TTS
TARK THERMAL SOLUTIONS

PowerCool Series DA-034-12-02
MFG Part Number: DA-034-12-02-00-00

PowerCool Series Thermoelectric Cooler Assembly

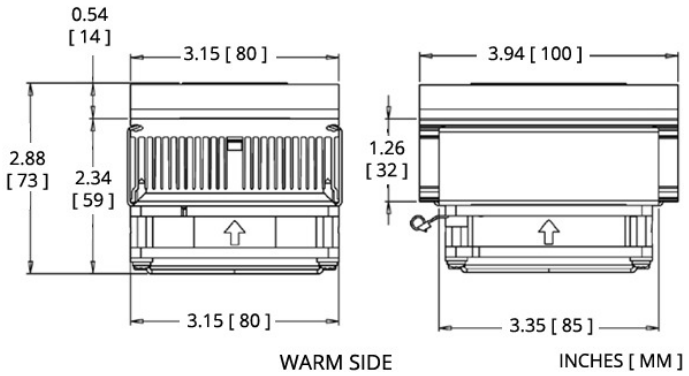
The DA-034-12-02 is a Direct-to-Air Thermoelectric Cooler Assembly that uses impingement flow to transfer heat. It offers dependable, compact performance by cooling objects via conduction. Heat is absorbed through a cold plate and dissipated thru a high density heat exchanger equipped with an air ducted shroud and brand name fan. It has a maximum Qc of 34 Watts when ΔT = 0 and a maximum ΔT of 41 °C at Qc = 0.

Features

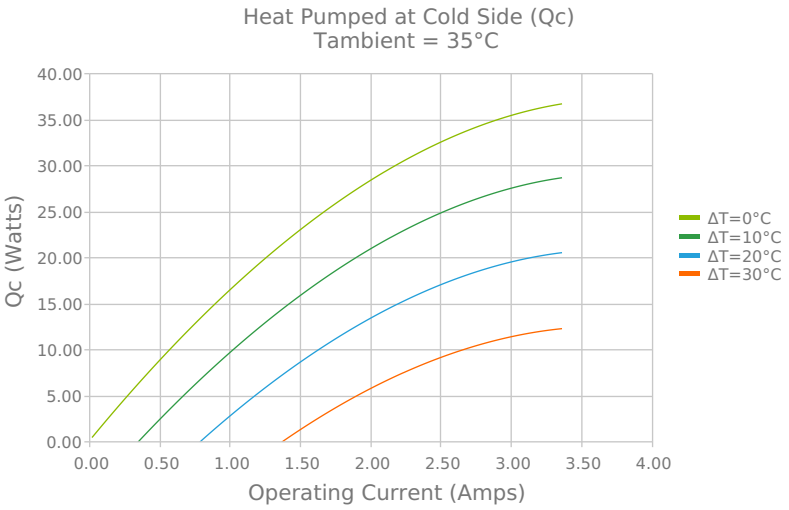
- Compact design
- Precise temperature control
- Reliable solid-state operation
- Low noise
- RoHS-compliant

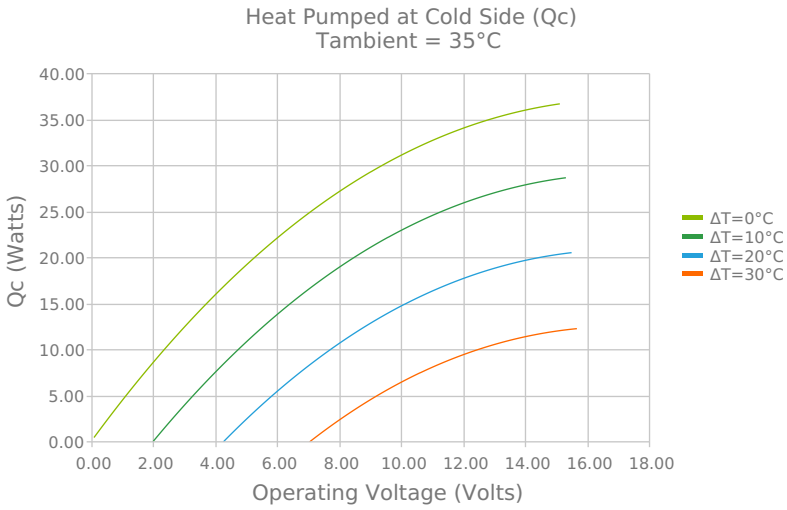
Applications

- Medical Diagnostic and Analytical Instrumentation
- Thermoelectric Coolers and Assemblies for Medical Applications
- Liquid Cooling Options for PET and SPECT Scanners
- Cooling for Centrifuges
- High-Performance Liquid Chromatography (HPLC)
- Heating and Cooling for Liquid Chromatography Systems

