

## HiTemp ET Series ET4-12-F2-4040-TA-RT-W6 MFG Part Number: 387001768 Legacy Product

#### HiTemp ET Series Thermoelectric Cooler **Features Applications** Peltier Cooling for Refrigerated Centrifuges Note: This product is not recommended for new designs. • High-temperature operation Reliable solid-state Peltier Cooling for Machine Vision This product series has been replaced with the HiTemp ETX Series. No sound or vibration • Thermoelectric Cooling for CMOS Sensors The recommended replacement is: Cooling Solutions for Autonomous Systems · Environmentally-friendly MFG Part Number: 387004938 Peltier Cooling for Digital RoHS-compliant Description: ETX4-12-F2-4040-TA-RT-W6 Light Processors 1.732 [ 44.0 ] (+) POSITIVE 1.575 AWG 18 PVC STRANDED 6.0 [152] LENGTH [40.0 (-) NEGATIVE 0.165 1.575 [ 40.0 ] [4.2] CONTROL SIDE ŧ. RTV SEALANT HEATSINK SIDE

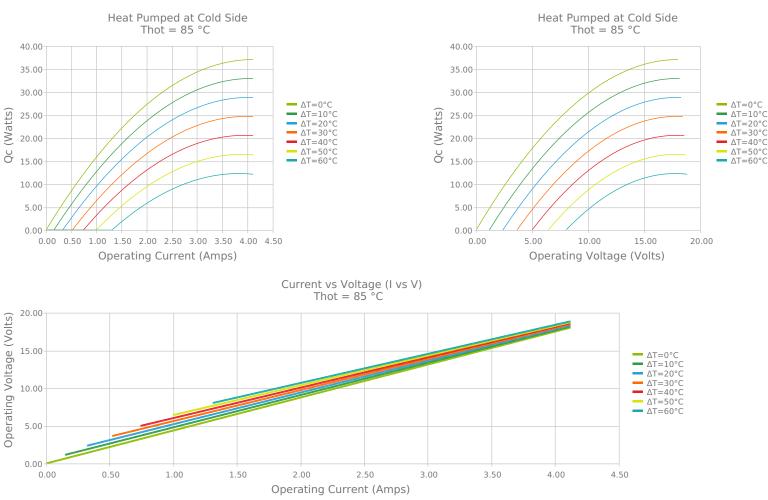
CERAMIC MATERIAL: Al₂O₃ SOLDER CONSTRUCTION: 232°C, SbSn

INCHES [ MM ]

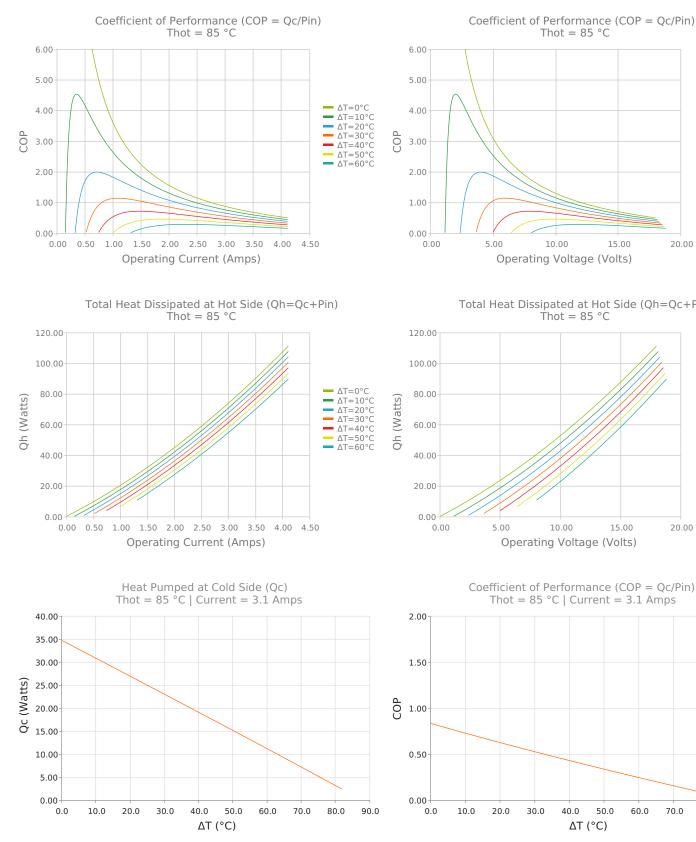
Note: Allow 0.020 in [0.5 mm] around perimeter of the thermoelectric cooler and lead wire attachment to accommodate sealant

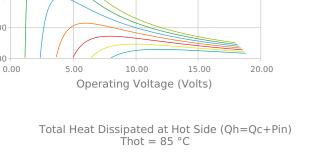
### **ELECTRICAL AND THERMAL PERFORMANCE**

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.







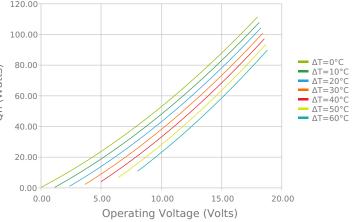


ΔT=0°C

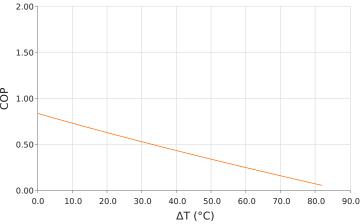
ΔT=10°C

ΔT=20°C ΔT=30°C

ΔT=40°C ΔT=50°C  $\Delta T = 60^{\circ}C$ 



Coefficient of Performance (COP = Qc/Pin) Thot = 85 °C | Current = 3.1 Amps



#### **SPECIFICATIONS\***

Hot Side Temperature	50.0 °C	85.0 °C	110.0 °C
$Qcmax (\Delta T = 0)$	33.8 Watts	37.1 Watts	38.7 Watts
ΔTmax (Qc = 0)	77.9°C	89.3°C	96.2°C
lmax (I @ ΔTmax)	3.7 Amps	3.7 Amps	3.6 Amps
Vmax (V @ ΔTmax)	15.3 Volts	17.5 Volts	19.1 Volts
Module Resistance	3.77 Ohms	4.38 Ohms	4.79 Ohms
Max Operating Temperature	150 °C		
Weight	21.0 gram(s)		

\* Specifications reflect thermoelectric coefficients updated March 2020

### **FINISHING OPTIONS**

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
11	4.191 ±0.051 mm 0.165 ± 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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