

# DA Cascade Series DAC-060-24-02

## Thermoelectric Assembly



The DA Cascade Series is an Air to Air thermoelectric assembly (TEA) that 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 multistage cascades to achieve a high temperature differential, which allows this series to reach colder temperatures than standard DA product offerings. 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

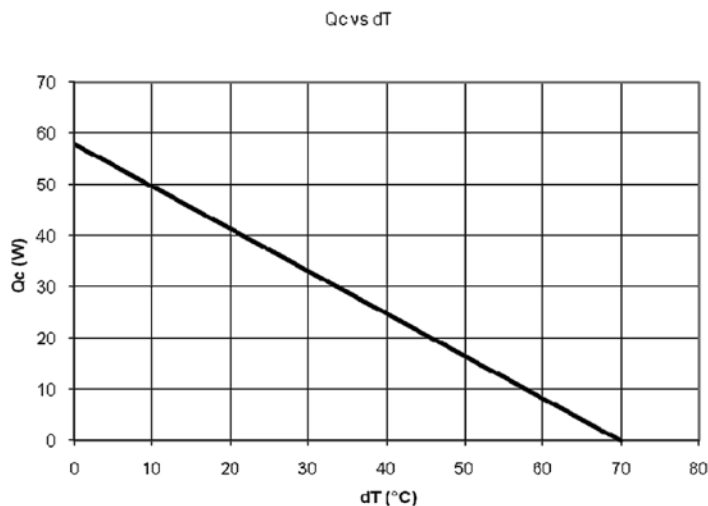
### APPLICATIONS

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

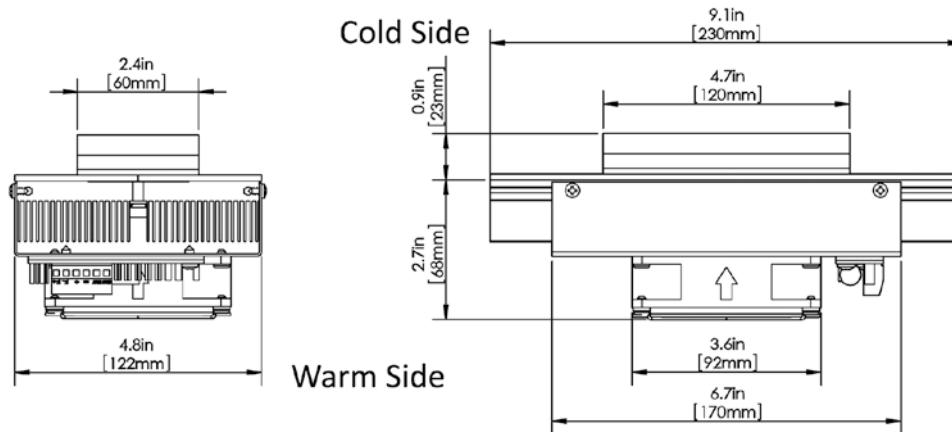
### SPECIFICATIONS

|                              |           |
|------------------------------|-----------|
| Cooling Power $Q_{cmax}$ (W) | 58        |
| Running Current (A)          | 4.6       |
| Startup Current (A)          | 5.5       |
| Nominal Voltage (V)          | 24        |
| Max Voltage (V)              | 28        |
| Power Input (W)              | 110       |
| Operating Temperature (°C)   | -10 to 48 |
| Weight (kg)                  | 1.8       |
| MTBF (fans - hrs)            | 50,000    |
| Performance Tolerance        | ±10%      |

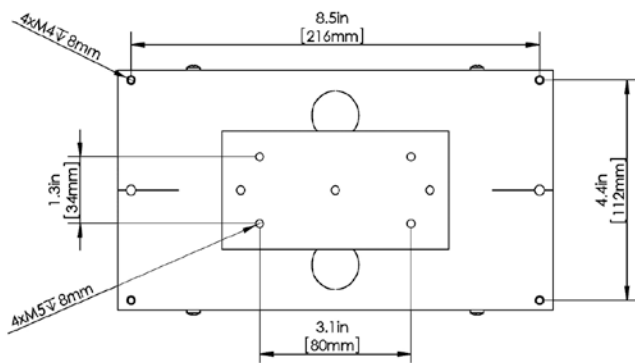
### PERFORMANCE CURVE



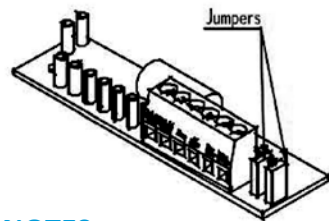
### ISOMETRIC DRAWINGS



### 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 mde 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

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