TTS
TARK THERMAL SOLUTIONS

ZT Series ZT6-7-F1-3030-TA-W8
MFG Part Number: 7950001-601

Legacy Product

ZT Series Thermoelectric Cooler

***Note:* This product is not recommended for new designs.**

The recommended replacement is:

MFG Part Number: 387009476

Description: ETX6-7-F1-3030-TA-W8

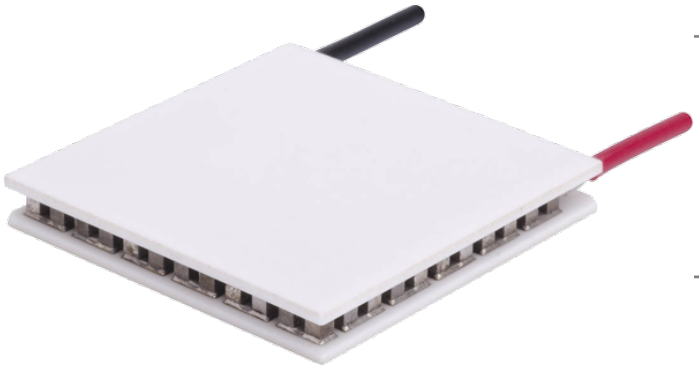
The ZT6-7-F1-3030-TA-W8 is a high performance thermoelectric cooler that achieves a higher temperature differential than standard single stage thermoelectric coolers. It has a maximum Qc of 29 Watts when ΔT = 0 and a maximum ΔT of 71.7 °C at Qc = 0.

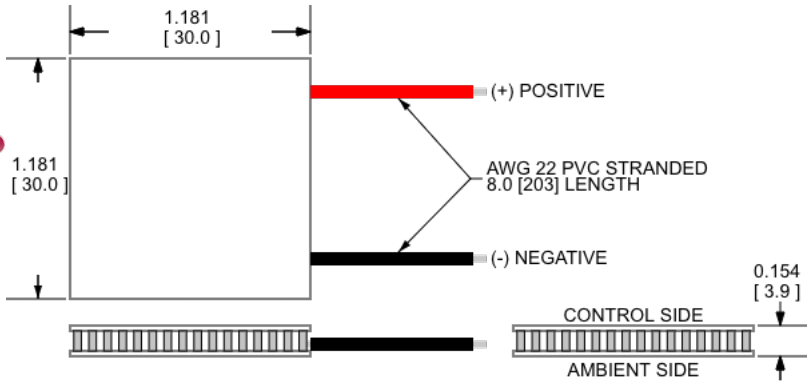
Features

- High temperature differential
- Precise temperature control
- Reliable solid-state operation
- No sound or vibration
- DC operation
- RoHS-compliant

