



The UTX™ Series is a high heat pumping density thermoelectric cooler. The module is assembled with a large number of semiconductor couples to achieve a higher heat pumping capacity than standard single stage thermoelectric coolers.

This product line is available in multiple configurations and is ideal for applications that require higher cooling capacities with limited surface area. Assembled with Bismuth Telluride semiconductor material and thermally conductive Aluminum Oxide ceramics, the UTX Series is designed for higher current and larger heat-pumping applications.

FEATURES

- High heat pump density
- Precise temperature control
- Reliable Solid-State Operation
- No sound or vibration
- DC Operation
- RoHS Compliant

APPLICATIONS

- Industrial Lasers
- Analytical Instrumentation
- Medical Diagnostics
- Laser Projectors

*Specifications reflect thermoelectric coefficients updated December 2019

TECHNICAL SPECIFICATIONS*	
Hot Side Temperature (°C)	27
Qmax (W)	179
Delta Tmax (°C)	72
I _{max} (Amps)	9.3
V _{max} (Volts)	33
Module Resistance (Ohms)	3.14

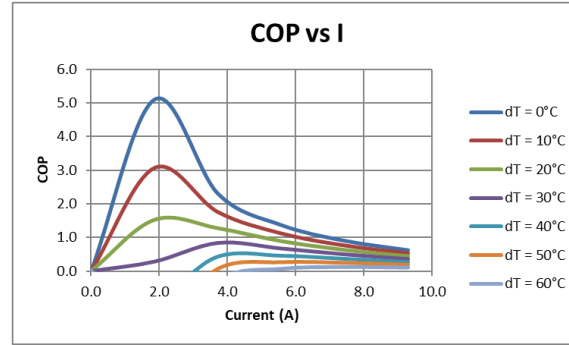
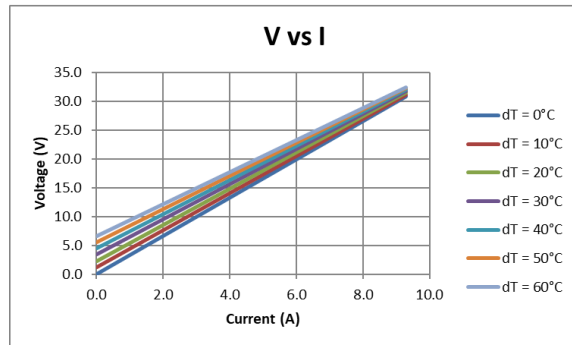
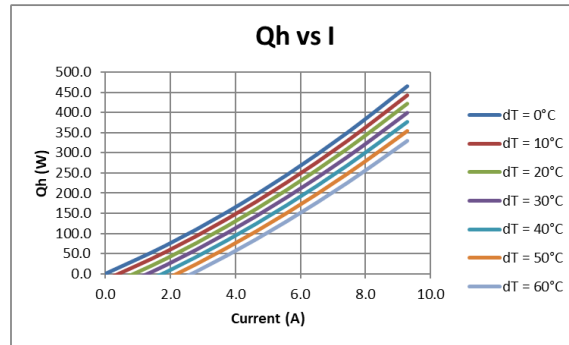
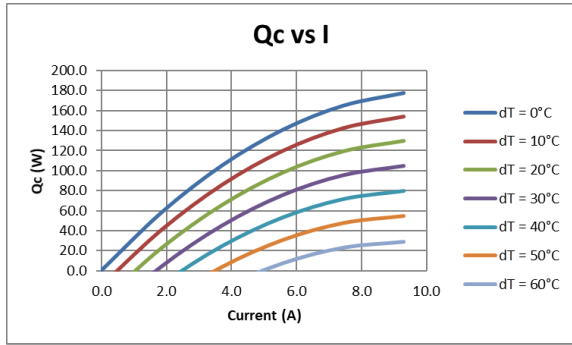
LAPPING OPTIONS

SUFFIX	THICKNESS (PRIOR TO THINNING)	FLATNESS & PARALLELISM	HOT FACE	COLD FACE	LEAD LENGTH
TA	0.110" +/- 0.001"	0.0008" / 0.0016"	Lapped	Lapped	6.0"
TB	0.110" +/- 0.0005"	0.0005" / 0.0005"	Lapped	Lapped	6.0"

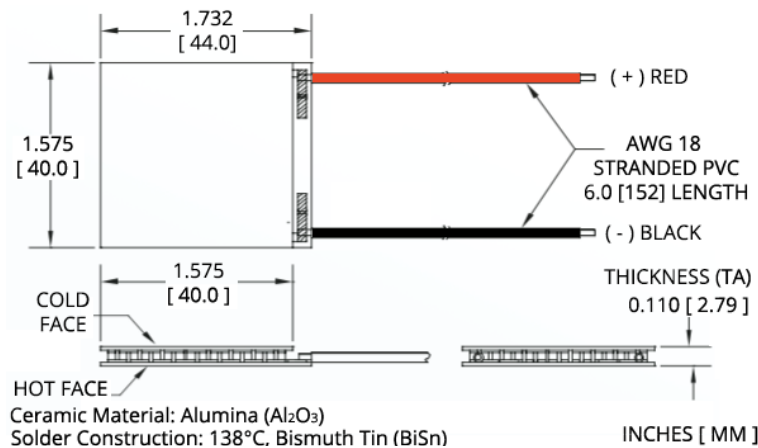
SEALING OPTIONS

SUFFIX	SEALANT	COLOR	TEMPERATURE RANGE	DESCRIPTION
RT	RTV	White	-60 to +204 °C	Non-corrosive, silicone adhesive sealant
EP	Epoxy	Black	-55 to +130 °C	Low density syntactic foam epoxy encapsulant

PERFORMANCE CURVES AT $T_h = 27^\circ\text{C}$



MECHANICAL DRAWINGS



Ceramic material 96%
Alumina ceramics
Solder construction: 138°C BiSn

Operating tips

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

LTS-UTX9-28-F2-4040-DATASHEET

www.lairdthermal.com



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