

PowerCool Series Thermoelectric Cooler Assembly

The DA-024-12-02 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 Q_c of 24 Watts when $\Delta T = 0$ and a maximum ΔT of 44 °C at $Q_c = 0$.

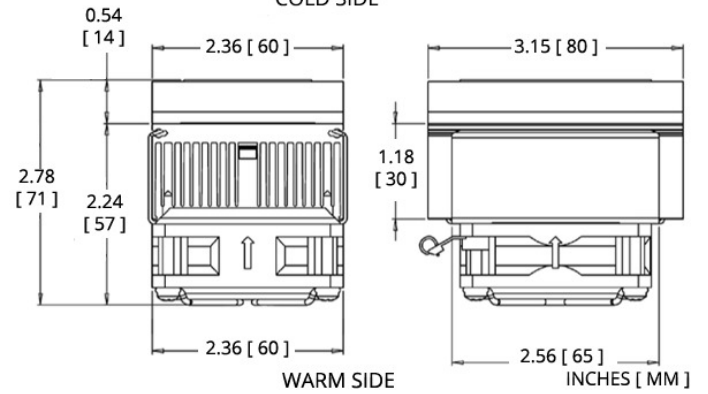


Features

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

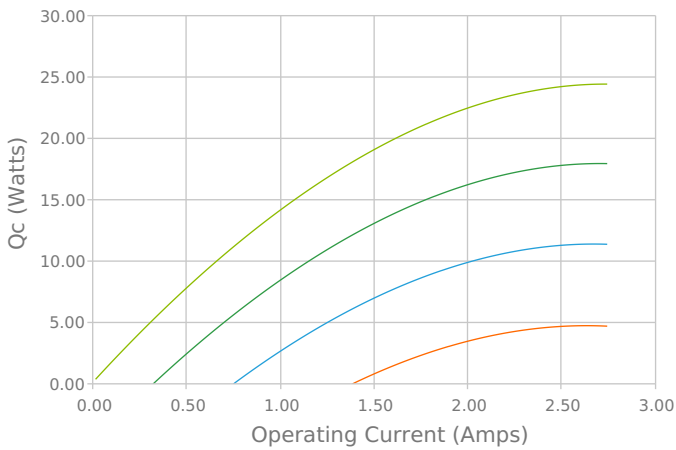
Applications

