

PowerCool Series Thermoelectric Cooler Assembly

The AA-040-12-22 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 Qc of 41 Watts when $\Delta T=0$ and a maximum ΔT of 43 °C at Qc = 0.

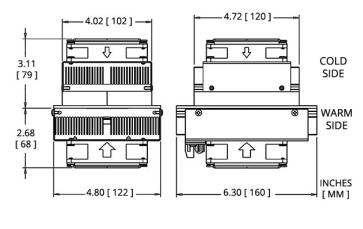


Features

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

Applications

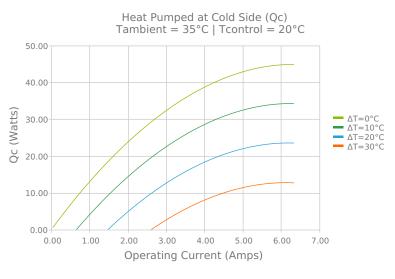
- Medical Diagnostic and Analytical Instrumentation
- Thermoelectric Coolers and Assemblies for Medical Applications
- Liquid Cooling Options for PET and SPECT Scanners
- Cooling for Centrifuges
- High-Performance Liquid Chromatography (HPLC)
- Heating and Cooling for Liquid Chromatography Systems

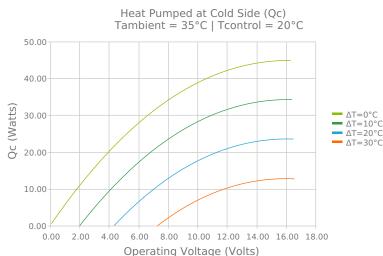




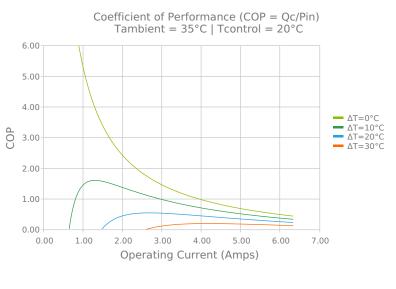


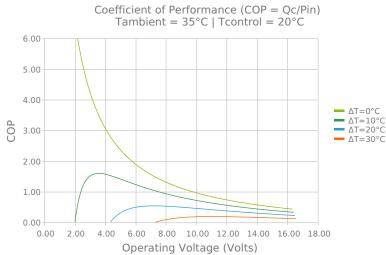
ELECTRICAL AND THERMAL PERFORMANCE

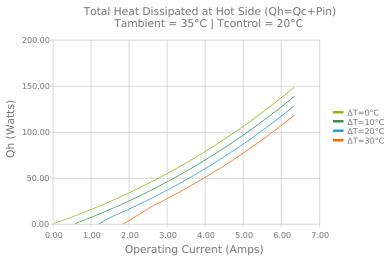


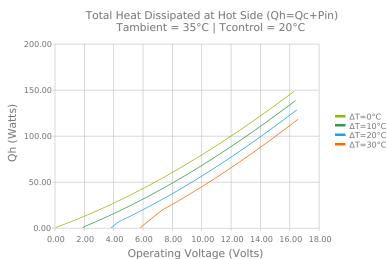


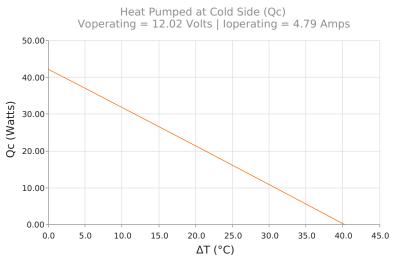


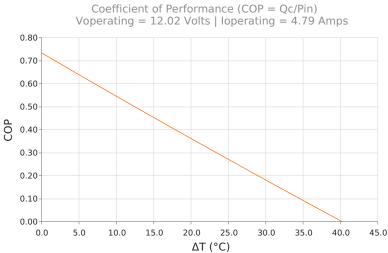














SPECIFICATIONS

Operating Temperature Range

Supply Voltage

Current Draw

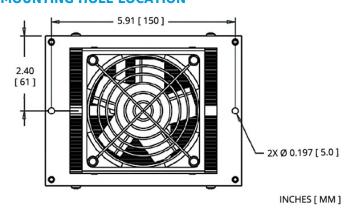
Power Supply

Performance Tolerance

Fan MTBF

Weight

MOUNTING HOLE LOCATION



-10°C to 48°C
12.0 VDC nominal / 15.0 VDC maximum
6.3 A running / 7.0 A startup
76.0 Watts
10%
40,000 hours
1.80 kg

IUMPERS

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.

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