

OptoTEC™ OTX Series Thermoelectric Cooler

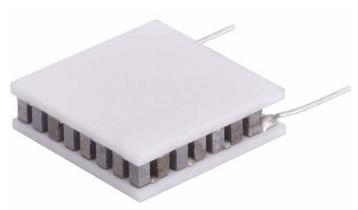
The OTX24-31-F1-1010-11-W2.25 is a high-performance, miniature thermoelectric cooler. The OTX24-31-F1-1010-11-W2.25 is primarily used in applications to stabilize the temperature of sensitive optical components in the telecom and photonics industries. It has a maximum Qc of 5.4 Watts when $\Delta T = 0$ and a maximum ΔT of 72.9 °C at Qc = 0.

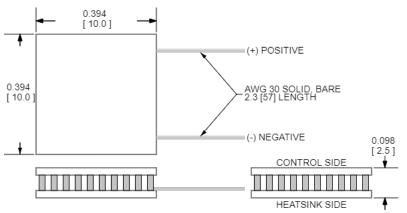
Features

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

Applications

- Laser Diodes
- Optical Transceivers Lidar Sensors
- Infrared Range (IR) Sensors
- CMOS Sensors
- Autonomous Systems
- Machine Vision
- Security Cameras



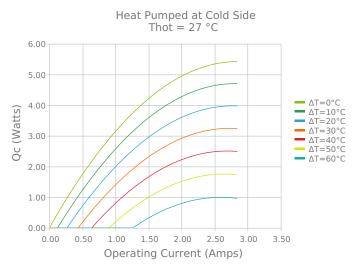


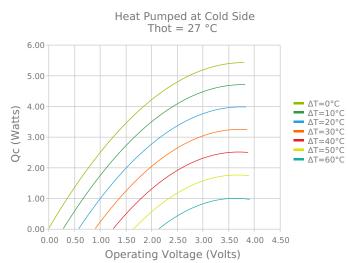
CERAMIC MATERIAL: Al2O3 SOLDER CONSTRUCTION: 232°C, SbSn

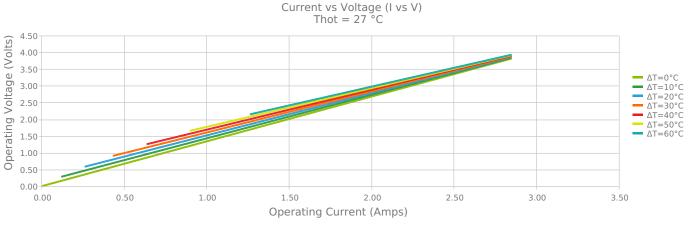
INCHES [MM]

ELECTRICAL AND THERMAL PERFORMANCE

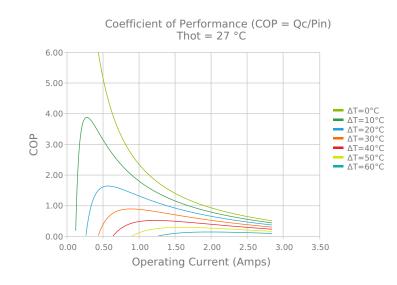
For maximum performance, be sure to orient the CONTROL side of the TEC against the application to be managed and the HEATSINK side against the heat sink or other heat rejection method. The CONTROL side is always opposite the side with lead attachments. Lead attachment is a passive heat loss and less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

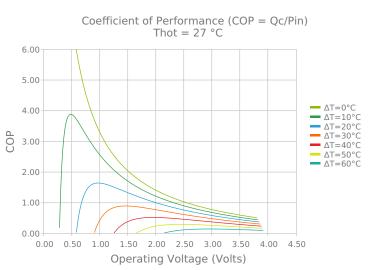


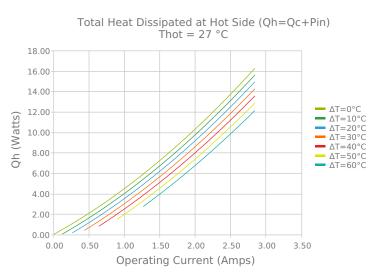


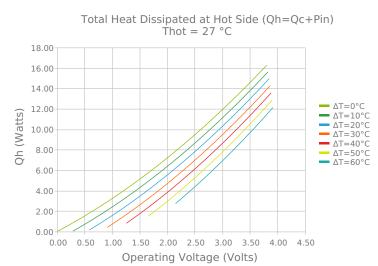


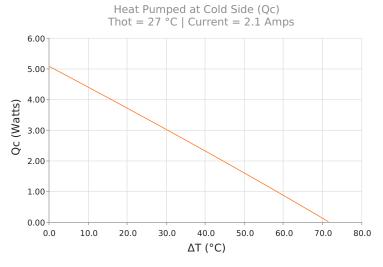


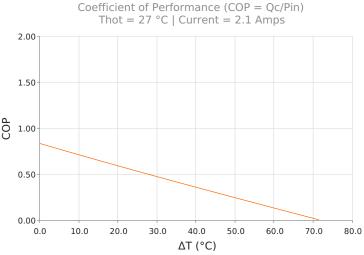














SPECIFICATIONS*

Hot Side Temperature

 $Qcmax (\Delta T = 0)$

 $\Delta T max (Qc = 0)$

Imax (I @ ATmax)

Vmax (V @ Δ Tmax)

Module Resistance

Max Operating Temperature

Weight

27.0 °C	50.0 °C	80.0 °C	
5.4 Watts	5.8 Watts	6.3 Watts	
72.9°C	81.8°C	92.1°C	
2.5 Amps	2.5 Amps	2.4 Amps	
3.6 Volts	4.0 Volts	4.5 Volts	
1.34 Ohms	1.51 Ohms	1.72 Ohms	
120 °C			
1.0 gram(s)			

FINISHING OPTIONS

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
11	2.500 ±0.127 mm 0.098 ± 0.0050 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
	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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^{*} Specifications reflect thermoelectric coefficients updated March 2020