Eaton Power Xpert 93PR

25 kW to 200 kW

Best Reliability for IT space

Total capacity in parallel upto 1600 kW

Power factor 1

The Dashboard:

Best in Class Efficiency

96.3%

Double conversion efficiency

40°C without de-rating
Native N+1, N+2

Best in Class Footprint

99.3%

ESS efficiency

3 Levels IGBT 2ms
MTTR=10 min

Power Failure | Power Sag | Power Surge | Under-Voltage | Over-voltage | Line Noise | Frequency variation | Switching Transient | Harmonic Distortion

Key Features:

- Modular and Transformer free Design
- Scalable (Off and On premises)
- Easy modules replacement 28Kg
- Hot swappable / scalable modules
  - 19" rack size
  - VRLA and LIB ready
- WEB / SNMP / MODBUS communication
- Top and bottom cable entry
- Critical components redundancy

Key Patents:

- ESS Energy Saver System
- VMMS Variable Module Management
- HotSync® spofless technology
- ECT Easy Capacity Test
- ABM Advanced battery management
- Easy sync control

The UPM Advantage:

- Enhanced reliability with 3 level IGBT
- Patented method for load sharing (Hot-Synch)
- Peer-to-peer control strategy
- Each UPM/unit synchronises independently
- No SPOF - single point of failure
- Ensure vertical and horizontal upgrade
- No 'master-slave' configuration
- No load share signals
- Selective tripping

Powering Business Worldwide

Eaton 93PR 25-50-75-100-125-150-175-200 kW Technical Specification as per IEC 62040-3

General

Ratings	25 kW 50 kW 75 kW 100 kW 125 kW 150 kW 175 kW 200 kW
Model catalogue reference	9106-9292 93PR-75kW-EN 9106-9295 93PR-75kW-IBC-EN
UPS option	Internal battery breaker Internal maintenance bypass sw itch (MBS) External battery cabinets (EBC) Parallel tie cabinet (PTC)
Frames Capacity	200 kW
Upgradability	Yes, up to 200kW
External paralleling	Up to 8 units w ith HotSync technology
UPS topology	Double conversion
UPS performance classification	VFI-SS-111

EFFICIENCY & HEAT DISSIPATION

Ratings	25 kW	50 kW	75 kW	100 kW	125 kW	150 kW	175 kW	200 kW
Efficiency in double-conversion, rated linear load								
100% load	95.0%	95.0%	95.0%	95.6%	95.6%	95.7%	95.7%	95.7%
75% load	95.3%	95.3%	95.3%	96.1%	96.1%	96.1%	96.1%	96.1%
50% load	95.5%	95.5%	95.5%	96.3%	96.3%	96.3%	96.3%	96.3%
25% load	94.5%	94.5%	94.5%	95.7%	95.7%	95.7%	95.7%	95.7%
Heat dissipation (watt) in double conversion								
100% load	1316	2632	3947	4603	5753	6904	8054	9205
75% load	987	1974	2961	3206	4008	4810	5611	6413
50% load	616	1233	1849	2029	2536	3044	3551	4058
25% load	364	728	1091	1178	1473	1767	2062	2356

INPUT CHARACTERISTICS

Ratings	25 kW 50 kW 75 kW 100 kW 125 kW 150 kW 175 kW 200 kW
Rated input voltage Voltage tolerance Rectifier input Voltage tolerance Bypass input	220/380 V; 230/400 V; 240/415 V 305 to 478 V rated voltage -15% / +10%
Rated input frequency Frequency tolerance	50 or 60 Hz, user configurable 40 to 72 Hz
Number of input phases Rectifier input Bypass input	3 phases + neutral 3 phases + neutral
Input pow er factor, double conversion 100% load	> 0.99
Maximum input r.m.s. current	45 90 A 135 A 180 A 225 A 270 A 315 A 360 A
Input current distortion at rated input current	< 3%, 100% load < 3%, 75% load <5%, 50% load <10%, 25% load
Rectifier ramp-up, rectifier start and load step	5 A/s (default), configurable. Minimum 1 A/s.

BYPASS CHARACTERISTICS

Ratings	25 kW 50 kW 75 kW 100 kW 125 kW 150 kW 175 kW 200 kW
Type of bypass	Static
Bypass rating	200 kW
Bypass voltage range	220/380 V; 230/400 V; 240/415 V tolerance -15% / +10% of rated voltage
Transfer time break	No break in Synchronized Conditions 2 ms typical under Unsynchronized Conditions
Maintenance bypass	Inbuilt & without Both Available

MECHANICAL PARAMETER

Ratings	25 kW 50 kW 75 kW 100 kW 125 kW 150 kW 175 kW 200 kW
UPS dimensions (W x D x H)	903 x 1013 x 2050 mm
Weight, UPS frame w/o UPM	425 kg
Weight, UPM (power module)	28 kg (< 25 kg w/o fan panel & DC capacitors)
UPS Cable entry	Rear top & rear bottom
UPS Degree of protection	IP 20
UPS colour	Black; RAL 9005

ENVIRONMENTAL PARAMETER

Ratings	25 kW 50 kW 75 kW 100 kW 125 kW 150 kW 175 kW 200 kW
Acoustic noise at 1 m, in 25 °C ambient temperature	< 70 dBA in double conversion < 55 dBA in ESS
Ambient service temperature range UPS Internal battery	0 °C to + 40 °C w ithout output power derating + 20 °C to + 25 °C recommended for optimized battery life time
Relative humidity range	5 to 95%, no condensation allowed
Maximum service altitude	1000 m (3300 ft) above sea level at 40 °C Maximum 2000 m (6600 ft) w ith 1 % derating per each add. 100 m

OUTPUT CHARACTERISTICS

Ratings	25 kW 50 kW 75 kW 100 kW 125 kW 150 kW 175 kW 200 kW
Number of output phases	3 phases + neutral
Crest factor	3
Rated output voltage	220/380 V; 230/400 V; 240/415 V, configurable
Output voltage variation, steady state	< 1%
Total voltage harmonic distortion 100% linear load 100% non-linear load	 < 1% < 5%
Maximum frequency range for synchronization with bypass	± 4 Hz as default.User settable 0,5 to 5 Hz.
Maximum synchronized phase error	< 1° with static balanced load
Maximum slew-rate when synchronizing	1 Hz/s
Overload capability On inverter	10 min 102-110% load @ Unity PF Load 60 sec 111-125% load @ Unity PF Load 10 sec 126-150% load @ Unity PF Load 60 Min 102-110% load @ 0.9 PF Load 10 Min 111-125% load @ 0.9 PF Load 60 sec 126-150% load @ 0.9 PF Load 300 ms >150% load
Load power factor Rated Permitted range	1.0 0.8 lagging to 0.8 leading

BATTERY CHARACTERISTICS

Ratings	25 kW 50 kW 75 kW 100 kW 125 kW 150 kW 175 kW 200 kW
Battery technology	12 V, VRLA/Lithium ION
Battery quantity	36 to 44 blocks, 216 to 264 cells per battery string 400Vdc minimum cut-off
Battery voltage	432 to 528 V, default
Recharge profile	ABM or float
Charge current limit	Default 5A, configurable, maximum 25A per UPM with derating to 60% Capacity with Charger current increamental
Battery start option	Yes

Powering Business Worldwide

India Head Office
Eaton Power Quality Pvt. Ltd.
2, EVR Street, Sedarpet
Industrial Estate
Pondicherry-605111
Tel: +91 413 2672000
Enquries - EatonElectricalIndia@eaton.com

Sales and Service
Toll Free Hotline:
1800 425 5758

www.eaton.com

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