

PowerCool Series Thermoelectric Cooler Assembly

The DA-280-24-02 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 Qc of 283 Watts when $\Delta T=0$ and a maximum ΔT of 45 °C at Qc = 0.

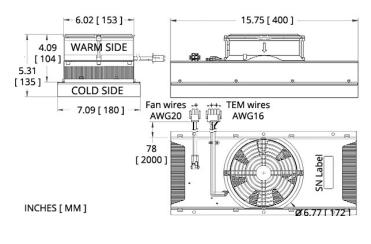


Features

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

Applications

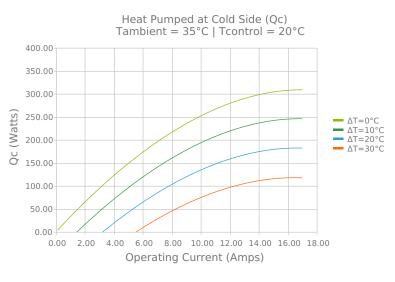
- Medical Diagnostic and Analytical Instrumentation
- Thermoelectric Coolers and Assemblies for Medical Applications
- Liquid Cooling Options for PET and SPECT Scanners
- Cooling for Centrifuges
- High-Performance Liquid Chromatography (HPLC)
- Heating and Cooling for Liquid Chromatography Systems

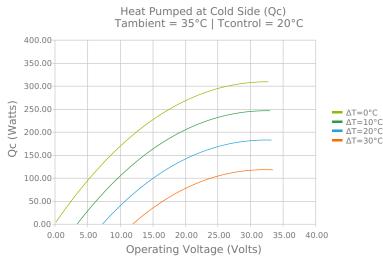




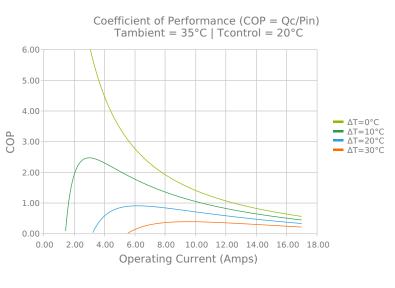


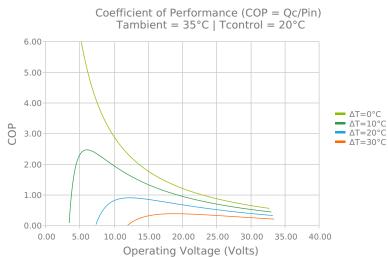
ELECTRICAL AND THERMAL PERFORMANCE

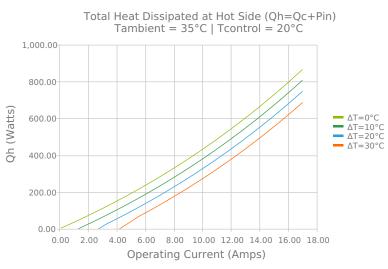


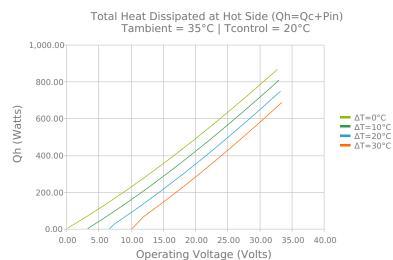


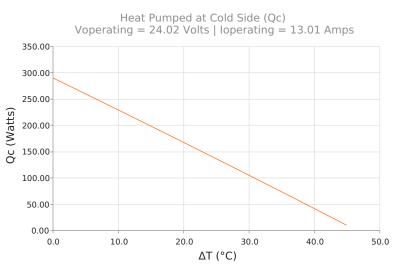


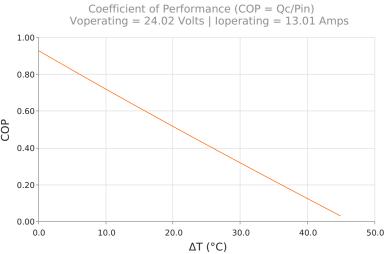














SPECIFICATIONS

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)

Sound Level (1 m distance)

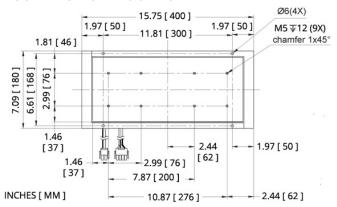
Weight

Panel Mounting

Direct - Conduction
Air - Forced Convection
-20°C to 55°C
24.0 VDC nominal / 28.0 VDC maximum
12.3 A running / 14.8 A startup
295.0 Watts
10%
No Testing
50,000 hours
75°C ± 5°C
60 dBA
6.12 kg
Flush Mount

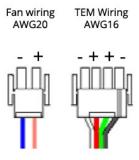


MOUNTING HOLE LOCATION



WIRING SCHEMATIC

ELECTRICAL CONNECTIONS:



Warning: Do not reverse current or use 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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Revision: 00 Date: 06-01-2022

Print Date: 06-15-2022