

NIC-Series System Controller

Overview



The NIC-series controller is an advanced, state-of-the-art controller designed to work seamlessly with the 1RU H-series and J-series power systems without requiring any additional rack space. When added to a power system, the controller provides users with local and remote visibility for monitoring system status and adjusting parameters.

Controller Highlights

Convenient Design

The NIC-series controller is the monitoring and control unit used in Eltek's Mini systems. A simple "plug-and-play" design makes it easy to install or replace an existing controller. Fail-safe architecture ensures that power systems will continue to operate if the controller is disconnected.

Simple Network Interface

System control and monitoring is done through a network interface LAN port, which supports HTTP, SNMP, and TELNET. In addition, an RS232 port is provided for HyperTerminal interface.

Battery Management

Battery management provides such features as float voltage control, battery current limit, battery boost (equalizing), battery discharge tests, thermal runaway protection, thermal compensation for VRLA batteries, and low-voltage disconnect monitoring.

Configurable Alarms

System alarm monitoring can be expanded with a TRIO, which provides four form-C relays and four peripheral input ports.

Advanced Features

- o Easy "plug-and-play" installation
- o Fail-safe design
- o Ethernet port for computer interface
- o Web interface through Internet browser
- o TELNET interface
- o RS232 port for HyperTerminal interface
- o SNMP communication with up to four IP addresses
- o Graphical user interface (GUI) via webpage and SNMP monitoring
- o Adjust all system parameters like float voltage
- o Battery discharge test
- o Battery boost charge
- o Thermal compensation (TRIO* required)
- o Configure input and output alarms (TRIO* required)
- o Configure low voltage disconnect (LVD*) setpoints
- o Easy plug and play setup
- o Multi-level password protection
- o Internal temperature sensor
- o Three factory configured presets
- o Event log
- o Adjustable real-time clock
- o User settable to DHCP or Static IP network

*Not all systems are available with TRIOs or LVDs. Consult the respective ordering guide for the availability of these items.

Additional Specifications

CONTROLLER DETAILS	
Remote Interface Port	10/100BASE-T Ethernet
Remote Interface Protocols	HTTP, TELNET, SNMP, RS232
SNMP Alerts	Alarm indication alerts up to four IP addresses via SNMP traps
SNMP Heart Beat	Controller generated ping indicates operation
Alarm Relay Configuration	Fully configurable alarm mapping via remote web interface (with TRIO)
Event Log	Stores up to 250 events
Battery Discharge Test (BDT)	Manual, auto, and up to 12 user-scheduled start modes
BDT Results	Voltage/Current vs. Time graph, pass/fail indicators, and up to eight saved test results
Battery Boost (Equalizing)	Manual mode and three automatic modes: periodic, battery current, and AC fail
Battery Thermal Compensation	High and low temperature compensation to maintain proper VRLA battery temperature
Battery Current Limit	Available in systems with battery shunt or low-voltage disconnect (LVD)
Rectifier Current Limit	Limits individual rectifier current output
System Presets	Three factory-configured sets of system values
Multi-shelf Control*	Supports Inter-Integrated Circuit (I ² C) expansion ports on system shelves to connect to additional shelves
Password Protection	Multi-level protection for remote and local interfaces (any character except period, comma, and semi-colon)

*See chart below

OPERATION RATINGS	
Storage Temperature	-40 °C – 85 °C
Operating Temperature	-40 °C – 75 °C
Voltage Accuracy	±1.0%
Current Accuracy	±2.5%

COMPATIBLE POWER SYSTEMS	
NIC1000 series: H-Series shelves	
HK	
HM	
NIC2001: J-series Rear Wire shelves	
JJ	
JK	
JM	

CONTROLLER MODELS

MODEL SERIES	DESCRIPTION	USED IN	INTERFACE
NIC1000	Standard single-shelf configuration with AC to DC rectifiers.	1 RU H-series systems	Front Ethernet RJ45 Port and RS-232 thru RJ45 port on the rear of the shelf.
NIC1001	Standard single-shelf configuration with AC to DC rectifiers.	1 RU H-series systems	Front RS232 thru RJ12 Port and Ethernet thru RJ45 port on the rear of the shelf.
NIC1002	Multi-shelf configuration with AC to DC rectifiers.	1 RU H-series systems	Front Ethernet RJ45 port and RS232 thru RJ12 Port on the rear of the shelf.
NIC1003	Standard single-shelf configuration with DC to DC converters.	1 RU H-series systems	Front RS232 thru RJ12 Port and Ethernet thru RJ45 port on the rear of the shelf.
NIC1004	Multi-shelf configuration with DC to DC converters.	1 RU H-series systems	Front Ethernet RJ45 port and RS232 thru RJ12 Port on the rear of the shelf.
NIC2001	Standard single-shelf configuration with AC to DC rectifiers.	1 RU J-series systems	Front RS232 thru RJ12 Port and Ethernet thru RJ45 port on the rear of the shelf.