

# Eaton 93PS UPS

8-40 kW



93PS UPS



## Key applications:

- IT applications:
  - Server rooms
  - Localised Data centres
- Mission critical applications:
  - Manufacturing/Industrial facilities
  - Transportation
  - Retail Buildings
  - Healthcare
  - Telecomm
  - Government

## Lowest Total Cost of Ownership (TCO)

- Efficiency
  - Above 96% efficiency in double conversion mode
  - Up to 99% efficiency with Energy Saver System
- Scalability
  - Scalable architecture and 'Pay as you grow' capability to minimise Capital Expenditure
  - Paralleling of up to 4 units
- Inherent redundancy
  - Modular design allows internal redundancy (separate battery configuration also available)
- Smallest footprint in the market
  - The 93PS provides significantly more in a smaller package, with a footprint of only 0.25 m<sup>2</sup> for the smaller frame (8-20 kW) and 0.36 m<sup>2</sup> for the large frame (8-40 kW)
- Unity power factor (1.0)

## Maximum Availability

- Hot Swap and Hot Scalable
  - A module can be replaced while the other continues protecting the load (concurrent maintenance)
  - A module can be added while the other continues protecting the load (hot scalable)
  - Individual battery strings can be serviced while other strings are supporting the load
- Super-sized static switch
  - Optional super-sized Static Switch to enhance the selectivity of the overall electrical installation
- Safety
  - Equipped with an ultra-rapid fuse in the Static Switch – ensuring safety in all scenarios
  - Equipped with a backfeed contactor – no need for additional installments
- Cloud & Virtualisation ready
  - The 93PS and Eaton's Intelligent Power Manager software suite takes the resiliency of the system to the next level by bridging the electrical and IT infrastructure
  - IT and electrical infrastructure management from a "Single pane of glass"
  - Load shedding – 50% drop in load equates to 250% more runtime!



Powering Business Worldwide

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General	8-20 kW	8-40 kW				
UPS output power rating (1.0 p.f.)	8, 10, 15, 20	8, 10, 15, 20, 30, 40, 8+8, 10+10, 15+15, 20+20				
Model catalogue reference	93PS-XX(20)-YY-	93PS-XX(40)-YY-				
Number of internal batteries	0 to 2 x 32 blocks	0 to 4 x 32 blocks				
UPS options	Long life batteries (LL) Internal maintenance bypass switch (MBS) External maintenance bypass switch External battery cabinets					
Upgradability	Yes, up to 20 kW	Yes, up to 40 kW				
External paralleling	Up to 4 units with HotSync technology					
UPS topology	Double conversion					
Efficiency in Double conversion mode	>96%					
Efficiency in Energy Saver System (ESS)	Up to 99%					
UPS dimensions (width x depth x height)	335 x 750 x 1300 mm	480 x 750 x 1750 mm				
UPS Degree of protection	IP 20					
Acoustic noise at 1 m, in 25 °C ambient temperature	< 60 dBA in double conversion < 47 dBA in ESS					
Maximum service altitude	1000 m (3300 ft) above sea level at 40 °C Maximum 2000 m (6600 ft) with 1% derating per each add. 100 m					
Input						
Rated input voltage	220/380 V; 230/400 V; 240/415 V					
Voltage tolerance:						
Rectifier input	187 to 276 V					
Bypass input	rated voltage -15% / +10%					
Rated input frequency	50 or 60 Hz, user configurable					
Frequency tolerance	40 to 72 Hz					
Input wiring	3 phases + neutral					
Input power factor	0.99					
Input ITHD	8 kW < 5%	10 kW < 4%	15-40 kW < 3%			
Rated input r.m.s. current	8 kW 13 A	10 kW 16 A	15 kW 24 A	20 kW 32 A	30 kW 48 A	40 kW 63 A
380V	12 A	15 A	23 A	30 A	46 A	61 A
400V	12 A	15 A	22 A	29 A	44 A	58 A
415V						
Soft start capability	Yes					
Back feed protection	Yes, for rectifier and bypass lines					

Output		
Output wiring	3 phases + neutral	
Rated output voltage	220/380 V; 230/400 V; 240/415 V, configurable	
Total voltage harmonic distortion		
100% linear load	< 1%	
100% non-linear load	< 5%	
Overload capability	10 min 102-110% load	
On inverter	60 sec 111-125% load 10 sec 126-150% load 300 ms >150% load	
On bypass	Continuous < 125% load 20 ms 1000% load	
Load power factor		
Rated	1.0	
Permitted range	0.8 lagging to 0.8 leading	
Battery		
Battery technology	12 V, VRLA	
Battery design life	5 or 10 years	
Battery quantity	32 blocks, 192 cells per battery string	
Battery voltage	384 V	
Nominal Ah capacity (C10)	9 Ah or 7 Ah Long life	
Charge current limit	Default 5 A, configurable Maximum 25 A	Default 10 A, configurable Maximum 50 A
Battery start option	Yes	
Communication Circuits		
MiniSlot	2 communication bays	
Network/SNMP interface	Yes, standard	
Standard connectivity ports	Mini-slot ports for optional cards, Device USB and Host USB, RS-232 service port, relay output, 5 building alarm inputs and a dedicated EPO, Web and SNMP card	
Compliance with Standards		
Safety (CB certified)	IEC 62040-1	
EMC	IEC 62040-2	
Performance	IEC 62040-3	