### Cooling Solutions for Mission-Critical Electronics Air Conditioned Transit Cases and Enclosures



## EIC SOLUTIONS

### MILITARY APPLICATIONS

### Because Failure is Not an Option

EIC Solutions offers a wide range of standard and custom cooling solutions designed to protect sensitive electronics and meet the demands of extreme military environments – on land, in the air and at sea.

When our nation's defense is on the line, EIC's cooling solutions are there to assist our troops by protecting their communication, encryption, surveillance and other electronic gear from damaging heat, dust, moisture and corrosion.

### We've made it our mission to protect our military's electronics because when everything is on the line, failure is not an option.



#### Think Outside the Box—The Peltier Effect

Thermoelectric cooling employs the Peltier Effect. EIC Solutions' patented design utilizes two elements of a semiconductor constructed from doped Bismuth Telluride and modules sandwiched between high-performance, aluminum heat sinks to achieve controlled cooling.



# EIC SOLUTIONS

### The First Line of Defense for Mission-Critical Electronics

Today's weaponry, C4ISR technologies and support systems rely on increasingly sophisticated electronics. Moving those electronics safely into theaters of operation and protecting them in the field requires equally sophisticated transportation technologies and cooling solutions. Those are the kinds of challenges that EIC Solutions targets every day. We've made it our mission to protect our military's electronics—because when everything is on the line, failure is not an option.



Key characteristics of our products include:

- 200 to 2,500 BTU thermoelectric coolers
- AC/DC power, indoor/outdoor use
- · Heating capability available
- No filters, compressors, or refrigerant
- No moving components (other than fans)
- No maintenance

EIC Solutions is the world's leading provider of thermoelectric cooling solutions for mission-critical electronics housed in transit cases and enclosures. EIC provides patented thermoelectric air conditioning technology to protect sensitive electronics and meet the demands of extreme environments — on land, in the air and at sea. We build cooling solutions that withstand extreme heat, environments with windblown dust and contaminants and can be mounted in remote locations while delivering precise temperature control.

- Solid-state construction
- Suitable for use in high ambient temperature environments
- No air exchange between outside (ambient) and air inside the cabinet
- Extremely reliable with long life span

EIC also offers virtually limitless customization options to achieve the optimal solution for any challenge.

Using solid-state technology to accomplish temperature change, EIC's thermoelectric coolers eliminate the need for refrigerants and operate with no moving parts other than fans. They can cool transit cases and enclosures to temperatures below ambient conditions while producing little noise and vibration.

Featuring reliability and a long life span coupled with flexible input power requirements and mounting arrangements, EIC's thermoelectric air conditioners offer significant advantages over conventional cooling methods such as compressor-based systems. In addition, they are ideal solutions for applications where the cooling system must require little maintenance, be portable or be subjected to vibration.

### Defender<sup>™</sup> Series Air Conditioned Transit Cases

EIC's Defender<sup>™</sup> Series Air Conditioned Transit Cases safely house, transport and cool instruments, terminals, telecommunications equipment, surveillance devices, laser and optical equipment and other electronics in extreme

environments. Suitable for military, defense and industrial applications, the patent-pending EIC Defender Transit Cases are offered in rack-mount, clamshell and custom styles and are available in TSC/fiberglass, aluminum, polyethylene and rotomolded plastic. Our cases are rugged, durable, portable, stackable, impact-resistant, corrosion-resistant and (certain models) tested to stringent MIL standards.





### ThermoTEC<sup>™</sup> Thermoelectric Air Conditioners

EIC offers a complete line of compact, lightweight, solid-state, thermoelectric air conditioners for electronic cabinets and computer enclosures for defense, industrial and other environments. Units feature a simple, efficient, solid-state Peltier cooling design to provide reliable cooling performance without the use of compressors. 200 to 2,500 BTU models are available in NEMA 12, 4X, and hazardous location configurations (Class 1 Div. 2).

### Protector<sup>™</sup> Air Conditioned Electronics Enclosures

EIC's Protector<sup>™</sup> Series Electronic Enclosures feature a complete line of enclosures built to NEMA specifications in wall-mount, workstation, rack and custom configurations. Cabinets are available in NEMA 12/4 and 4X configurations

and can be equipped with a companion cooling system for complete protection. EIC's electronic enclosures are designed to provide the protection controls, computers, instrumentation and other types of defense electronics and electrical equipment need from harsh environmental factors such as dust, temperature, moisture, corrosion and vibration.



### **Proven Performance**

Here are just a few examples to highlight the wide range of applications, environments, and clients who rely on our military air conditioners, transit cases and cooling systems to safeguard their mission-critical electronics.

**Deployable Mobile Firewalls**: Cooling mobile firewalls to prevent cell-phone triggered IED's from detonating near military convoys.

Encryption and Communications Gear: Cooling for incoming round tracking/eliminating and alarm systems.

Flight Simulator Cockpits: Air conditioning for military helicopter pilot training simulators in extremely hot climates.

Helicopter Electronics: Temperature controlled racks mounted inside helicopters.

Remote Surveillance Housings: Air conditioned enclosures at US ballistic missile sites.





Additional applications of EIC's products can be found in many other military related settings, including:

- Aircraft and Aerospace
- Antennas
- Communications Equipment
- Electronics
- Embedded Computer Systems
- Encryption Gear
- Guidance Systems
- High-Power Lasers
- Ground Vehicle Electronics
- Navigation Systems
- Power Conversion And Distribution

- Rack Mount Equipment
- Radar Systems
- RF Amplifiers
- Ruggedized Equipment
- Shipboard Electronics
- Submarines
- Surveillance Systems
- Telecommunications Equipment
- Unmanned Aerial Vehicles (UAVs)
- Weapons Systems

Please visit **www.EICSolutions.com** for product specifications and technical data.

Our online Request for Quote (RFQ) is available 24/7. We will get back to you within one business day.

To speak directly with a Sales Engineer or for technical inquiries, please call **1-800-497-4524**.



1825 Stout Drive Warminster, PA 18974 USA

Toll Free: 1-800-497-4524 • Fax: 1-800-726-7592 Phone: 215-443-5190 • Fax: 215-443-9564 info@eicsolutions.com www.EICSolutions.com

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