

Multistage MS Series Thermoelectric Cooler

The MS2-094-10-10-13-13-11-W8 multistage thermoelectric cooler is able to reach colder temperatures than single stage thermoelectric coolers. It has a maximum Qc of 7.2 Watts when $\Delta T=0$ and a maximum ΔT of 91 °C at Qc = 0.

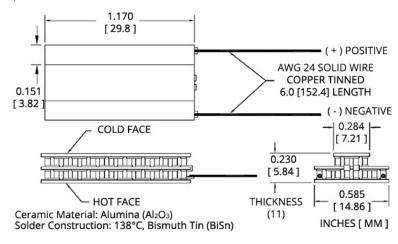
Features

- High temperature differential
- Precise temperature control
- Reliable solid-state operationEnvironmentally-friendly
- DC operation
- RoHS-compliant

Applications

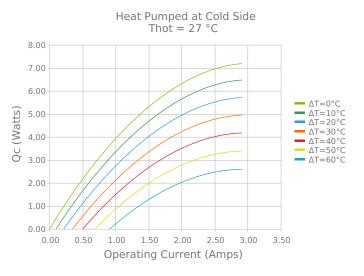
- Thermoelectric Cooling for CMOS Sensors
- Heads-Up Displays, Imaging Sensors

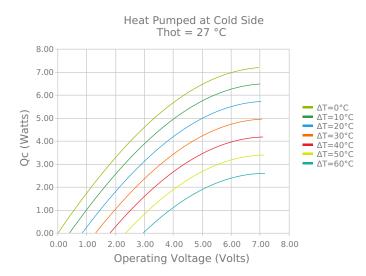


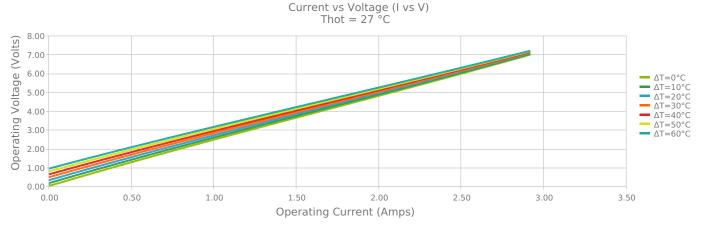


ELECTRICAL AND THERMAL PERFORMANCE

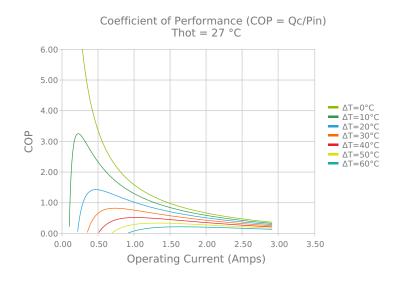
For maximum performance, be sure to orient the CONTROL side of the TEC against the application to be managed and the HEATSINK side against the heat sink or other heat rejection method. The CONTROL side is always opposite the side with lead attachments. Lead attachment is a passive heat loss and less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

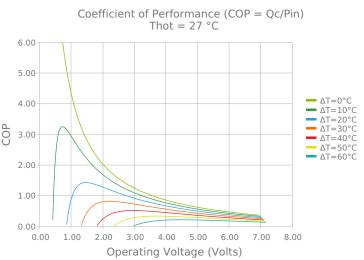


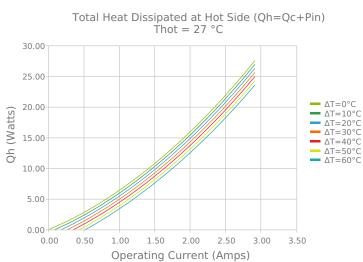


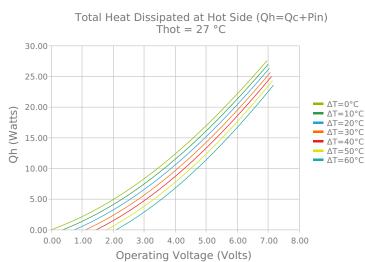


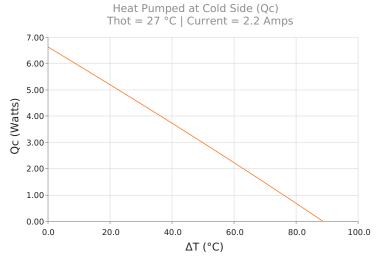


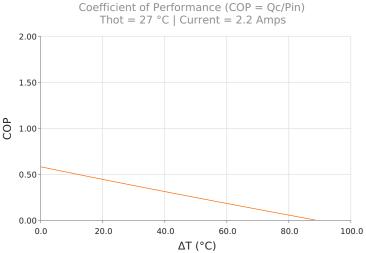














SPECIFICATIONS*

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

27.0 °C
7.2 Watts
91.0 °C
2.8 Amps
7.1 Volts
2.54 Ohms
80 °C
8.0 gram(s)

27 0 00

FINISHING OPTIONS

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
11	5.800 ±0.203 mm 0.228 ± 0.008 in	0.025 mm / 0.203 mm 0.001 in / 0.008 in	Lapped	Lapped	199.9 mm 7.87 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. Solder tinning also available on metallized ceramics

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Revision: 00 Date: 06-01-2022 Print Date: 06-14-2022

^{*} Specifications reflect thermoelectric coefficients updated March 2020