HiTemp ETX Series ETX4-3-F1-1515-TA-EP-W6
MFG Part Number: 387004953

HiTemp ETX Series Thermoelectric Cooler

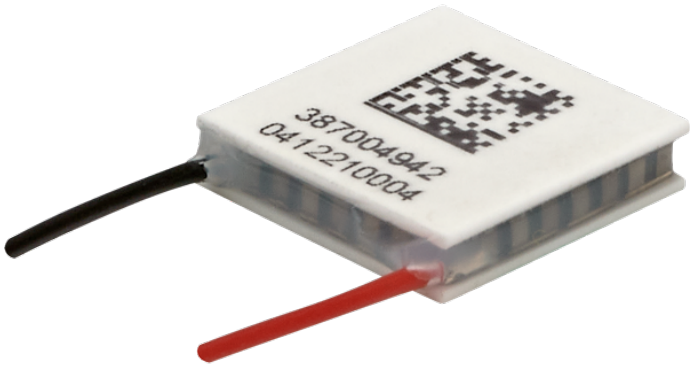
The ETX4-3-F1-1515-TA-EP-W6 high temperature, high-performance thermoelectric cooler uses Laird Thermal Systems' enhanced thermoelectric module construction preventing performance degrading diffusion, which is common in standard grade thermoelectric coolers operating in high temperature environments exceeding 80 °C. It has a maximum Qc of 9.5 Watts when ΔT = 0 and a maximum ΔT of 83.2 °C at Qc = 0.

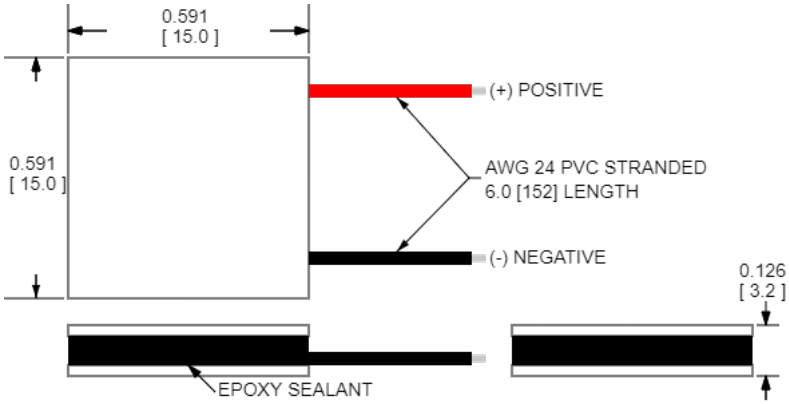
Features

- High-temperature operation
- Reliable solid-state
- No sound or vibration
- Environmentally-friendly
- RoHS-compliant

Applications

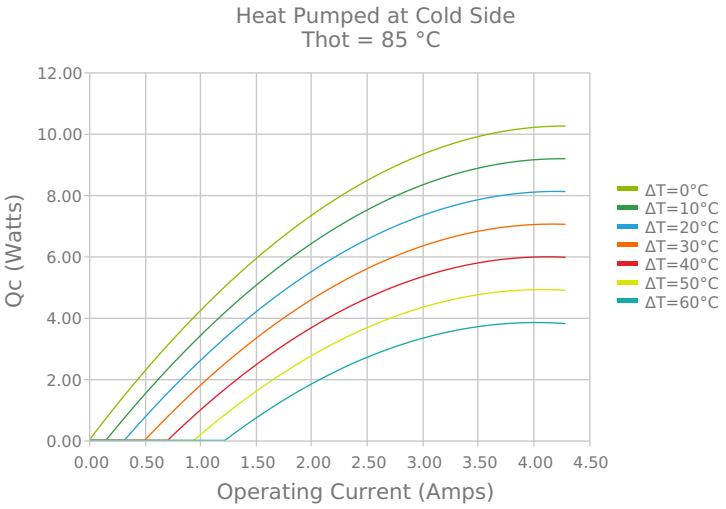
- Peltier Cooling for Refrigerated Centrifuges
- Peltier Cooling for Machine Vision
- Thermoelectric Cooling for CMOS Sensors
- Cooling Solutions for Autonomous Systems
- Peltier Cooling for Digital Light Processors
- Heating and Cooling for Liquid Chromatography Systems
- Thermoelectric Cooling for Security Cameras

