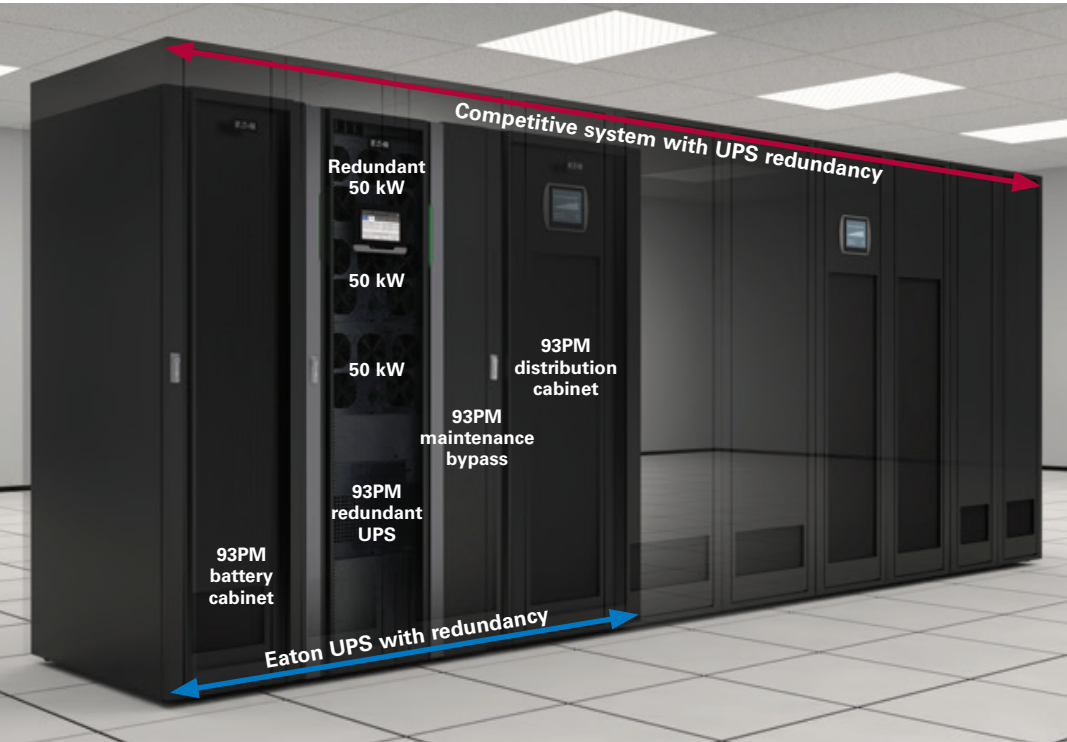# Eaton 93PM UPS
Efficient. Scalable. Innovative.

EAT·N
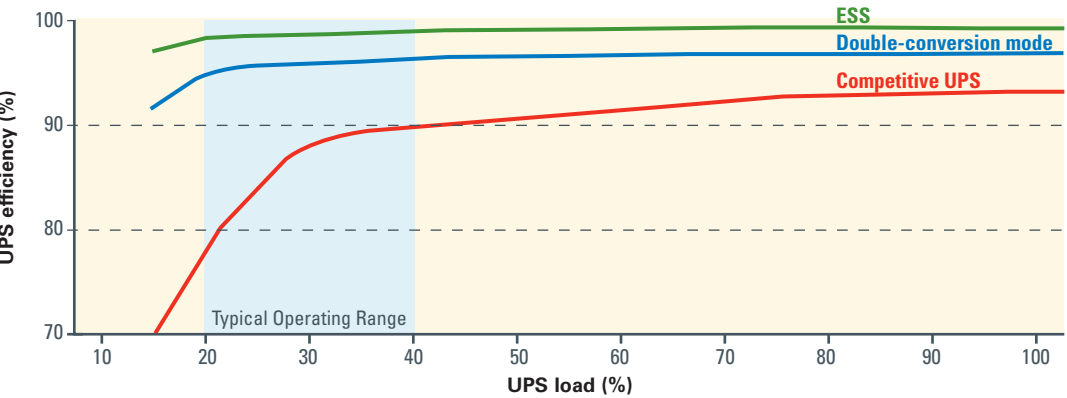
Powering Business Worldwide

93PM features and benefits

The Eaton 93PM UPS combines unprecedented efficiency and reliability with an eye-catching design. A space-saving, scalable and 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.