Applications

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



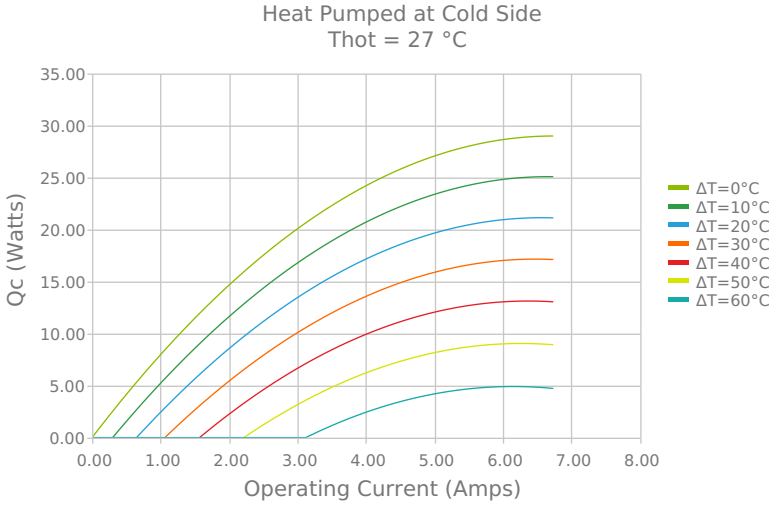


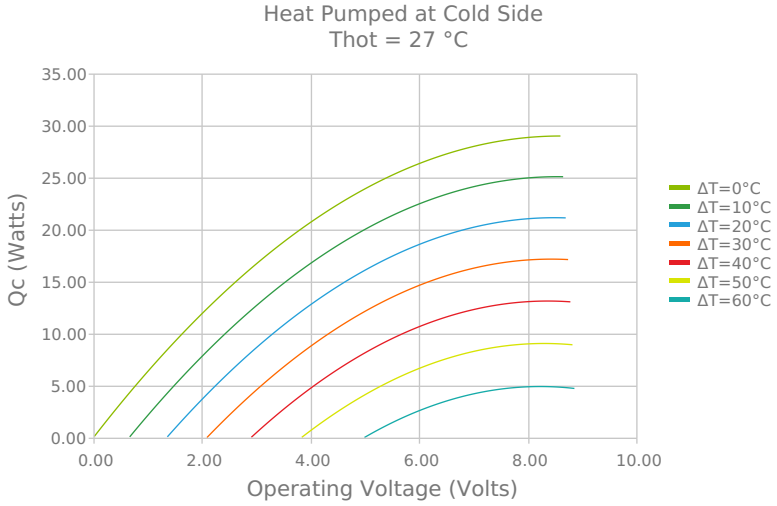
CERAMIC MATERIAL: Al_2O_3
SOLDER CONSTRUCTION: 138°C, BiSn

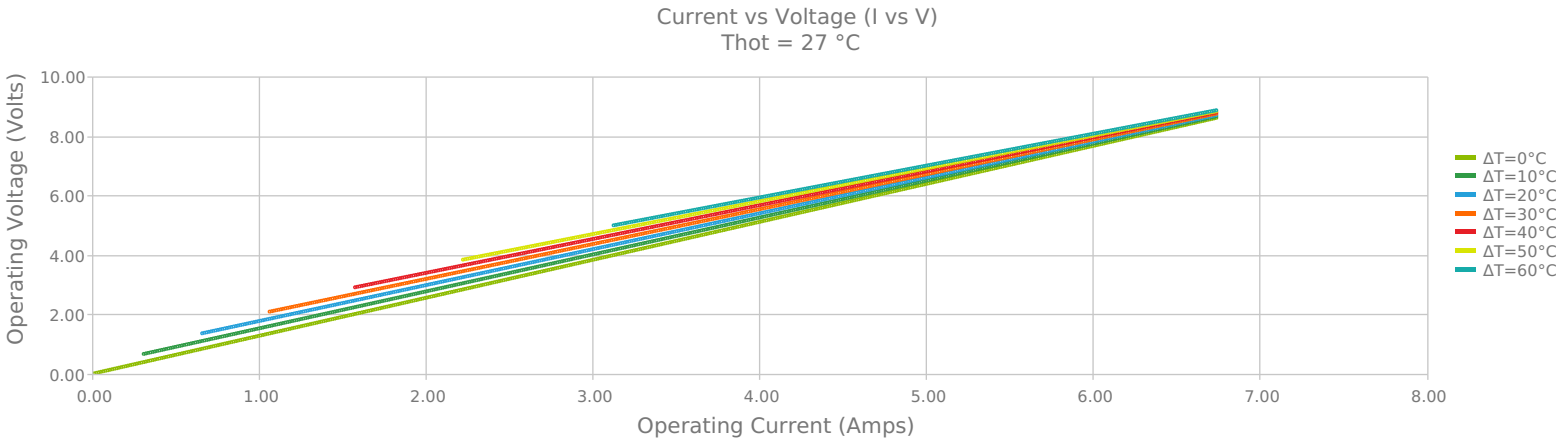
INCHES [MM]

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 AMBIENT 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.