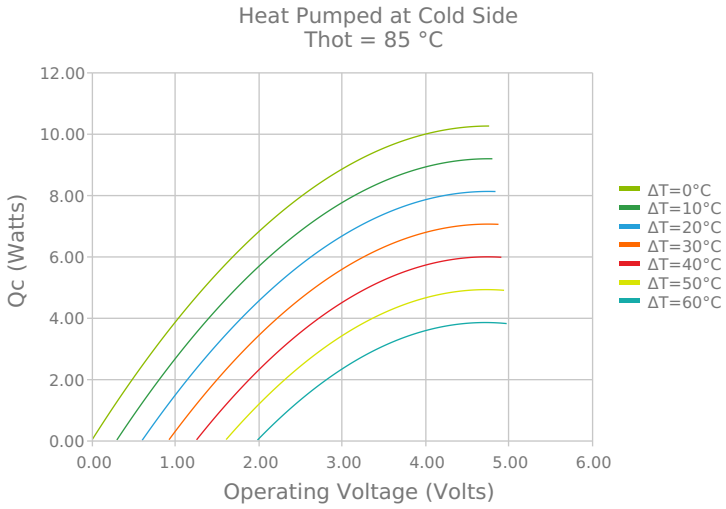


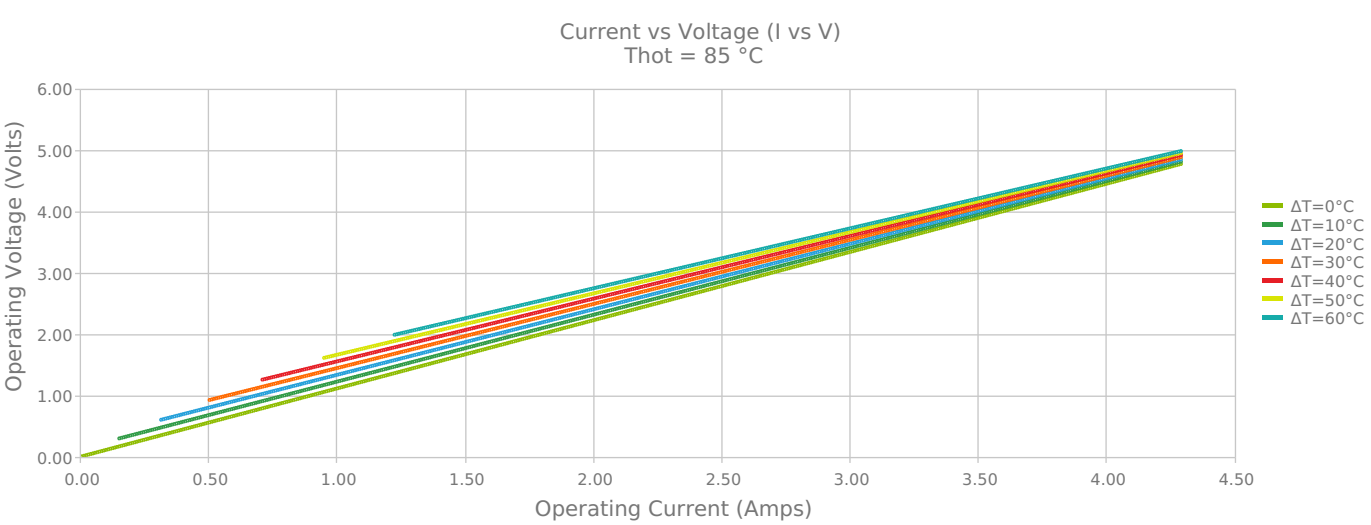


CERAMIC MATERIAL: Al_2O_3
SOLDER CONSTRUCTION: 232°C, SbSn
INCHES [MM]
Note: Allow 0.020 in [0.5 mm] around perimeter of the thermoelectric cooler and lead wire attachment to accommodate sealant

