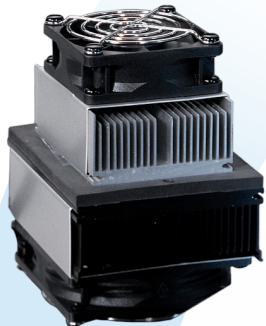


# AA PowerCool Series, AA-040-12-22 Thermoelectric Assembly



## POWERCOOL SERIES AIR-TO-AIR THERMOELECTRIC ASSEMBLY

The AA PowerCool Series is an Air-to-Air thermoelectric assembly (TEA) that uses impingement flow to transfer heat. It offers dependable, compact performance by cooling objects via convection. Heat is absorbed and dissipated thru high density heat exchangers equipped with air ducted shrouds and brand name fans. 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

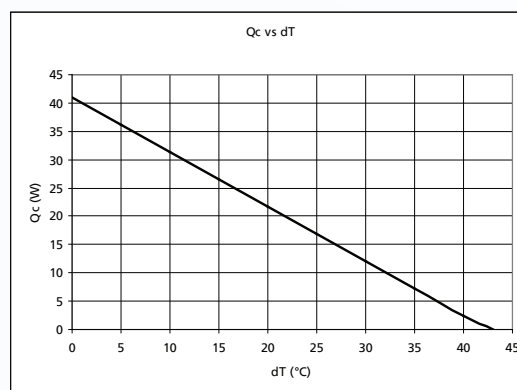
### APPLICATIONS

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

### Specifications

Cooling Power Q <sub>cmax</sub> (W)	41
Running Current (A)	6.3
Startup Current (A)	7.0
Nominal Voltage (V)	12
Max Voltage (V)	15
Power Input (W)	76
Operating Temperature (°C)	-10 to 48
Weight (kg)	1.8
MTBF (fans – hrs)	40,000
Performance Tolerance	±10%

### PERFORMANCE CURVE



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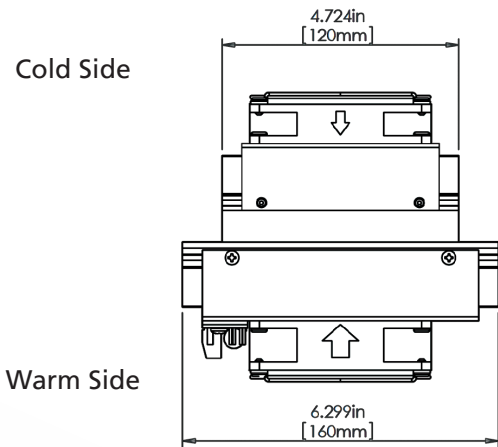
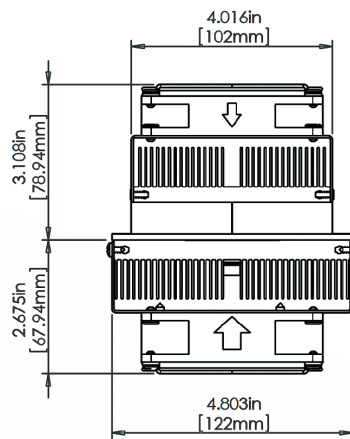
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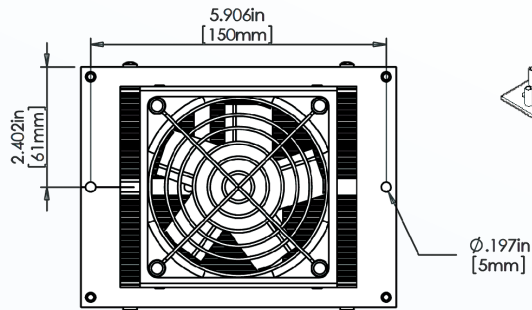
[www.lairdtech.com/thermal](http://www.lairdtech.com/thermal)

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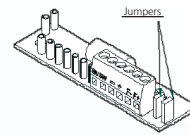
## ISOMETRIC DRAWINGS



## 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-cut the pin pairs.  
Connect the unit to "+" & "-".

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

## NOTES

For indoor use only.

THR-DS-AA-040-12-22 0210

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