

PowerCool Series Thermoelectric Cooler Assembly

The AA-060-12-22 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 Q_c of 58 Watts when $\Delta T = 0$ and a maximum ΔT of 41 °C at $Q_c = 0$.

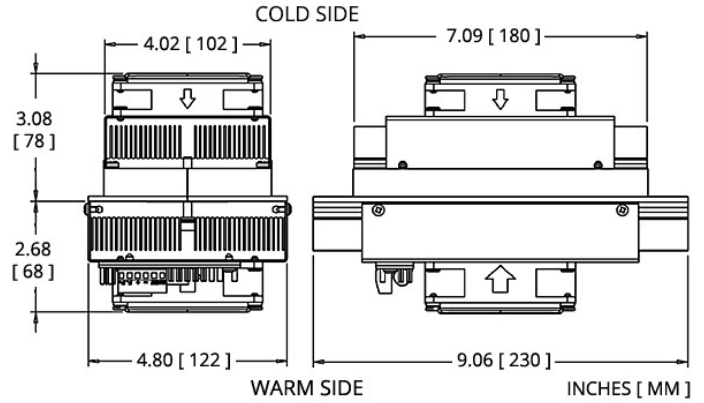


Features

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

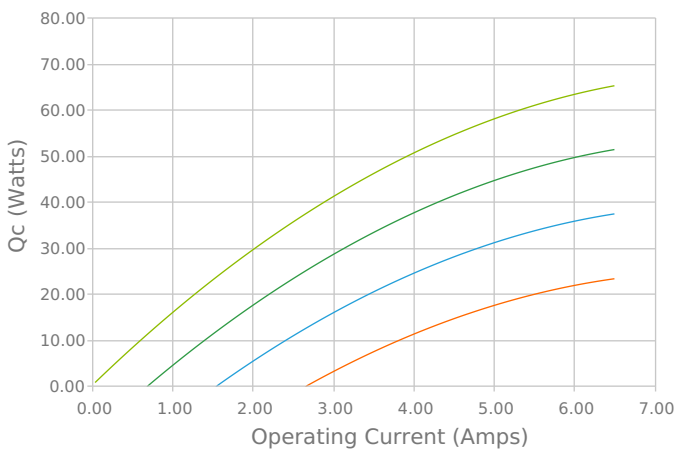
Applications

