# PowerCool Series AA-024-24-22
# MFG Part Number: AA-024-24-22-00-00

## PowerCool Series Thermoelectric Cooler Assembly

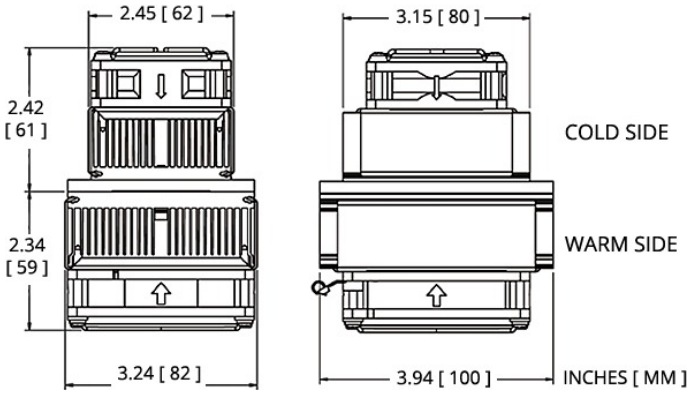
The AA-024-24-22 is an Air-to-Air Thermoelectric Cooler Assembly that uses impingement flow to transfer heat. It offers dependable, compact performance by cooling objects via convection. Heat is absorbed and dissipated through high density heat exchangers equipped with air ducted shrouds and brand name 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 24 Watts when ΔT = 0 and a maximum ΔT of 35 °C at Qc = 0.

## Features

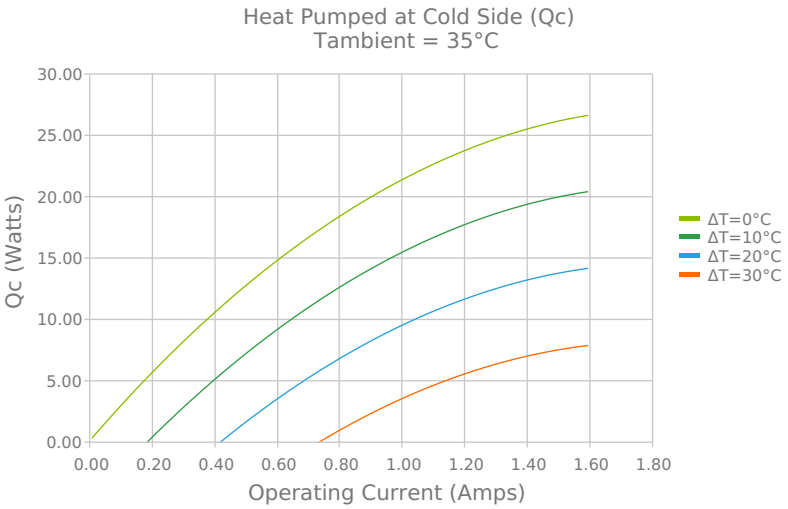
- Compact design
- Precise temperature control
- Reliable solid-state operation
- Low noise
- RoHS-compliant