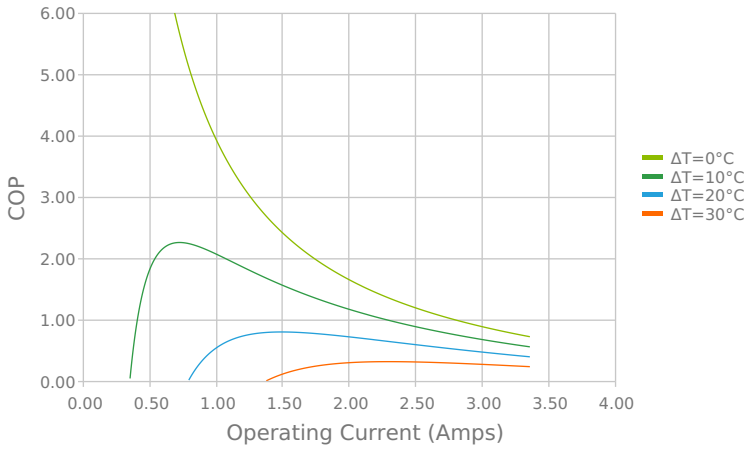


Electrical and Thermal Performance





Coefficient of Performance (COP = Qc/Pin)
Tambient = 35°C



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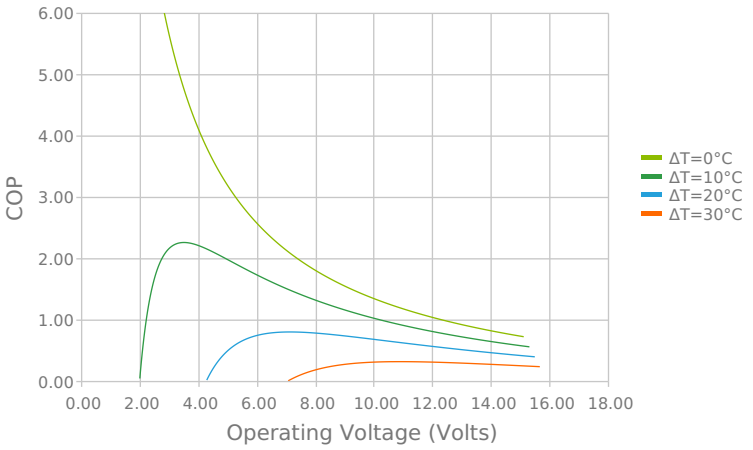
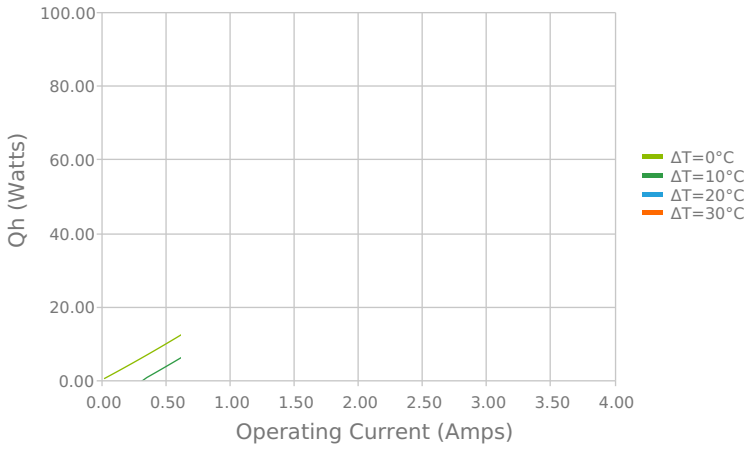


Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Tambient = 35°C



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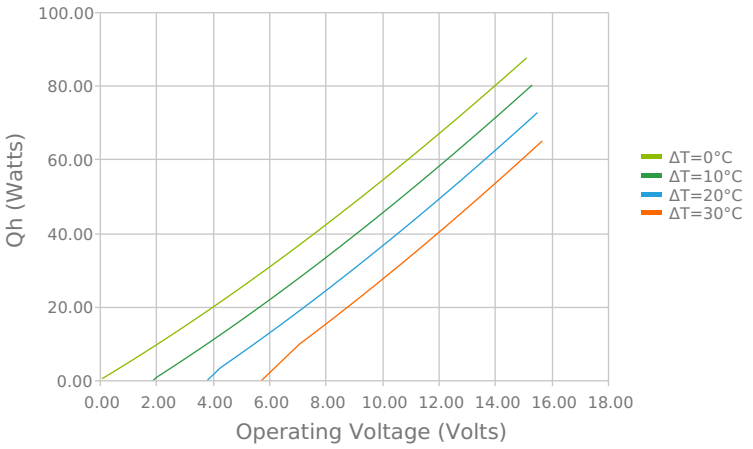
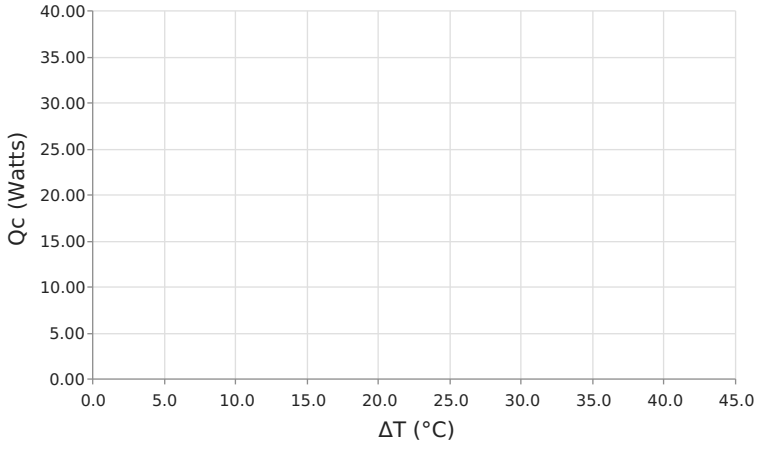


