# ISER MUAL

Pinnacle™ Plus+ 10 kW (325-650 Vdc)

Master/Slave AE Bus, DeviceNet™, MDXL User, UHF Output

5702269-B June 2002

Advanced Energy Industries, Inc.

1625 Sharp Point Drive Fort Collins, CO 80525 USA 970.221.4670

technical.support@aei.com







### **User Manual**

Pinnacle™ Plus + 10 kW

5702269-B





### COPYRIGHT

This manual and the information contained herein is the proprietary property of Advanced Energy Industries, Inc.

No part of this manual may be reproduced or copied without the express written permission of Advanced Energy Industries, Inc. Any unauthorized use of this manual or its contents is strictly prohibited. Copyright © 6/17/02 by Advanced Energy Industries, Inc. All Rights Reserved.

### DISCLAIMER AND LIMITATION OF LIABILITY

The information contained in this manual is subject to change by Advanced Energy Industries, Inc. without prior notice. Advanced Energy Industries, Inc. makes not warranty of any kind whatsoever, either expressed or implied, with respect to the information contained herein. Advanced Energy Industries, Inc. shall not be liable in damages, of whatever kind, as a result of the reliance on or use of the information contained herein.

### PRODUCT USAGE STATEMENT



### **!\ WARNING:**

Read this entire manual and all other publications pertaining to the work to be performed before you install, operate, or maintain this equipment. Practice all plant and product safety instructions and precautions. Failure to follow instructions can cause personal injury and/or property damage. All personnel who work with or who are exposed to this equipment must take precautions to protect themselves against serious or possibly fatal bodily injury.

Advanced Energy Industries, Inc., (AE) provides information on its products and associated hazards, but it assumes no responsibility for the after-sale operation of the equipment or the safety practices of the owner or user. This equipment produces or uses potentially lethal highvoltage, high-current, radio frequency (RF) energy. NEVER DEFEAT INTERLOCKS OR GROUNDS.

### TRADEMARK INFORMATION



is a registered trademark of Advanced Energy Industries, Inc.

**Advanced Energy** is a registered trademark of Advanced Energy Industries, Inc. **AE** is a registered trademark of Advanced Energy Industries, Inc. **Pinnacle** is a trademark of Advanced Energy Industries, Inc.



### **Table of Contents**

Snapter 1. Introduction	
Read This Section!1Interpreting the Manual1Type Conventions1Icons (Symbols)1Safety1Product Compliance and Conditions of Use1Safety and Compliance Directives and Standards1Certification1Installation Requirements1	1-1 1-2 1-4 1-4 1-6 1-6
Conditions of Use1	I-6
Chapter 2. Theory	
General Description2Output Impedance Range2Output Regulation2Interfaces2Microprocessor Advantages2Displays2Arc-suppression Feature2Theory of Operation2Input2Housekeeping Supply2Inverter2Output2Output Measurement2DC Chopper Section2Logic Control2Remote Interfaces2	2-1 2-1 2-1 2-2 2-2 2-2 2-3 2-3 2-3 2-3 2-3
Chapter 3. Specifications	
Functional Specifications	3-4 3-5 3-7 ·10 ·15
Environmental Specifications	<b>Z</b> I



# DOCKET

## Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

### **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

### **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

### **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

#### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

#### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

### **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