The 93PM's vertical scalability, internal redundancy and compact footprint design

1. Lowest TCO (Total cost of ownership)

- **Conserves valuable data center floor space with its compact footprint and internal redundancy design**

- **Reduces cost and unexpected future growth risks with its vertical scalability, enabling you to scale as you grow**

- **Reduces power and cooling OPEX through industry-leading energy-efficiency**
  - 99% efficiency with ESS
  - Up to 97% efficiency in double-conversion mode

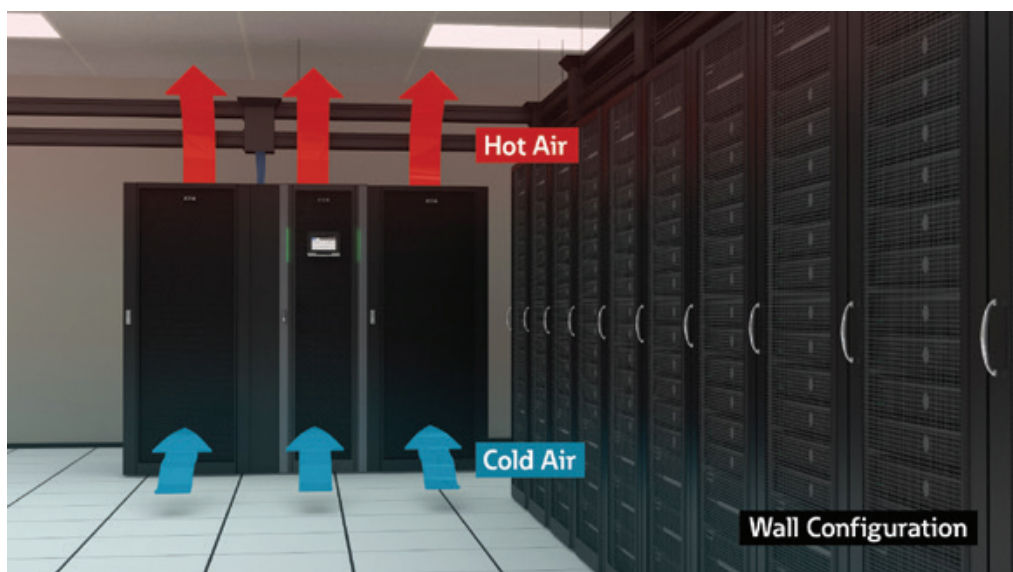**Eaton 93PM efficiency in double conversion and ESS**

The 93PM ESS energy cost savings pay for the UPS in less than 3 years. Calculate your 93PM savings with ESS at **Eaton.com/ESS.**

Table showing 400 kW efficiency savings comparison

Load %	Leading competitor efficiency **	93PM ESS efficiency	93PM ESS annual savings($)*	93PM double-conversion efficiency	93PM double-conversion annual savings ($)*
25%	**84.0%**	98.4%	**$27,470**	95.8%	**$23,121**
50%	**90.6%**	98.9%	**$29,212**	96.8%	**$22,294**
75%	**92.5%**	99.1%	**$34,059**	97.0%	**$23,724**
100%	**93.0%**	99.1%	**$41,746**	96.8%	**$26,623**

