# Eaton ConnectUPS Web/SNMP



#### ConnectUPS-MS

# Product Snapshot

| Туре:                | Ethernet, Internet connectivity device                         |  |
|----------------------|----------------------------------------------------------------|--|
| Installation:        | Hot-plug                                                       |  |
| Web Browser support: | Internet Explorer                                              |  |
| Software support:    | LanSafe® software, NetWatch,<br>PowerVision® software, eNotify |  |
| Additional features: | Three-port switching hub<br>(ConnectUPS-X) & optional          |  |



environmental monitoring

#### Features

- Supports real-time monitoring and control of UPSs across the network
- · Enables monitoring and control via Web browsers, SNMP-compliant network management systems or power management software
- Delivers alarm notifications through e-mail, to mobile phones, pagers or SNMP traps
- Enables rapid identification and analysis of critical power conditions
- Logs and graphs detailed historical data to analyze trends
- · Uses standard communication protocols on 10 Mb and 100 Mb Ethernet networks
- Performs as a switching hub for three 10/100 Mbps connections (ConnectUPS-X)
- Enables orderly shutdown and restart of remote UPSs
- Supports optional Eaton<sup>®</sup> Environmental Monitoring Probe (EMP) for temperature, humidity and other contact sensor monitoring, management
- · User Interface support for local languages (English, Chinese, Spanish, French, German, Italian)
- Operates with optional Eaton probe to monitor environmental conditions at remote sites
- Supports in-service installation and upgrades . without interrupting critical loads (most models)
- · Complies with the Restriction of Hazardous Substances Directive (RoHS) by EU

computing, computing and communication resources reside in multiple remote locations-and so do the uninterruptible power systems (UPSs) that protect them. Eaton ConnectUPS Web/SNMP cards enable you to monitor and control remote UPSs from Web browsers or industry-standard network management systems. A complete family addresses a broad range of Eaton UPS models, installation options (internal, external), communications (Web, SNMP or both), and network rates (10 Mbps, 100 Mbps, or both):

With the growth in distributed

 ConnectUPS-MS connects to the Mini-Slot and BestDock slot on an Eaton UPS; these cards support real-time Web and SNMP communication over 10/100BaseT Ethernet connections

- ConnectUPS-X connects to the X-Slot® on an Eaton UPS; these cards support real-time Web and SNMP communication over 10/100BaseT Ethernet connections and serve as a power-protected switching hub to support three additional 10/100BaseT links
- ConnectUPS-BD supports Eaton UPSs that feature BestDock ports, and provides real-time, Web-based and SNMP-based monitoring and control over 10/100BaseT Ethernet connections
- ConnectUPS-E provides equivalent real-time capabilities in an external device, specifically designed for legacy Powerware® 9150 and 9305 UPSs
- ConnectUPS BestLink is an external module specifically designed for monitoring and controlling Eaton FERRUPS® UPSs



#### **Real-time monitoring**

Gain up-to-the-minute assurance that computing and communication systems are receiving the continuous, clean power they demand. Through easily navigable Web pages, network administrators can check system status and view critical meter information, such as input and output voltage, UPS load, battery voltage and condition, at any time.

#### Visibility via the Web

ConnectUPS-MS, ConnectUPS-X, ConnectUPS-BD, ConnectUPS-E and BestLink options support standard Web browsers, such as Internet Explorer or Netscape. Displays also have been designed for simplified viewing using mobile phone or PDA (personal digital assistant) browsers—enabling systems managers to stay informed even when away from their mission-critical workstations and servers.

### Integration with standard SNMP management software

You can use an industrystandard network management system (NMS)—such as HP OpenView, IBM Director, Tivoli or CiscoWorks 2000—to monitor power conditions across the enterprise and to manage remote UPS systems and the operating systems they protect.

Simply point your Web browser to the IP address of the ConnectUPS Web/SNMP card for a display of current status. You can access this information from a PC, Internetready wireless device or SNMP management software.

View critical power parameters over the Web from your PC, mobile phone or PDA.

F.T.N Email Notificatio UPS Properties UPS Control labo Software, A2-01 Notified events for the selected Recipie Save Battery operati Logs and No S on battery S Off sequence in progres Event Log Recipient UPS alarms Battery fault UPS overload UPS fault Enabled M Attached files: Measurements
Event Log
System Log Show/Hide Events Set Default Access Control Periodic report: Test Email Message Settings Configure SMTP Server or

Rapid notification via e-mail speeds corrective action.

