Eaton 93PM UPS Communications

The Power Inside the Box

EAT•N

Powering Business Worldwide

Eaton® 93PM UPS

Complete backup solution:
Protect yourself from potential power problems

The Eaton 93PM UPS combines unprecedented efficiency, reliability, and vertical or horizontal scalability with eye-catching design. A space-saving, flexible device that's as easy to deploy as it is to manage, it's the perfect three-phase white or grey space solution for today's data center.

Reduces power and cooling OPEX through industry-leading energy-efficiency

• 99% efficient when running in energy saver system

• 96.5% efficient in double conversion mode

• Reduces waste, lightens cooling burdens and lowers electrical bils

Maximizes deployment flexibility by providing flexible configurability

• Innovative thermal management options

• Multiple configuration options: wall, row, or aisle configuration

Provides access to detailed status information through it's LCD touchscreen interface

• Track stats on battery time, outage tracking, load profiling, and much more

• Green/yellow/red LED light-bars make system status visible from a distance in a dark data center space

Eaton 93PM UPS

Eaton 93PM UPS
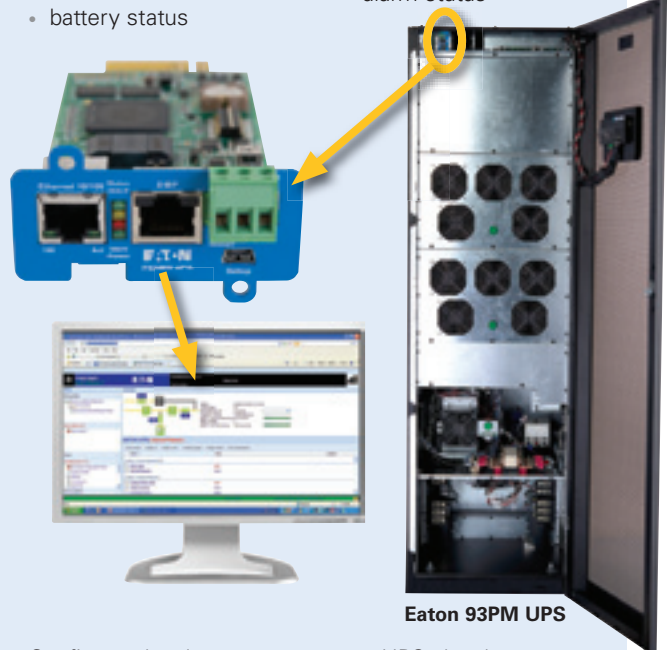## with Ethernet Connectivity

Expanded solution:
Bring the power of your 93PM UPS to your desktop

Designed specifically to connect the Eaton 93PM UPS to Ethernet networks, the Power Xpert® Gateway Mini-slot communications card provides multiple log files stored directly in the card's memory and the multimodule support needed for this next generation UPS.

With its built in web server and pages, the gateway mini-slot communication card allows you to keep up-to-the-minute status on the UPS through constant monitoring and alarms, via a web browser.

Benefits of monitoring with a Power Xpert Gateway Mini-slot card:

• Remotely monitor critical data such as:

  • actual UPS energy usage
  • multiple UPS modules with one card
  • % full load
  • battery status
  • THD
  • load status
  • output power
  • alarm status

Eaton 93PM UPS

• Configure shutdown agent, set up UPS shutdown schedules, as well as test and control remotely

• Automatically maintains data, interval and event logs with time stamp for power and energy parameter analysis

• Ability to integrate your UPS into existing Building Management or Network Management systems including Intelligent Power Manager, Intelligent Power Protector, and Power Xpert Software utilizing open protocols such as SNMP, BACnet IP, and Modbus TCP/RTU.

• View trend and alarm graphs for better diagnostics of 93PM metered parameters.

Benefit: The Eaton 93PM UPS offers a low cost of ownership through efficiency, reliability and ease of deployment.

Benefit: Gives you instant knowledge about your UPS's status without being in the room, or even the building.

Eaton UPSs
with Eaton Power Xpert Software

Powerful Solution:
Bring all of your equipment together

Once your data center backup and power distribution equipment is on the network via a Power Xpert Gateway Mini-slot card, data can be centralized and analyzed with Power Xpert Software. Through this monitoring software, a more comprehensive system view of all your Eaton electrical and other third-party equipment is possible.

Benefits of monitoring your entire power system together:

• Monitor your entire data center or power system giving you the big picture of power quality and energy usage to proactively address issues

• Graphical and at-a-glance user views allowing simultaneous monitoring of multiple UPSs and other equipment

