



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 thru 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.

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### FEATURES

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

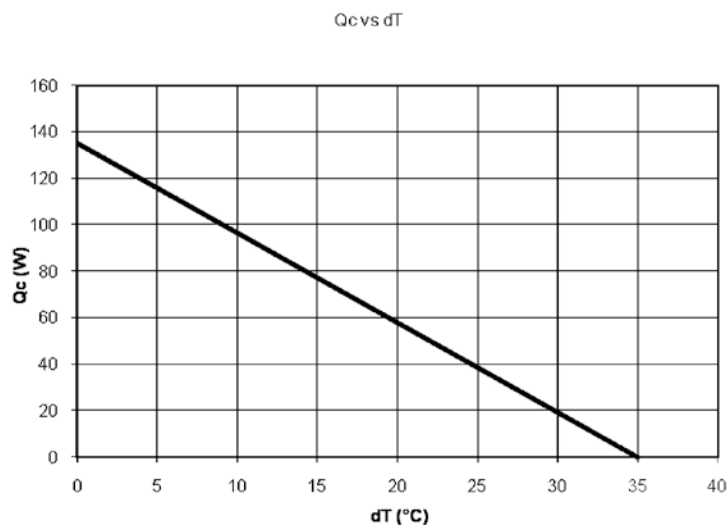
### APPLICATIONS

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

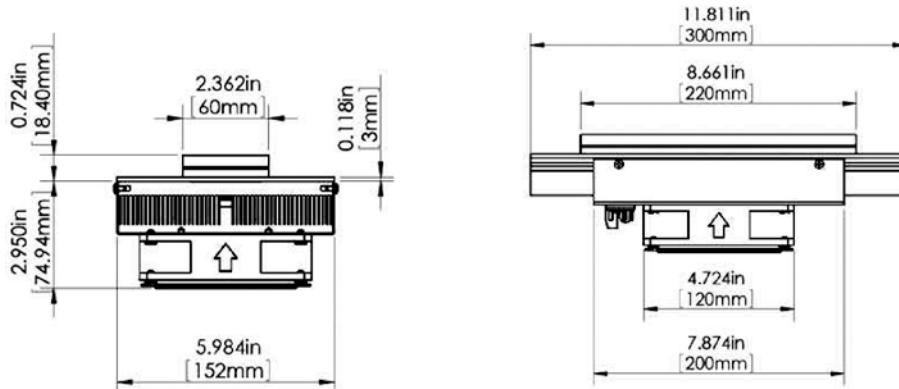
### SPECIFICATIONS

Cooling Power $Q_{cmax}$ (W)	135
Running Current (A)	6.9
Startup Current (A)	7.8
Nominal Voltage (V)	24
Max Voltage (V)	30
Power Input (W)	166
Operating Temperature (°C)	-10 to 42
Weight (kg)	2.9
MTBF (fans - hrs)	50,000
Performance Tolerance	±10%

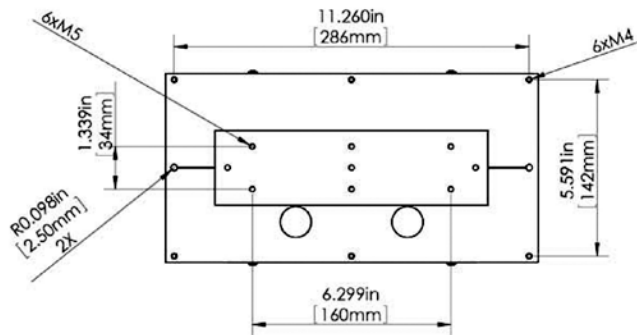
### PERFORMANCE CURVE



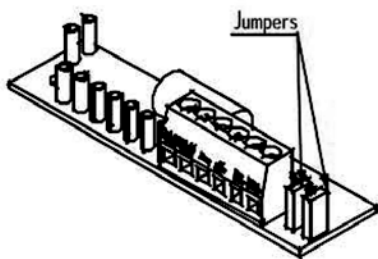
ISOMETRIC DRAWINGS



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
- Thermally conductive grease enclosed
- Overheating Thermostat: 75°C ± 5°C on hot side heat sink surface

LAIRD-ETS-DA-135-24-02-DATA-SHEET-100616

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