#### Automatic notification of alarm conditions

ConnectUPS options send realtime alert notifications to four designated recipients via e-mail, PCS mobile phone or pager, and via SNMP traps to an NMS or network messaging to Eaton NetWatch software. Each recipient has the option of receiving real-time event messages, daily status reports based on criticality, containing data and event log files, or a combination of routine reports and event notifications.

### Full support for UPS MIB and beyond

For monitoring and managing remote UPSs through an NMS, ConnectUPS options support not only the standard UPS MIB (management information base) SNMP structure, but also Eaton extensions to that MIB structure, which enable advanced functions that are not addressed in the RFC-1628 standard.

### Remote administration of UPSs

From a Web browser or NMS. which may be hundreds or thousands of miles away, a system administrator can shut down or reboot a remote UPS, perform remote UPS battery tests, and set up scheduled shutdowns of UPSs and associated servers. The ability to shut down or restart systems without a site visit dramatically reduces field service expense and response time. Scheduled shutdowns can be devised to conserve power or tighten security during specific time periods, such as evenings or weekends.

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### Orderly shutdown of remote operating systems

When alarm conditions persist for a specified period, from 1-600 seconds, the ConnectUPS initiates orderly shutdown of affected equipment. Using NetWatch software (which is included with ConnectUPS products and loaded on the protected computers), up to 255 Windows, Novell, Macintosh, and UNIX/Linux computers can be gracefully shut down without operator intervention. This capability ensures data integrity during a power outage that exceeds UPS backup time.

The system manager automatically receives warning messages when (A) the UPS has shifted to battery power, (B) battery power is getting low or (C) orderly shut-down procedures are being initiated. You define exactly how to manage this shutdown—such as how long after going to battery power to begin shutdown, and how to stage the shutdown of servers by importance.

If the UPS supports individual control of load segments (groups of outlets), the ConnectUPS detects these load segments and provides the appropriate level of service to each, as configured by the system administrator.

# Track and record detailed historical data

#### ConnectUPS-MS,

ConnectUPS-X, ConnectUPS-BD, BestLink and ConnectUPS-E modules have built-in data and event logs that track and record specific power-related occurrences over time, at userdefined increments as fine as one-minute intervals.

### Graph historical trends for rapid analysis

A JAVA applet on these four ConnectUPS options graphs data and event log values over time, making it easy to analyze chronic power problems and identify trends and cause-andeffect relationships. Zoom and data masking functions pinpoint specific anomalies for further investigation. Text-based event logs contain easy-to-understand event descriptions with corresponding date and time stamp.

#### Integrated switching hub capability

The ConnectUPS-X module serves double duty as a switching hub for three additional power-protected 10/100BaseT Ethernet connections, thereby eliminating the expense of buying a separate switching hub and a UPS to protect it.

### Monitoring remote environmental conditions

ConnectUPS modules operates with the Eaton Environmental Monitoring Probe (EMP) to remotely monitor the ambient temperature and humidity of the remote environment, as well as the status of two additional contact devices, such as a smoke detector or open-door sensor. This information can be used to trigger alarm notifications and automated shutdown.

## In-service installation and upgrades

ConnectUPS modules can be installed without interrupting critical loads, and can be easily updated over network connections. A simple network-based utility is used to discover and update multiple ConnectUPS modules on the network. For detail about features by model—and which ConnectUPS models are right for your Eaton UPSs—refer to the chart on the next page.



Eaton NetWatch Client 5.0 has tested compatible with Cisco Unified Communications Manager 4.3. Go to www.eaton.com/PQ/cisco for disclaimer.

