# Eaton 93PS UPS

8-10 kW





### **Key applications**

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

#### Lowest total cost of ownership (TCO)

- Highest efficiency in its power range with above 96% efficiency in double conversion mode and up to 99% efficiency in Energy Saver System mode
- Scalable by paralleling up to 4 units
- Smallest footprint on the market, footprint only 0.25 m<sup>2</sup>
- Unity power factor (1.0), providing more real power than many of its rivals

#### Maximum availability

- HotSync® patented load-sharing technology enables parallel operation of units without communication or loadshare signals. Eliminating the communication link eliminates the risk of single point of failure
- Equipped with ultra-rapid fuses in the Static Switch
  - · ensuring safety in all scenarios
- Equipped with backfeed protection
  - no need for additional installments
- Advanced Battery Management Intelligent battery charging to keep your batteries safe and in good condition
- 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



#### **Technical specification**

#### General

| Model rating (1.0 p.f.)                             | 8 kW   | 10 kW   |
|---|--|---|
| Model catalogue reference                           | 93PS-8(10)-0-MBS or<br>93PS-8(10)-1x9Ah-MBS  | 93PS-10(10)-0-MBS or<br>93PS-10(10)-1x9Ah-MBS |
| Number of internal batteries                        | 0 or 1 x 32 blocks   | 0 or 1 x 32 blocks                            |
| Upgradability                                       | Yes, to 10kW   | No  |
| External paralleling                                | Up to 4 units with HotSync technology  |   |
| UPS topology  | Double conversion  |   |
| Efficiency in double-conversion mode                | >96%   |   |
| Efficiency in Energy Saver<br>System (ESS) mode     | Up to 99%  |   |
| UPS dimensions<br>(width x depth x height)          | 335 x 750 x 950 mm   |   |
| UPS Degree of protection                            | IP 20  |   |
| Acoustic noise at 1 m, in 25 °C ambient temperature | < 54 dBA in double conversion<br>< 47 dBA in ESS   |   |
| Maximum service altitude                            | 1000 m (3300 ft) above sea level at 40 °C<br>Maximum 2000 m (6600 ft) with 1 %<br>derating per each add. 100 m |   |
| RoHS/WEEE compliancy                                | Yes  |   |

#### Input

| Model<br>rating (1.0 p.f.)                            | 8 kW   | 10 kW                |
|---|--|----------------------|
| Rated input voltage                                   | 220/380 V; 230/400 V; 240/4                  | 15 V                 |
| Voltage tolerance:<br>Rectifier input<br>Bypass input | 187 to 276 V<br>rated voltage -15% / +10%    |                      |
| Rated input frequency<br>Frequency tolerance          | 50 or 60 Hz, user configurabl<br>40 to 72 Hz | е                    |
| Input wiring  | 3 phases + neutral                           |                      |
| Input power factor                                    | 0.99   |                      |
| Rated input r.m.s. current:<br>380V<br>400V<br>415V   | 13 A<br>12 A<br>12 A                         | 16 A<br>15 A<br>15 A |
| Soft start capability                                 | Yes  |                      |
| Back feed protection                                  | Yes, for rectifier and bypass                | lines                |

#### Output

| Model rating (1.0 p.f.)   | 8 kW  | 10 kW   |  |
|---|---|---|--|
| Output wiring   | 3 phases + neutral  |   |  |
| Rated output voltage  | 220/380 V; 230/400 V; 240/4   | 220/380 V; 230/400 V; 240/415 V, configurable |  |
| Total voltage harmonic<br>distortion:<br>100% linear load<br>100% non-linear load | < 1.5%<br>< 3.5%  |   |  |
| Rated output power  | 8 kW / 8 kVA  | 10 kW / 10 kVA                                |  |
| Overload capability:<br>On inverter   | 10 min 102-110% load<br>60 sec 111-125% load<br>10 sec 126-150% load<br>300 ms >150% load |   |  |
| On bypass   | Continuous < 125% load<br>20 ms 1000% load  |   |  |
| Rated input r.m.s. current:<br>380V<br>400V<br>415V                               | 13 A<br>12 A<br>12 A  | 16 A<br>15 A<br>15 A                          |  |
| Load power factor:<br>Rated<br>Permitted range                                    | 1.0<br>0.8 lagging to 0.8 leading   |   |  |

#### Battery

### Model rating (1.0 p.f.)

| ruting (1.0 p.i.)                         |  |  |
|---|--|--|
| Battery technology                        | 12 V, VRLA   |  |
| Battery design life                       | 5 years  |  |
| Battery quantity:<br>Internal<br>External | 32 blocks, 192 cells per battery string<br>28-40 blocks per string |  |
| Battery voltage:<br>Internal<br>External  | 384 V<br>336V – 480V   |  |
| Nominal Ah capacity (C10)                 | 9Ah  |  |
| Charge current limit                      | Default 5A, configurable<br>Maximum 12.5A                          |  |
| Battery start option                      | Yes  |  |

#### **Communication circuits**

## Model rating (1.0 p.f.)

| MiniSlots                   | 2 communication bays  |
|-----------------------------|---|
| Network/SNMP interface      | Yes, standard   |
| Standard connectivity ports | Mini-slot ports for optional cards, Device USB and Host USB,<br>RS-232 service port, relay output, 5 building alarm inputs and<br>a dedicated EPO,Web and SNMP card |

#### Compliance with standards

### Model rating (1.0 p.f.)

| Safety (CB certified) | IEC 62040-1             |  |
|-----------------------|-------------------------|--|
| EMC                   | IEC 62040-2             |  |
| Performance           | IEC 62040-3             |  |
| RoHS                  | EU directive 2011/65/EU |  |
| WEEE                  | EU directive 2012/19/EU |  |