• Allows the full capability to monitor Powerware Hot Sync® systems

• Data, interval, and event logging with time stamp for power and energy parameters from all your 93PM UPSs, as well as power distribution and other power system equipment
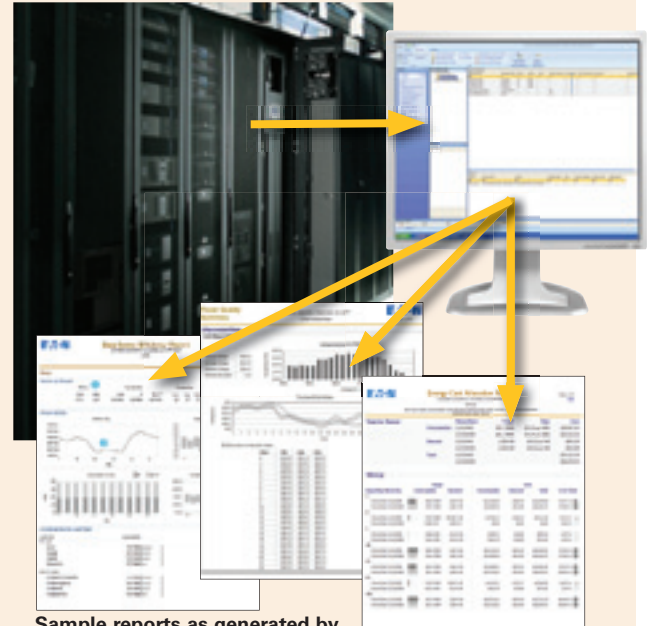
Eaton 9395 UPS   **Eaton 93PM UPS**

• Superior alarm and event management

• Web-based system – provides not only a system for multi-users, but also the convenience of viewing data otherwise collected from the unit, directly from a desktop

• Reduces site monitoring and maintenance expenses as a distributed network solution

Benefit: Expands your view from individual equipment to monitoring all your equipment at one time, on one screen.

Eaton UPSs with Eaton Power Xpert
Software and Reporting

Complete Solution:
Bring it full circle from back-up protection through operational knowledge

Power Xpert Reporting takes your UPS, data center, and site monitoring to the next level. It allows you to see past individual measurements, trend graphs, and events. It analyzes the complex data from multiple sites and boils it down to what's really important. Automatically consolidating the information into easy-to-understand graphical reports.

Sample reports as generated by Power Xpert Reporting

Benefits of adding a reporting system:

• At-a-glance analysis information, quickly see
  • power capacity reserves
  • potential high-power users
  • where power is consumed and usage patterns
  • current, voltage, and harmonic power quality event patterns and reoccurrence trends over time
  • temperature and humidity readings

• Know your PUE and DCiE immediately and how they change with energy saving efforts

• Know your IT vs. non-IT energy consumption

• Ten report templates – meeting various power, energy and green reporting needs

• Assistance with LEED certification

Benefit: Allows you to know exactly what your data center as a whole is doing with energy, compare that to other departments, and see the results of your energy savings efforts.

Technical specifications

The Power Xpert Gateway Mini-slot Card kit includes the following:

Power Xpert Gateway Mini-slot Card	
Local Configuration Cable	
Quick Start Guide	

Ordering information

Catalog number	PXGMSUPS
Style number	P-116000035
Description	Power Xpert Gateway Mini-slot Card for use with Eaton 93PM UPS

Devices supported

Eaton 93PM UPS

Communication ports

Ethernet ports	One RJ45 port 10/100Base T
Serial ports	One USB port: support local configuration, one for Modbus RTU and one for connection to an Environmental Monitoring Probe (EMP)

Communication protocols supported

Web server	Supports data access from Web browsers (HTTP and HTTPS)
BACnet IP	Supports data access from BACnet IP clients
Modbus TCP/IP	Supports data access from Modbus TCP clients
Modbus RTU	Supports data access from a Modbus RTU Master
SNMP v1 & v3	Supports common network management tools
SMTP	Supports email notification
NTP	Supports time synchronization via an NTP server for card and UPS synchronization
DHCP	Supports automatic IP address assignments, if enabled
IP v4 & IP v6	IP v4 and IP v6 compatibility

Supported MIBs

Eaton Power MIB
RFC 1628 UPS MIB
Eaton EMP MIB
Eaton alarms and traps MIB
RFC 4133 Entity MIB
RFC 4268 Entity State MIB; RFC 4268 Entity State MIB Part 2

Web browsers supported

IE 8 and 9
Mozilla Firefox 2.0 and higher
Google Chrome

Physical characteristics

Dimensions	13cm x 6.7cm x 4.3cm (5.1" x 2.6" x 1.7")
Weight	80 grams (2.8 oz)

Environmental specifications

Ambient operating	0 to +40° C (32 to 104° F)
Relative humidity	10 to 80%, non-condensing
Altitude	10,000 ft
Enclosure rating	Indoor use only

Mounting configuration

Mini-slot form factor fits directly into UPS chassis

Power supply

Input voltage range	4.75 – 5.25 VDC (5VDC nominal)

Power consumption

4.5 Watts

Regulatory/standards compliance

FCC Part 15, Class A	
CISPR 22, Class A	
ROHS compliant	
Telecom Conducted via EU Standard	EN 55022:1988+A1:2000+A2:2003, Class A/EN55022:1988+A1:2000+A2:2003

Note: Features and specifications listed in this document are subject to change without notice and represent the maximum capabilities of the software and products with all options installed. This is not a complete feature list. Features and functionality may vary depending on selected options.

For more information go to
http://www.eaton.com/pxgms

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