

PowerCool Series Thermoelectric Cooler Assembly

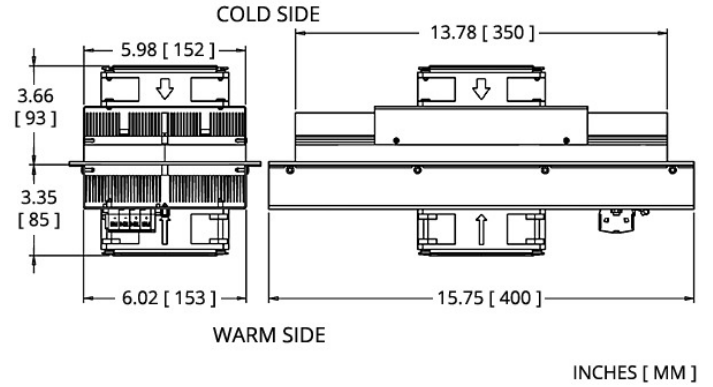
The AA-200-24-22 is an Air-to-Air Thermoelectric Cooler Assembly that uses impingement flow to transfer heat. It offers dependable, compact performance by cooling objects via convection. Heat is absorbed and dissipated through high density heat exchangers equipped with air ducted shrouds and brand name fans. The heat pumping action is created by thermoelectric modules, which are custom designed to achieve a high coefficient of performance (COP). It has a maximum Qc of 195 Watts when $\Delta T = 0$ and a maximum ΔT of 45 °C at Qc = 0.

Features

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

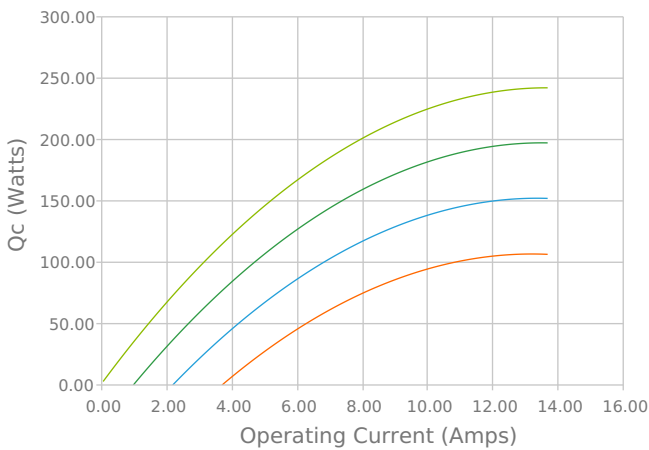
Applications

- 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

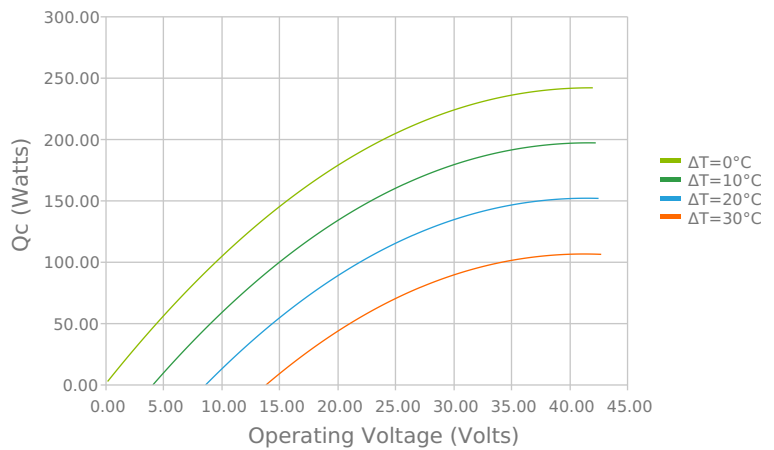


ELECTRICAL AND THERMAL PERFORMANCE

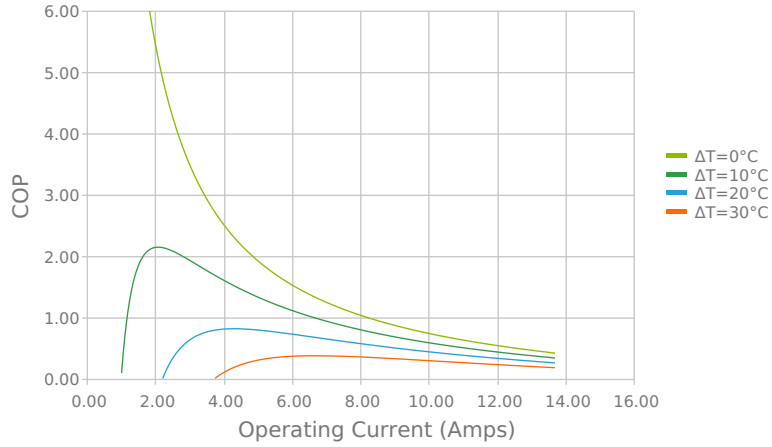
Heat Pumped at Cold Side (Qc)
 Tambient = 35°C | Tcontrol = 20°C