Heat Pumped at Cold Side (Qc)
Voperating = 12 Volts | Ioperating = 2.73 Amps



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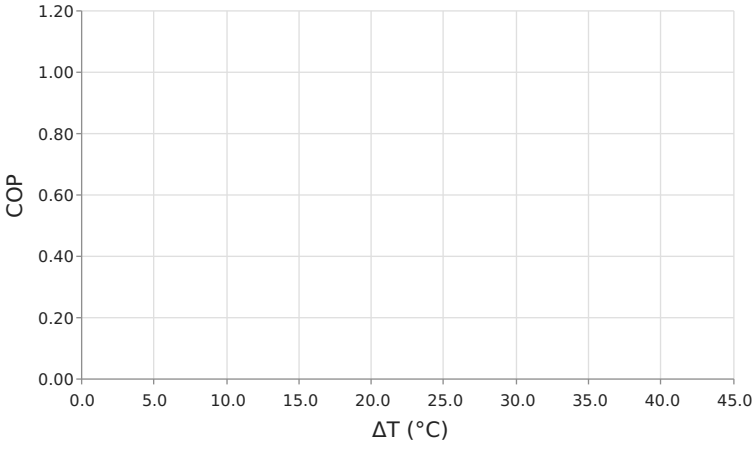
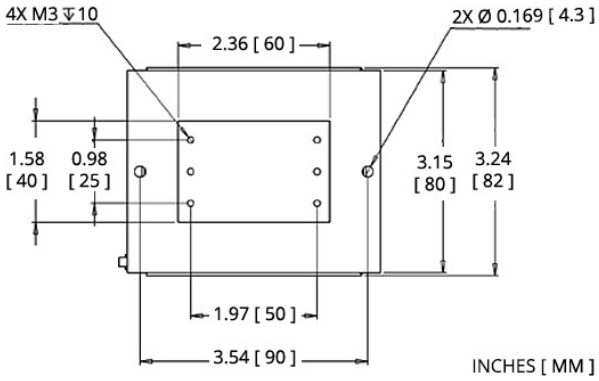


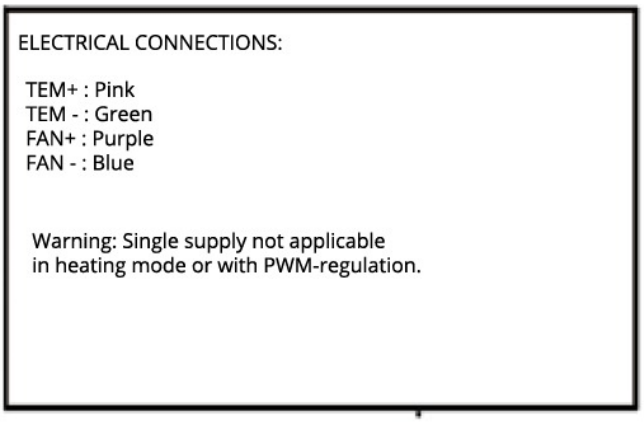
Specifications

Heat Transfer Mechanism, Cold Side	Direct - Conduction
Heat Transfer Mechanism, Hot Side	Air - Forced Convection
Operating Temperature Range	-10°C to 46°C
Supply Voltage	12.0 VDC nominal / 15.0 VDC maximum
Current Draw	2.6 A running / 3.2 A startup
Power Supply	31.0 Watts
Performance Tolerance	10%
Hi-Pot Testing	No Testing
Fan MTBF	50000 hours
Weight	0.45 kg
Panel Mounting	Flush Mount

Mounting Hole Location



Wiring Schematic



Notes

[1]For indoor use only
[2]Units are generally maintenance free, however occasionally it is recommended to clean the heat sinks and fans of debris. This is best done with compressed air.

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