

## OptoTEC™ OTX Series Thermoelectric Cooler

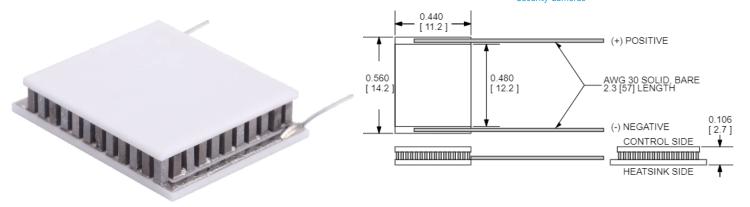
The OTX12-66-F0-1211-11-W2.25 is a high-performance, miniature thermoelectric cooler. The OTX12-66-F0-1211-11-W2.25 is primarily used in applications to stabilize the temperature of sensitive optical components in the telecom and photonics industries. It has a maximum Qc of 5.5 Watts when  $\Delta T=0$  and a maximum  $\Delta T$  of 72.9 °C at Qc = 0.

#### **Features**

- Miniature footprint
- Precise temperature control
- Reliable solid-state operation
- No sound or vibration
- RoHS-compliant

#### **Applications**

- Laser Diodes
- Optical TransceiversLidar Sensors
- Infrared Range (IR) Sensors
- CMOS Sensors
- Autonomous SystemsMachine Vision
- Security Cameras

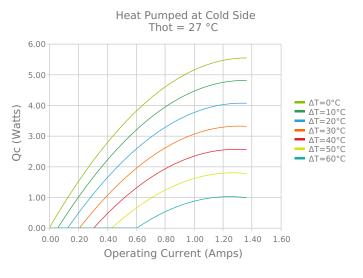


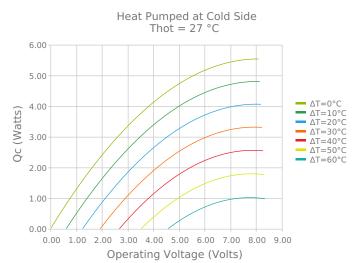
CERAMIC MATERIAL: Al₂O₃ SOLDER CONSTRUCTION: 232°C, SbSn

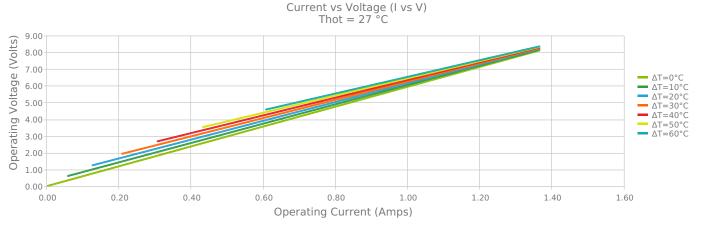
INCHES [ MM ]

### **ELECTRICAL AND THERMAL PERFORMANCE**

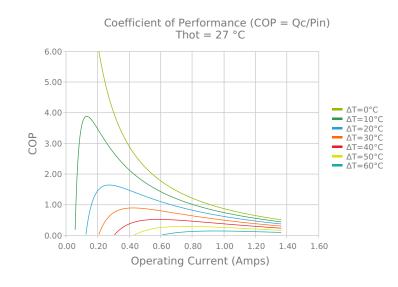
For maximum performance, be sure to orient the CONTROL side of the TEC against the application to be managed and the HEATSINK side against the heat sink or other heat rejection method. The CONTROL side is always opposite the side with lead attachments. Lead attachment is a passive heat loss and less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

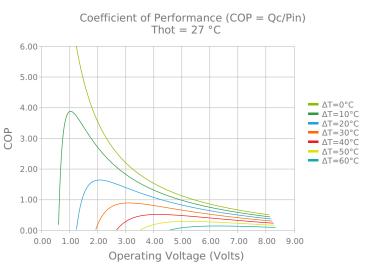


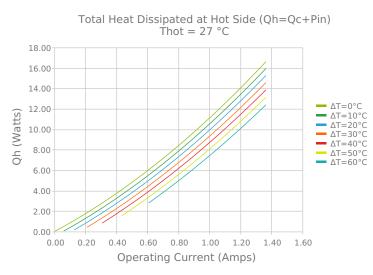


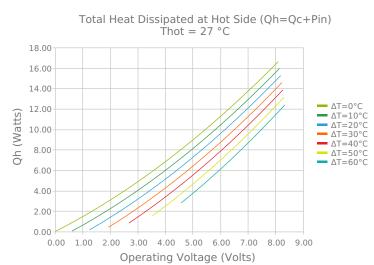


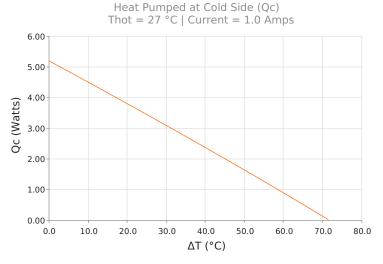


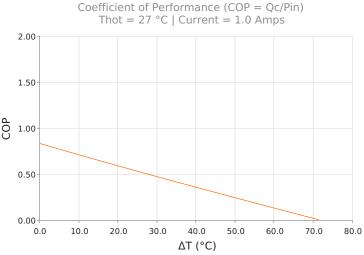














# **SPECIFICATIONS\***

**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

27.0 °C	50.0 °C	80.0 °C
5.5 Watts	6.0 Watts	6.4 Watts
72.9°C	81.8°C	92.1°C
1.2 Amps	1.2 Amps	1.2 Amps
7.7 Volts	8.5 Volts	9.6 Volts
5.93 Ohms	6.68 Ohms	7.64 Ohms
120 °C		
2.0 gram(s)		

## **FINISHING OPTIONS**

Suffix	Thickness	Flatness / Parallelism	<b>Hot Face</b>	Cold Face	<b>Lead Length</b>
11	11 2.692 ±0.127 mm 0.051 mm / 0.0 0.106 ± 0.0050 in 0.002 in / 0.0		Lapped	Lapped	50.8 mm 2.00 in

### **SEALING OPTIONS**

Suffix	Sealant	Color	Temp Range	Description
	None			No sealing specified

## **NOTES**

- 1. Max operating temperature: 120°C
- 2. Do not exceed Imax or Vmax when operating module
- 3. Reference assembly guidelines for recommended installation
- 4. Solder tinning also available on metallized ceramics

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