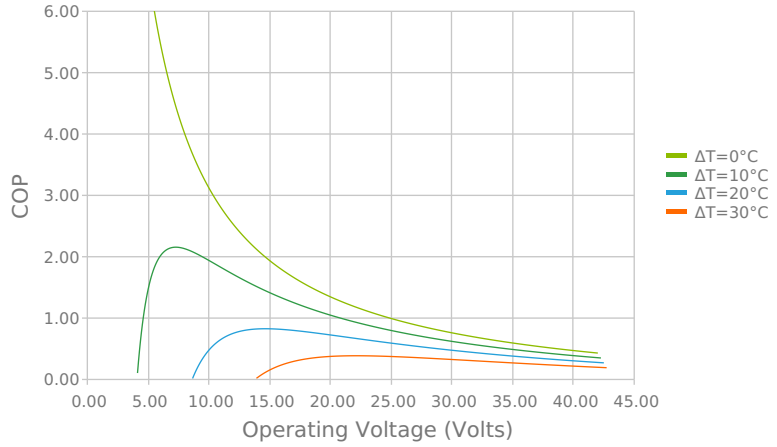
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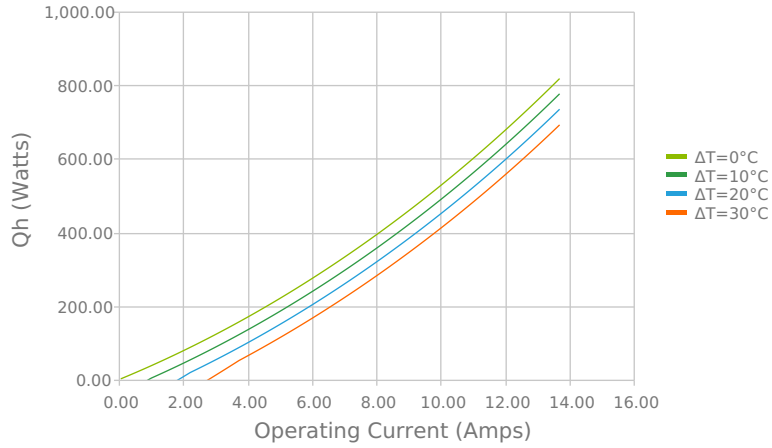
Coefficient of Performance (COP = Qc/Pin)
 Tambient = 35°C | Tcontrol = 20°C



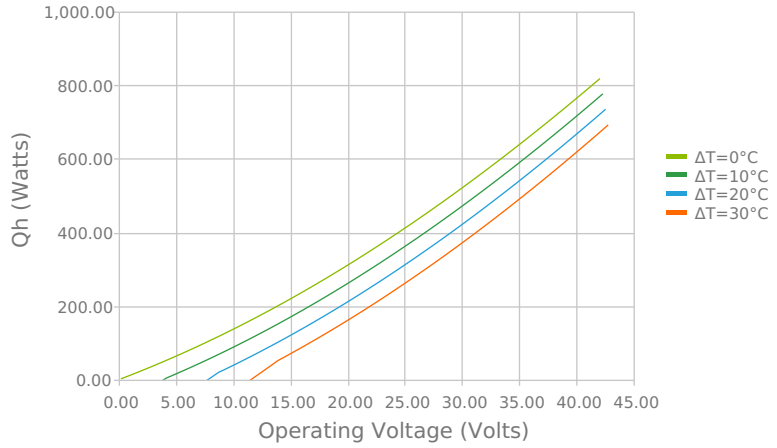
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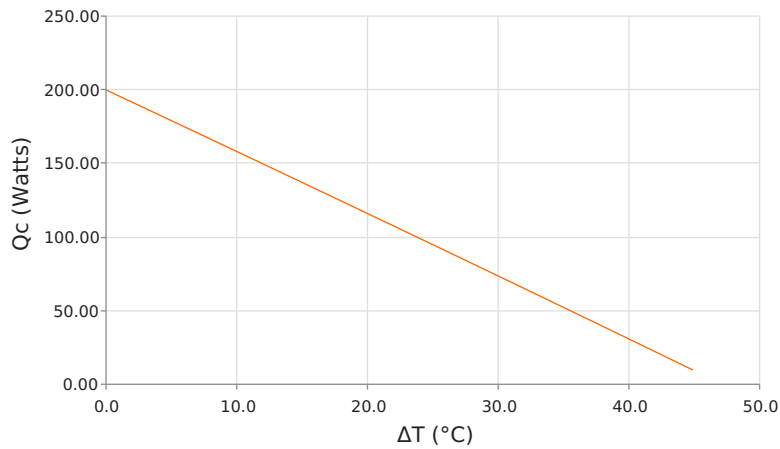
Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
 Tambient = 35°C | Tcontrol = 20°C



