

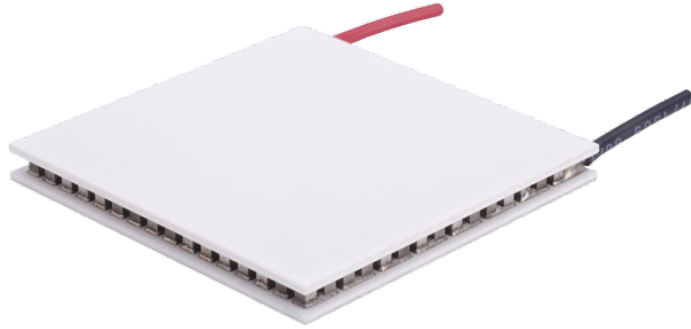
ZT Series Thermoelectric Cooler

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: ETX6-12-F1-4040-TA-W8

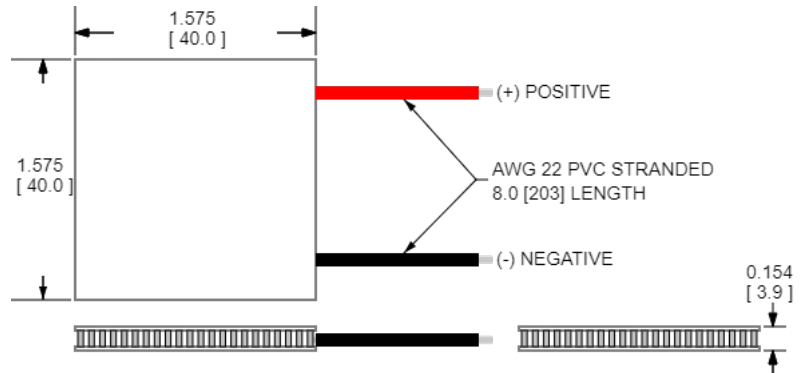


Features

- 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
- Peltier Cooling for Digital
- Light Processors



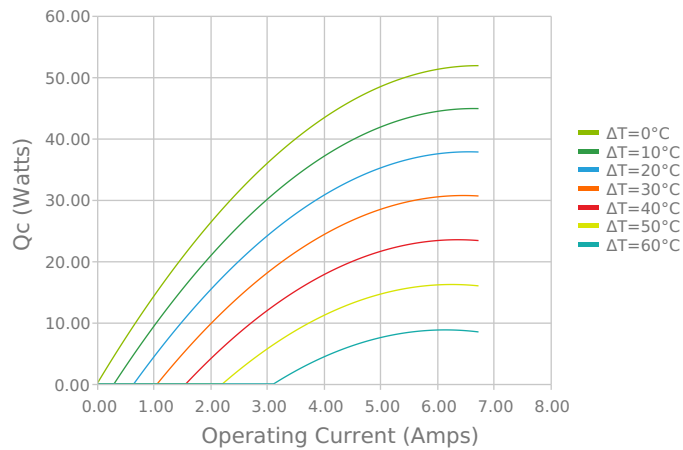
CERAMIC MATERIAL: Al_2O_3

SOLDER CONSTRUCTION: 138°C, BiSn

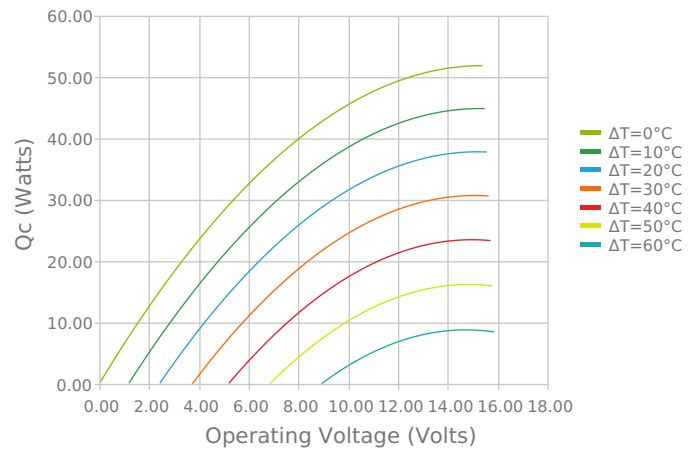
INCHES [MM]

