UltraTEC™ UTX Series UTX11-12-F2-3030-TB-W6
MFG Part Number: 387004681

UltraTEC™ UTX Series Thermoelectric Cooler

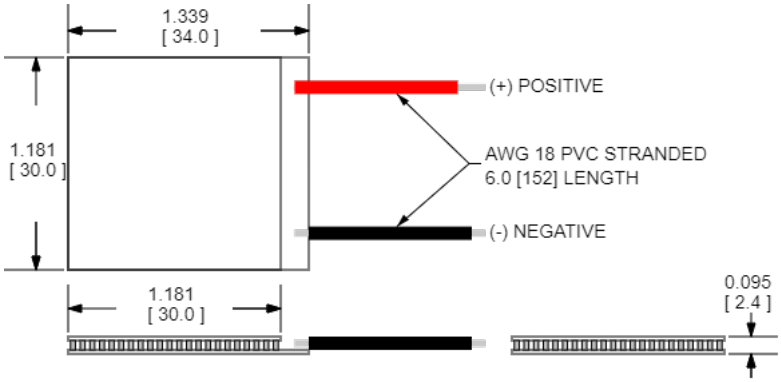
The UTX11-12-F2-3030-TB-W6 is a high-performance thermoelectric cooler that is assembled with advanced thermoelectric materials and can boost cooling capacity by up to 10%. The UltraTEC UTX Series features a higher thermal insulating barrier when compared to standard materials creating a maximum temperature differential (ΔT) of 71.7 °C at Qc = 0. It has a maximum Qc of 95.2 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

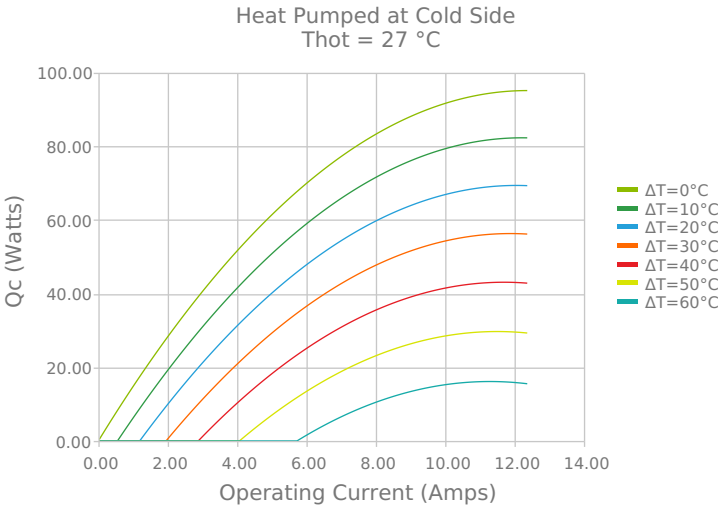
- Spot Cooling for Industrial Lasers & Optics
- Thermoelectric Cooling for Projection Lasers