- 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

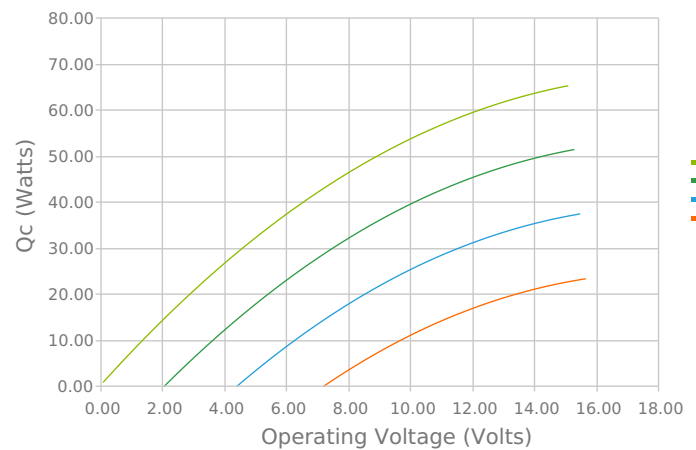


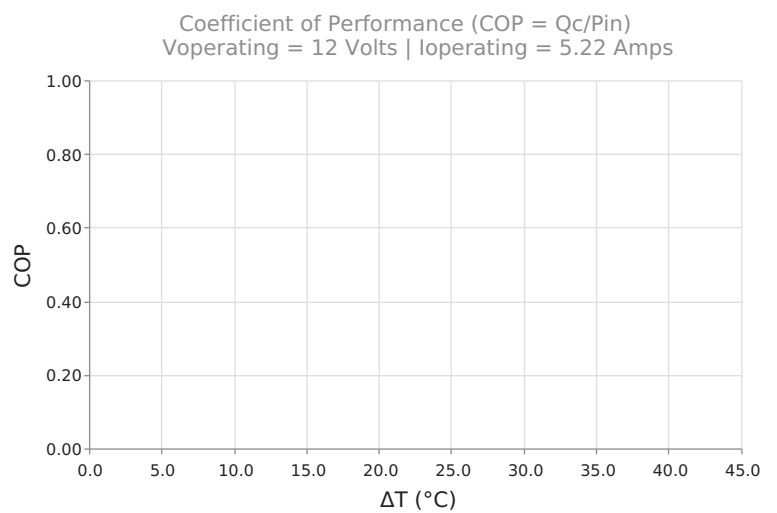
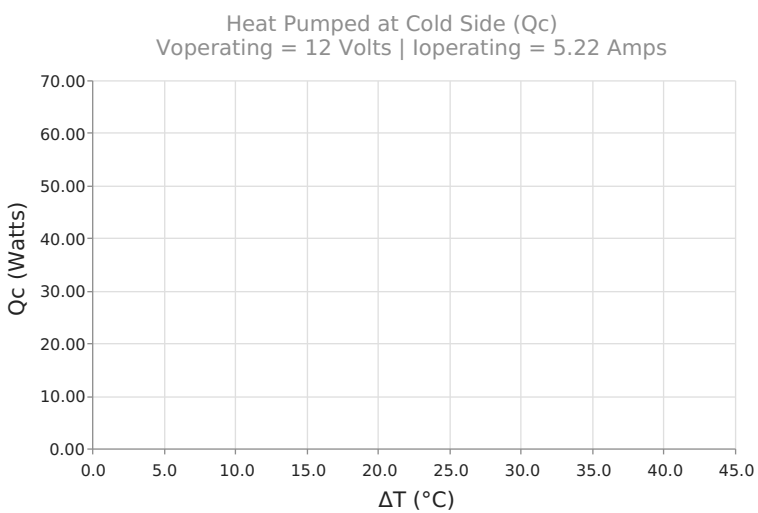
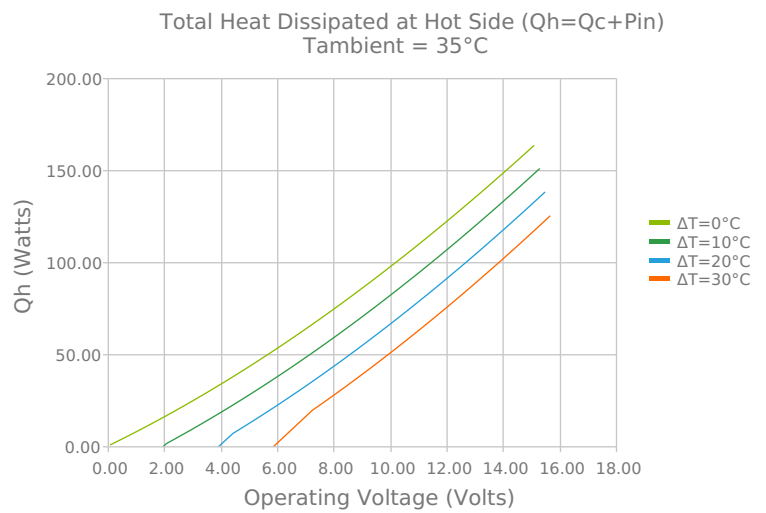
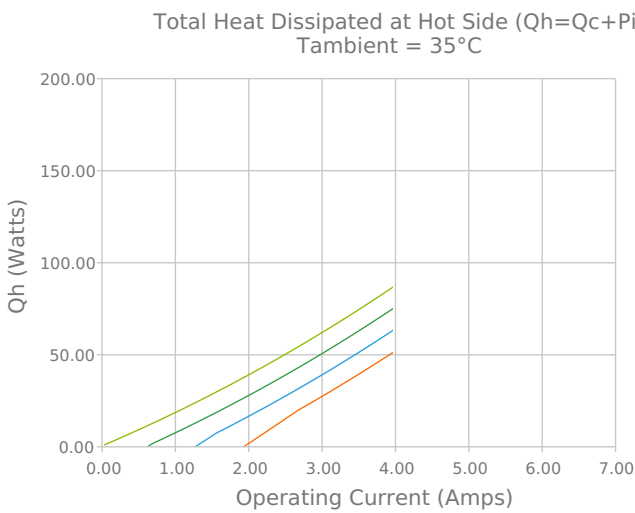
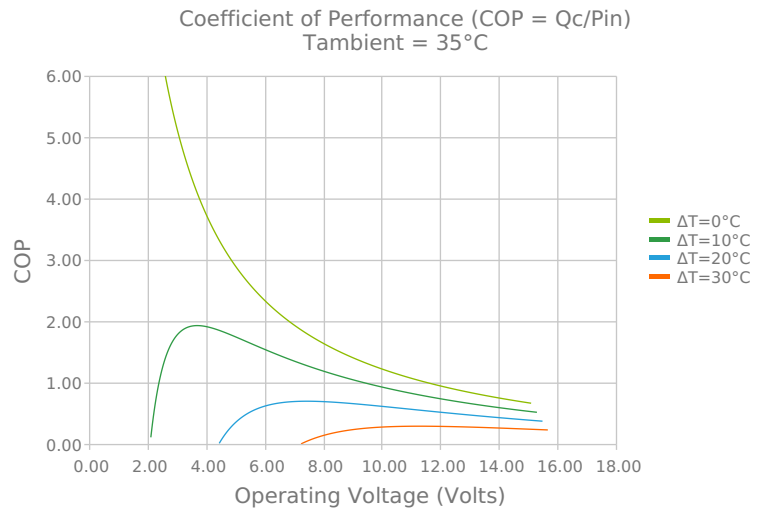
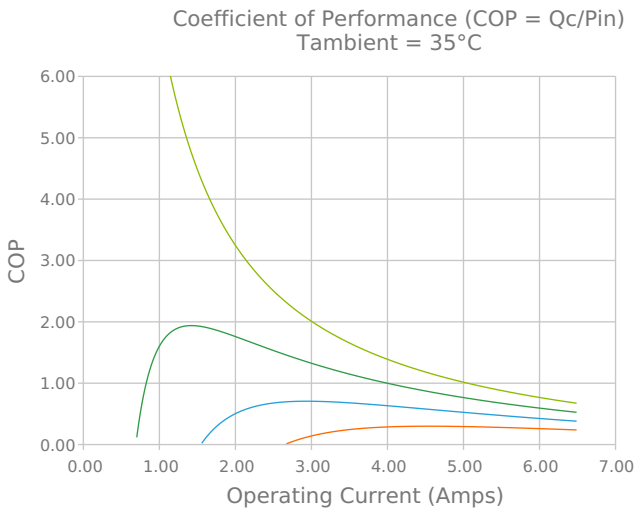
Electrical and Thermal Performance

