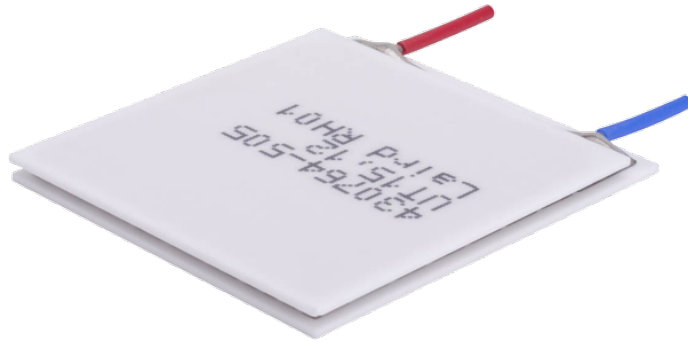


UltraTEC™ UT Series Thermoelectric Cooler

This product has reached end of production and is available on a limited basis only. This product series has been replaced with the UltraTEC UTX Series product offering. Consider using the [UTX15-12-F2-4040-TA-W6](#) UltraTEC UTX Series module as a replacement.

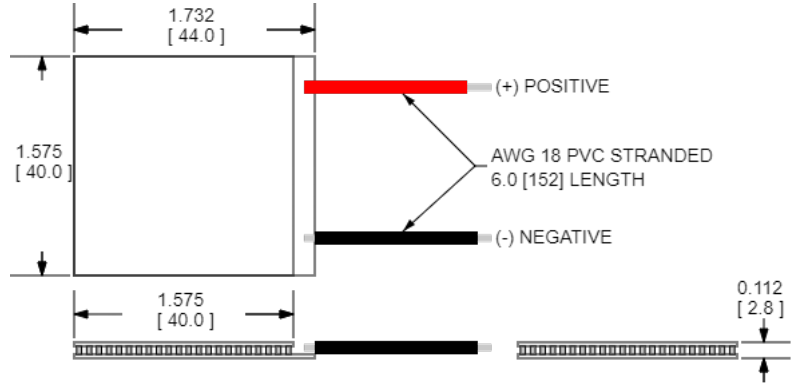


Features

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

Applications

- Thermoelectric Coolers and Assemblies for Medical Applications
- Thermoelectric Coolers for Handheld Cosmetic Lasers
- Industrial Laser Cooling
- Peltier Cooling for Digital Light Processors

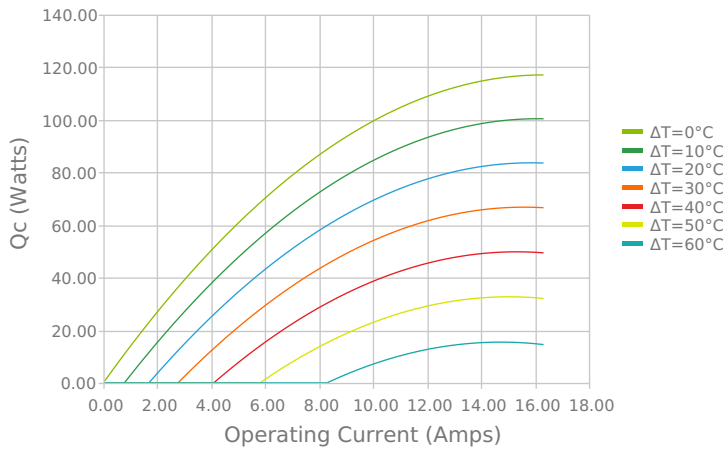


CERAMIC MATERIAL: Al₂O₃
SOLDER CONSTRUCTION: 138°C, BiSn

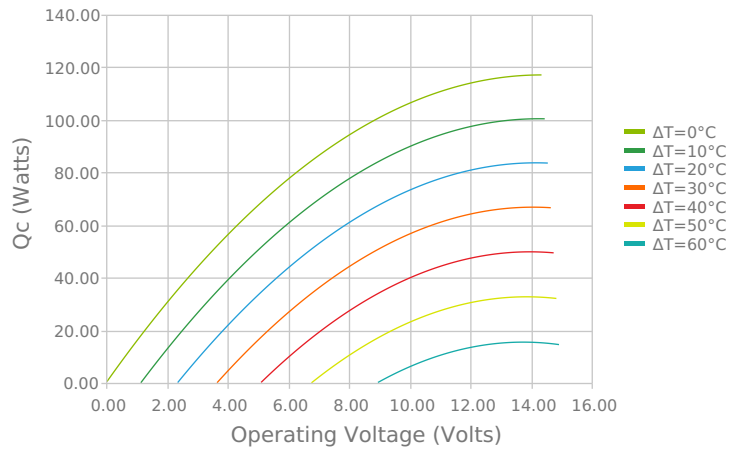
INCHES [MM]

