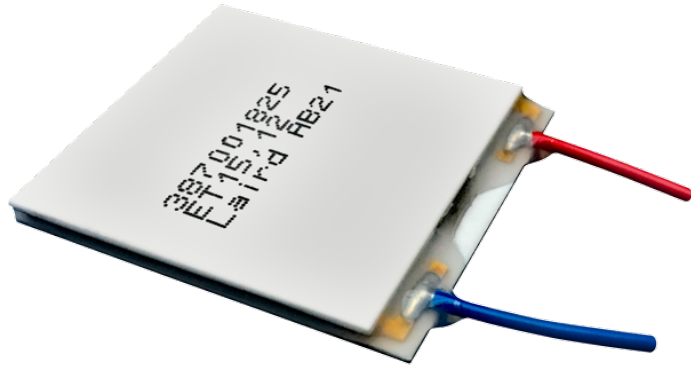


HiTemp ET Series Thermoelectric Cooler

Note: This product is not recommended for new designs.
 This product series has been replaced with the HiTemp ETX Series.
 The recommended replacement is:
 MFG Part Number: 387004927
 Description: ETX15-12-F2-4040-TA-RT-W6

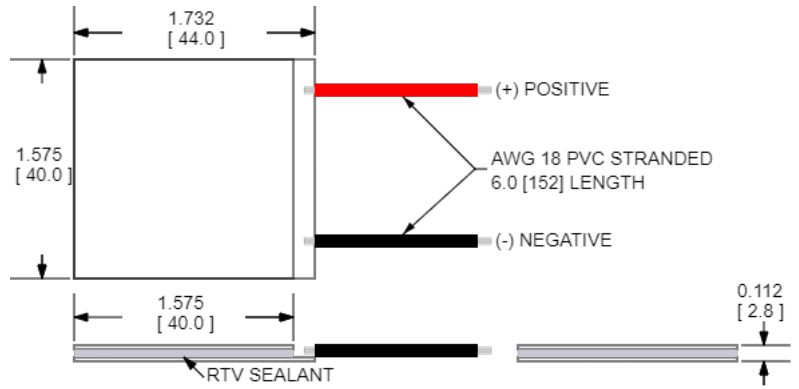


Features

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

Applications

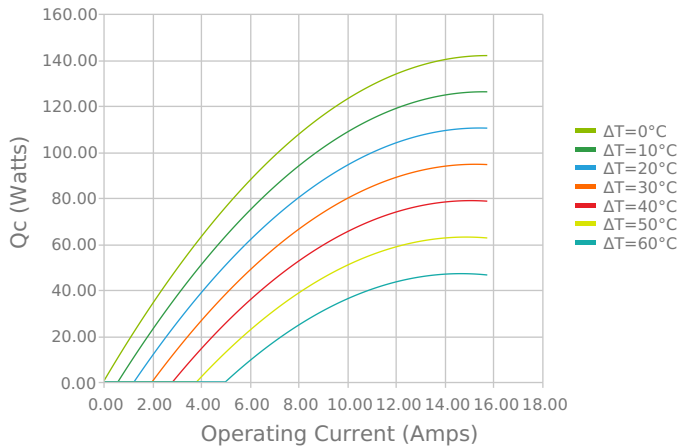
- Peltier Cooling for Refrigerated Centrifuges
- Peltier Cooling for Machine Vision
- Thermoelectric Cooling for CMOS Sensors
- Cooling Solutions for Autonomous Systems
- Peltier Cooling for Digital
- Light Processors



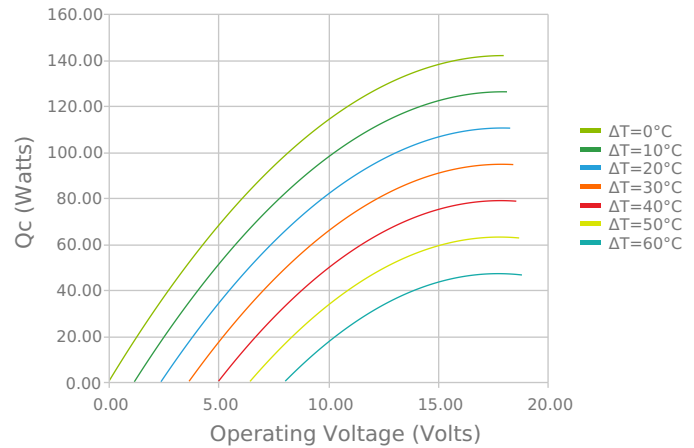
CERAMIC MATERIAL: Al₂O₃
 SOLDER CONSTRUCTION: 232°C, SbSn
 INCHES [MM]
 Note: Allow 0.020 in [0.5 mm] around perimeter of the thermoelectric cooler and lead wire attachment to accommodate sealant

