

## DBK A60 Thermoelectric Cooler

### DBK SERIES AIR-TO-AIR THERMOELECTRIC COOLERS

The DBK A60 is a 60W air to air thermoelectric cooler, employing forced air convection provided by IP54 axial fans.

It forms part of the DBK standard range which provides assemblies from 60W to 200W.

Custom designs are available by request including Direct and Liquid cooling applications.

### FEATURES

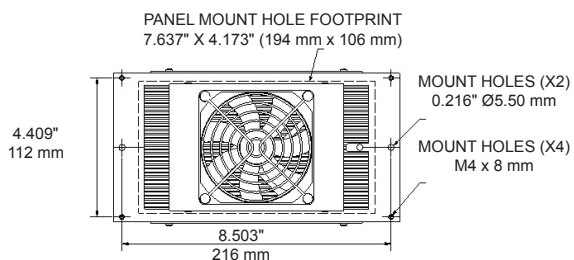
- Compact Design
- DC Operation
- Reliable solid-state construction
- ETL recognized and RoHS compliant

Electronic Control Systems are available to complement the DBK range.



Image for Illustration purposes only

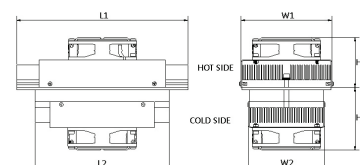
### Mounting Dimensions



### Specifications

|   |  |
|---|--|
| Rated Cooling Power                     | 60 Watts                               |
| Typical Current                         | 3.3 Amps (measured after 5 mins @68°F) |
| Nominal Voltage                         | 24 Vdc (options available)             |
| Operating Temperature                   | 14 to 122 °F / -10 to 50 °C            |
| Cold Side Airflow @zero static pressure | 53.5 cfm                               |
| Hot Side Airflow @zero static pressure  | 53.5 cfm                               |
| Fan Life L10 @ 104° F                   | 65,000 hrs                             |
| Weight (approx.)                        | 6.61 lb (3 kg)                         |
| Standard Lead Length                    | 23.62" (600 mm) (options available)    |
| Length - L1 / L2                        | 9.06" / 7.09" (230 mm / 180 mm)        |
| Width - W1 / W2                         | 4.80" / 4.02" (122 mm / 102 mm)        |
| Height - H1 / H2                        | 2.64" / 3.30" (67 mm / 83.7 mm)        |

### Overall Dimensions



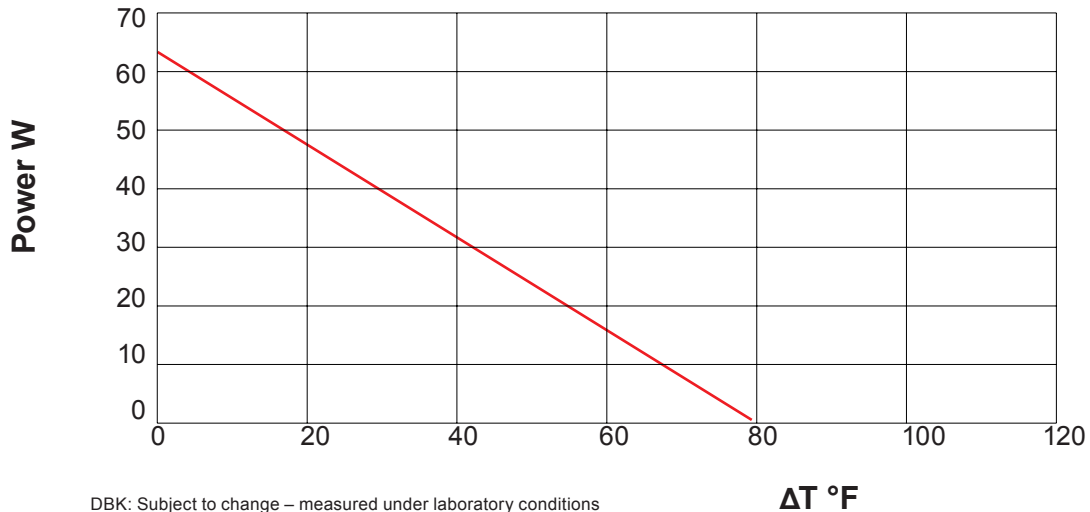
### Typical Applications

- Control Panels/Outdoor Enclosures
- Analytical/Medical Instrumentation
- Industrial Instrumentation
- Food and Beverage Cooling
- Telecom Cabinets

This information is subject to change without notice. Data is given for Illustration purposes only and does not release the customer from independent application tests.

## Measured Performance Data

### DBK A60 Cooler Power vs $\Delta T$



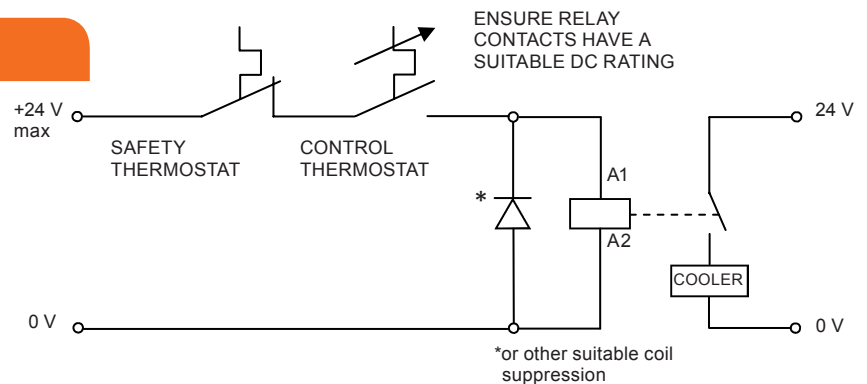
## Wiring Information

In normal operation to provide cooling, the unit should be wired up as below. If required the unit can be operated with reverse polarity across the Cooler only to provide a heat source. The polarity supplied to the fans should not be changed.

| Wire Color | Function  |
|------------|---|
| Red        | Cooler (16awg) and Fans (24awg) 24V +ve supply  |
| Black      | Cooler (16awg) and Fans (24awg) 24V -ve supply  |
| Orange     | HOT Side Safety Thermostat for overheat control   |
| Blue       | COLD Side Safety Thermostat for overheat control - only required when unit is operated in reverse polarity for use as a heater. |

## Typical Circuit Diagram

A typical circuit diagram is shown to indicate use of a control thermostat such as DBK FGT101 & FGT201 to maintain the enclosure temperature within the required conditions.



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