ELECTRICAL AND THERMAL PERFORMANCE

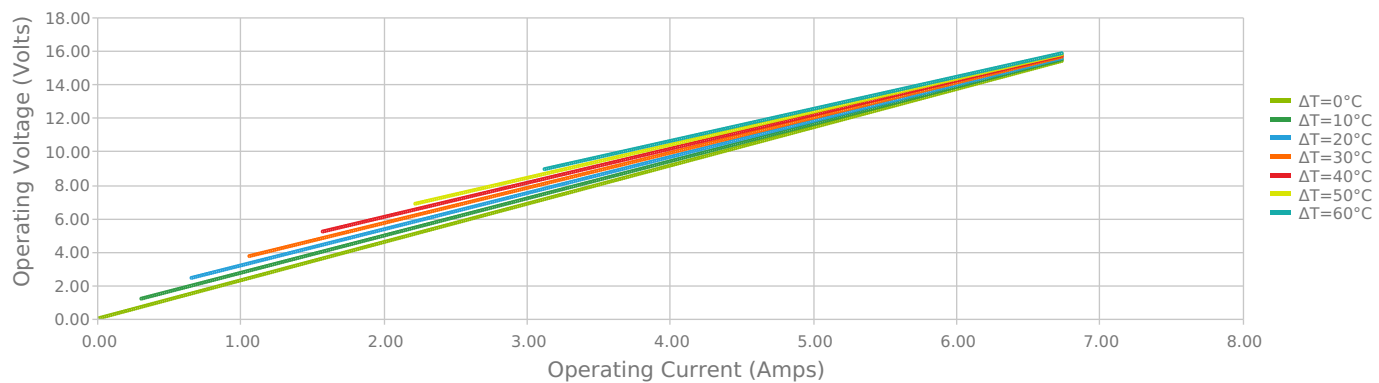
Heat Pumped at Cold Side
 $T_{\text{hot}} = 27^\circ\text{C}$



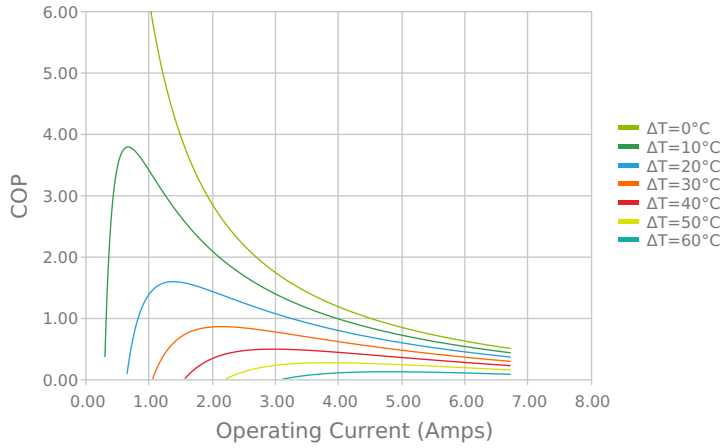
Heat Pumped at Cold Side
 $T_{\text{hot}} = 27^\circ\text{C}$



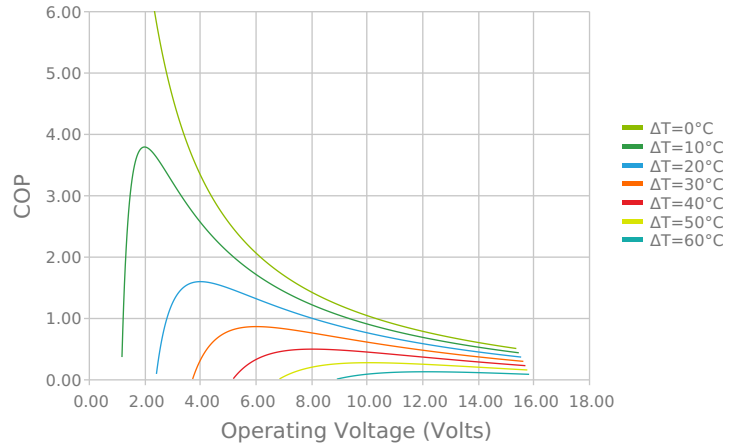
Current vs Voltage (I vs V)
 $T_{\text{hot}} = 27^\circ\text{C}$



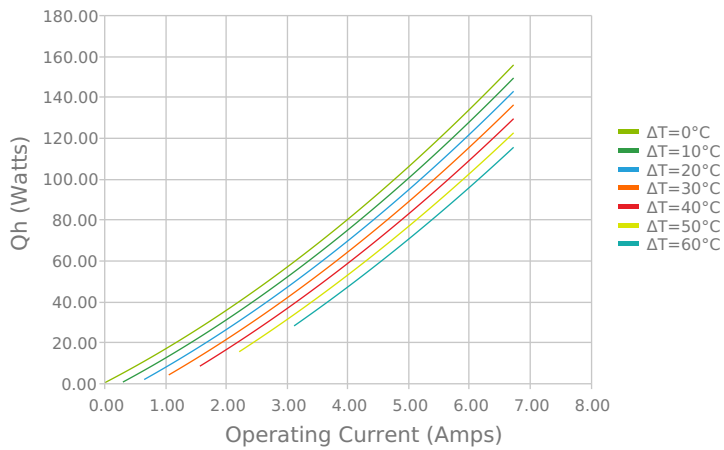
Coefficient of Performance (COP = Q_c/P_{in})
Thot = 27 °C