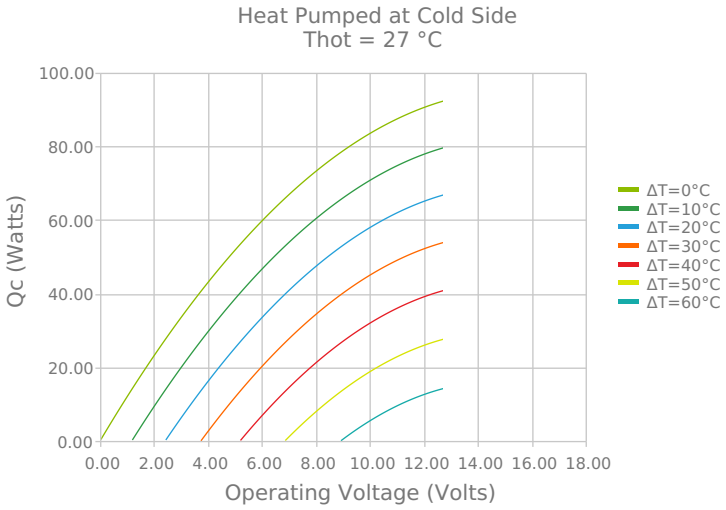


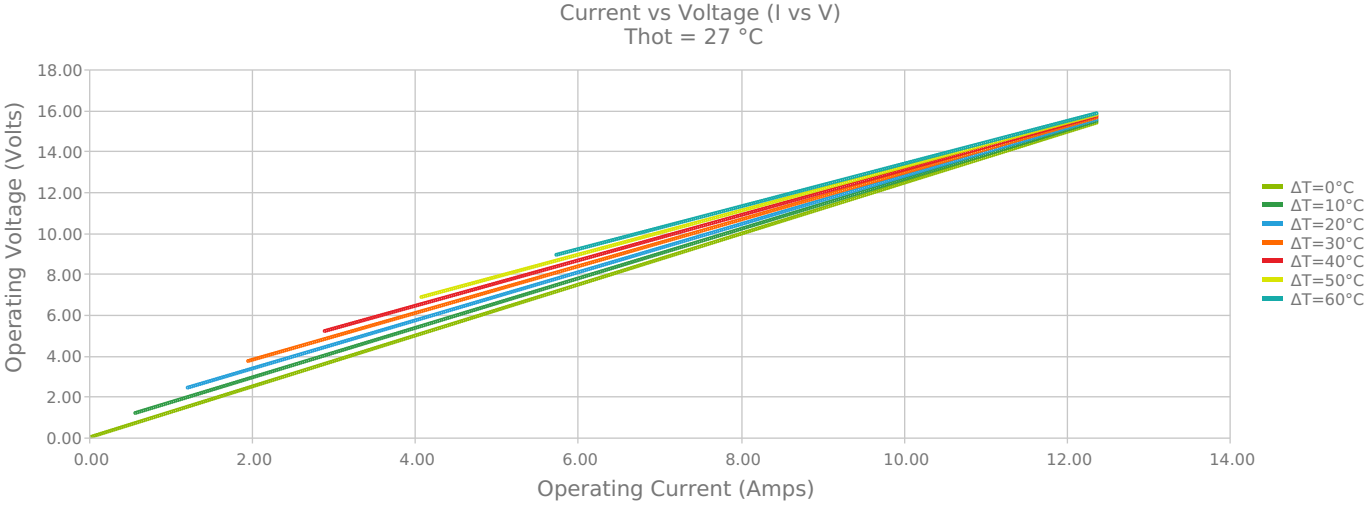
CERAMIC MATERIAL: Al_2O_3
SOLDER CONSTRUCTION: 138°C, BiSn

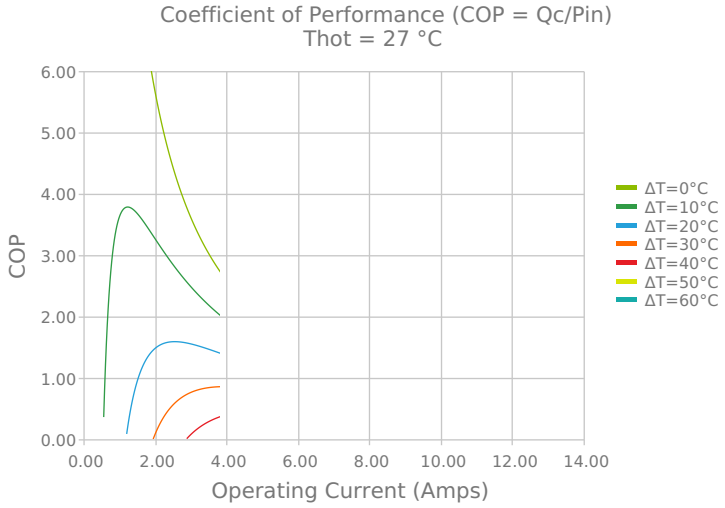
INCHES [MM]

