

Product brochure  
Eaton 93T 15 - 80 kVA UPS

# Eaton 93T UPS



**EATON**

*Powering Business Worldwide*



# Eaton 93T 15 - 80 kVA UPS

Eaton 93T UPS offers lower total cost of ownership, maximum availability, resiliency, reliability, safety, and efficiency with more than 60 years of Eaton experience.

It is ideal for IT applications like small data centers, server rooms and mission critical applications like commercial and institutional, finance, healthcare, government and industrial.

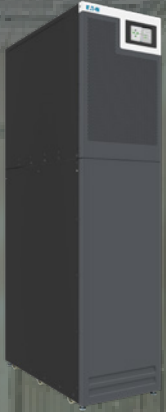
## Future-ready

The rapid adoption of the cloud, constant evolution of IT technologies, increased focus on environmental footprint and sophistication of mission - critical applications are demanding even more efficient, resilient and safe power protection solutions.

The new level of efficiency offered by the Eaton 93T UPS minimizes total cost of ownership while the safety and resiliency, both in infrastructure and IT layers, maximize availability and ensure business continuity.



# Eaton 93T UPS power range



**15 - 30 kVA**



1328 mm (h) \* 380 mm (w) \* 740 mm (d)



Optional internal battery



**40 kVA**



1575 mm (h) \* 380 mm (w) \* 740 mm (d)



Optional internal battery



**60 - 80 kVA**



1750 mm (h) \* 500 mm (w) \* 822 mm (d)



Optional internal battery



# All-round value

Eaton 93T UPS aims to deliver the highest availability for IT and mission critical applications at the total cost of ownership for cost-efficient business continuity.



## Efficiency

With market - leading efficiency being translated into reduced electrical and cooling losses, the Eaton 93T UPS helps to minimize operational expenditure.



## Resiliency

The ability of a system to absorb faults and still remain in its desired operational state is paramount to minimizing costly downtime.



## Safety

Eaton 93T UPS makes electrical safety easy for the end users, planners and contractors – required safety equipment come pre-tested, integrated and inbuilt.



# Total cost of ownership

Eaton's efficiency focused technologies help you to decrease your capital and operational expenses significantly.

## Leading efficiency technologies resulting in ultimate savings

### Double conversion efficiency

High online efficiency significantly lowers operation costs and provides savings in cooling. Replacing an older generation UPS with a Eaton 93T UPS will be paid back in 3 years.

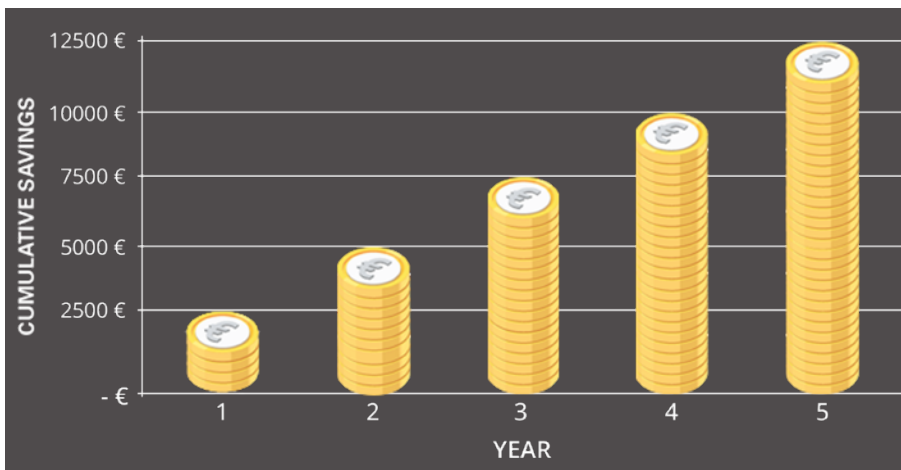
96 %  3 YEARS PAYBACK TIME

### Energy Saver System

Energy Saver System (ESS) improves Eaton 93T UPS efficiency levels to 99 %. ESS is the most proven and reliable energy saving system in the market with many years of usage within a wide install base.

