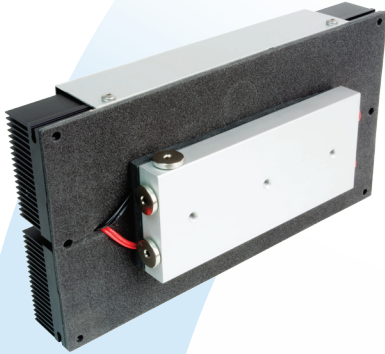


# LA PowerCool Series, LA-045-24-02 Thermoelectric Assembly



## 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

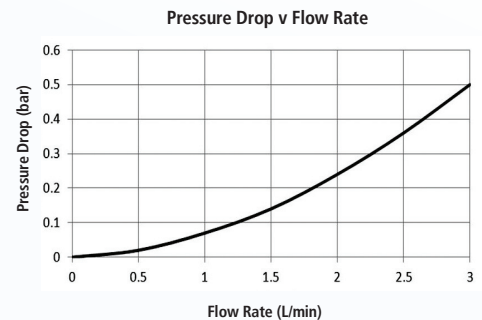
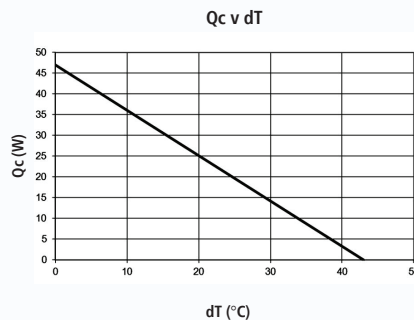
### APPLICATIONS

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

### Specifications

Cooling Power $Q_{cmax}$ (W)	47
Running Current (A)	2.8
Startup Current (A)	3.2
Nominal Voltage (V)	24
Max Voltage (V)	30
Power Input (W)	67
Operating Temperature (°C)	-10 to 48
Weight (kg)	1.3
MTBF (fans – hrs)	50,000
Performance Tolerance	±10%

### PERFORMANCE CURVE



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Europe: +46.31.704.67.57

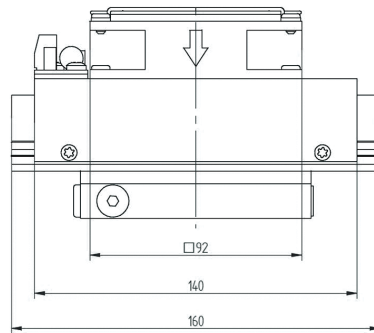
Asia: +86.755.2714.1166

CLV-customerservice@lairdtech.com

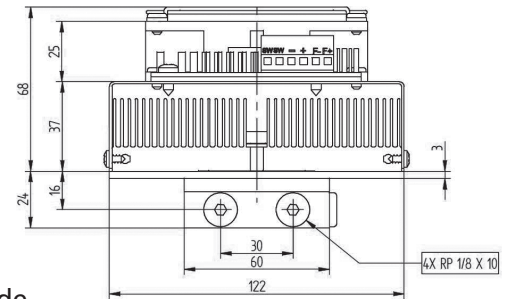
[www.lairdtech.com/thermal](http://www.lairdtech.com/thermal)

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## ISOMETRIC DRAWINGS

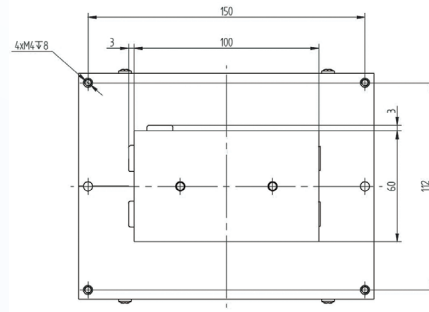


Cold Side

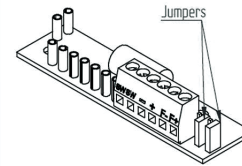


Warm Side

## 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°C ± 5°C on hot side heat sink surface.
- 2x L-PNIPP-6-1/8 Turbulators included.
- All dimensions in mm.

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