* Savings calculated using $0.10 kW/hr. and 80% cooling ratio (currency in US dollars)
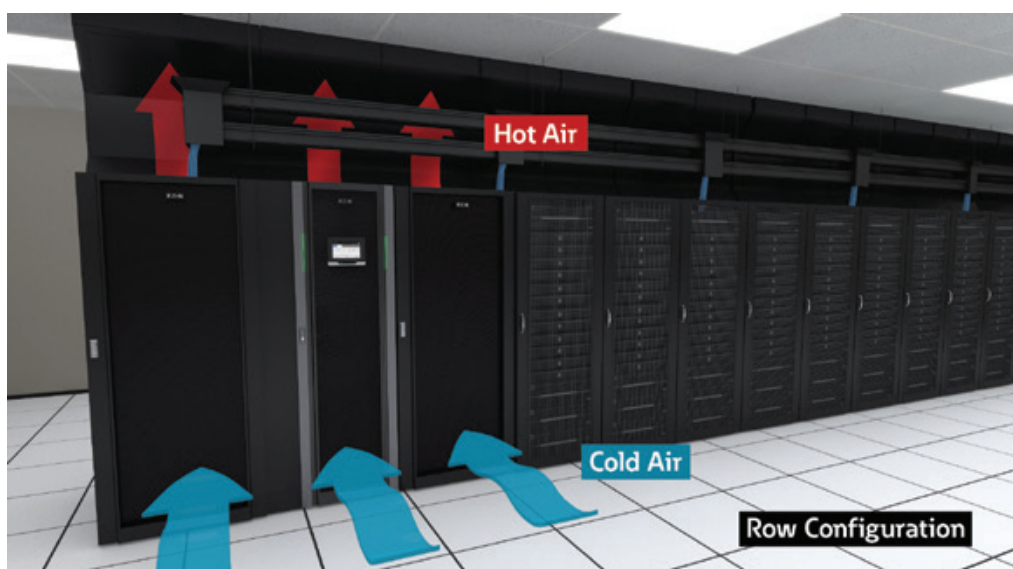**** Leading competitor does not offer ESS mode**

The 93PM double-conversion energy savings pay for the UPS in less than 3 years.

2. Easy deployment

- **Maximizes deployment flexibility by providing flexible configurability**

The 93PM supports front-to-top ventilation, ideal for against the wall configuration.

Hot Air

Cold Air

Wall Configuration

Hot Air

Cold Air

Row Configuration

Front-to-top ventilation feature also makes the 93PM a perfect fit for in-row configurations that support slim chimneys.

Hot Air

Cold Air

Aisle Configuration

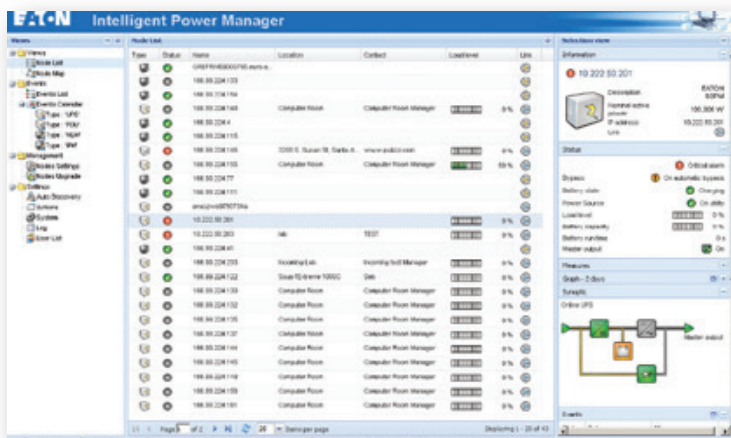The 93PM also supports front-to-back ventilation making it great for hot/cold aisle configuration.

Green light bars showing healthy UPS.

Red light bars showing alerts on system. Yellow light bars indicate battery and bypass status.

3. Easy management

- **Provides easier access to detailed status information through its large, user-friendly LCD touchscreen interface**

  With the 93PM's graphical LCD interface you can track stats on energy savings, battery time, outage tracking, load profiling and much more.

  The green/yellow/red LED light-bars make system status visible from a distance in data centers.

Intelligent Power Manager seamlessly integrates into the major virtualization platforms, including VMware®, Citrix®, Red Hat® and Microsoft® Systems Center.

Communication card

Connectivity options:

- Power Xpert Gateway Mini-slot communication card
- Industrial relay card

- **Integrates with the leading virtual platforms through its full suite of power management and connectivity software**

  Designed for the most advanced IT environments, the 93PM supports optional communication cards that allow remote access via the HTTP(S), SNMP, MODBUS TCP/IP, Modbus RTU and BACnet IP protocols. In addition, Eaton's Power Xpert® software and Intelligent Power Software Suite give you all the tools you need to manage power devices in your physical or virtual environment. Learn more at **Eaton.com/intelligentpower**.

