HiTemp ETX Series ETX2.5-12-F1-4040-TA-RT-W6 MFG Part Number: 387004969

HiTemp ETX Series Thermoelectric Cooler

The ETX2.5-12-F1-4040-TA-RT-W6 high temperature, high-performance thermoelectric cooler uses Laird Thermal Systems' enhanced thermoelectric module construction preventing performance degrading diffusion, which is common in standard grade thermoelectric coolers operating in high temperature environments exceeding 80 °C. It has a maximum Qc of 24.1 Watts when $\Delta T = 0$ and a maximum ΔT of 83.2 °C

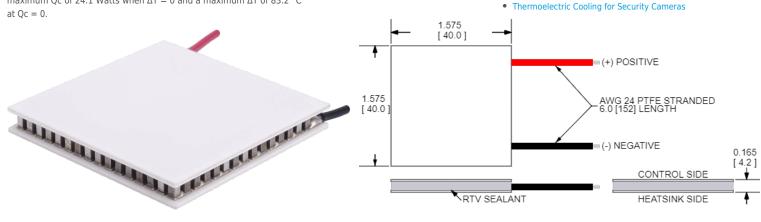
Features



- Reliable solid-state
- No sound or vibration
- · Environmentally-friendly
- RoHS-compliant

Applications

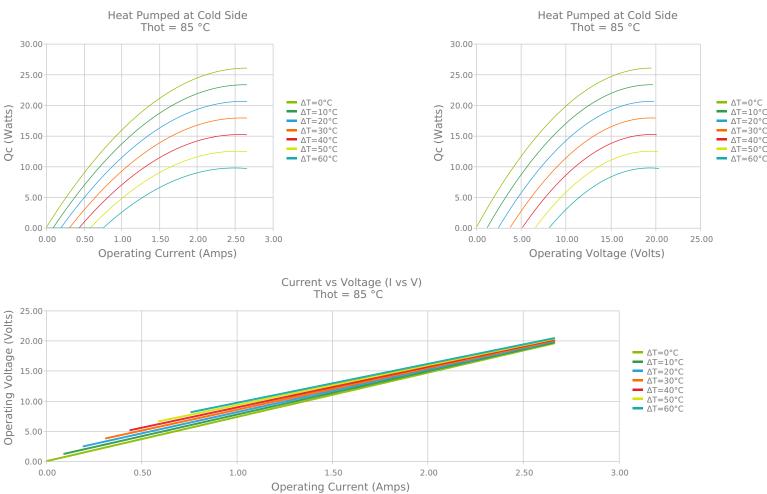
- Peltier Cooling for Refrigerated Centrifuges • Peltier Cooling for Machine Vision • Thermoelectric Cooling for CMOS Sensors
- Cooling Solutions for Autonomous Systems
- Peltier Cooling for Digital Light Processors
- Heating and Cooling for Liquid Chromatography Systems
- Thermoelectric Cooling for Security Cameras

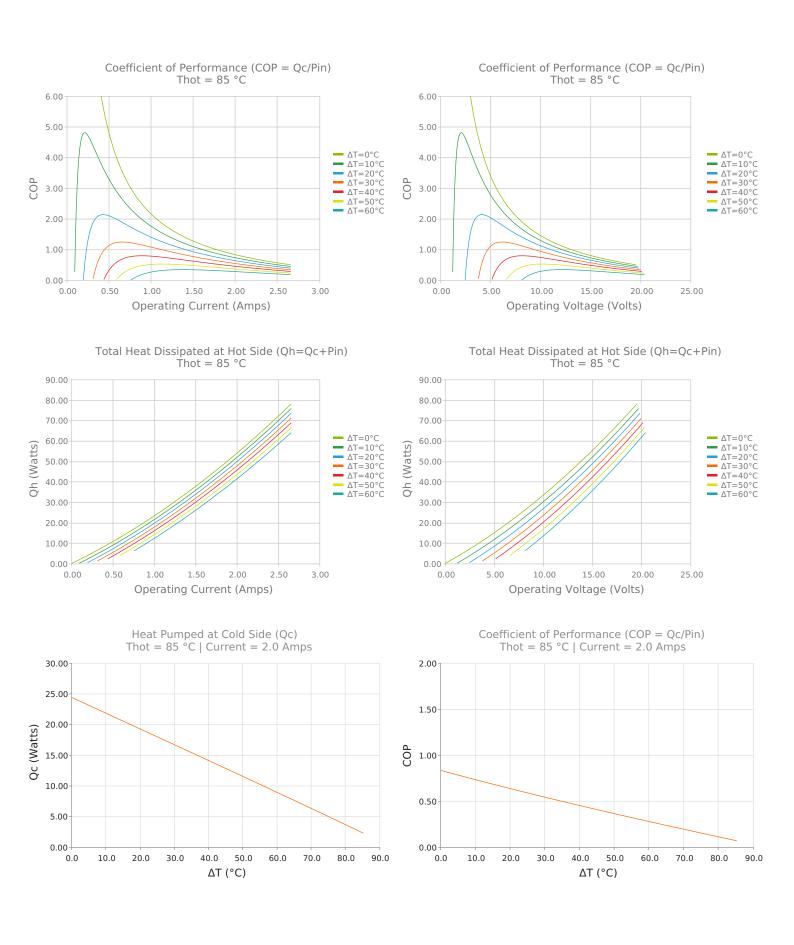


CERAMIC MATERIAL: Al₂O₃ SOLDER CONSTRUCTION: 232°C, SbSn INCHES [MM] Note: Allow 0.020 in [0.5 mm] around perimeter of the thermoelectric cooler and lead wire attachment to accommodate sealant

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	50.0 °C	85.0 °C	110.0 °C
$Qcmax (\Delta T = 0)$	24.1 Watts	26.0 Watts	26.8 Watts
ΔTmax (Qc = 0)	83.2°C	95.3°C	102.0°C
lmax (I @ ΔTmax)	2.5 Amps	2.4 Amps	2.3 Amps
Vmax (V @ ΔTmax)	16.6 Volts	19.1 Volts	20.8 Volts
Module Resistance	6.30 Ohms	7.35 Ohms	8.04 Ohms
Max Operating Temperature	150 °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
ТА	4.200 ±0.025 mm 0.165 ± 0.0010 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
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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