

ZT 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: ETX4-7-F1-2020-TA-RT-W8

Features

- High temperature differential
- Precise temperature control
- Reliable solid-state operation
- No sound or vibrationDC operation
- 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: Al₂O₃

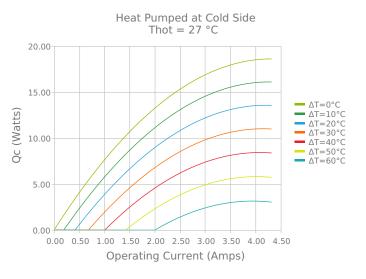
SOLDER CONSTRUCTION: 138°C, BiSn

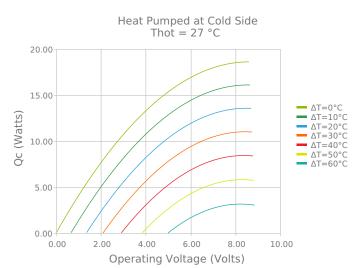
INCHES [MM]

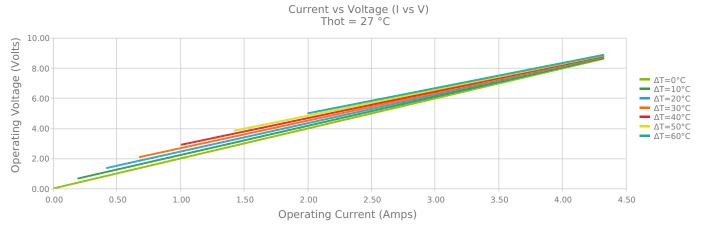
Note: Allow 0.020 in [0.5 mm] around perimeter of the thermoelectric cooler and lead wire attachment to accommodate sealant

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.

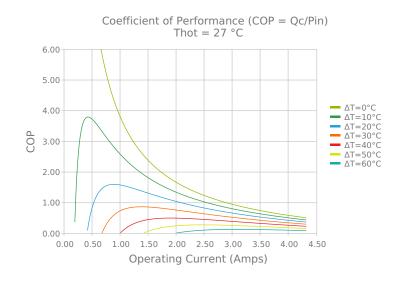


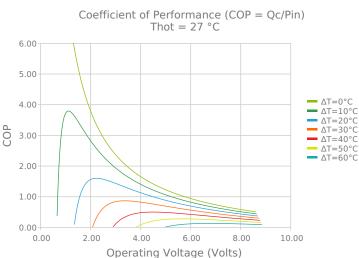


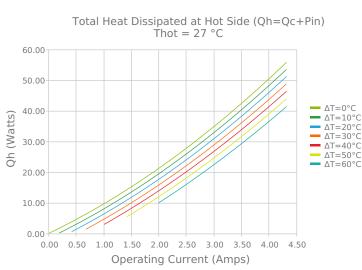


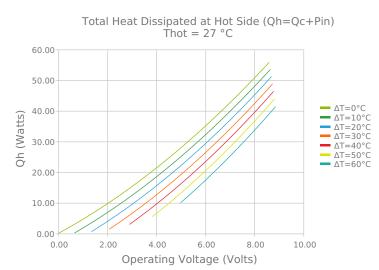


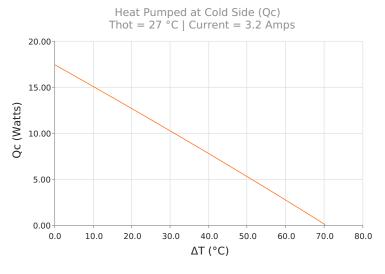
Legacy Product

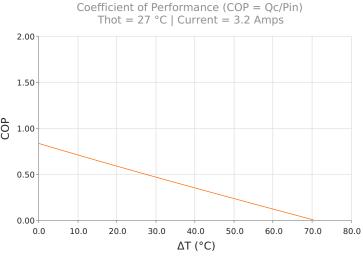


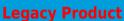














SPECIFICATIONS*

Hot Side Temperature

 $Qcmax (\Delta T = 0)$

 $\Delta T max (Qc = 0)$

Imax (I @ \Darmax)

Vmax (V @ Δ Tmax)

Module Resistance

Max Operating Temperature

Weight

27.0 °C	35.0 °C	50.0 °C
18.6 Watts	19.1 Watts	20.0 Watts
71.7°C	74.8°C	80.4°C
3.9 Amps	3.8 Amps	3.8 Amps
8.1 Volts	8.5 Volts	9.0 Volts
1.99 Ohms	2.08 Ohms	2.24 Ohms
80 °C		
7.0 gram(s)		

FINISHING OPTIONS

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
ТА	3.610 ±0.025 mm 0.142 ± 0.0010 in	,		Lapped	203.2 mm 8.00 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: 80°C
- 2. Do not exceed Imax or Vmax when operating module
- 3. Reference assembly guidelines for recommended installation

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^{*} Specifications reflect thermoelectric coefficients updated March 2020