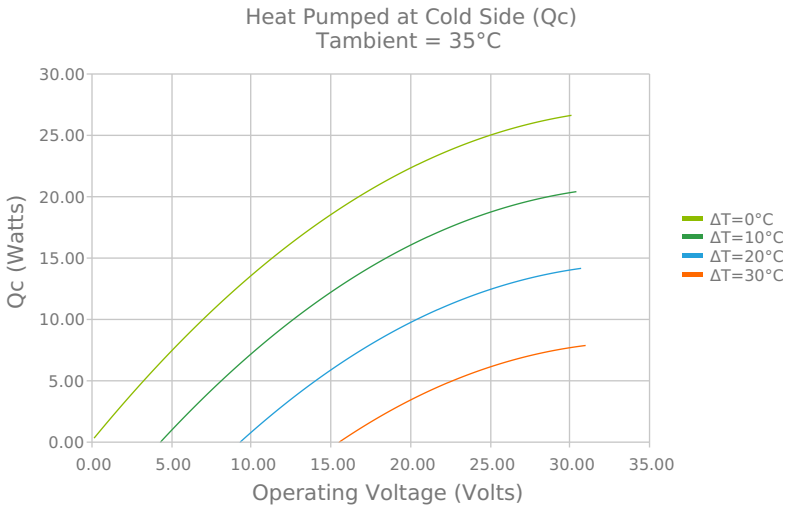
## Applications

- 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

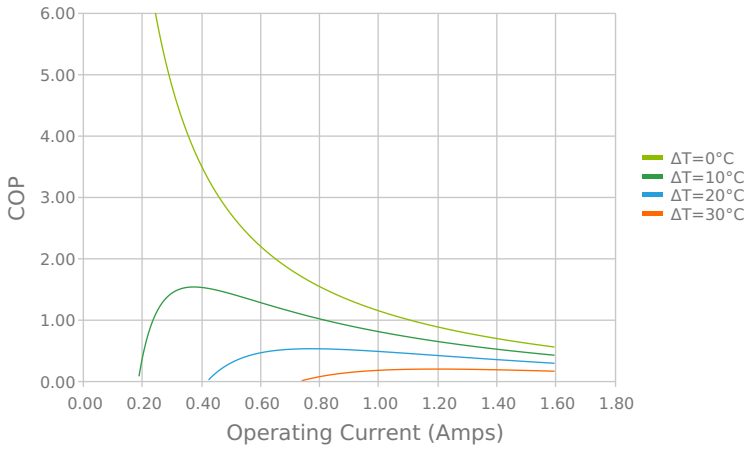



## Electrical and Thermal Performance



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

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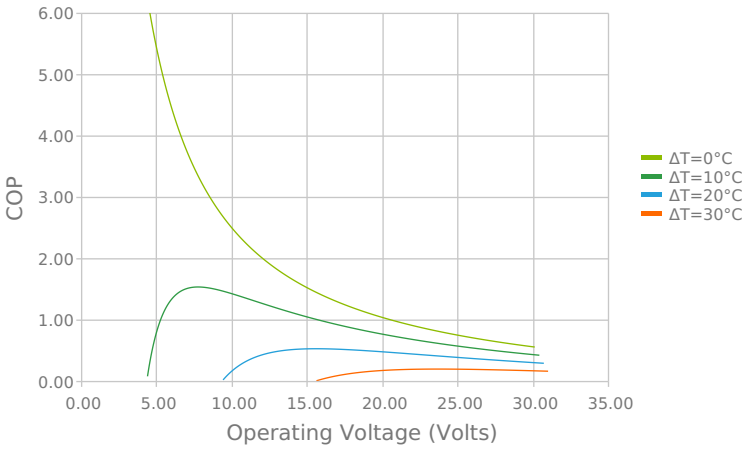
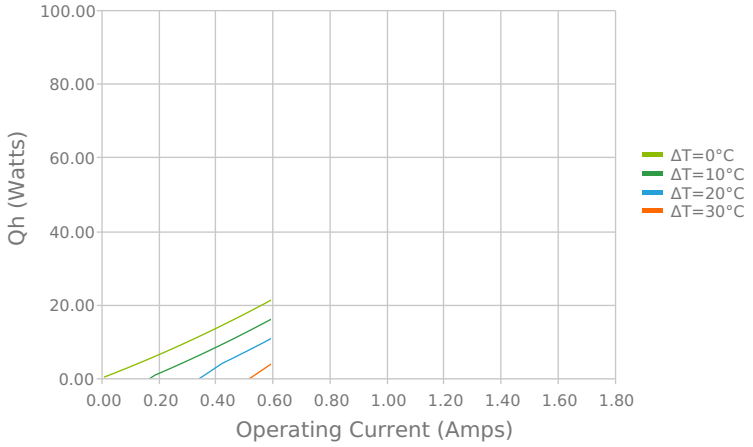



Total Heat Dissipated at Hot Side (Qh=Qc+Pin)
Tambient = 35°C

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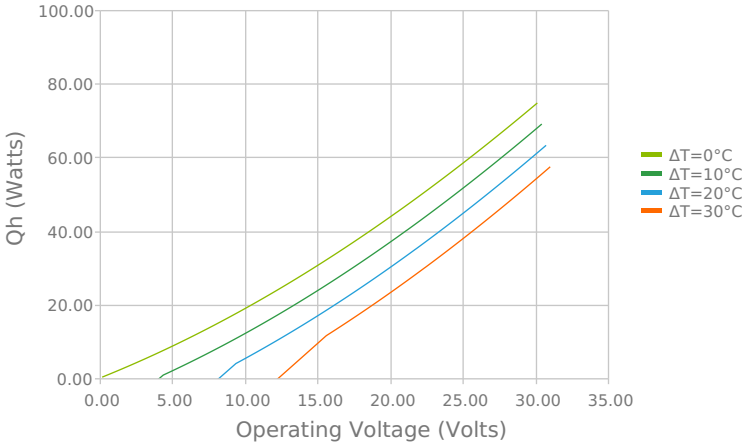
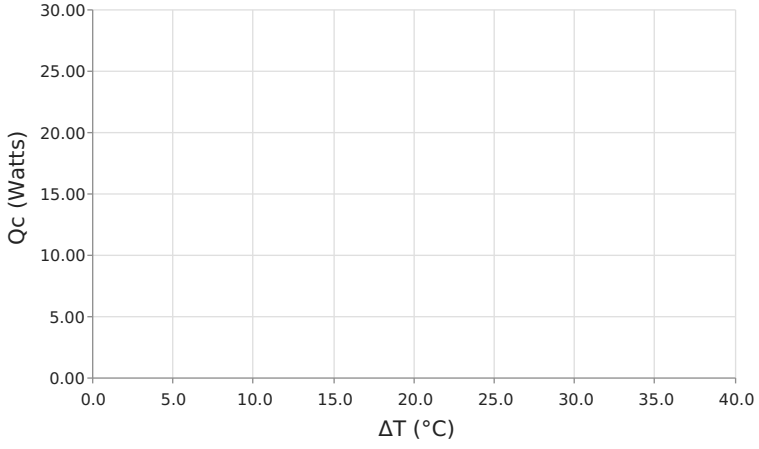