- **Increases uptime through its 24x7 remote monitoring and reporting capabilities**

  Eaton's eNotify Remote Monitoring Service provides 24x7 real-time monitoring of the 93PM and alerts service technicians to take necessary measures when a problem is detected. Learn more at **Eaton.com/enotify**.

Eaton's comprehensive portfolio

Integrated data center products and services

A Overhead Cable
Management Solutions

B Thermal Management
Solutions

C Busway

D ePDUs

E Aisle based Power
Management Solutions (UPSs)

F Rack Monitoring
Solutions

G Rack-based Power
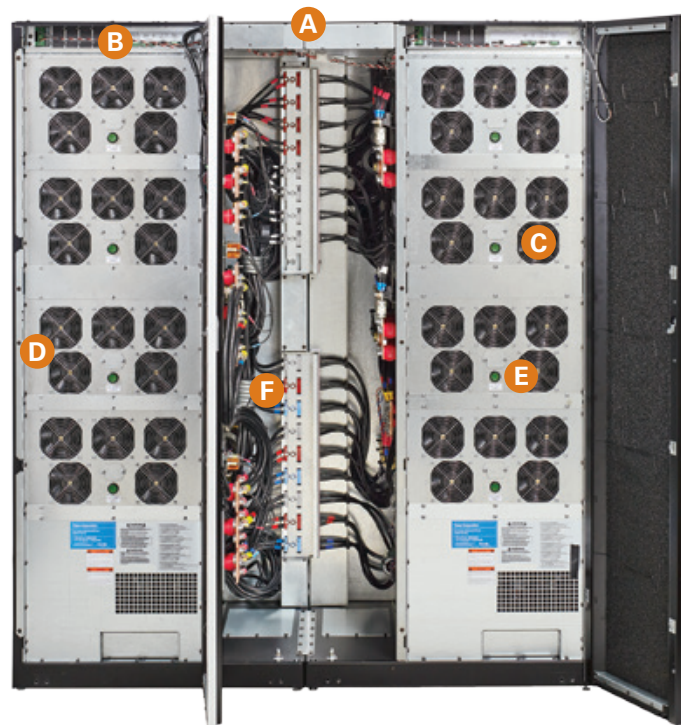Management Solutions (UPSs)

H IT enclosures

I Customized Service plans

J Management Software

The functional core of the 93PM UPS

A Cable entry
Top and bottom cable entry options available

B Communications and connectivity
- Built-in device and host USB
- Five alarm inputs and dedicated EPO
- Alarm relay output
- Four communication slots

C Serviceable redundant fan assembly
Contained within each power module

D Replaceable power modules
(50 kW) with independent control and power

E Soft start controls
Contained within each power module

F Input/output connections

Open front view of 400 kW unit

Eaton 93PM UPS Technical Specifications*

Power Modules

Power offering (kW)	20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 250, 300, 350, 400 (optional internal redundancy available)

General Characteristics

Efficiency in Energy Saver System (ESS)	99%
Efficiency in double-conversion mode	Up to 97%

Input Characteristics

Voltage	480V (208V with IAC-D, available up to 100kW)
Voltage range	+10% / -15%
Frequency range	50/60 Hz
Power factor	> .99
Input current distortion	< 3% @ 100% load capacity

Battery

Battery voltage	432V, 480V
Charging method	ABM® or float technology

UPS Dimensions

Height	74"
Depth	42"
Width	22" (20-150 kW), 32" (160-200kW), 64" (250-400kW)

Output

Voltage	480V (208V with IAC-D, available up to 200kW)
Regulation	±1% steady state
Voltage THD	<1% (100% linear load); <5% (non-linear load)
Load power factor range	.8 leading to .8 lagging without de-rating

Certification

Safety	UL1778, cUL
EMC	FCC Part 15 subpart B class A
Surge	IEC 61000-4-5

Optional Accessories

- External slim maintenance bypass
- Integrated distribution cabinet (with input and output transformer options)
- Integrated parallel tie cabinets
- Integrated battery cabinet (small and large)

*Due to continued improvements, specifications are subject to change.

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Learn more at
Eaton.com/93PM