

Laird THERMAL SYSTEMS

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: 387004967

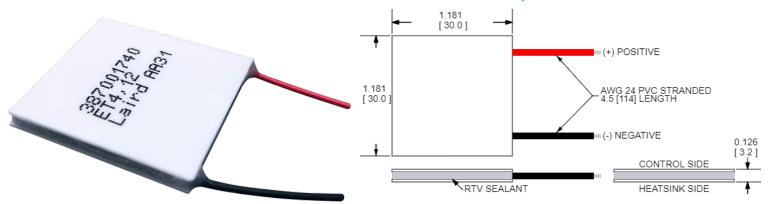
Description: ETX4-12-F1-3030-TA-RT-W6

Features

- High-temperature operation
- Reliable solid-state
- No sound or vibrationEnvironmentally-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

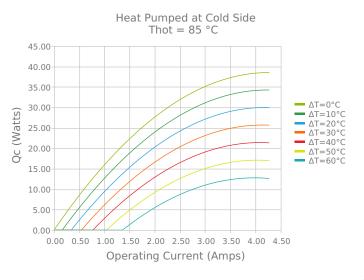
SOLDER CONSTRUCTION: 232°C, SbSn

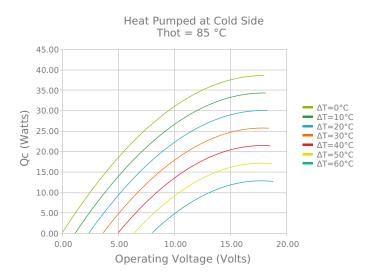
INCHES [MM]

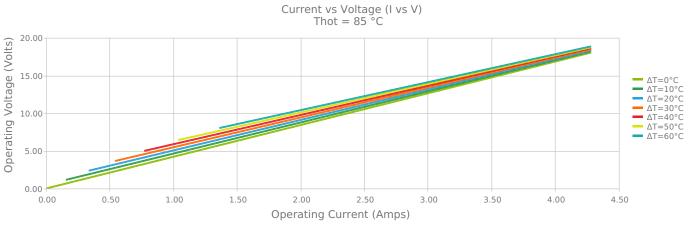
Note: Allow 0.020 in [0.5 mm] around perimeter of the thermoelectric cooler and lead wire attachment to accommodate sealant

ELECTRICAL AND THERMAL PERFORMANCE

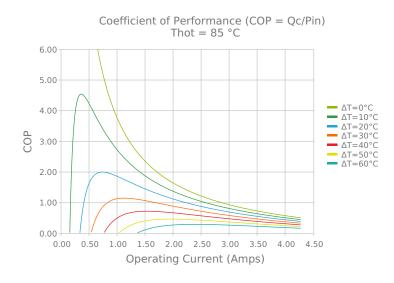
For maximum performance, be sure to orient the CONTROL side of the TEC against the application to be managed and the HEATSINK side against the heat sink or other heat rejection method. The CONTROL side is always opposite the side with lead attachments. Lead attachment is a passive heat loss and less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

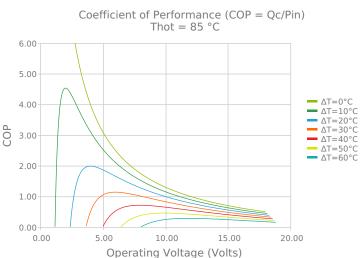


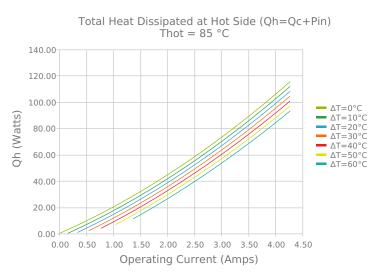


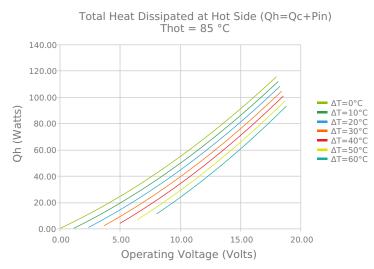


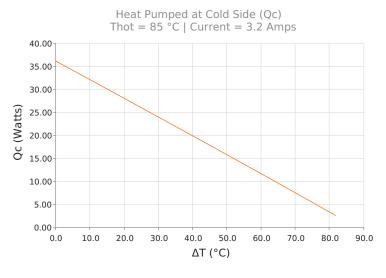


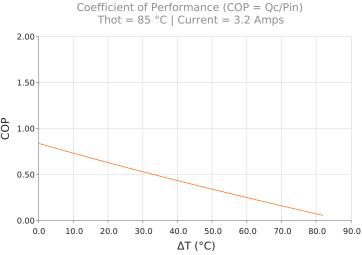














SPECIFICATIONS*

Hot Side Temperature

 $Qcmax (\Delta T = 0)$

 $\Delta T max (Qc = 0)$

Imax (I @ ATmax)

Vmax (V @ Δ Tmax)

Module Resistance

Max Operating Temperature

Weight

50.0 °C	85.0 °C	110.0 °C
35.1 Watts	38.5 Watts	40.2 Watts
77.9°C	89.3°C	96.2°C
3.9 Amps	3.8 Amps	3.7 Amps
15.3 Volts	17.5 Volts	19.1 Volts
3.62 Ohms	4.21 Ohms	4.61 Ohms
150 °C		
9.0 gram(s)		

FINISHING OPTIONS

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length	
11	3.200 ±0.051 mm 0.126 ± 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 Imax or Vmax when operating module
- 3. Reference assembly guidelines for recommended installation

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^{*} Specifications reflect thermoelectric coefficients updated March 2020