Heat Pumped at Cold Side (Qc)
Voperating = 24 Volts | Ioperating = 1.28 Amps

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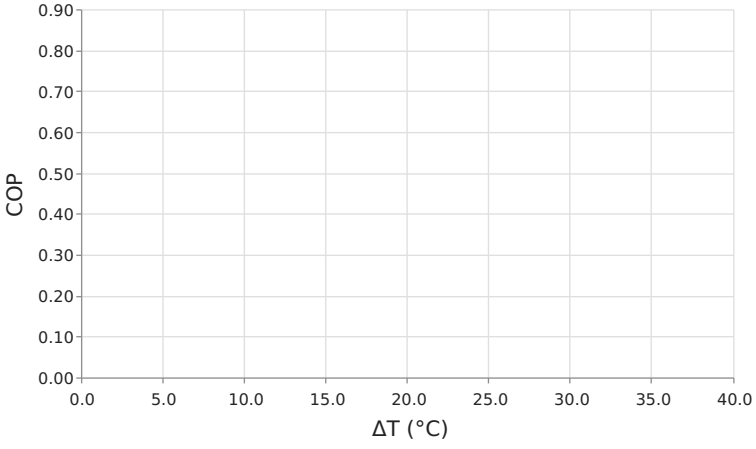
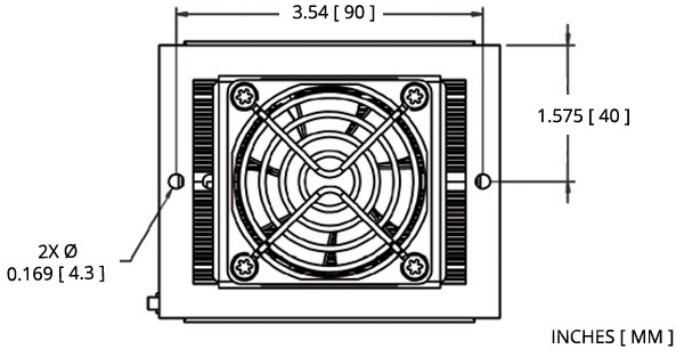


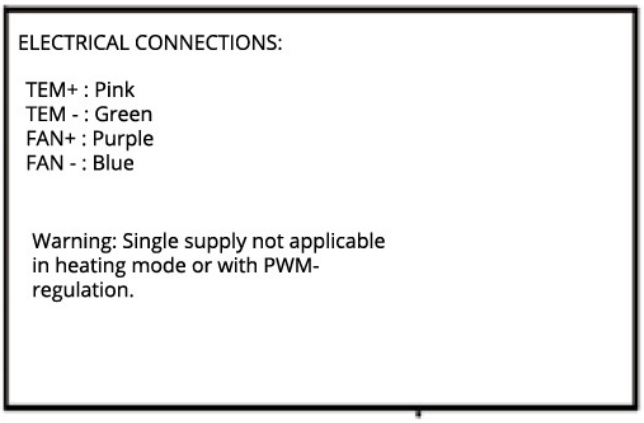
## Specifications

| | |
|---|---|
| **Heat Transfer Mechanism, Cold Side** | Air - Forced Convection |
| **Heat Transfer Mechanism, Hot Side** | Air - Forced Convection |
| **Operating Temperature Range** | -10°C to 54°C |
| **Supply Voltage** | 24.0 VDC nominal / 30.0 VDC maximum |
| **Current Draw** | 1.5 A running / 1.5 A startup |
| **Power Supply** | 36.0 Watts |
| **Performance Tolerance** | 10% |
| **Hi-Pot Testing** | No Testing |
| **Fan MTBF** | 50000 hours |
| **Weight** | 0.60 kg |
| **Panel Mounting** | Through |

# Mounting Hole Location




# Wiring Schematic




## Notes

[1]For indoor use only



Revision: 00 Date: 06-01-2022

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