

Eaton 93PM UPS

Where aesthetics meet intelligence.



Powering Business Worldwide

93PM features and benefits

The Eaton 93PM UPS combines unprecedented efficiency and reliability 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.

\$700 annual savings*

1. Lowest TCO (Total Cost of Ownership)

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

The 93PM UPS with Eaton's acclaimed Energy Saver System (ESS) delivers unbeatable energy efficiency without compromising power protection or availability. When running in ESS mode the 93PM is more than 99 percent efficient.

The advanced three-level inverter technology enables the 93PM to achieve up to 97 percent efficiency even in double-conversion mode.

The 93PM provides the highest efficiency across the entire operating range. So, no matter what your application requires, 93PM reduces waste, lightens cooling burdens and lowers electrical bills.

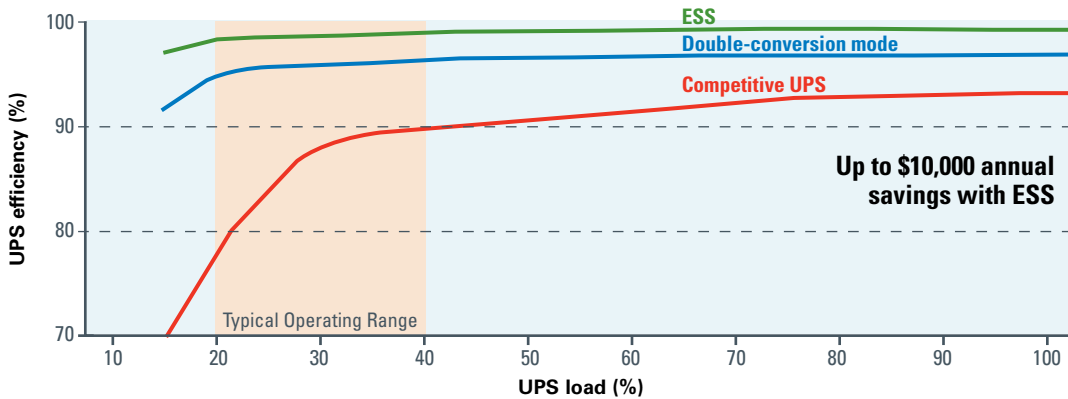
- Conserves valuable data center floor space with its compact footprint**

The 93PM offers the smallest footprint of any UPS in its class—35 to 50 percent smaller than competitive units.



93PM compact footprint against competitive products.
*Savings based on \$150 per square feet annual cost for data center space.

Eaton 93PM efficiency in double conversion and ESS



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

Graph showing ESS and superior double-conversion efficiency in 93PM.

Eaton's 93PM efficiency annual savings vs. a leading competitor

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%	\$6,868	95.8%	\$5,780
50%	90.6%	98.9%	\$7,303	96.8%	\$5,574
75%	92.5%	99.1%	\$8,515	97.0%	\$5,931
100%	93.0%	99.1%	\$10,436	96.8%	\$6,656

The 93PM double-conversion energy savings pay for the UPS in less than 4 years.

* Savings calculated using \$0.10 kW/hr. and 80% cooling ratio
** Leading competitor does not offer ESS mode

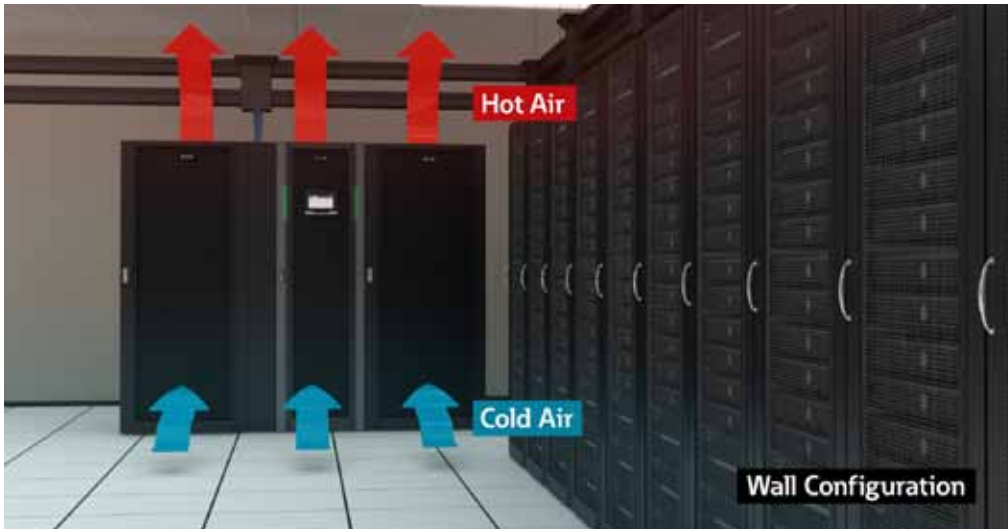
2. Easy deployment

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

The Eaton 93PM maximizes deployment flexibility by providing innovative thermal management options.

