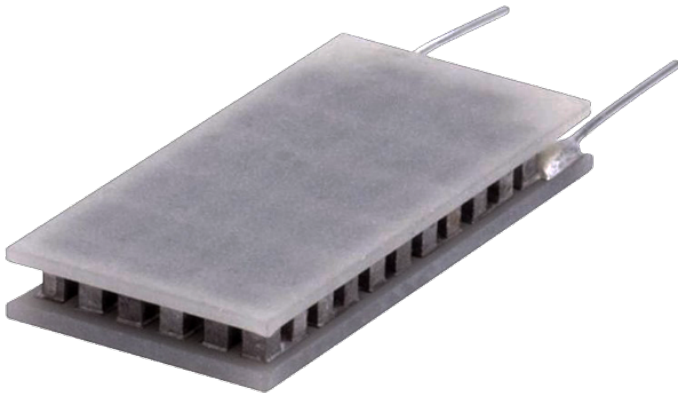


**HiTemp ET Series Thermoelectric Cooler**

**Note: This product is not recommended for new designs.**  
 This product series has been replaced with the HiTemp ETX Series.  
 The recommended replacement is:  
 Description: OTX19-35-F1N-0612-11-RT-28AWG

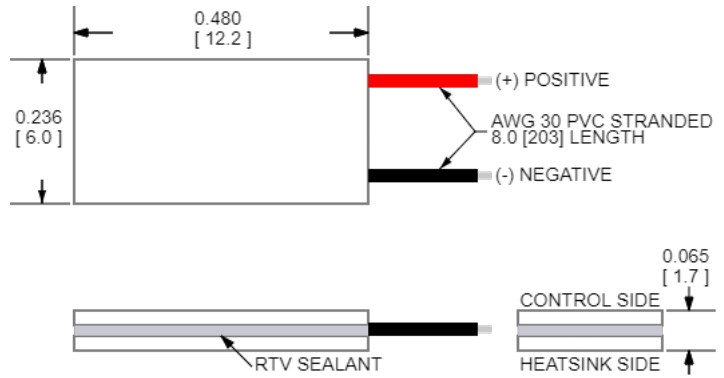


**Features**

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

**Applications**

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

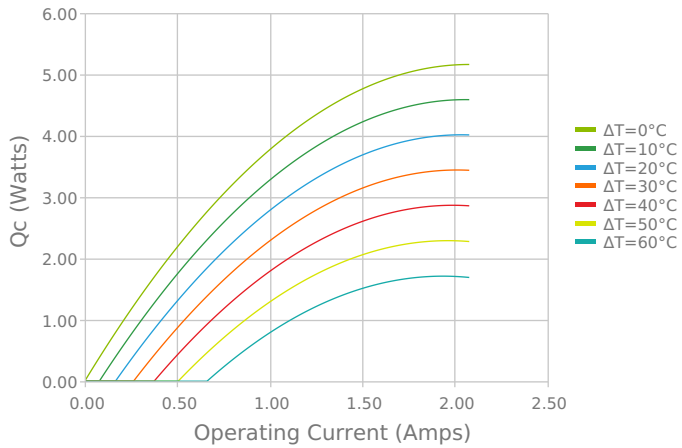


CERAMIC MATERIAL: AlN  
 SOLDER CONSTRUCTION: 232°C, SbSn  
 INCHES [ MM ]  
 Note: Allow 0.020 in [0.5 mm] around perimeter of the thermoelectric cooler and lead wire attachment to accommodate sealant

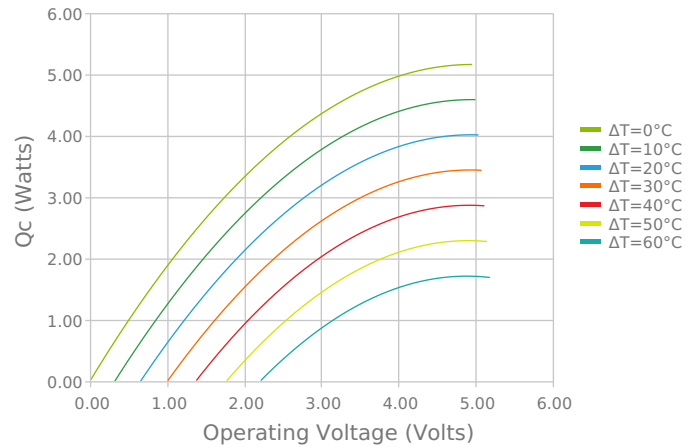
**ELECTRICAL AND THERMAL PERFORMANCE**

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.