- 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

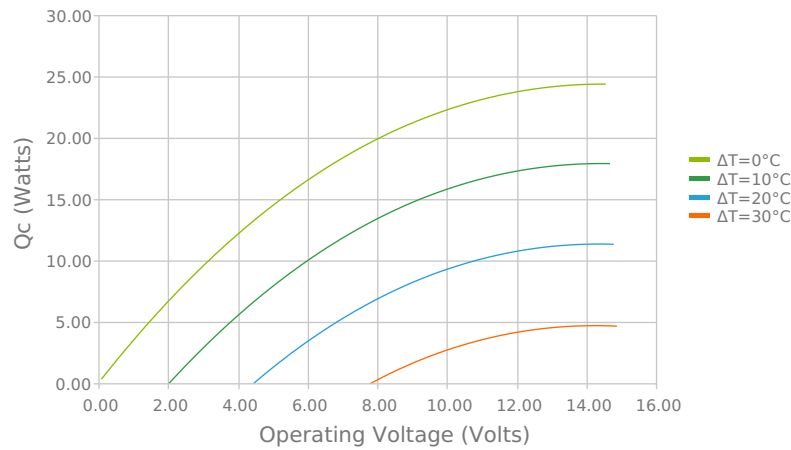


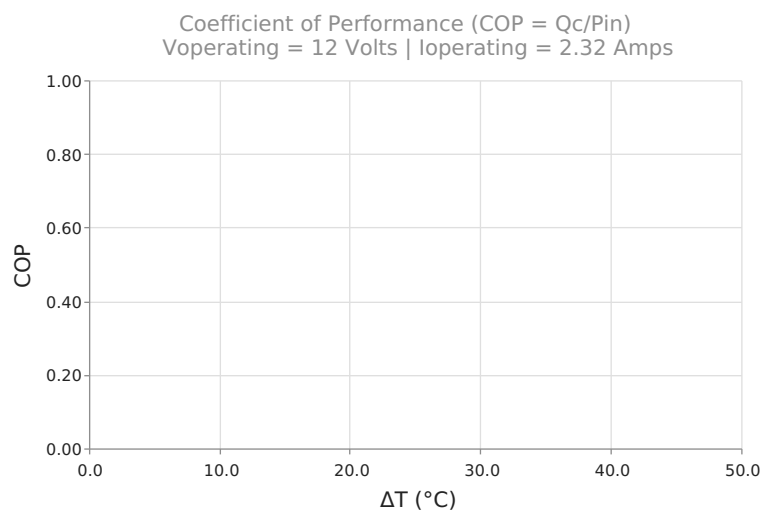
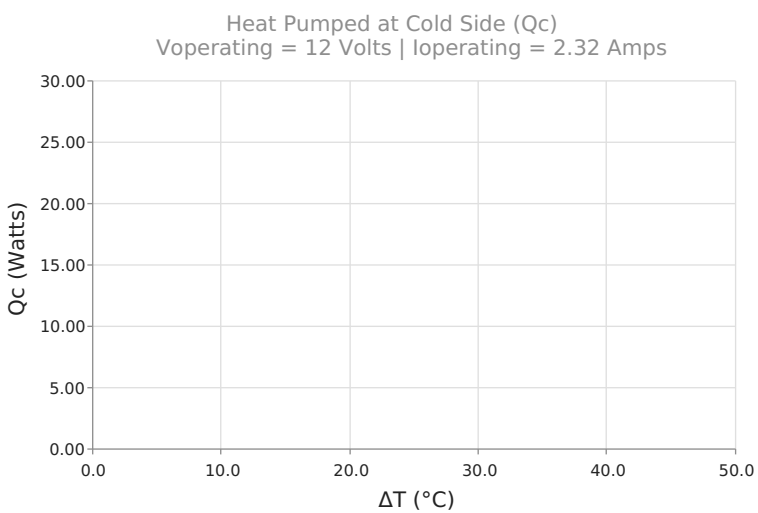
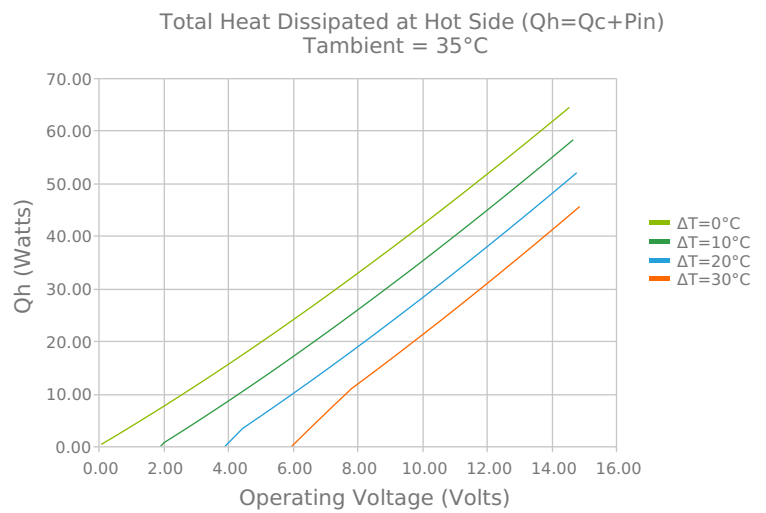
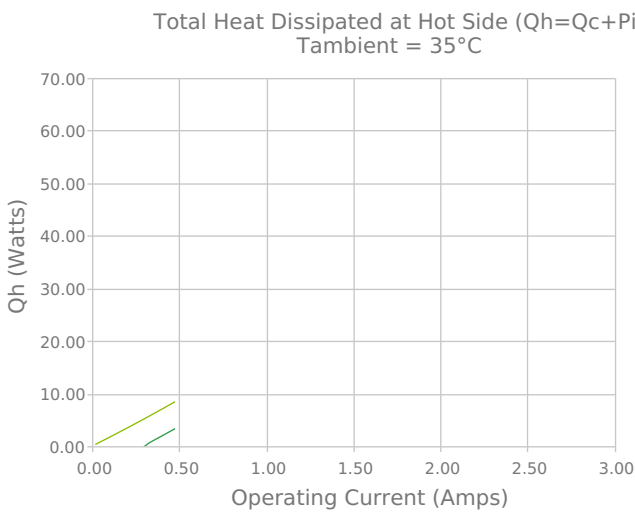
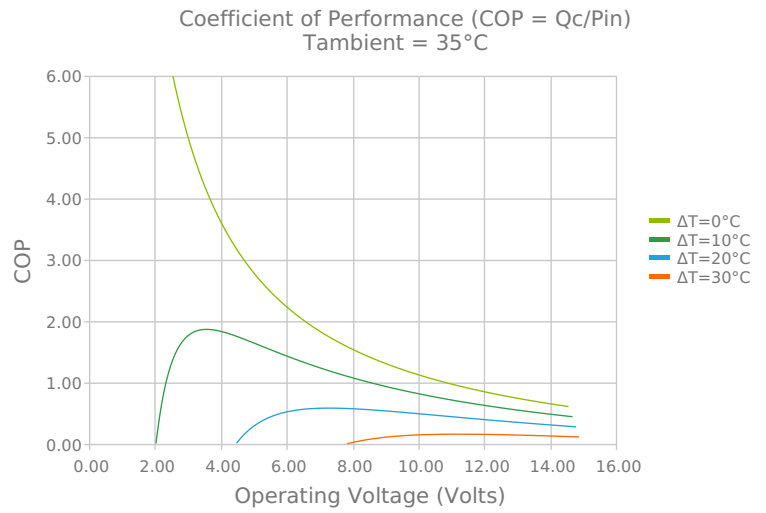
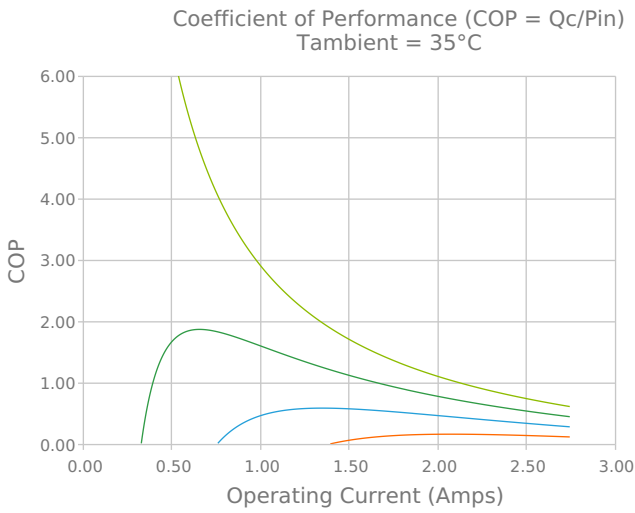
Electrical and Thermal Performance