ELECTRICAL AND THERMAL PERFORMANCE

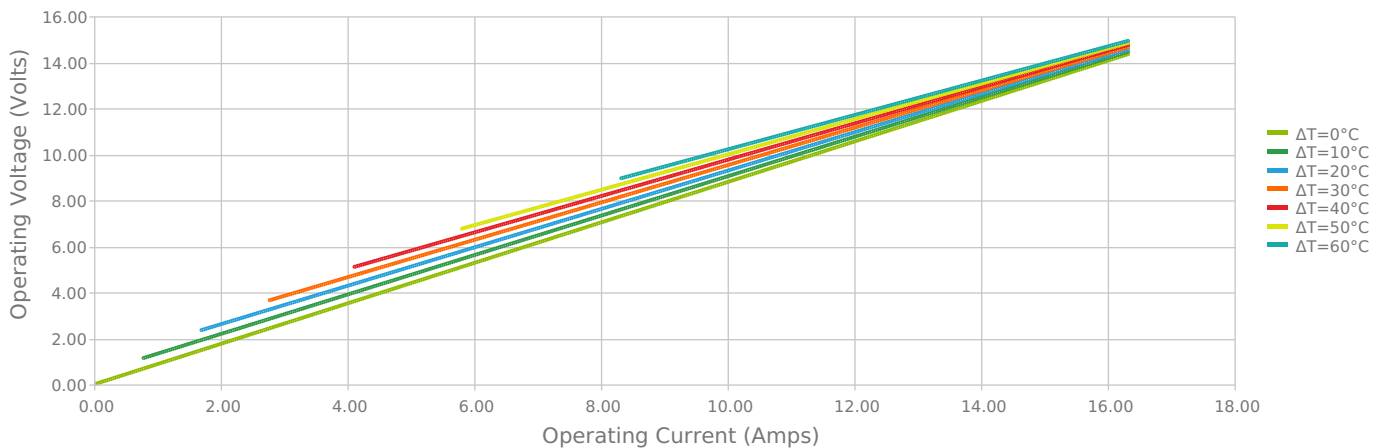
Heat Pumped at Cold Side
Thot = 27 °C



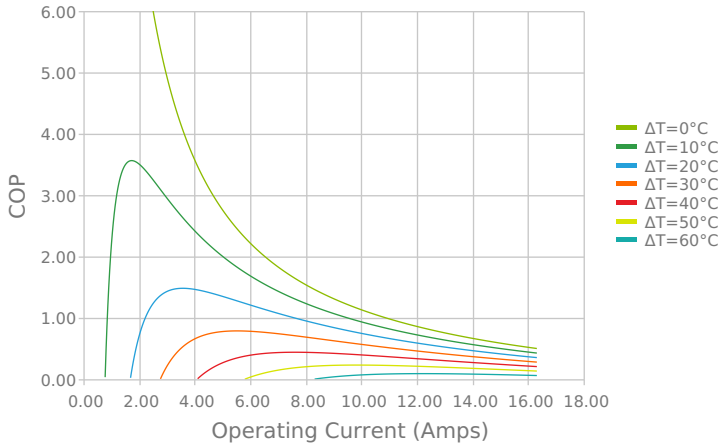
Heat Pumped at Cold Side
Thot = 27 °C



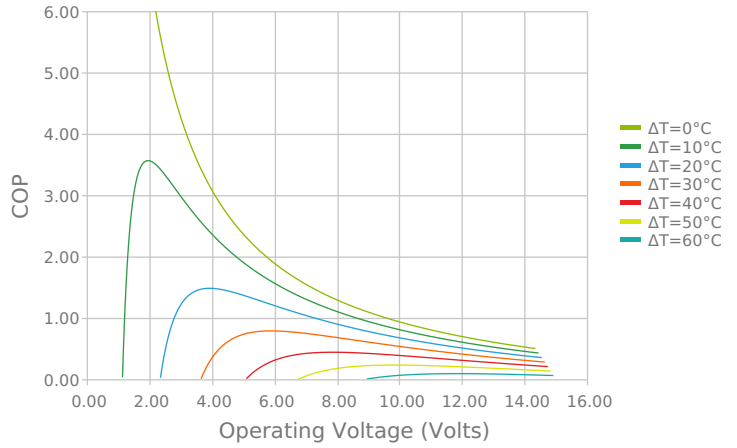
Current vs Voltage (I vs V)
Thot = 27 °C



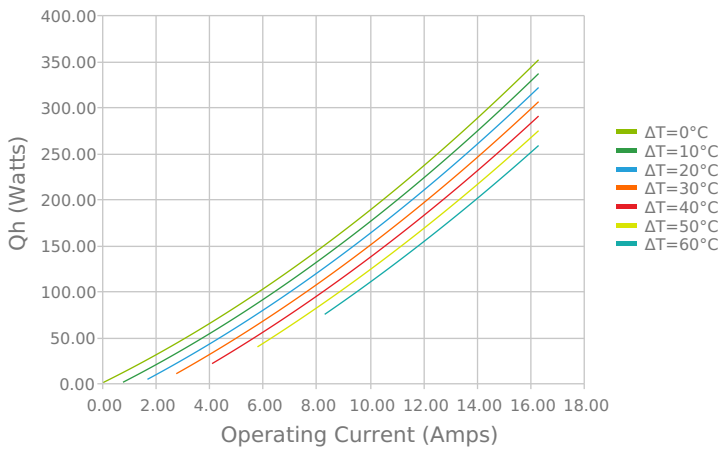
Coefficient of Performance (COP = Qc/Pin)
Thot = 27 °C



