

# Eaton 93PM UPS

30–200 kW



An Eaton Green Solution



## Maximum energy efficiency. Minimum operating costs.

### Lowest total cost of ownership

- The 93PM UPS sets new standards, with an operating level of up to 97% in double conversion mode resulting in significant savings in operational costs.
- > 99% superior efficiency is delivered in Energy Saver System mode (ESS).
- Maximal power and energy density ensures a compact footprint.

### Highly scalable and reliable

- Scalable, modular architecture and 'Pay as you grow' capability minimises CapEx.
- Eaton's unique Hot Sync wireless paralleling and internal redundancy ensures maximum availability and high reliability.

### Easy deployment

- Thermal management support allows for flexible installation against the wall, in rows and in hot/cold aisle configurations.
- Easy access allows fast MTTR (mean time to repair).

### Easy management

- The 93PM UPS comes with Web and SNMP interfaces as standard.
- Intelligent Power® software integrates with leading virtualisation management systems for monitoring and managing.
- The intuitive user LCD interface and visual data logging provides clear information on the UPS status.

### Key applications

- Small, medium and large data centres
- Modular and virtualised data centres
- Mission-critical applications
- IT infrastructure



Powering Business Worldwide

# Eaton 93PM UPS 30–200 kW

## Technical specifications

General	
UPS output power rating (1.0 p.f.)	30, 40, 50, 80, 100, 120, 150, 160, 200 kW
Efficiency in double conversion mode	Up to 97%
Efficiency in Energy Saver System (ESS)	> 99%
Field upgradeable	Yes
Inverter/rectifier topology	Transformer-free IGBT with PWM
Audible noise	30–50 kW: < 60 dBA
	80–200 kW: < 65 dBA
	ESS operation: < 47 dBA
Altitude (max)	1000 m without derating (max 2000 m)

Input	
Input wiring	3ph + N + PE
Nominal voltage rating (configurable)	220/380, 230/400, 240/415 V 50/60 Hz
Input voltage range	<b>High</b> +20% rectifier input, 10% bypass input. <b>Low</b> –15% at 100% load, –40% at 50% load without battery discharge
Input frequency range	40–72 Hz
Input Power Factor	0.99
Input ITHD	30 kW: < 4.5%
	40–200 kW: < 3%
Soft start capability	Yes
Internal backfeed protection	Yes

Battery		
Battery type	VRLA	
Charging method	ABM technology or Float	
Temperature compensation	Optional	
Battery nominal voltage (VRLA)	432 V (36 x 12 V, 216 cells) or	
	480 V (40 x 12 V, 240 cells)	
	<b>Note:</b> Strings with different battery voltage may not be paralleled!	
Charging current maximum	30–50 kW	16,5 A
	80–100 kW	33 A
	120–150 kW	50 A
	160–200 kW	66 A
Battery start capability	Yes	

Output	
Output wiring	3ph + N + PE
Nominal voltage rating (configurable)	220/380, 230/400, 240/415 V 50/60 Hz
Output UTHD	< 1% (100% linear load).
	< 5% (reference non-linear load)
Rated output power factor	1.0
Permitted load power factor	0.8 lagging – 0.8 leading
Overload on inverter	10 min 102–110%;
	60 sec 111–125%;
	10 sec 126–150% 300 ms > 150%.
	On battery mode 300 ms > 126%
Overload when bypass available	Continuous < 125%, 10 ms 1000% <b>Note:</b> Bypass fuses may limit the overload capability!

Accessories	
External battery cabinets with long-life batteries, External maintenance bypass switch, integrated manual bypass, MiniSlot connectivity (Web/SNMP, ModBus/Jbus, Relay)	

Communications	
MiniSlot	3 communication bays
Network/SNMP interface	Yes, standard
Serial ports	Built-in host and device USB
Relay inputs/outputs	5 relay inputs and dedicated EPO
	1 relay output

Compliance with standards	
Safety (CB certified)	IEC 62040-1
EMC	IEC 62040-2
Performance	IEC 62040-3

Due to continuous product improvement programmes, specifications are subject to change without notice.

Part number	Description	Rating	Full load runtime	Dimension (WxDxH)	Weight (with battery)
P-105000007-005	93PM-30(50)-BB-6x9Ah	30 kW	20 min	560 x 914 x 1876	890 kg
P-105000007-020	93PM-40(50)-BB-6x9Ah	40 kW	15 min	560 x 914 x 1876	890 kg
P-105000007-034	93PM-50(50)-BB-6x9Ah	50 kW	10 min	560 x 914 x 1876	890 kg

Part number	Description	Rating	Dimension (WxDxH)	Weight (without batteries)
P-105000011-001	93PM-50(100)-N+1	50 kW N+1	560 x 914 x 1876	338 kg
P-105000011-005	93PM-80(100)	80 kW	560 x 914 x 1876	338 kg
P-105000011-009	93PM-100(100)	100 kW	560 x 914 x 1876	338 kg
P-105000014-001	93PM-100(150)-N+1	100 kW N+1	560 x 914 x 1876	438 kg
P-105000014-005	93PM-120(150)	120 kW	560 x 914 x 1876	438 kg
P-105000014-009	93PM-150(150)	150 kW	560 x 914 x 1876	438 kg
P-105000016-001	93PM-150(200)-N+1	150 kW N+1	760 x 914 x 1876	556 kg
P-105000016-002	93PM-160(200)	160 kW	760 x 914 x 1876	556 kg
P-105000016-003	93PM-200(200)	200 kW	760 x 914 x 1876	556 kg