ELECTRICAL AND THERMAL PERFORMANCE

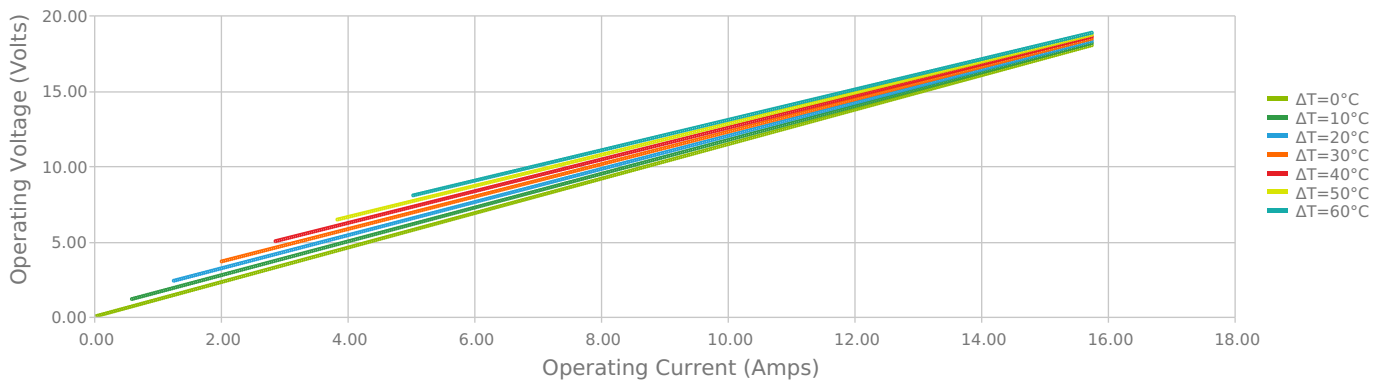
Heat Pumped at Cold Side
 Thot = 85 °C



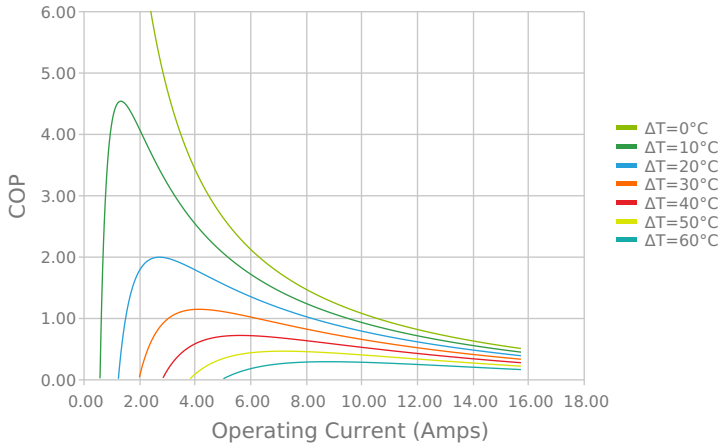
Heat Pumped at Cold Side
 Thot = 85 °C



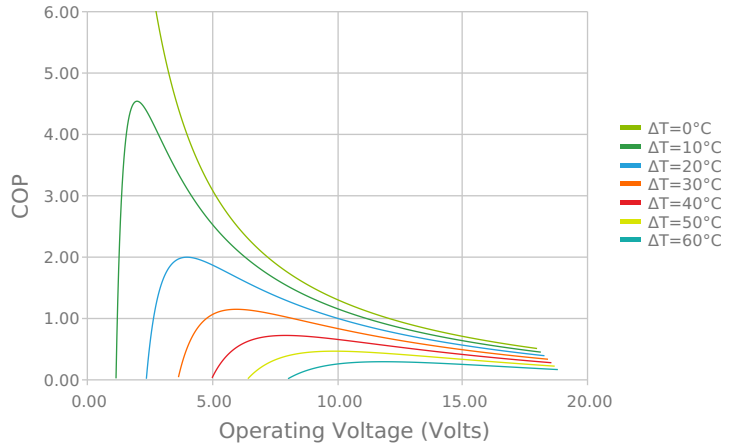
Current vs Voltage (I vs V)
 Thot = 85 °C



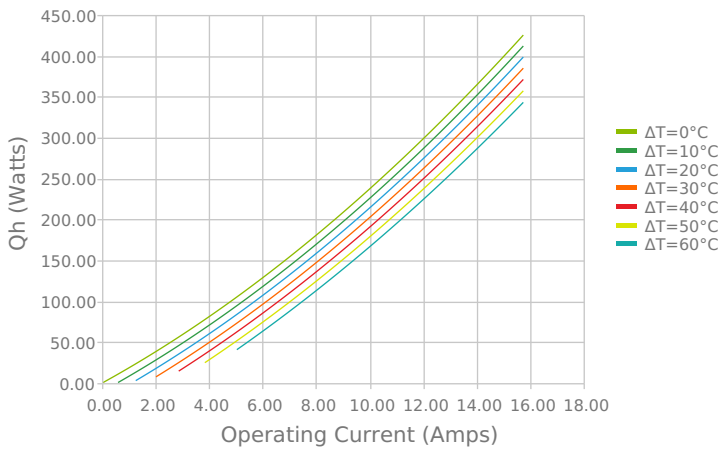
Coefficient of Performance (COP = Qc/Pin)
Thot = 85 °C