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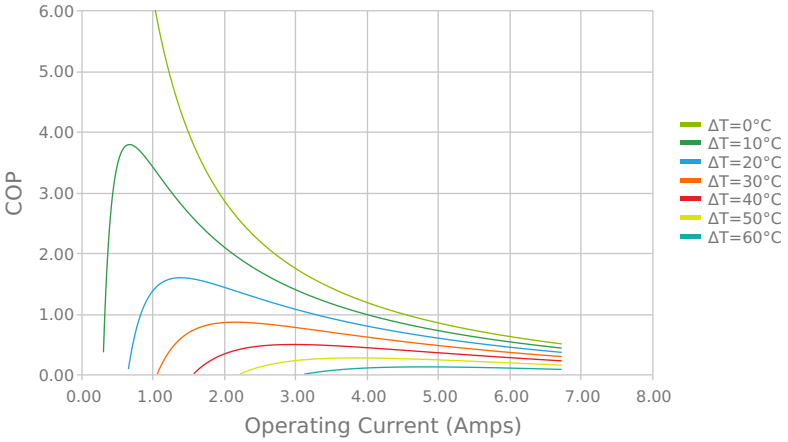
Coefficient of Performance (COP = Qc/Pin)
Thot = 27 °C



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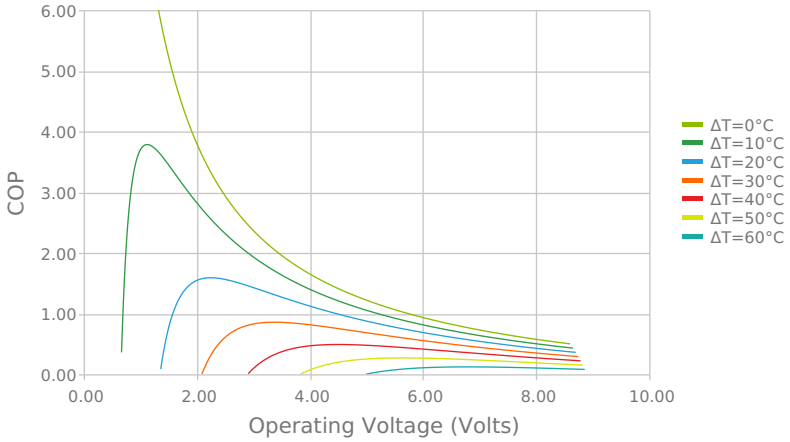
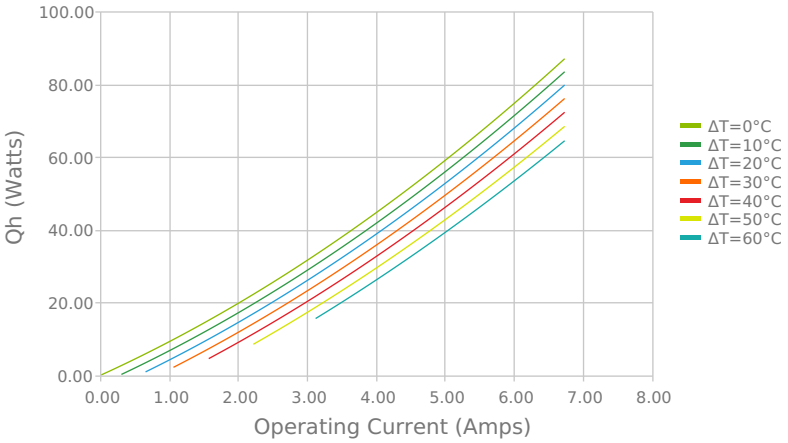


Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 27 °C



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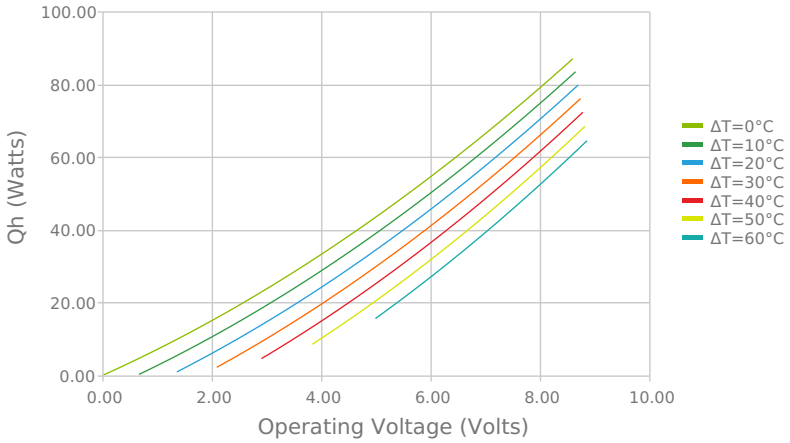
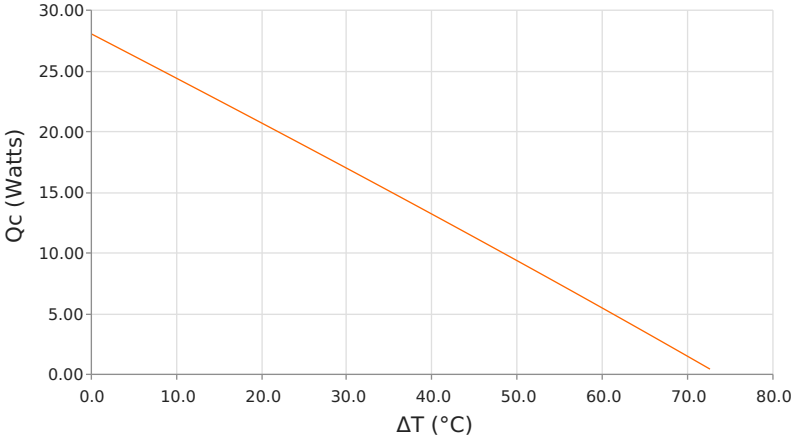


Heat Pumped at Cold Side (Qc)
Thot = 35 °C | Ioperating = 5.1 Amps



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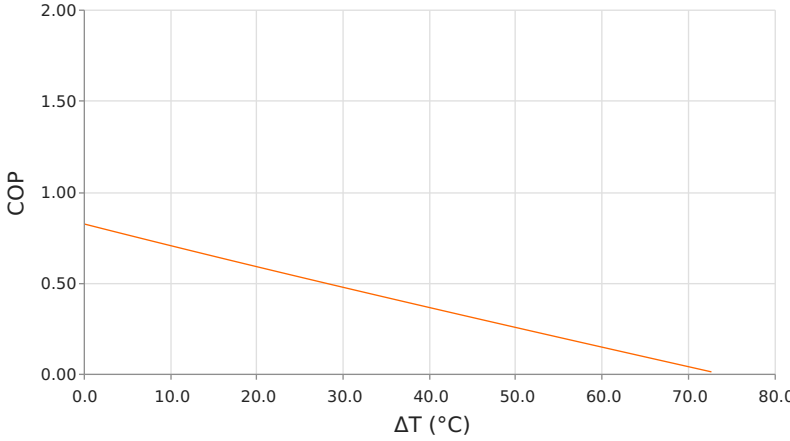

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Specifications

Hot Side Temperature	27.0 °C	35.0 °C	50.0 °C
Qcmax (ΔT = 0)	29.0 Watts	29.8 Watts	31.2 Watts
ΔTmax (Qc = 0)	71.7°C	74.8°C	80.4°C
Imax (I @ ΔTmax)	6.0 Amps	6.0 Amps	5.9 Amps
Vmax (V @ ΔTmax)	8.1 Volts	8.5 Volts	9.0 Volts
Module Resistance	1.28 Ohms	1.33 Ohms	1.44 Ohms
Max Operating Temperature	80 °C		
Weight	13.0 gram(s)		

Finishing Options

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
TA	3.910 ±0.025 mm 0.154 ± 0.0010 in	0.025 mm / 0.025 mm 0.001 in / 0.001 in	Lapped	Lapped	203.2 mm 8.00 in

Sealing Options

Suffix	Sealant	Color	Temp Range	Description
	None			No sealing specified

Notes

Max operating temperature: 80°C
Do not exceed Imax or Vmax when operating module
Reference assembly guidelines for recommended installation

Revision: 00 Date: 06-01-2022

Print Date: 05-29-2025