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



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

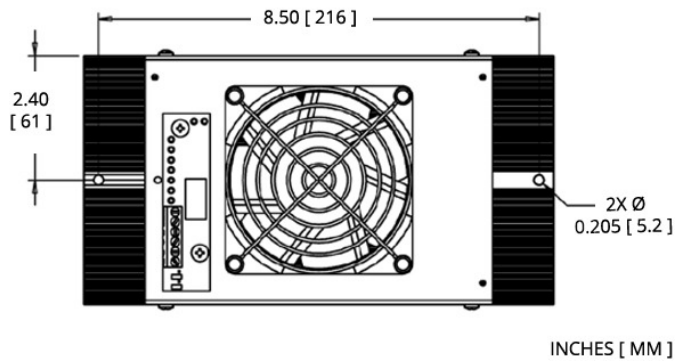




Specifications

Heat Transfer Mechanism, Cold Side	Air - Forced Convection
Heat Transfer Mechanism, Hot Side	Air - Forced Convection
Operating Temperature Range	-10°C to 51°C
Supply Voltage	12.0 VDC nominal / 15.0 VDC maximum
Current Draw	5.7 A running / 7.2 A startup
Power Supply	74.0 Watts
Performance Tolerance	10%
Hi-Pot Testing	750 VDC
Fan MTBF	40000 hours
Over-Temp Thermostat (Hot and Cold Side Heat Sink)	75°C ± 5°C (hot side heat sink)
Weight	2.50 kg
Panel Mounting	Through

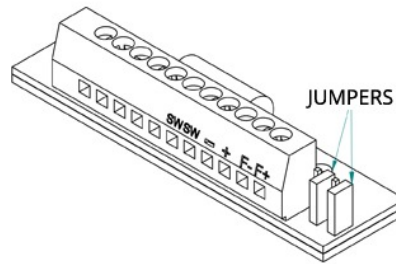
Mounting Hole Location



Wiring Schematic

ELECTRICAL CONNECTIONS:

- " + " : + TEM
- " - " : - TEM
- " F+ " : + FAN(S)
- " F- " : - FAN(S)



To use single supply:
Lift the jumpers and rotate 90° to
short-out the pin pairs.
Connect the unit to " + " & " - ".

Warning: Single supply not applicable
in heating mode or with PWM-
regulation.

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.

Any information furnished by Tark Thermal Solutions and its agents, whether in specifications, data sheets, product catalogues or otherwise, is believed to be (but is not warranted as being) accurate and reliable, is provided for information only and does not form part of any contract with Tark Thermal Solutions. All specifications are subject to change without notice. Tark Thermal Solutions assumes no responsibility and disclaims all liability for losses or damages resulting from use of or reliance on this information. All Tark products are sold subject to the Tark Thermal Solutions Terms and Conditions of sale (including Tark's limited warranty) in effect from time to time, a copy of which will be furnished upon request.

© Copyright 2025 Tark Thermal Solutions, Inc. All rights reserved.

Revision: 00 Date: 06-01-2022

Print Date: 05-12-2025