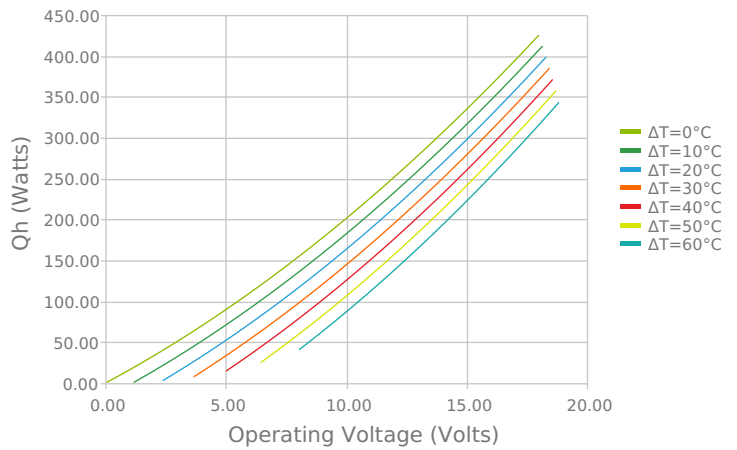
Coefficient of Performance (COP = Qc/Pin)
Thot = 85 °C



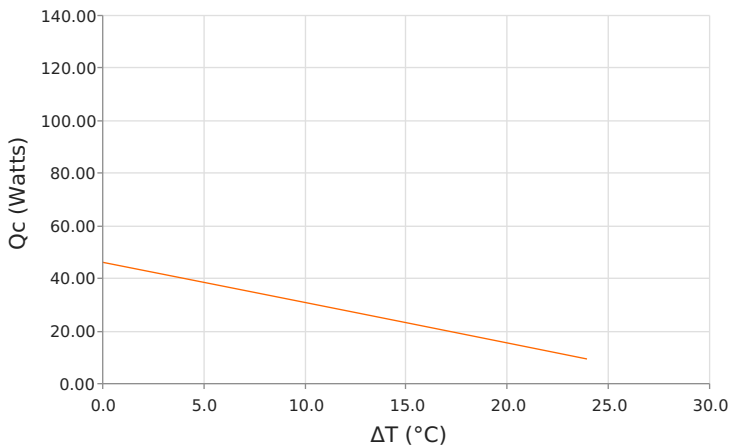
Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 85 °C



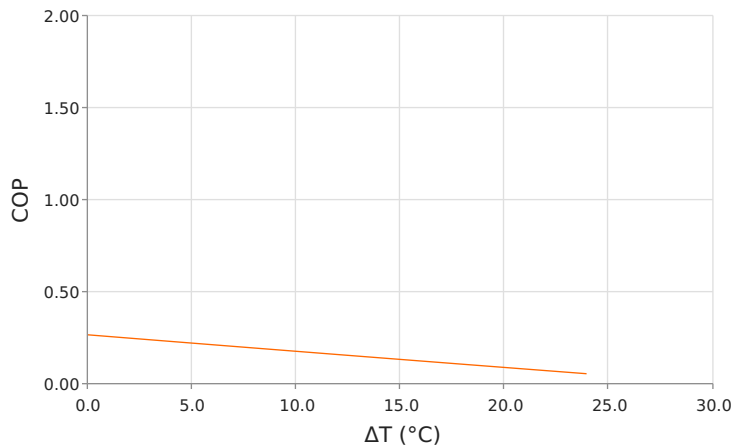
Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 85 °C



Heat Pumped at Cold Side (Qc)
Thot = 85 °C | Current = 11.8 Amps



Coefficient of Performance (COP = Qc/Pin)
Thot = 85 °C | Current = 11.8 Amps



SPECIFICATIONS*

| Hot Side Temperature | 50.0 °C | 85.0 °C | 110.0 °C |
|---|--------------|-------------|-------------|
| Qcmax ($\Delta T = 0$) | 129.3 Watts | 141.8 Watts | 148.1 Watts |
| ΔT_{max} ($Q_c = 0$) | 77.9°C | 89.3°C | 96.2°C |
| I_{max} (I @ ΔT_{max}) | 14.3 Amps | 14.0 Amps | 13.8 Amps |
| V_{max} (V @ ΔT_{max}) | 15.3 Volts | 17.5 Volts | 19.1 Volts |
| Module Resistance | 0.98 Ohms | 1.14 Ohms | 1.25 Ohms |
| Max Operating Temperature | 150 °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 |
|--------|--------------------------------------|--|----------|-----------|--------------------|
| 11 | 2.845 ±0.051 mm 0.112 ± 0.0020 in | 0.051 mm / 0.051 mm 0.002 in / 0.002 in | Lapped | Lapped | 50.8 mm 2.00 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: 150°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: 01/08/2022