Heat Pumped at Cold Side (Q_c)
Tambient = 35°C



Heat Pumped at Cold Side (Q_c)
Tambient = 35°C

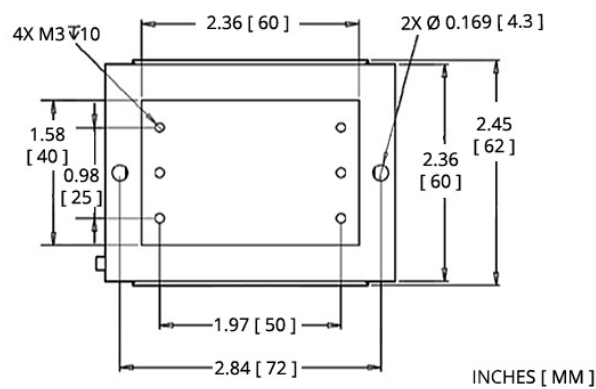




Specifications

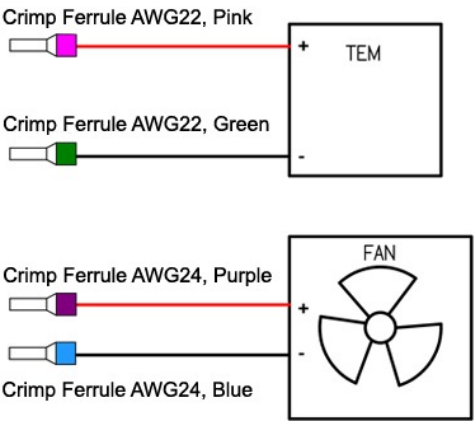
Heat Transfer Mechanism, Cold Side	Direct - Conduction
Heat Transfer Mechanism, Hot Side	Air - Forced Convection
Operating Temperature Range	-10°C to 48°C
Supply Voltage	12.0 VDC nominal / 15.0 VDC maximum
Current Draw	2.4 A running / 2.8 A startup
Power Supply	29.0 Watts
Performance Tolerance	10%
Hi-Pot Testing	No Testing
Fan MTBF	50000 hours
Weight	0.30 kg
Panel Mounting	Flush Mount

Mounting Hole Location



Wiring Schematic

WIRING DIAGRAM



Notes

- ¹For indoor use only
- ²Units 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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