UltraTEC™ UTX Series UTX8-24-F1-5555-TA-W6
MFG Part Number: 387004726

UltraTEC™ UTX Series Thermoelectric Cooler

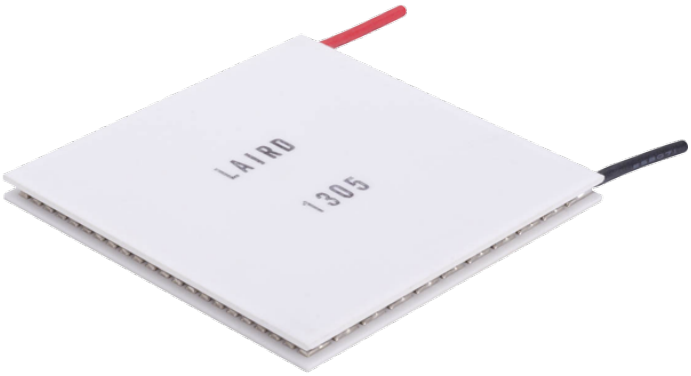
The UTX8-24-F1-5555-TA-W6 is a high-performance thermoelectric cooler that is assembled with advanced thermoelectric materials and can boost cooling capacity by up to 10%. The UltraTEC UTX Series features a higher thermal insulating barrier when compared to standard materials creating a maximum temperature differential (ΔT) of 71.7 °C at Qc = 0. It has a maximum Qc of 140.2 Watts when ΔT = 0.

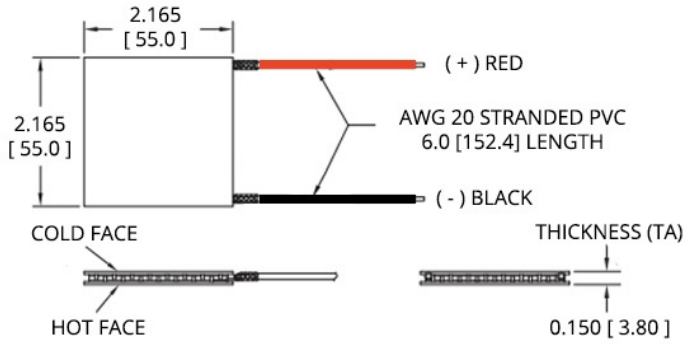
Features

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

Applications

- Spot Cooling for Industrial Lasers & Optics
- Thermoelectric Cooling for Projection Lasers

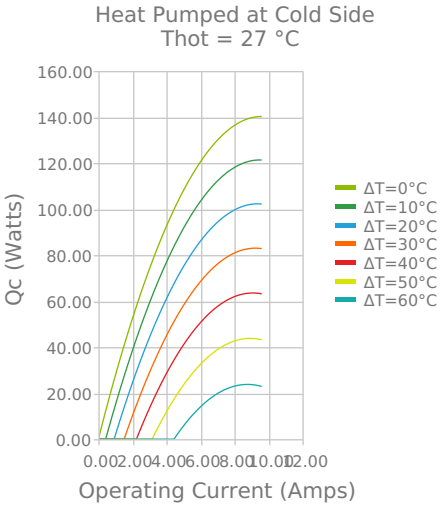


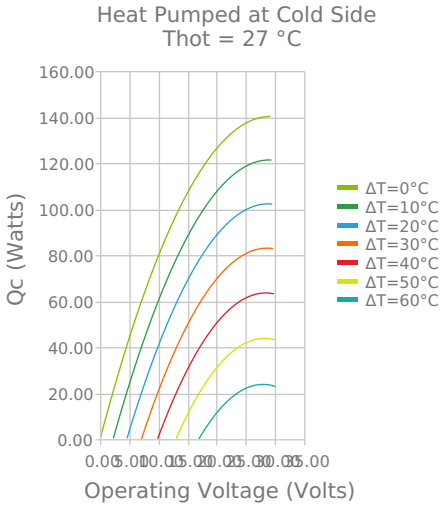


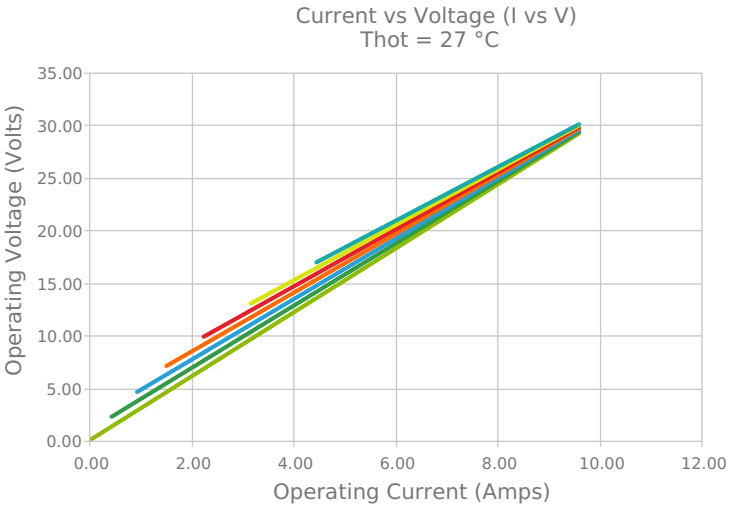
Ceramic Material: Alumina (Al_2O_3)
Solder Construction: 138°C, Bismuth Tin (BiSn)