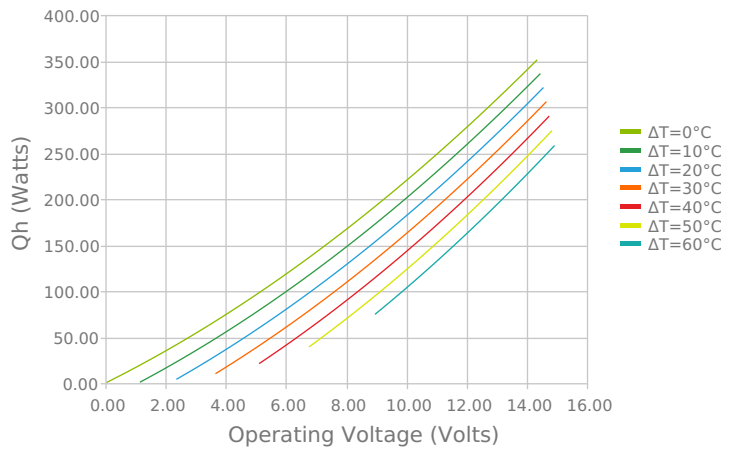
Coefficient of Performance (COP = Qc/Pin)
Thot = 27 °C



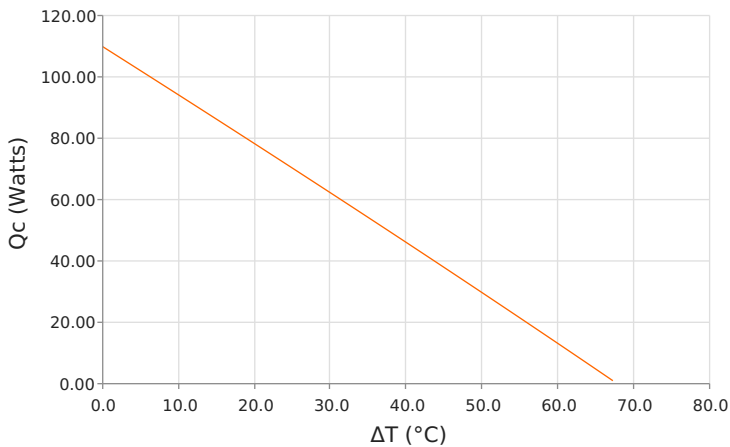
Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 27 °C



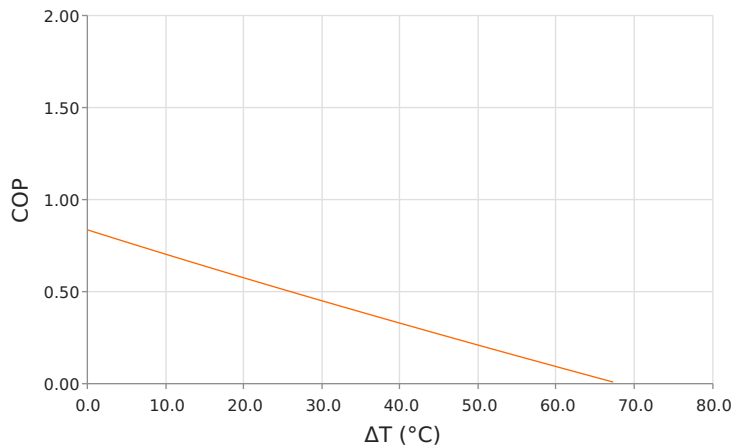
Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 27 °C



Heat Pumped at Cold Side (Qc)
Thot = 27 °C | Current = 12.2 Amps



Coefficient of Performance (COP = Qc/Pin)
Thot = 27 °C | Current = 12.2 Amps



SPECIFICATIONS*

Hot Side Temperature	27.0 °C	35.0 °C	50.0 °C
Qcmax ($\Delta T = 0$)	117.1 Watts	120.7 Watts	126.9 Watts
ΔT_{max} ($Q_c = 0$)	68.9°C	71.8°C	77.0°C
I_{max} (I @ ΔT_{max})	14.4 Amps	14.4 Amps	14.2 Amps
V_{max} (V @ ΔT_{max})	13.6 Volts	14.2 Volts	15.1 Volts
Module Resistance	0.88 Ohms	0.92 Ohms	0.98 Ohms
Max Operating Temperature	80 °C		
Weight	20.0 gram(s)		

* Specifications reflect thermoelectric coefficients updated March 2020

FINISHING OPTIONS

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
TB	2.845 ±0.013 mm 0.112 ± 0.0005 in	0.013 mm / 0.013 mm 0.0005 in / 0.0005 in	Lapped	Lapped	152.4 mm 6.00 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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Date: 08/30/2021