#### **Technical Specifications**<sup>1</sup>

| MODEL                                             | CONNECTUPS-MS                                                                                                                              | CONNECTUPS-X                                                                                                                | CONNECTUPS-BD | CONNECTUPS-E | BESTLINK         |  |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------|--------------|------------------|--|
| Description                                       | Card providing remote monitoring and control of Eaton UPSs                                                                                 |                                                                                                                             |               |              |                  |  |
| Protocol Support                                  | HTTP, SNMP, TFTP, Telnet, BootP, DHCP, WAP, ARP, RARP                                                                                      |                                                                                                                             |               |              |                  |  |
| UPS Slot Type                                     | Mini-Slot                                                                                                                                  | X-Slot                                                                                                                      | BestDock      | External     | External         |  |
| Network Support                                   |                                                                                                                                            | Ethernet 10/100BaseT                                                                                                        |               |              |                  |  |
| Switching Hub                                     | No                                                                                                                                         | Yes (three 10/100BaseT<br>Connections)                                                                                      |               |              | No               |  |
| Temp & Humidity<br>Monitoring                     |                                                                                                                                            |                                                                                                                             | Yes           |              |                  |  |
| UPS Compatibility                                 | see chart below                                                                                                                            |                                                                                                                             |               |              |                  |  |
| Software Support                                  | NetWatch, Intelligent Power®<br>Manager, PowerVision, MultiView,<br>any SNMP compliant Network<br>Management System (NMS)                  | NetWatch, Intelligent Power Manager, LanSafe, PowerVision, MultiView,<br>any SNMP compliant Network Management System (NMS) |               |              |                  |  |
| Supported MIB                                     | Eaton MIB                                                                                                                                  | UPS standard MIB RFC-1628, Eaton MIB, MIB II Best                                                                           |               |              | BestLink MIB     |  |
| O/S Supported for<br>Shutdown                     | Microsoft Windows, UNIX, Linux, NetWare, Macintosh and SuSE<br>(check www.eaton.com/powerquality for a detailed list of systems supported) |                                                                                                                             |               |              |                  |  |
| Local Language Support                            | English, French German,<br>Spanish, Italian                                                                                                | English, Chinese, Spanish, French, German, Italian, Portuguese, other No                                                    |               |              | No               |  |
| Operating Temperature                             |                                                                                                                                            |                                                                                                                             | 0 to 40° C    |              |                  |  |
| Operating Humidity                                | 90% RH max                                                                                                                                 | 10–80%, non-condensing                                                                                                      |               |              |                  |  |
| Power Input                                       |                                                                                                                                            | 9 Vdc unregulated                                                                                                           |               |              | 12 V unregulated |  |
| Power Consumption                                 |                                                                                                                                            | 3.5 watts                                                                                                                   |               |              |                  |  |
| Dimensions (H x W x<br>D, in):<br>(H x W x D, mm) | 5.2 x 2.6 x 1.7<br>132 x 66 x 42                                                                                                           | 4.7 x 4.5 x 1.5     5.3 x 3.2 x 1.3     5.3 x 3.4 x 1.1       120 x 114 x 39     134 x 81 x 33     134 x 86 x 27            |               |              |                  |  |
| Weight (oz)                                       | 2.5                                                                                                                                        | 6                                                                                                                           | 4             | 6            |                  |  |
| Regulatory                                        | FCC Class A                                                                                                                                | FCC Class B                                                                                                                 |               |              | FCC Class A      |  |

1. Due to continuing product improvement programs, all specifications are subject to change without notice.

#### **ConnectUPS/Eaton UPS Compatibility**

| Model             | Part Number   | Eaton UPS                                                                                                               | Environmental Monitoring Probe |
|-------------------|---------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| ConnectUPS-MS     | 103006826     | 5130, 9130, 9135, 9170+ and legacy 9120                                                                                 | Yes                            |
| ConnectUPS-X      | 116750221-001 | 5115 RM, 5125, 9390 and legacy 9125, 9320, 9330, 9335 and 9340<br>via Expansion Chassis: 9170+ and legacy 9120 and 9315 | Yes                            |
| ConnectUPS-BD     | 116750222-001 | 9130, 9170+ and legacy 9120                                                                                             | Yes                            |
| ConnectUPS-E      | 116750222-001 | legacy 9150 and 9305                                                                                                    | Yes                            |
| BestLink Web/SNMP | IPK-0318      | FERRUPS                                                                                                                 |                                |



RoHS and WEEE regulate the use and disposal of certain harmful substances. Eaton has voluntarily complied with all RoHS and WEEE standards.

#### EUROPE/MIDDLE EAST/AFRICA

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UNITED STATES 8609 Six Forks Road Raleigh, NC 27615 U.S.A. Toll Free: 1.800.356.5794

www.eaton.com/powerquality

CANADA Ontario: 416.798.0112 Toll Free: 1.800.461.9166

LATIN AMERICA Brazil: 55.11.3616.8500 Caribbean: 1.949.452.9610 México & Central America: 52.55.9000.5252 South Cone: 54.11.4343.6323