INCHES [MM]

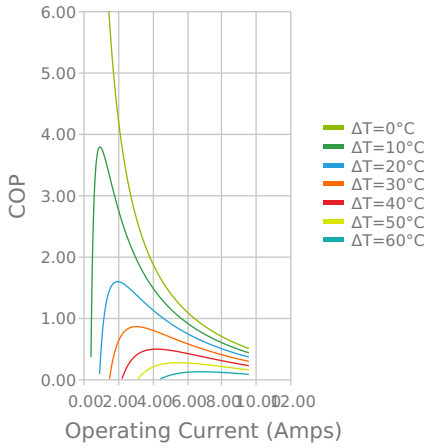
ELECTRICAL AND THERMAL PERFORMANCE







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



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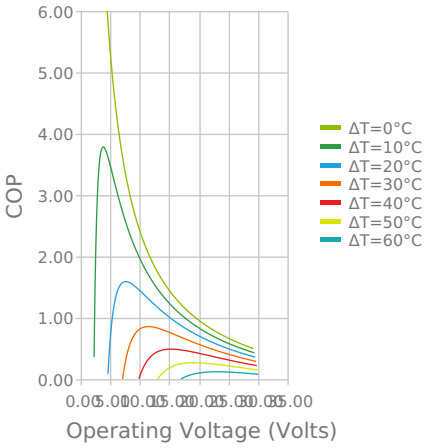
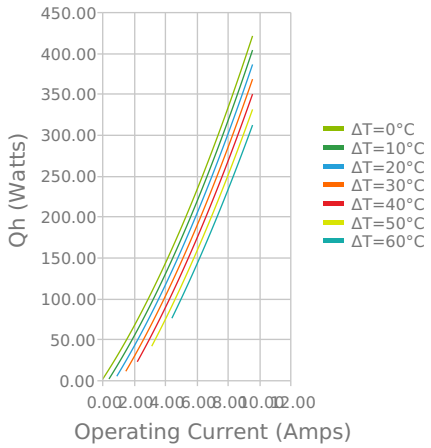


Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 27 °C



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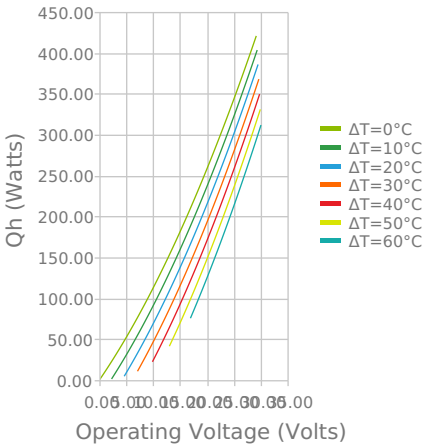
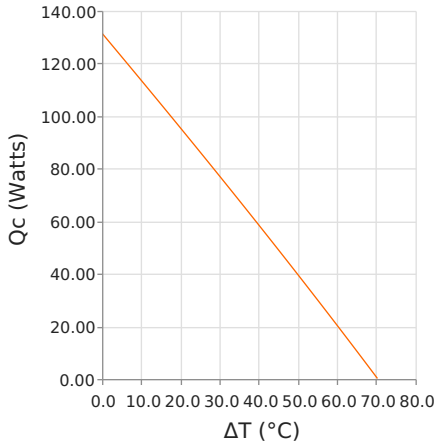
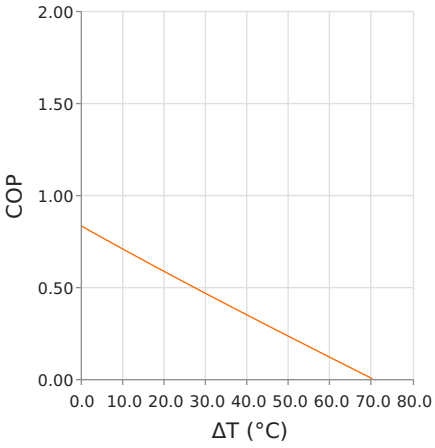


Heat Pumped at Cold Side (Qc)
Thot = 27 °C | Current = 7.2 Amps



Coefficient of Performance (COP = Qc/Pin)
Thot = 27 °C | Current = 7.2 Amps



SPECIFICATIONS*

Hot Side Temperature	27.0 °C	35.0 °C	50.0 °C
Qcmax (ΔT = 0)	140.2 Watts	144.1 Watts	150.9 Watts
ΔTmax (Qc = 0)	71.7°C	74.8°C	80.4°C
Imax (I @ ΔTmax)	8.6 Amps	8.5 Amps	8.4 Amps
Vmax (V @ ΔTmax)	27.6 Volts	28.7 Volts	30.7 Volts
Module Resistance	3.04 Ohms	3.17 Ohms	3.42 Ohms
Max Operating Temperature	80 °C		
Weight	48.0 gram(s)		

* Specifications reflect thermoelectric coefficients updated March 2020

FINISHING OPTIONS

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
TA	3.810 ±0.025 mm 0.150 ± 0.001 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
	None			No sealing specified

NOTES

1. Max operating temperature: 80°C
2. Do not exceed Imax or Vmax when operating module
3. Reference assembly guidelines for recommended installation
4. Recommended to be used with a liquid heat exchanger on the hot side

Date: 08/28/2020