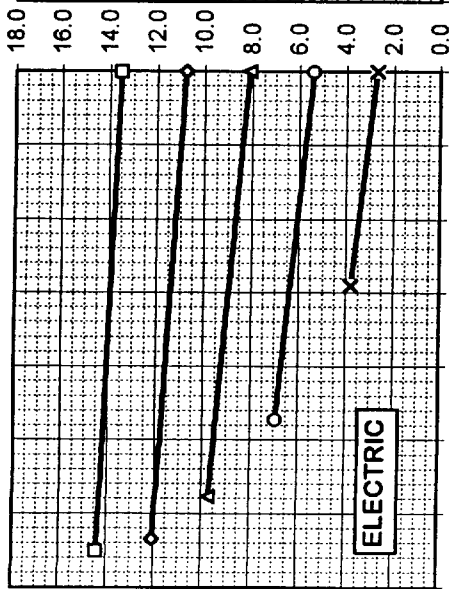
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# MELCOR THERMOELECTRICS

## PERFORMANCE GRAPH

### PolarTEC Series



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