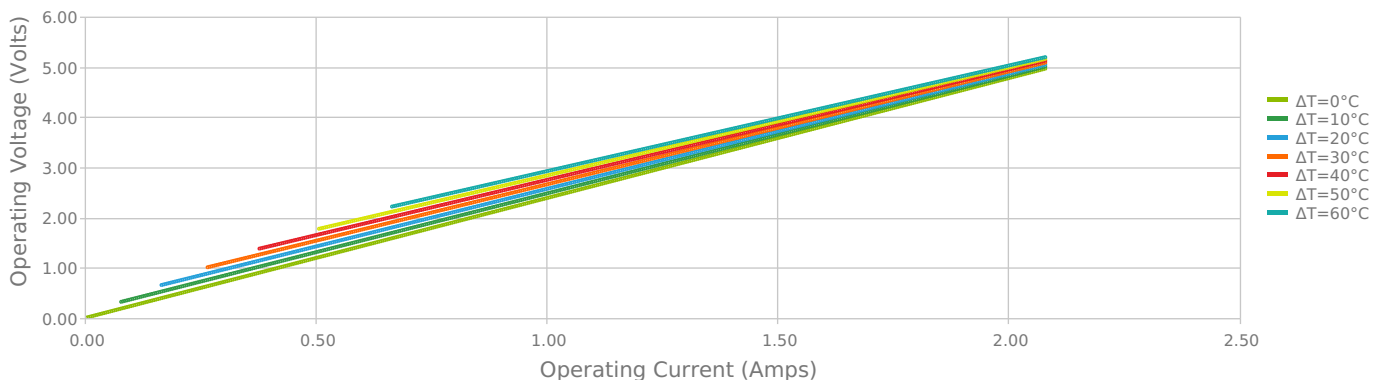
Heat Pumped at Cold Side  
 $T_{hot} = 85\text{ }^{\circ}\text{C}$



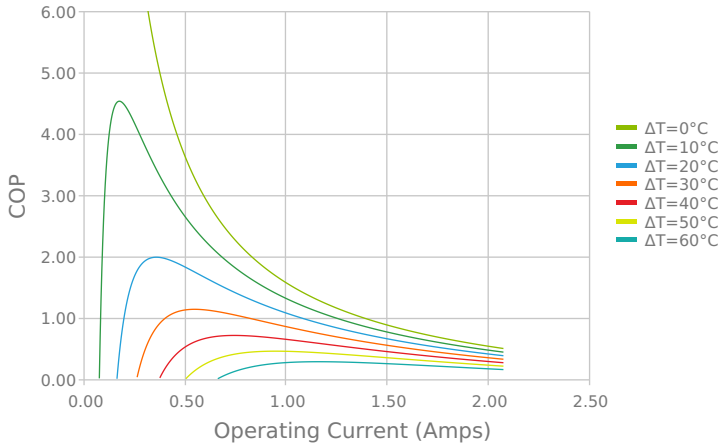
Heat Pumped at Cold Side  
 $T_{hot} = 85\text{ }^{\circ}\text{C}$



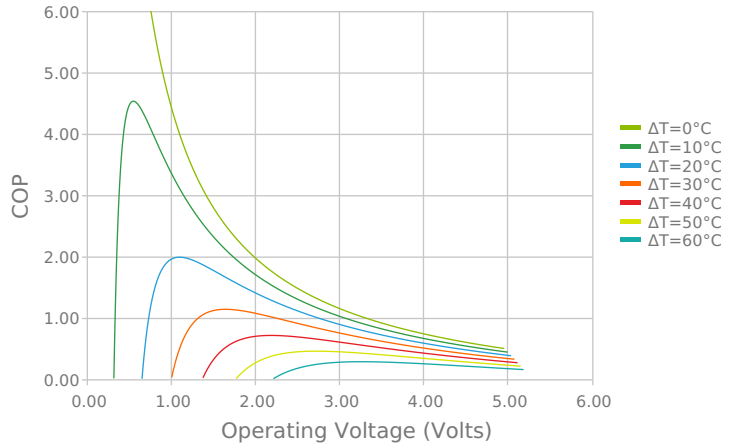
Current vs Voltage (I vs V)  
 $T_{hot} = 85\text{ }^{\circ}\text{C}$



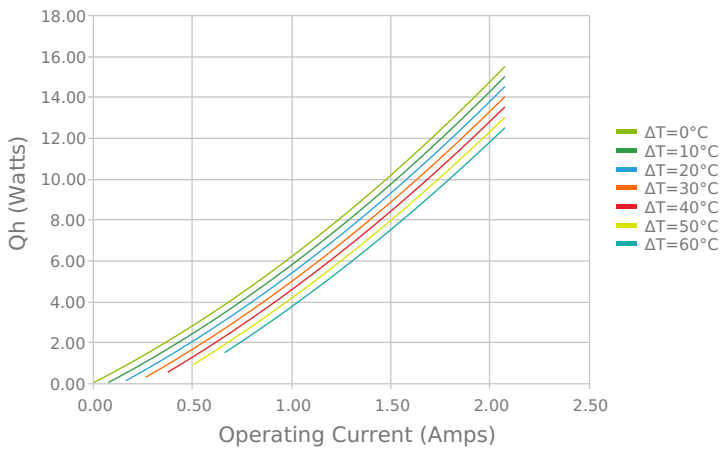
Coefficient of Performance (COP = Qc/Pin)  
Thot = 85 °C