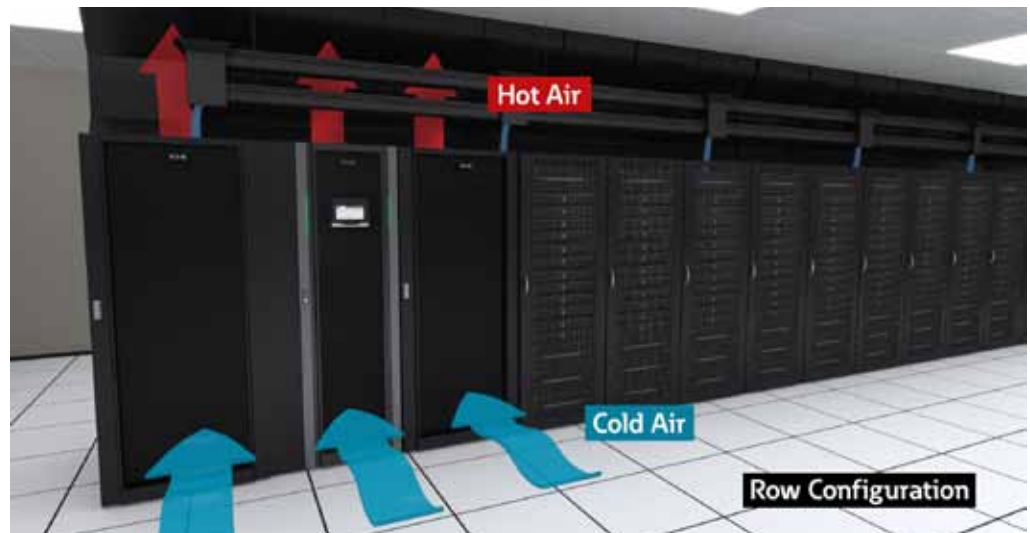
Unit can be deployed easily based on your configuration needs.

- Wall configuration
- Row configuration
- Hot aisle/cold aisle configuration (with or without chimneys)



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

Front-to-top ventilation feature also makes the 93PM a perfect fit for in-row configurations that support slim chimneys. Therefore, making room to run overhead busway and cable trays.



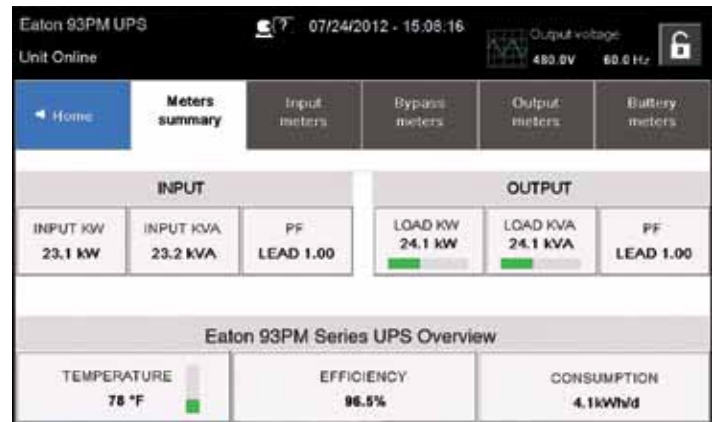
The 93PM also supports front-to-back ventilation making it great for hot/cold aisle configuration.

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.



Screen shot showing power flow and status details.

LED light bars



Green light bars showing healthy UPS.



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

- 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.

Connectivity options:

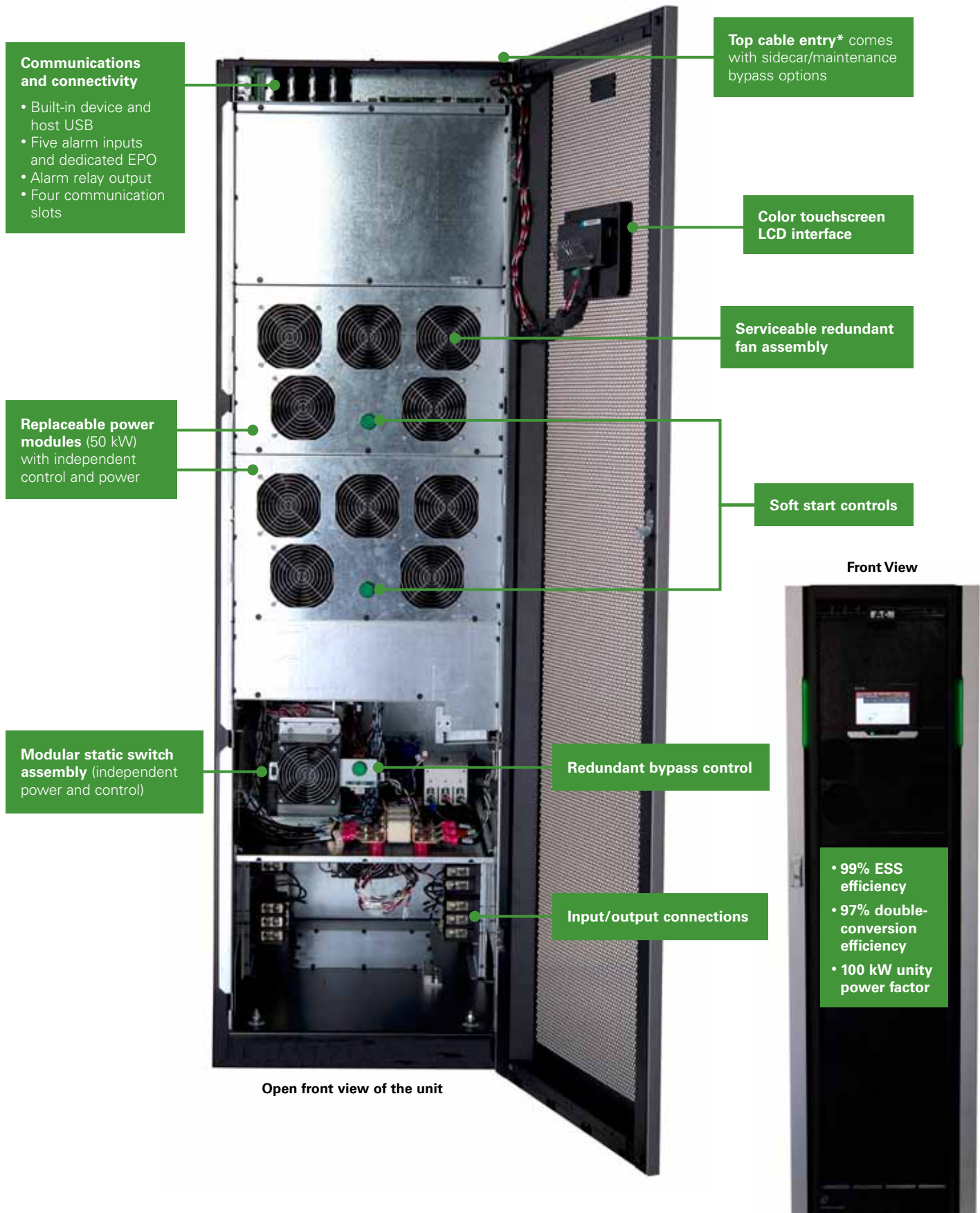
- Power Xpert Gateway Mini-slot communication card
- Industrial relay card

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

Eaton's eNotify Remote Monitoring Service provides 24x7 realtime monitoring of the 93PM and alerts both service technicians and the customer when a problem is detected.

Learn more at Eaton.com/enotify.

The functional core of the 93PM UPS



* Top cable entry requires sidecar option.

Eaton 93PM UPS technical specifications*

UPS rating (1.0 power factor)

kVA	100
kW	100

General characteristics

Efficiency in Energy Saver System (ESS)	99%
Efficiency in double-conversion mode	Up to 97%
Audible noise	65 db
Altitude (max)	1500 m

Input characteristics

Voltage	480
Voltage range	+10% / -15%
Frequency range	40-72 Hz
Power Factor	> .99
Input current distortion	< 3% @ 100% load
Soft start capability	Yes
Internal backfeed protection	Yes
Broadcast global support	Yes

Output

Voltage	480 (208 with IAC-D)
Regulation	±1%
Inverter	PWM with IGBT switching
Voltage THD	<2% (100% linear load); <5% (non-linear load)
Load power factor range	.8 leading to .8 lagging without de-rating
Heat dissipation (BTU/Hr x 1000/Hr)	100 kW, 480V: 11.40

Battery

Battery type	VRLA
Battery voltage	432V
Temperature compensation	Optional
Charging method	ABM® technology

Dimensions

100 kW	Height (mm/inches)	Width (mm/inches)	Depth (mm/inches)
UPS	1880/74	560/22	1067/42
UPS with Sidecar MBS	1880/74	762/30	1067/42
IAC-Distribution	1880/74	795/31	1067/42
EBC	1880/74	819/32	1067/42

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

Weight (UPS)

394 kg/869 lb

Serviceability

Back/side against wall installation	Standard
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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 optional output transformer)

eNotify Remote Monitoring service option

Please visit Eaton.com/enotify for more information.

Communication options

The following connectivity options can be installed at any time:
Power Xpert Gateway Mini-slot communication card
Industrial relay card

Intelligent Power Software

Eaton's **Intelligent Power Manager** software enables you to:

- Remotely monitor and manage multiple devices across your network from a single interface; this can be integrated into an already existing platform, such as VMware, Microsoft or Citrix
- Measure power consumption and kWh to calculate power usage effectiveness
- Trigger load shedding of lesser priority server workloads to extend battery run time in a virtualized environment.
- Trigger workload transfer to disaster recovery site with no loss of data, using VMware's Site Recovery Manager.

Eaton's **Intelligent Power Protector** software enables you to:

- Reboot hung-up machines through watchdog functionality
- Avoid data loss by automating graceful shutdown of machines during extended power outage
- Maximize uptime with redundancy capabilities for dual-cord servers



Learn more at Eaton.com/93PM

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BR153001EN
January 2013

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