900000 kVA  
of UPS CAPACITY IN ESS MODE  
74 % Less Losses

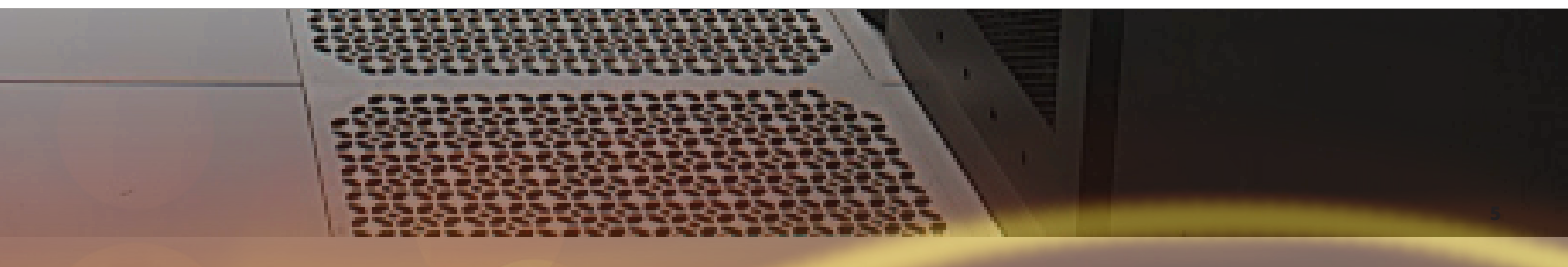
You will save more than **2500 €** annually in operating expenses.



More than  
**DOUBLE YOUR SAVINGS**  
by utilizing **ESS MODE**  
**30,000 € / 5 years!**

### Data used for calculation

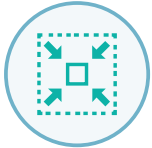
Eaton 93T UPS vs. 94 % efficiency UPS electricity price 0,1833 € / kWh (Euro area average) cooling ratio 20 %, 30 kW load





## More real power

Eaton 93T UPS maximizes the true available power. Unity power factor results in more real power than comparable UPSs on the market.



## Reduced footprint

Eaton 93T UPS is 20 % smaller compared to the UPSs in its class. With reduced footprint, it helps you keep valuable space for revenue generating equipment.



## Maximized internal battery

With the optional internal battery up to 80 kVA, you will not need an external battery and decrease your TCO while saving space.



# Availability

Whatever the changing conditions – and however quickly they change – the Eaton 93T UPS is designed to maintain a steady, uninterrupted, clean power supply. This market-leading resiliency is the result of a number of advanced technologies built-in to the Eaton 93T UPS.

## Reliable load sharing

Hot Sync is a patented load-sharing technology for parallel operation of UPS inverters, without communication or load-share signals. Not relying on communication link or master-control topology, Eaton 93T UPS provide the highest possible reliability by eliminating the single point of failure in a parallel operating UPS system.

## Increased battery life

The Advanced Battery Management extends the life of valve-regulated lead-acid (VRLA) batteries, through an intelligent charging routine. This prevents unnecessary charging and significantly retards the battery wear rate. ABM technology is widely used and accepted technology with a 20-year proven track-record.

## Electrical installation safety made easier

Designing safe electrical installations are made easy for the designers and end users of Eaton UPS. The important safety requirements are implemented into the UPS design as standard.

The installation fault current levels are determined by the size of incoming transformer. The UPS is validated for prospective short circuit current of  $I_{cc}$  35 kA, which is suitable for practically all installations. Eaton 93T UPS comes with an integrated Bussmann ultra-rapid fuse in its bypass line. Eaton UPSs are guaranteed to be safe and compatible with any installation fault current levels, no conditions apply.

