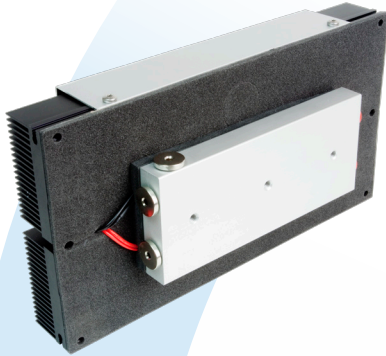


# LA PowerCool Series, LA-045-12-02

## Thermoelectric Assembly



### POWERCOOL SERIES LIQUID-TO-AIR THERMOELECTRIC ASSEMBLY

The LA PowerCool Series is a Liquid-to-Air thermoelectric assembly (TEA) that offers dependable, compact performance by cooling objects via liquid to transfer heat. Heat is absorbed through a liquid heat exchanger and dissipated thru a high density heat sink 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 are available, however, MOQ applies.

#### FEATURES

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

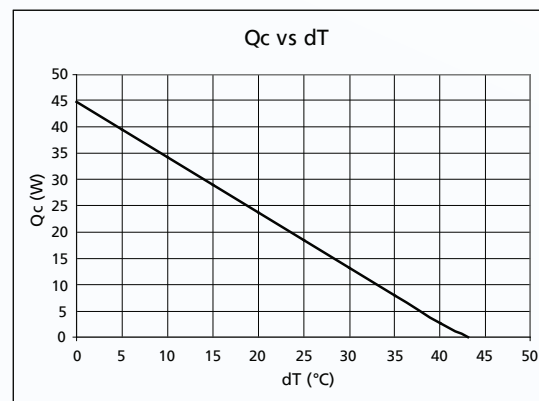
#### APPLICATIONS

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

#### Specifications

Cooling Power $Q_{cmax}$ (W)	43
Running Current (A)	4.1
Startup Current (A)	5.1
Nominal Voltage (V)	12
Max Voltage (V)	15
Power Input (W)	49
Operating Temperature (°C)	-10 to 52
Weight (kg)	1.2
MTBF (fans – hrs)	50,000
Performance Tolerance	±10%

#### PERFORMANCE CURVE



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Americas: +1.888.246.9050

Europe: +46.31.704.67.57

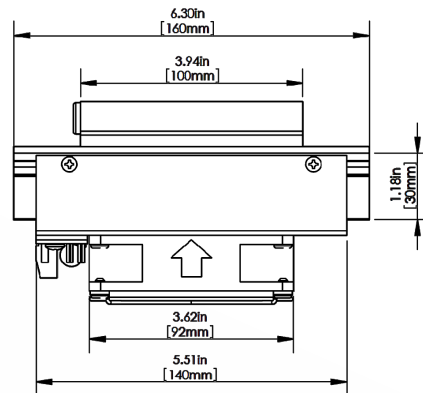
Asia: +86.755.2714.1166

CLV-customerservice@lairdtech.com

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

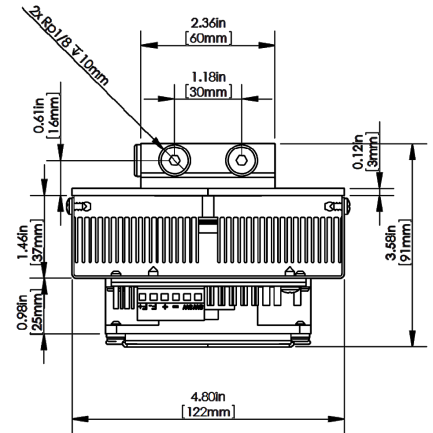
# LA PowerCool Series, LA-045-12-02 Thermoelectric Assembly

## ISOMETRIC DRAWINGS

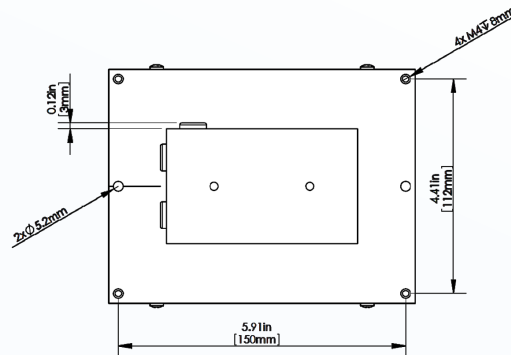


Cold Side

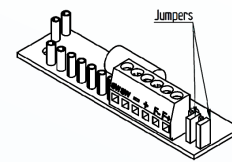
Warm Side



## 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.

Overheating Thermostat:  $75^{\circ}\text{C} \pm 5^{\circ}\text{C}$  on hot side heat sink surface.

THR-DS-LA-045-12-02 0710

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