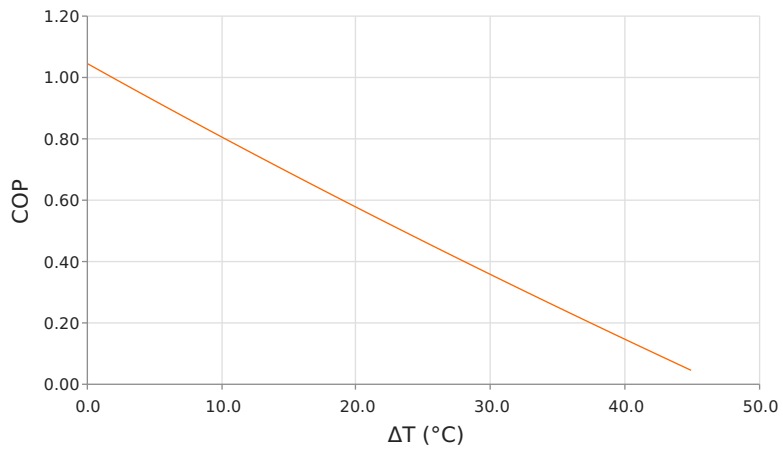
Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
 Tambient = 35°C | Tcontrol = 20°C



Heat Pumped at Cold Side (Qc)
 Voperating = 24.01 Volts | Ioperating = 7.96 Amps



Coefficient of Performance (COP = Qc/Pin)
 Voperating = 24.01 Volts | Ioperating = 7.96 Amps

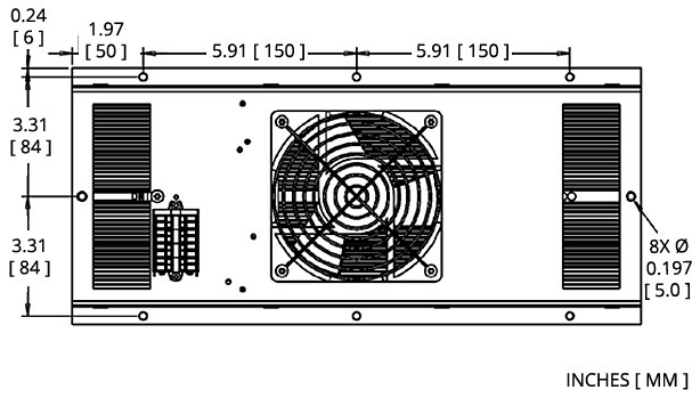


SPECIFICATIONS

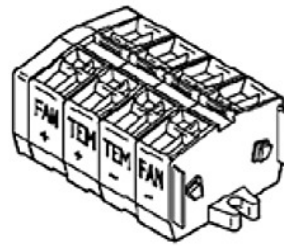
Heat Transfer Mechanism, Cold Side
Heat Transfer Mechanism, Hot Side
Operating Temperature Range
Supply Voltage
Current Draw
Power Supply
Performance Tolerance
Hi-Pot Testing
Fan MTBF
Over-Temp Thermostat (Hot and Cold Side Heat Sink)
Weight
Panel Mounting

Air - Forced Convection
Air - Forced Convection
-10°C to 48°C
24.0 VDC nominal / 30.0 VDC maximum
10.1 A running / 13.0 A startup
271.0 Watts
10%
750 VDC
40,000 hours
80°C ± 5°C (hot side heat sink)
6.00 kg
Through

MOUNTING HOLE LOCATION



WIRING SCHEMATIC



ELECTRICAL CONNECTIONS:

- " FAN+ ": + FANs
- " TEM+ ": + TEM
- " TEM- ": - TEM
- " FAN- ": - FANs

Warning: Do not reverse current or use with PWM-regulation on fan supply.

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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