The UPS safety standard (IEC/EN 62040 Part 1) also requires backfeed isolation device to be connected in the UPS static bypass path due to human safety under thyristor short circuit condition. Eaton UPS come with backfeed isolation contactor integrated internally in the unit. This also guarantees that a shorted thyristor will have no effect to the double conversion operation of the UPS, removing the single point of failure.





# Brightlayer suite

The Eaton 93T UPS seamlessly integrates with the Eaton Brightlayer digital solutions, offering world-class performance management. It comes equipped with intelligent operational and management features that empower you to leverage data insights for monitoring, managing, and optimizing performance.

## Intelligent monitoring

Eaton 93T UPS provides you easy monitoring solutions by utilizing Eaton's Intelligent Power Softwares (Intelligent Power Manager – IPM – and Intelligent Power Protector – IPP). Eaton's intelligent softwares lead virtualization and storage platforms, and allow users to view, monitor and administer physical and virtual servers, UPSs, PDUs and other power devices, from a single pane of glass.

Network- and power-related alerts will be provided through the virtualization management application, and the Eaton 93T UPS will take the resiliency of the system to the next level, by bridging the electrical and IT infrastructures.

## Intuitive touch screen display

The intuitive touch screen display on the Eaton 93T UPS helps you easily control and monitor your UPS.





# Eaton Cyber Secured Monitoring

Eaton Cyber Secured Monitoring is the right solution to connect your device without any compromise to security and availability. It runs on a secured cloud and allows enabling services such as Remote Monitoring, Health Reports and early anomaly detection that help to mitigate downtime risk associated with the critical components (battery, capacitors, FANs, etc. Eaton Cyber Secured Monitoring runs in any supported Eaton UPS equipped with the gigabit network card or the industrial gateway card. Wireless options are available.

## Eaton deliverables

24/7 monitoring by EATON specialist team.

UPS remote monitoring portal including real-time UPS diagnostics to evaluate situation before travelling to site.

Early anomalies notification enabled by alarms management system managed by EATON service expert team.

Comprehensive monthly Health report of UPS performance and EATON recommendations.

## Benefits

Faster response to malfunctions reducing delay related to travel to site

Minimized Risk related to power interruption due to reduced MTTR and increased first time fix rate

Improved Reliability performance by addressing early signs of degradation

Proactive maintenance investment optimization to execute only the tasks that are needed.

The screenshot shows the Eaton Cockpit interface. On the left is a navigation menu with options like Home, Group, Alarms, Data explorer, Reports, and Configuration. The main area is divided into several sections:

- ACTIVE, CRITICAL ALARMS:** Lists critical issues such as "009 - 93PM 50kW - On high efficiency: On high efficiency" and "60D - 93PM 50kW - No battery: No battery".
- ACTIVE, NON-CRITICAL ALARMS:** Lists non-critical issues like "1203 - Temperature - Temperature is high: 27999994" and "81D - 93PM 50kW - Load not powered: Load not powered".
- UPS DEVICES:** A table listing various UPS units with columns for Name, Serial Number, Conn. Status, Alarm Status, and End Date. Devices include 93PM-CSB-Card, serviceups (G11H10420), Eaton 9PX 300 (PROTO-KJM), 93PS Italy warehouse, K25 Demo Cumulocity, SP Cumulocity Italy, Gabriel SPX test, and 93PM-100\_AMS08\_ADMIN UPS01.
- Map:** A map of Europe with red location pins indicating the sites of the monitored UPS devices.

## Periodical check up by Health Report

The **Health Report** of the system gives an **in-depth view** of its status, **detects** any anomaly, warns of its condition and **highlights future investments** allowing to plan the budget on time.



Eaton Cyber Secured Monitoring can be purchased separately or with one of the Eaton service plans.

