

DA PowerCool Series, DA-044-12-02

Thermoelectric Assembly



POWERCOOL SERIES DIRECT-TO-AIR THERMOELECTRIC ASSEMBLY

The DA PowerCool Series is a Direct-to-Air thermoelectric assembly (TEA) 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 through a high density heat exchanger equipped with an air ducted shroud and brand name fan. The thermoelectric modules are custom designed to achieve a high coefficient of performance (COP) to minimize power consumption. This product series is available in a wide range of cooling capacities and voltages. Custom configurations and moisture protection options are available, however, MOQ applies.

FEATURES

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

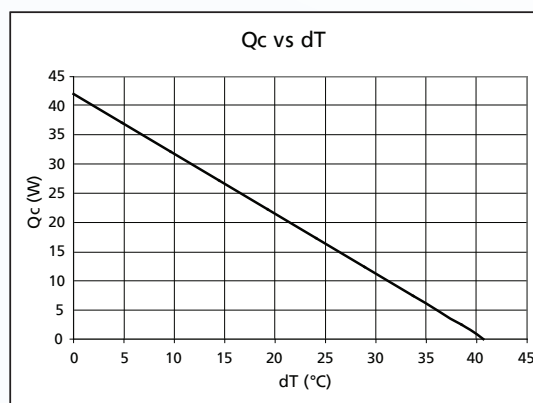
APPLICATIONS

- Analytical instrumentation
- Medical diagnostics
- Photonics laser systems
- Industrial instrumentation
- Food and beverage cooling

Specifications

Cooling Power Q_{cmax} (W)	42
Running Current (A)	3.8
Startup Current (A)	4.7
Nominal Voltage (V)	12
Max Voltage (V)	15
Power Input (W)	46
Operating Temperature (°C)	-10 to 46
Weight (kg)	0.6
MTBF (fans – hrs)	50,000
Performance Tolerance	±10%

PERFORMANCE CURVE



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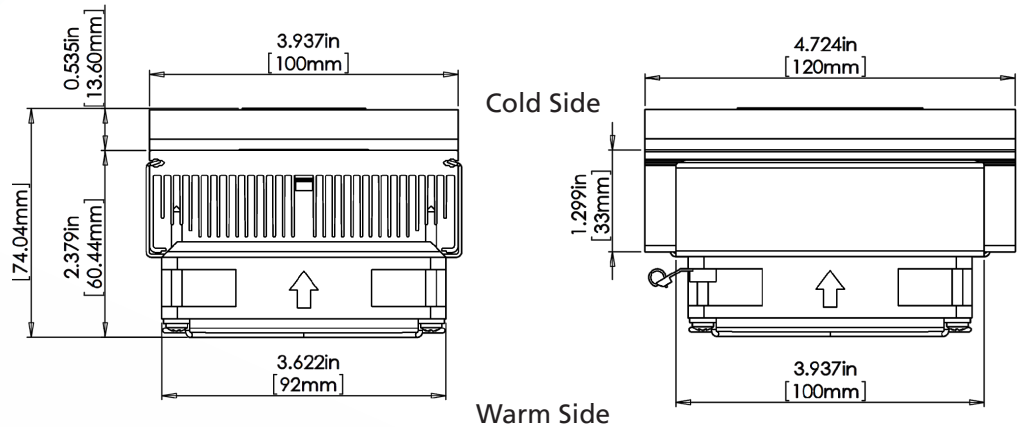
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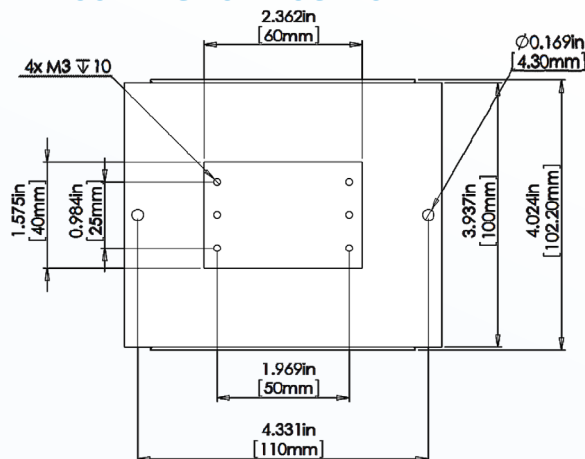
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ISOMETRIC DRAWINGS



MOUNTING HOLE LOCATION



WIRING SCHEMATIC

Electrical connections	
TEM+ :	Orange
TEM- :	White
Fan+ :	Purple
Fan- :	Blue

NOTES

- For indoor use only.
- Thermally conductive grease enclosed.

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