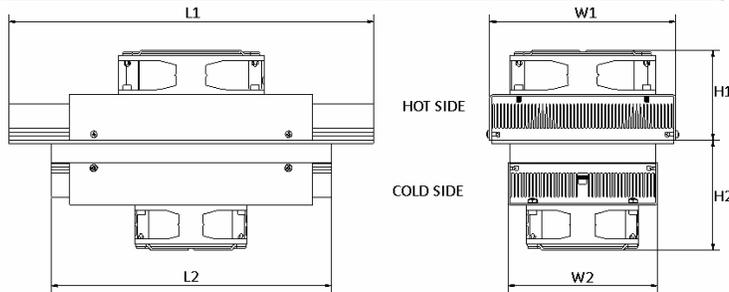


Image for illustration purposes only

Outline Drawing



ΩDBK Thermoelectric Coolers

ΩDBK SERIES AIR-TO-AIR THERMOELECTRIC COOLERS

The ΩDBK Series are air to air thermoelectric coolers, employing forced air convection provided by IP54 axial fans.

The ΩDBK standard range provides assemblies from 60W to 200W.

Custom designs are available by request and DBK will be pleased to service your bespoke requirements including Direct and Liquid cooling.

FEATURES

- Compact Design
- DC Operation
- Reliable solid-state construction
- RoHS compliant

Electronic Control Systems are available to complement the ΩDBK range.

Specifications

ΩDBK Model		A60	A100	A150	A200
Rated Cooling Power	W	60	100	150	200
Typical Current <small>(measured after 5mins @68°F)</small>	A	3.3	5.8	8.5	12
Nominal Voltage	Vdc	24 (options available)			
Operating Temperature	°C / °F	-10 to 50 / 14 to 122			
Cold Side Airflow @zero static pressure	cfm	53.5	58	73	107
Hot Side Airflow @zero static pressure	cfm	53.5	115	135	135
L10 @40°C (fans)	hrs	65,000	65,000	65,000	65,000
Weight (approx.)	kg/lbs	3/6.61	4.5/9.92	5.5/12.1	7.5/16.53
Standard Lead Length	mm(inches)	600 (23.62) (options available)			
Length - L1 / L2	mm inches	230/180 7.09/9.06	300/230 11.81/9.06	300/250 11.81/9.84	400/350 15.75/13.78
Width - W1 / W2	mm inches	122/102 4.8/4.02	153/123 6.02/4.84	153/153 6.02/6.02	153/153 6.02/6.02
Height - H1 / H2	mm inches	67/83.7 2.64/3.30	74/90.2 2.91/3.55	80/85 3.15/3.35	86/100 3.39/3.94



Typical Applications

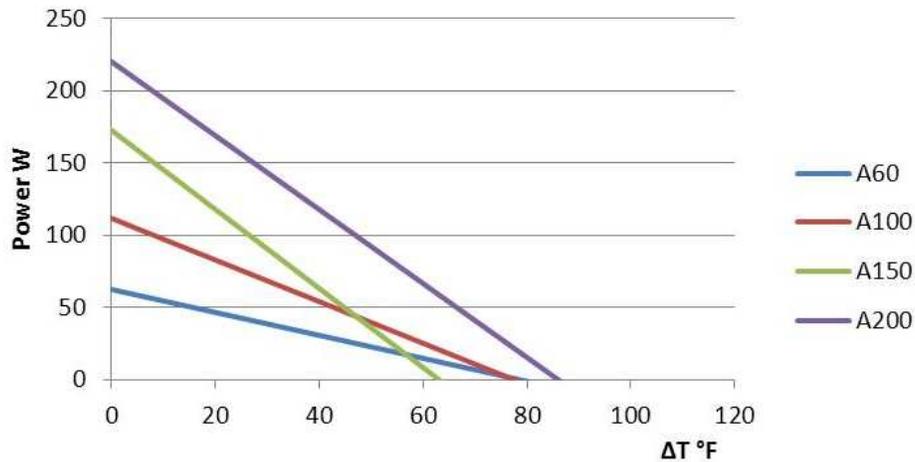
- Control Panels/Outdoor Enclosures
- Analytical/Medical Instrumentation
- Industrial Instrumentation
- Food and Beverage Cooling
- Telecom Cabinets

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

ΩDBK Thermoelectric Coolers

ΩDBK Cooler Power vs ΔT



ΩDBK: Subject to change - measured under laboratory conditions

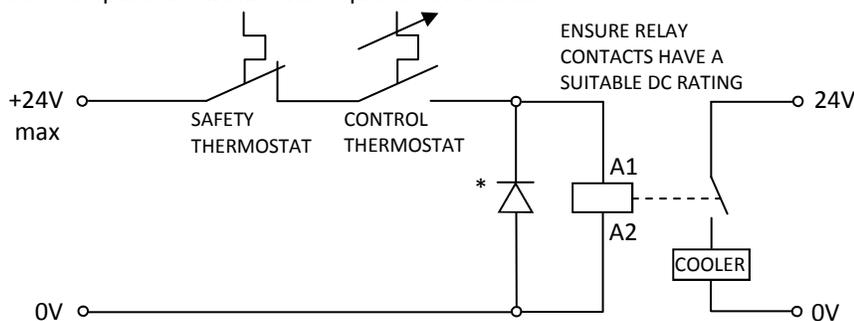
Wiring Information

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 Colour	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. (NOT available on A60)

Typical Circuit Diagram

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



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