# New Service Level Agreements tailored for you

Flexible service levels adapt to your needs



## UPS Maintenance

- Preventive maintenance and inspection
- System diagnosis
- Cybersecurity firmware update
- System efficiency update

**UPS Maintenance package increases system reliability, enhances cybersecurity protection and efficiency**



## Technical support

- Helpdesk 8h/5
- Expert hotline 8h/7
- UPS operations training
- Cyber secured monitoring
  - UPS performance dashboard
  - UPS system health report (anomalies detection)
  - Maintenance records portal (My.Eaton.com)

**Technical support package guarantees access to Eaton experts, enables remote diagnostics and optimizes life cycle management of the UPS through predictive health reports**



## Emergency response

- Guaranteed response time
- Root cause analysis
- Tailored contingency planning

**Emergency response package minimizes time to restore the system functionality, guaranteeing 24/7 response by a certified Eaton engineer**

## Warranty extension opportunity

Eaton offers you 2 different warranty extension opportunities for 1 or 2 year(s) including Eaton Cyber Secured Monitoring, technical support, repairs in case of failure and with the 3-ph On-Site Warranty you have 1 preventive maintenance per extended year of warranty included.

**What's in it for me?**  
Check Eaton's UPS Service Level Agreements



	<b>Rated capacity/active power (kVA/kW)</b>	<b>15/15</b>	<b>20/20</b>	<b>30/30</b>	<b>40/40</b>	<b>60/60</b>	<b>80/80</b>
<b>Input</b>	Rated input voltage (Vac)	380 / 400 / 415					
	Input voltage range (Vac)	201 - 478					
	Rated input frequency (Hz)	50 / 60					
	Input frequency range (Hz)	40 - 72					
	Bypass voltage range (Vac)	+/- 15 % by default, +/- 20 % optional					
	Input power factor	> 0.99					
	Input current THDi (@ rated linear load)	< 3 %					
<b>Output</b>	Rated output voltage (M)	380 / 400 / 415					
	Rated output frequency (Hz)	50 / 60					
	Power factor	1					
	Output voltage regulation (steady state)	±1 %					
	Output voltage tolerance regulation (dynamic)	± 5 % (0 - 100 % load variation)					
	Output voltage THDv (@ full linear load)	< 2 %					
	Inverter overload capacity	10 minutes, @ 125 %					
<b>Efficiency</b>	Double-conversion mode	96 %					
	ESS mode	99 %					
<b>Parallel</b>	Parallel unit	Up to 4					
<b>Battery configuration</b>	Battery quantity	32-44 blocks					
	Charging method	ABM, or constant float charge					
	Connection	Support common battery (1+1) in parallel configuration					
<b>Dimensions</b>	W*D*H (mm)	380 * 740 * 1328		380 * 740 * 1575		500 * 822 * 1750	
<b>Weight</b>	Net weight incl. internal battery	230	288	313	424	660	768
<b>Communication</b>	Communication interface	2 mini-slots, 3 building alarms inputs, and 1 RS232&1 USB					
	Communication accessories	Network card; Industrial gateway card; EMP temperature and humidity sensor; AS / 400 relay / RS - 232 interface card					
<b>Others</b>	Operating Temperature	0 - 40 °C					
	Humidity	5 - 95 %, non-condensing					
	Altitude	< 1000 m, no derating					
	Noise (1m)	≤ 65 dB					
	Safety	IEC62040-1					
	EMC compatibility	IEC62040-2					
	Performance	IEC62040-3					

# Eaton 93T UPS



Eaton's electrical business is a global leader with deep regional application expertise in power distribution and circuit protection; power quality, backup power and energy storage; control and automation; life safety and security; structural solutions; and harsh and hazardous environment solutions. Through end-to-end services, channel and an integrated digital platform & insights Eaton is powering what matters across industries and around the world, helping customers solve their most critical electrical power management challenges.

For more information, visit [Eaton.com](https://www.eaton.com)