

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# **DA Tunnel Series DA-033-12-02**

## Thermoelectric Assembly

The DA Tunnel Series is an Direct-to-Air thermoelectric assembly (TEA) that minimizes the number of airflow paths required to operate. It offers dependable, compact performance by cooling objects via convection. Heat is absorbed and dissipated through high density heat exchangers equipped with air ducted shrouds and brand name fans. The thermoelectric modules are custom designed to achieve a high coefficient of performance (COP) to minimize power consumption. Custom configurations are available, however, MOQ applies.



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## **FEATURES**

- Tunnel Series compact design
- Precise temperature control
- Reliable solid-state operation
- DC operation
- RoHS compliant

#### **APPLICATIONS**

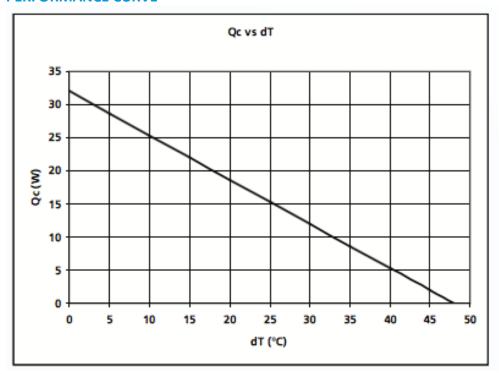
- Analytical instrumentation
- Medical diagnostics
- Photonics laser systems
- Industrial instrumentation
- · Food and beverage cooling

#### **SPECIFICATIONS**

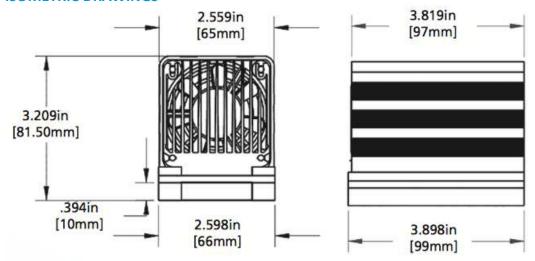
31 ECH ICATIONS	
TECHNICAL	
Cooling Power Qcmax (W)	32.0
Running Current (A)	3.1
Startup Current (A)	3.5
Nominal Voltage (V)	12
Max Voltage (V)	14.7
Power Input (W)	37.2
Operating Temperature (°C)	-10 to 45
Weight (kg)	0.54
MTBF (fans – hrs)	40,000
Performance Tolerance	±10%



## **PERFORMANCE CURVE**

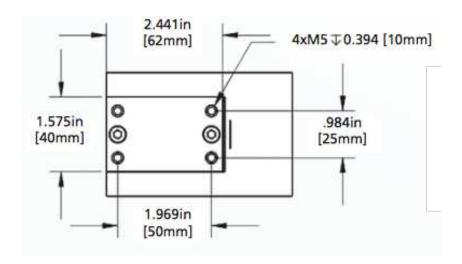


## **ISOMETRIC DRAWINGS**





## **MOUNTING HOLE LOCATION**



#### WIRING SCHEMATIC

## **Electrical Connections**

"TEM+": RED

"TEM-": BLACK

"F+": + RED

"F-": - BLACK OR BLUE

### **NOTES**

Thermal grease included For indoor use only

#### Laird-ETS-DA-033-12-02-Data-Sheet-100616

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