

# Eaton 93PM G2 UPS

50-360 kVA



## Key applications

- Colocation data centers
- Medium and large data centers
- Finance and banking critical infrastructure
- Commercial buildings and industrial complexes
- Healthcare
- Telecommunications installations
- Process control equipment



## Highest availability, at the lowest total cost of ownership

### Lowest Total Cost of Ownership (TCO)

- Highest efficiency in its power range with up to 97% efficiency in double conversion mode and >99 % efficiency in Energy Saver System mode
- High efficiency even when UPS load levels are low, optimized by Variable Module Management System (VMMS)
- Maximal power and energy density ensures a compact footprint
- EnergyAware ready – Revenue from a necessary investment

### Ultimate resiliency

- HotSync® patented load-sharing technology eliminates risk of single point of failure
- Equipped with ultra-rapid fuses in the Static Switch – ensuring safety in all scenarios
- Equipped with a backfeed contactor – no need for additional installments

### Highly scalable and easy deployment

- Modularity - Hot swappable power modules can be replaced or added while other modules continue protecting the load
- Thermal management allows for flexible installation against the wall, in rows and in hot/cold aisle configurations

### Easy management

- Wide range of connectivity options (Web/SNMP, Modbus/Jbus, relay contacts)
- Intelligent Power® software integrates with leading virtualization management systems for monitoring and managing
- The intuitive touchscreen LCD user interface and visual data logging provides clear information on the UPS status
- Cyber-secure (third party certified) connectivity



Powering Business Worldwide



# Eaton 93PM G2 UPS 50-360 kVA

## Technical specifications

| General                                 |                                                                          |
|-----------------------------------------|--------------------------------------------------------------------------|
| UPS output power rating                 | 50-300 kW (PF 1.0)<br>60-360 kVA (PF 0.9)                                |
| Power module power rating               | 50 kW (PF 1.0)<br>60 kVA (PF 0.9)                                        |
| Efficiency in double conversion mode    | up to 97%                                                                |
| Efficiency in Energy Saver System (ESS) | > 99% <sup>1</sup>                                                       |
| Inverter/rectifier topology             | Transformer-free IGBT with PWM                                           |
| Paralleling capability                  | Up to 4 units                                                            |
| UPS topology                            | Online / Double conversion                                               |
| UPS dimensions (width x depth, height)  | 800 x 990 x 1987 mm                                                      |
| UPS Degree of protection                | IP 20                                                                    |
| 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                                              |
| Rated input frequency                   | 50 or 60 Hz, user configurable                                           |
| Frequency tolerance                     | 40 to 72 Hz                                                              |
| Input Power Factor                      | 0.99                                                                     |
| Input ITHD                              | < 2,5%                                                                   |
| 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)          | 384-528 V (32-44 blocks)                                                 |
| Battery start capability                | Yes                                                                      |
| Alternative backup power technologies   | Li-ion batteries, NiCd batteries,<br>Wet cell batteries, Supercapacitors |

1. IEC 62040-3 Class 3 output

| Output                                | 50-300 kW<br>(PF 1.0)                                        | 60-360 kVA<br>60-360 kVA (PF 0.9) |
|---------------------------------------|--------------------------------------------------------------|-----------------------------------|
| 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)<br>< 3% (reference non-linear load)   |                                   |
| Overload on inverter                  | 10min 110%                                                   | 10 min 110%                       |
|                                       | 1min 125%                                                    |                                   |
|                                       | 10 s 150%                                                    | 10 s 138%                         |
| Overload when bypass available        | Continuous <125% / <115%                                     |                                   |
|                                       | <b>Note:</b> Bypass fuses may limit the overload capability! |                                   |

## Options and accessories

External cabinets with VRLA batteries, Li-ion batteries or Supercapacitors  
Top air exhaust kit (front to top airflow)  
Integrated Maintenance bypass switch (200 kW frame)  
Sync control for synchronizing the output of two separate UPS systems  
MiniSlot connectivity (Network/SNMP, Modbus/Jbus, Relay)  
Power Conditioner mode  
Frequency Converter mode

| Communications       |                                                                      |
|----------------------|----------------------------------------------------------------------|
| MiniSlot             | 4 communication bays                                                 |
| Serial ports         | Built-in host and device USB                                         |
| Relay inputs/outputs | 5 relay inputs and dedicated EPO<br>1 relay output                   |
| Software             | Eaton Intelligent Power Manager<br>Eaton Intelligent Power Protector |

## Compliance with standards

|                       |                          |
|-----------------------|--------------------------|
| Safety (CB certified) | IEC 62040-1              |
| EMC                   | IEC 62040-2              |
| Performance           | IEC 62040-3              |
| RoHS                  | EU directive 2015/863/EU |
| WEEE                  | EU directive 2012/19/EU  |

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

## Eaton 93PM 50-300 kW (PF 1.0) range

| Model            | Rating | Power module qty | Dimensions          | Weight |
|------------------|--------|------------------|---------------------|--------|
| 93PM-G2-50(200)  | 50 kW  | 1                | 800 x 990 x 1987 mm | 361 kg |
| 93PM-G2-100(200) | 100 kW | 2                | 800 x 990 x 1987 mm | 404 kg |
| 93PM-G2-150(200) | 150 kW | 3                | 800 x 990 x 1987 mm | 447 kg |
| 93PM-G2-200(200) | 200 kW | 4                | 800 x 990 x 1987 mm | 490 kg |
| 93PM-G2-250(300) | 250 kW | 5                | 800 x 990 x 1987 mm | 533 kg |
| 93PM-G2-300(300) | 300 kW | 6                | 800 x 990 x 1987 mm | 576 kg |

## Eaton 93PM 60-360 kVA (PF 0.9) range

| Model            | Rating  | Power module qty | Dimensions          | Weight |
|------------------|---------|------------------|---------------------|--------|
| 93PM-G2-60(240)  | 60 kVA  | 1                | 800 x 990 x 1987 mm | 361 kg |
| 93PM-G2-120(240) | 120 kVA | 2                | 800 x 990 x 1987 mm | 404 kg |
| 93PM-G2-180(240) | 180 kVA | 3                | 800 x 990 x 1987 mm | 447 kg |
| 93PM-G2-240(240) | 240 kVA | 4                | 800 x 990 x 1987 mm | 490 kg |
| 93PM-G2-300(360) | 300 kVA | 5                | 800 x 990 x 1987 mm | 533 kg |
| 93PM-G2-360(360) | 360 kVA | 6                | 800 x 990 x 1987 mm | 576 kg |