

UltraTEC™ UT Series Thermoelectric Cooler

Note: This product is not recommended for new designs.

This product series has been replaced with the UltraTEC UTX Series. The recommended replacement is:

MFG Part Number: 387004692

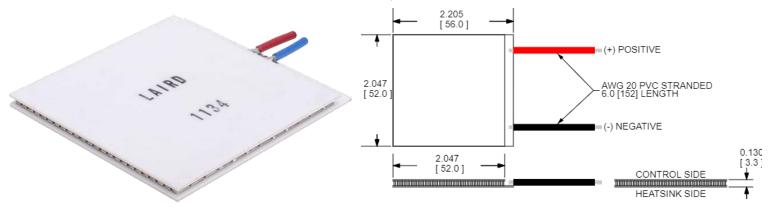
Description: UTX15-288-F2-5252-TA-W6

Features

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

Applications

- Thermoelectric Coolers and Assemblies for Medical Applications
- Thermoelectric Coolers for Handheld Cosmetic Lasers
- Industrial Laser Cooling
- Peltier Cooling for Digital Light Processors

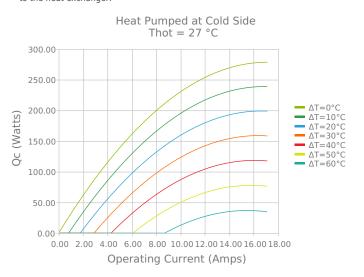


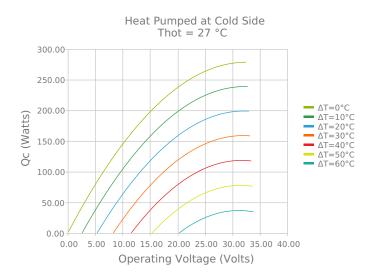
CERAMIC MATERIAL: Al₂O₂ SOLDER CONSTRUCTION: 138°C, BiSn

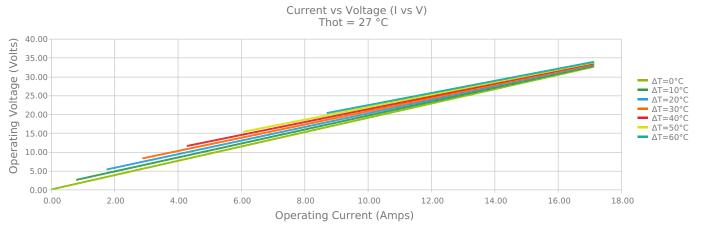
INCHES [MM]

ELECTRICAL AND THERMAL PERFORMANCE

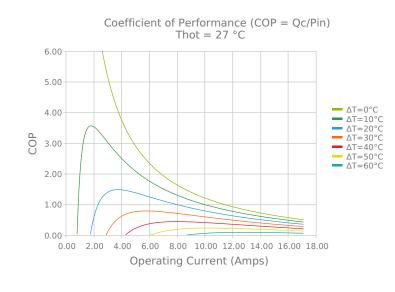
For maximum performance, be sure to orient the CONTROL side of the TEC against the application to be managed and the HEATSINK side against the heat sink or other heat rejection method. The CONTROL side is always opposite the side with lead attachments. Lead attachment is a passive heat loss and less impactful if located on the side that attaches to the heat exchanger.

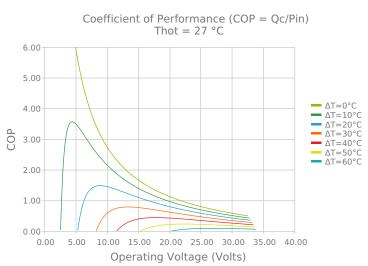


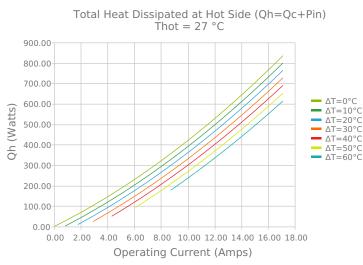


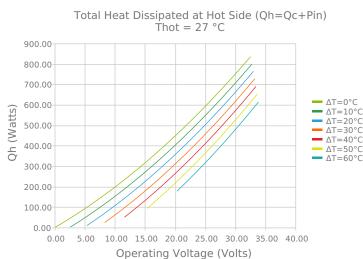


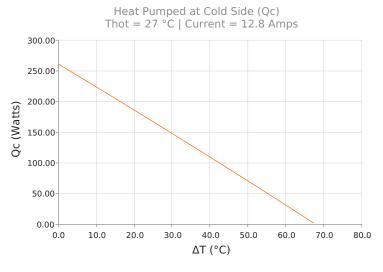


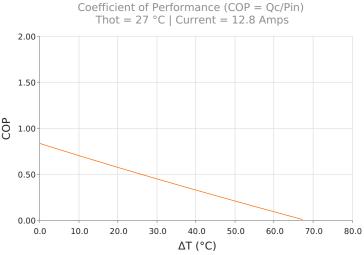














SPECIFICATIONS*

Hot Side Temperature

 $Qcmax (\Delta T = 0)$

 $\Delta T max (Qc = 0)$

Imax (I @ \Darmax)

Vmax (V @ Δ Tmax)

Module Resistance

Max Operating Temperature

Weight

^{*} Specifications reflect thermoelectric coefficients updated March 2020

| 27.0 °C | 35.0 °C | 50.0 °C |
|--------------|-------------|-------------|
| 278.5 Watts | 287.0 Watts | 301.9 Watts |
| 68.9°C | 71.8°C | 77.0°C |
| 15.2 Amps | 15.1 Amps | 14.9 Amps |
| 30.9 Volts | 32.1 Volts | 34.3 Volts |
| 1.90 Ohms | 1.98 Ohms | 2.13 Ohms |
| 80 °C | | |
| 53.0 gram(s) | | |

FINISHING OPTIONS

| Suff | x Thickness | Flatness / Parallelism | Hot Face | Cold Face | Lead Length |
|------|---|--|-----------------|------------------|---------------------|
| TA | $3.300 \pm 0.025 \text{ mm}$ $0.130 \pm 0.0010 \text{ in}$ | 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

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