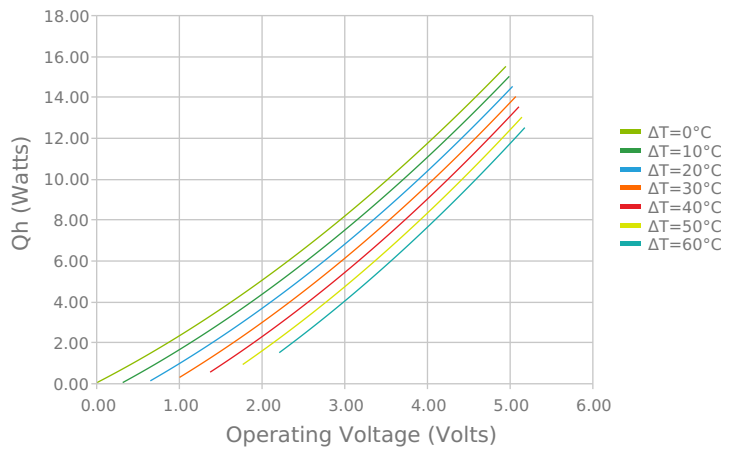
Coefficient of Performance (COP = Qc/Pin)  
Thot = 85 °C



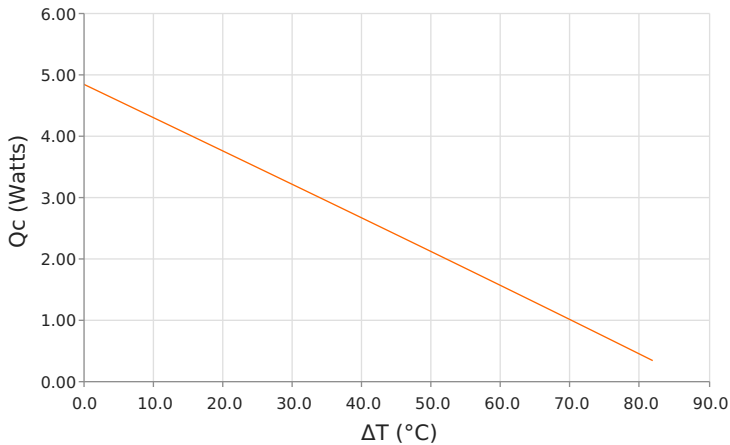
Total Heat Dissipated at Hot Side (Qh=Qc+Pin)  
Thot = 85 °C



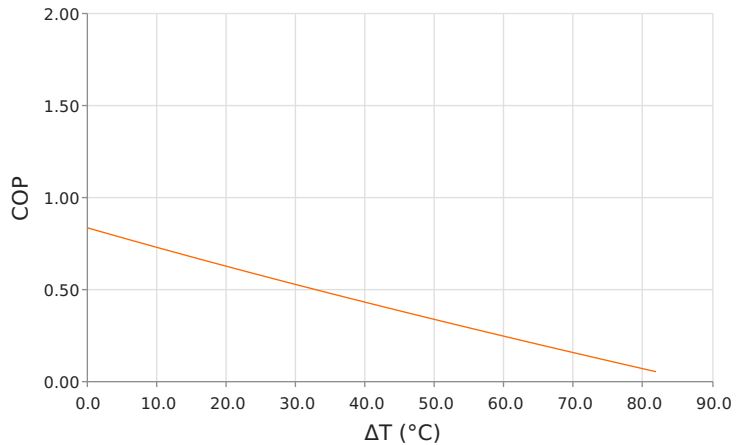
Total Heat Dissipated at Hot Side (Qh=Qc+Pin)  
Thot = 85 °C



Heat Pumped at Cold Side (Qc)  
Thot = 85 °C | Current = 1.6 Amps



Coefficient of Performance (COP = Qc/Pin)  
Thot = 85 °C | Current = 1.6 Amps



## SPECIFICATIONS\*

Hot Side Temperature	50.0 °C	85.0 °C	110.0 °C
<b>Qcmax (<math>\Delta T = 0</math>)</b>	4.7 Watts	5.2 Watts	5.4 Watts
<b><math>\Delta T_{max}</math> (<math>Q_c = 0</math>)</b>	77.9°C	89.3°C	96.2°C
<b>I<sub>max</sub> (I @ <math>\Delta T_{max}</math>)</b>	1.9 Amps	1.8 Amps	1.8 Amps
<b>V<sub>max</sub> (V @ <math>\Delta T_{max}</math>)</b>	4.2 Volts	4.8 Volts	5.3 Volts
<b>Module Resistance</b>	2.05 Ohms	2.39 Ohms	2.61 Ohms
<b>Max Operating Temperature</b>	150 °C		
<b>Weight</b>	1.0 gram(s)		

\* Specifications reflect thermoelectric coefficients updated March 2020

## FINISHING OPTIONS

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
11	1.651 ±0.051 mm 0.065 ± 0.0020 in	0.051 mm / 0.051 mm 0.002 in / 0.002 in	Lapped	Lapped	50.8 mm 2.00 in

## SEALING OPTIONS

Suffix	Sealant	Color	Temp Range	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 I<sub>max</sub> or V<sub>max</sub> when operating module
3. Reference assembly guidelines for recommended installation

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