

# HiTemp ET Series Thermoelectric Cooler

Note: This product is not recommended for new designs.

This product series has been replaced with the HiTemp ETX Series. The recommended replacement is:

MFG Part Number: 387004937

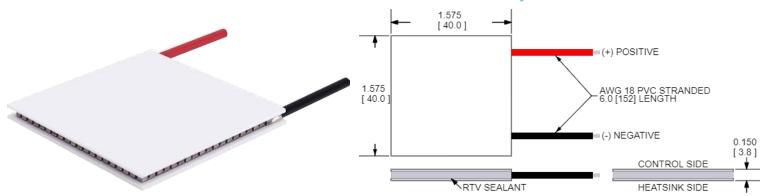
Description: ETX6-19-F1-4040-TA-RT-W6

#### **Features**

- High-temperature operation
- Reliable solid-state
- No sound or vibrationEnvironmentally-friendly
- RoHS-compliant

#### **Applications**

- Peltier Cooling for Refrigerated Centrifuges
- Peltier Cooling for Machine Vision
- Thermoelectric Cooling for CMOS Sensors
- Cooling Solutions for Autonomous SystemsPeltier Cooling for Digital
- Light Processors



CERAMIC MATERIAL: Al<sub>2</sub>O<sub>3</sub>

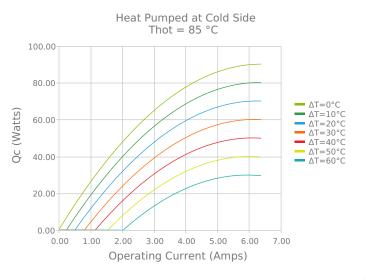
SOLDER CONSTRUCTION: 232°C, SbSn

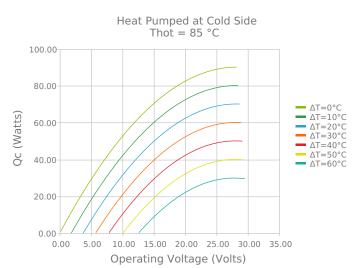
INCHES [ MM ]

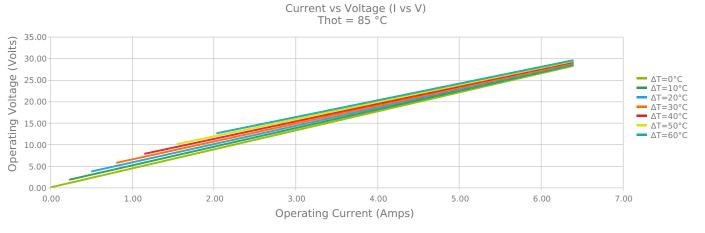
Note: Allow 0.020 in [0.5 mm] around perimeter of the thermoelectric cooler and lead wire attachment to accommodate sealant

# **ELECTRICAL AND THERMAL PERFORMANCE**

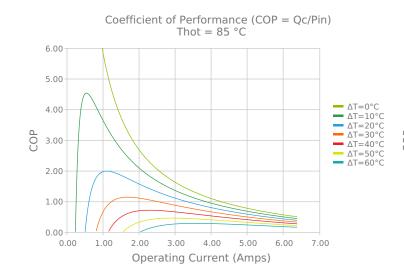
For maximum performance, be sure to orient the CONTROL side of the TEC against the application to be managed and the HEATSINK side against the heat sink or other heat rejection method. The CONTROL side is always opposite the side with lead attachments. Lead attachment is a passive heat loss and less impactful if located on the side that attaches to the heat exchanger.

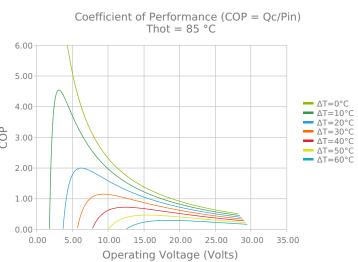


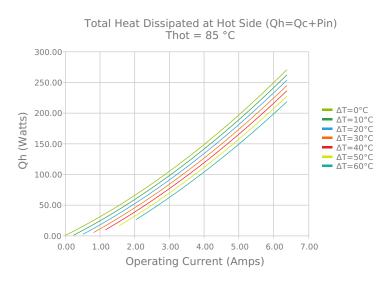


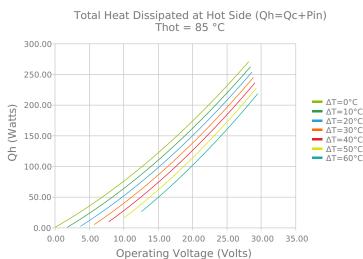


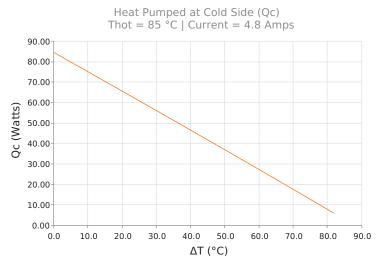


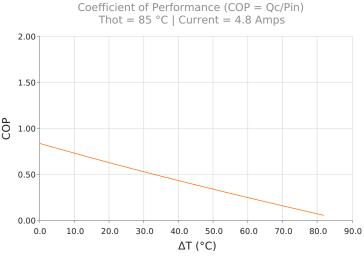














## **SPECIFICATIONS\***

**Hot Side Temperature** 

 $Qcmax (\Delta T = 0)$ 

 $\Delta T max (Qc = 0)$ 

Imax (I @ ATmax)

Vmax (V @  $\Delta$ Tmax)

**Module Resistance** 

**Max Operating Temperature** 

Weight

| 50.0 °C      | 85.0 °C    | 110.0 °C   |
|--------------|------------|------------|
| 82.2 Watts   | 90.2 Watts | 94.2 Watts |
| 77.9°C       | 89.3°C     | 96.2°C     |
| 5.8 Amps     | 5.7 Amps   | 5.6 Amps   |
| 23.9 Volts   | 27.5 Volts | 29.9 Volts |
| 3.80 Ohms    | 4.42 Ohms  | 4.83 Ohms  |
| 150 °C       |            |            |
| 28.0 gram(s) |            |            |

## **FINISHING OPTIONS**

| Suffix | Thickness   | Flatness / Parallelism                     | <b>Hot Face</b> | Cold Face | <b>Lead Length</b> |  |
|--------|---|--|-----------------|-----------|--------------------|--|
| 11     | $3.810 \pm 0.051 \text{ mm}$<br>$0.150 \pm 0.0020 \text{ in}$ | 0.051 mm / 0.051 mm<br>0.002 in / 0.002 in | Lapped          | Lapped    | 50.8 mm<br>2.00 in |  |

## **SEALING OPTIONS**

| Suffix | Sealant | Color                | <b>Temp Range</b> | Description                      |
|--------|---------|----------------------|-------------------|----------------------------------|
| RT     | RTV     | Translucent or White | -60 to 204°C      | Non-corrosive, silicone adhesive |

# **NOTES**

- 1. Max operating temperature: 150°C
- 2. Do not exceed Imax or Vmax when operating module
- 3. Reference assembly guidelines for recommended installation

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<sup>\*</sup> Specifications reflect thermoelectric coefficients updated March 2020