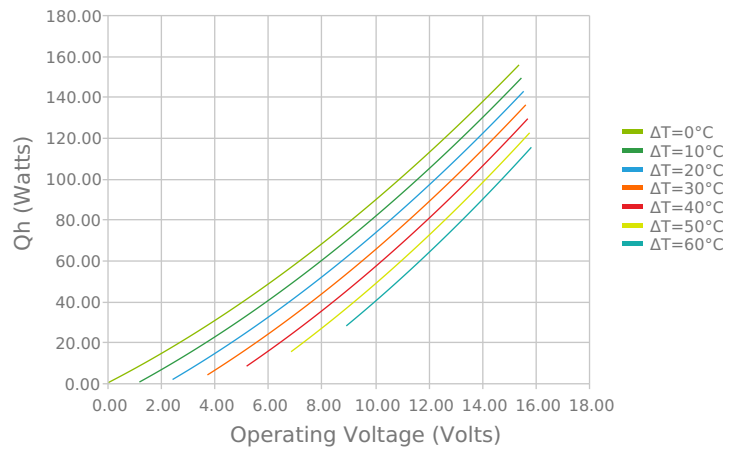
Coefficient of Performance (COP = Q_c/P_{in})
Thot = 27 °C



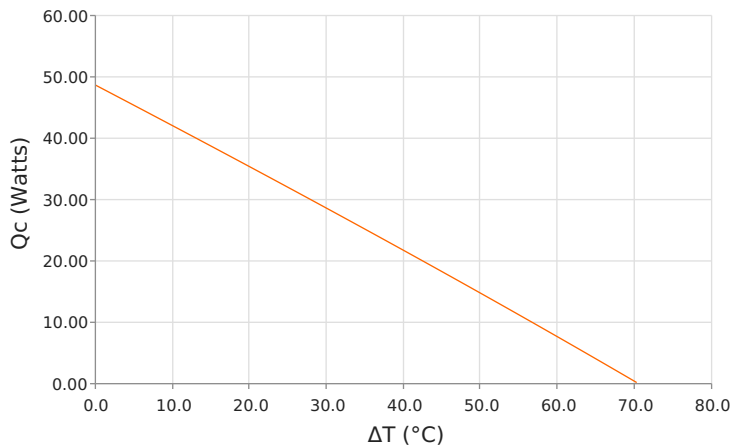
Total Heat Dissipated at Hot Side ($Q_h=Q_c+P_{in}$)
Thot = 27 °C



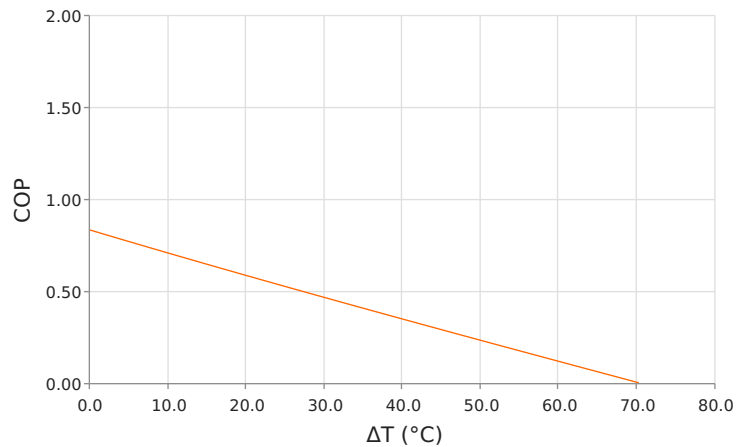
Total Heat Dissipated at Hot Side ($Q_h=Q_c+P_{in}$)
Thot = 27 °C



Heat Pumped at Cold Side (Q_c)
Thot = 27 °C | Current = 5.1 Amps



Coefficient of Performance (COP = Q_c/P_{in})
Thot = 27 °C | Current = 5.1 Amps



SPECIFICATIONS*

Hot Side Temperature

Qcmax ($\Delta T = 0$)

ΔT_{max} ($Q_c = 0$)

I_{max} (I @ ΔT_{max})

V_{max} (V @ ΔT_{max})

Module Resistance

Max Operating Temperature

Weight

	27.0 °C	35.0 °C	50.0 °C
Qcmax ($\Delta T = 0$)	51.9 Watts	53.3 Watts	55.8 Watts
ΔT_{max} ($Q_c = 0$)	71.7°C	74.8°C	80.4°C
I _{max} (I @ ΔT_{max})	6.0 Amps	6.0 Amps	5.9 Amps
V _{max} (V @ ΔT_{max})	14.6 Volts	15.1 Volts	16.2 Volts
Module Resistance	2.28 Ohms	2.38 Ohms	2.57 Ohms
Max Operating Temperature	80 °C		
Weight	22.0 gram(s)		

* Specifications reflect thermoelectric coefficients updated March 2020

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

1. Max operating temperature: 80°C
2. Do not exceed I_{max} or V_{max} when operating module
3. Reference assembly guidelines for recommended installation

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