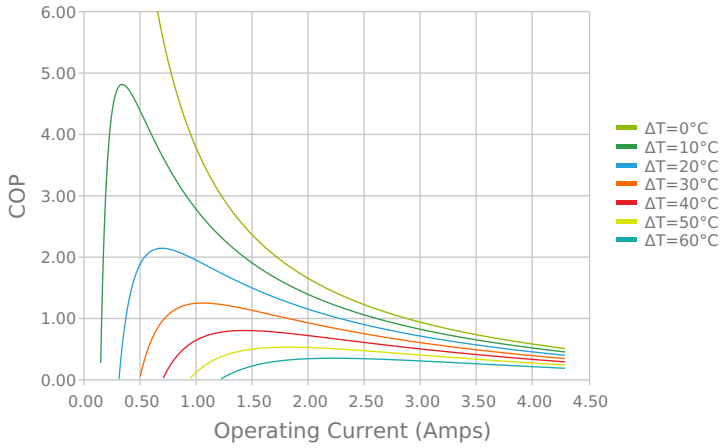
ELECTRICAL AND THERMAL PERFORMANCE



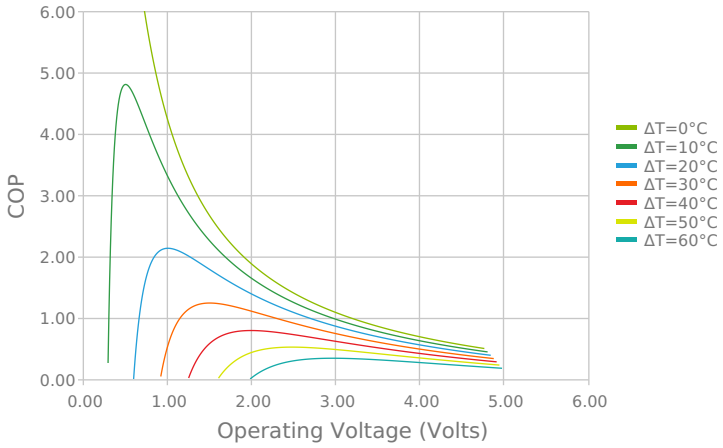




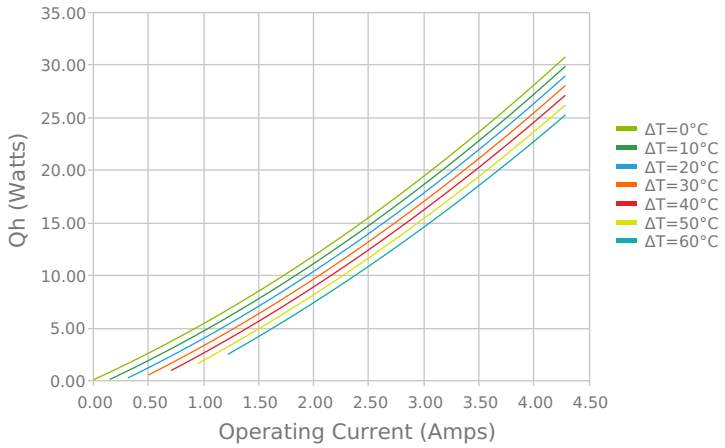
Coefficient of Performance (COP = Qc/Pin)
Thot = 85 °C