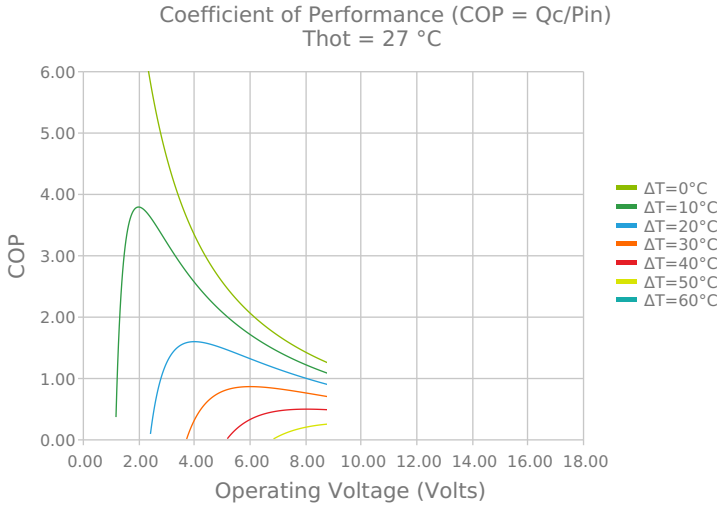
ELECTRICAL AND THERMAL PERFORMANCE

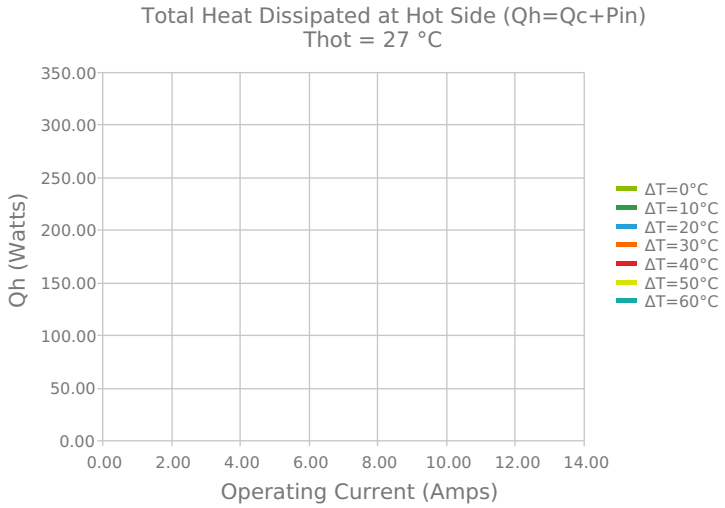


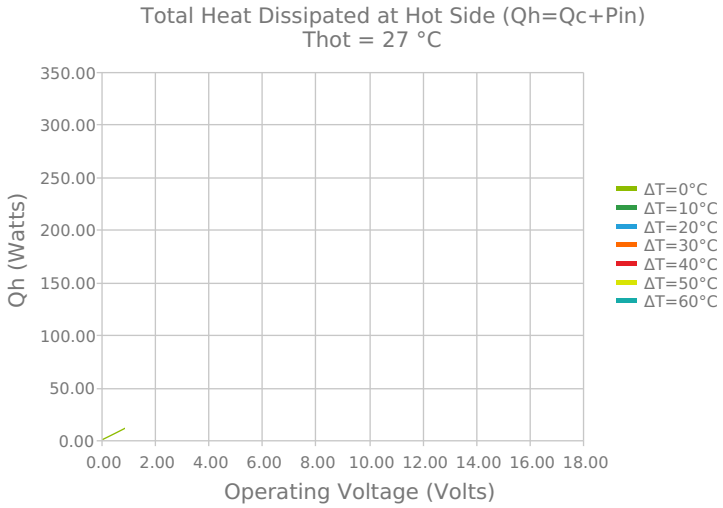


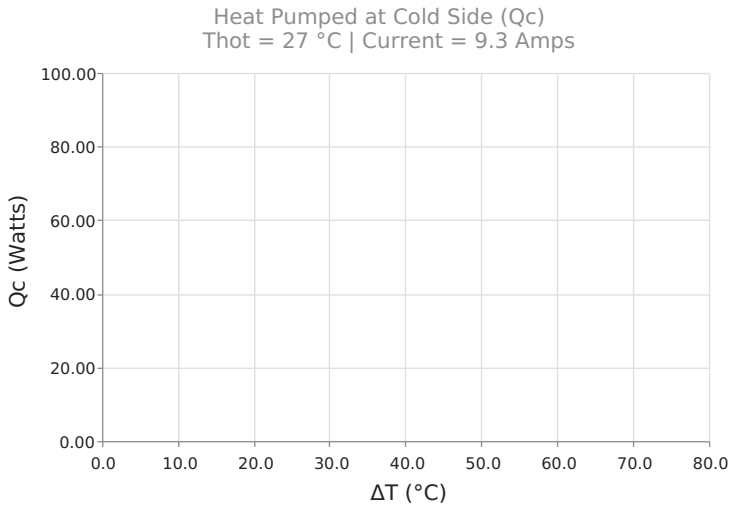


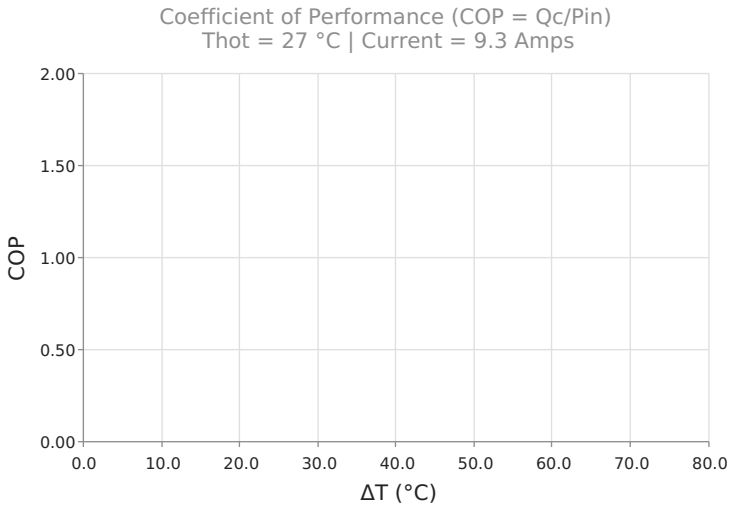

Coefficient of Performance (COP = Qc/Pin)
Thot = 27 °C
COP
Operating Current (Amps)
ΔT=0°C
ΔT=10°C
ΔT=20°C
ΔT=30°C
ΔT=40°C
ΔT=50°C
ΔT=60°C


Coefficient of Performance (COP = Qc/Pin)
Thot = 27 °C
COP
Operating Voltage (Volts)
ΔT=0°C
ΔT=10°C
ΔT=20°C
ΔT=30°C
ΔT=40°C
ΔT=50°C
ΔT=60°C


Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 27 °C
Qh (Watts)
Operating Current (Amps)
ΔT=0°C
ΔT=10°C
ΔT=20°C
ΔT=30°C
ΔT=40°C
ΔT=50°C
ΔT=60°C


Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Thot = 27 °C
Qh (Watts)
Operating Voltage (Volts)
ΔT=0°C
ΔT=10°C
ΔT=20°C
ΔT=30°C
ΔT=40°C
ΔT=50°C
ΔT=60°C


Heat Pumped at Cold Side (Qc)
Thot = 27 °C | Current = 9.3 Amps
Qc (Watts)
ΔT (°C)


Coefficient of Performance (COP = Qc/Pin)
Thot = 27 °C | Current = 9.3 Amps
COP
ΔT (°C)

SPECIFICATIONS*

Hot Side Temperature	27.0 °C	35.0 °C	50.0 °C
Qcmax (ΔT = 0)	95.2 Watts	97.8 Watts	102.4 Watts
ΔTmax (Qc = 0)	71.7°C	74.8°C	80.4°C
Imax (I @ ΔTmax)	11.0 Amps	10.9 Amps	10.8 Amps
Vmax (V @ ΔTmax)	14.6 Volts	15.1 Volts	16.2 Volts
Module Resistance	1.24 Ohms	1.30 Ohms	1.40 Ohms
Max Operating Temperature	80 °C		
Weight	11.0 gram(s)		

* Specifications reflect thermoelectric coefficients updated March 2020

FINISHING OPTIONS

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
TB	2.413 ±0.013 mm 0.095 ± 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 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: 06/01/2021