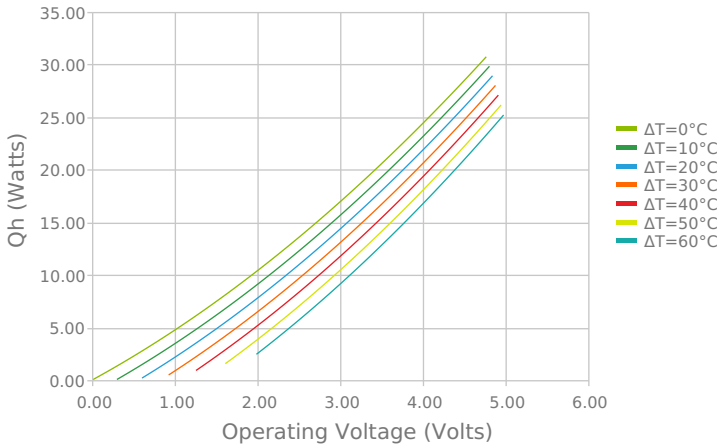
Coefficient of Performance (COP = Qc/Pin)
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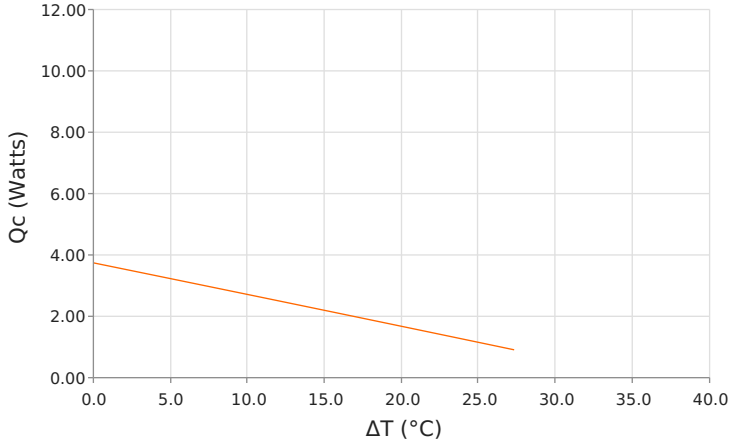
Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 85 °C



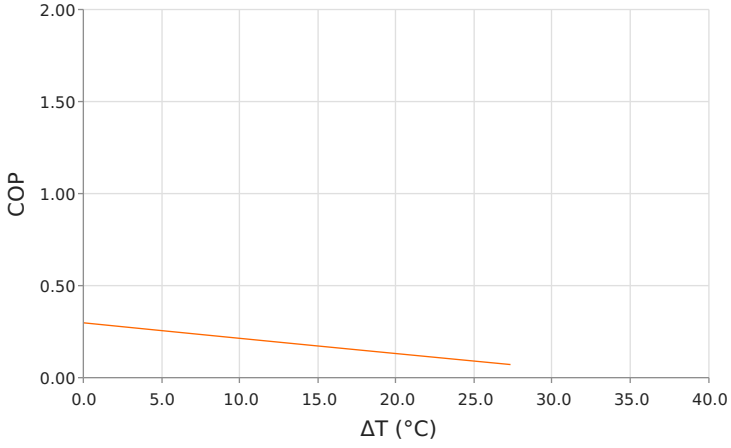
Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 85 °C



Heat Pumped at Cold Side (Qc)
Thot = 85 °C | Current = 3.2 Amps



Coefficient of Performance (COP = Qc/Pin)
Thot = 85 °C | Current = 3.2 Amps



SPECIFICATIONS*

Hot Side Temperature	50.0 °C	85.0 °C	110.0 °C
Qcmax (ΔT = 0)	9.5 Watts	10.2 Watts	10.6 Watts
ΔTmax (Qc = 0)	83.2°C	95.3°C	102.0°C
Imax (I @ ΔTmax)	4.0 Amps	3.8 Amps	3.7 Amps
Vmax (V @ ΔTmax)	4.1 Volts	4.7 Volts	5.1 Volts
Module Resistance	0.95 Ohms	1.11 Ohms	1.22 Ohms
Max Operating Temperature	150 °C		
Weight	3.0 gram(s)		

* Specifications reflect thermoelectric coefficients updated March 2020

FINISHING OPTIONS

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
TA	3.200 ±0.025 mm 0.126 ± 0.0010 in	0.025 mm / 0.025 mm 0.001 in / 0.001 in	Lapped	Lapped	152.4 mm 6.00 in

SEALING OPTIONS

Suffix	Sealant	Color	Temp Range	Description
EP	Epoxy	Black	-55 to 150°C	Low density syntactic foam epoxy encapsulant

NOTES

1. Max operating temperature: 150°C
2. Do not exceed Imax or Vmax when operating module
3. Reference assembly guidelines for recommended installation

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