



Pulsar Extreme UPS 1500/2000/2500/3000 VA

Modular protection for your critical applications, networks and telecom systems

► High performance and reliability

- On-line double conversion technology
- 84 to 264 V input without using battery power
- CE/UL/TÜV-GS and ISO 14001 standards

► High availability

- Automatic bypass
- Hot-swap function
- Redundancy

► Advanced communications

- Wide range of communication solutions
- Solution-Pac remote administration software
- UPS-Driver personalization software

► Ease of use

- Easy installation and integration
- Practical full-featured user interface
- Warranty+: three-year extended warranty

► Flexibility and scalability

- Connection via outlet sockets or terminals
- Backup times from 10 minutes to 8 hours
- ECO mode (efficiency up to 94%)

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UPS SYSTEMS

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Pulsar Extreme UPSs are designed to meet the needs of modern equipment: network, intranet and internet servers and interconnection devices, computer and telecommunications centers (PABX), medical and industrial equipment.

High performance and reliability

► On-line double-conversion technology

This technology guarantees a consistently high level of power quality. Whatever the disturbances on the distribution system, the waveform is regenerated via the AC to DC then DC to AC conversion process. The battery is used only as a backup source.

► High-performance battery charger

The Pulsar EXtreme battery charger:

- reduces battery recharge time (80% backup time recovered in two hours);
- increases the service life of the battery by taking into account manufacturer parameters, ambient temperature and battery aging;
- protects the battery against damage caused by deep discharge;
- avoids disturbances on the distribution system by correcting the power factor;
- avoids propagating faults on the distribution system (backfeed protection).

► Wide input-voltage range

Pulsar EXtreme has very wide input-voltage tolerances from 84 to 264 V to reduce the number of transfers to battery power while maintaining constant output voltage. In this way the batteries are used only for the most serious incidents, maximizing available backup time and extending battery life.

► Certified compliance with CE and UL standards

High availability

► Cold start on battery power

This function ensures trouble-free start-up of your applications even during a utility power outage.

► Automatic bypass

In the event of an overload or UPS fault, Pulsar Extreme automatically transfers the load to utility AC power.

► Hot-swap function

Maintenance on the "Hot-swap" and "Install" versions is possible with the UPS energized and the applications still supplied with power.

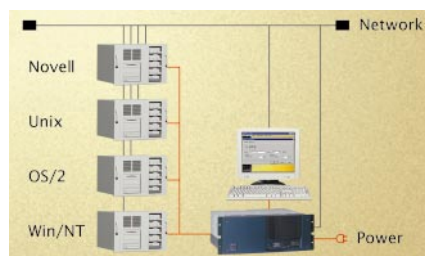
Advanced communications

Pulsar EXtreme offers a complete set of communications solutions and accessories designed for electrical and computer applications.

► Communications port

The RS232 link is available for easy connection of the UPS to the server. It may be used for:

- **personalization of Pulsar EXtreme** by modifying the factory-set parameters (output voltage, intervals between battery tests, operation on bypass, ECO mode, etc.) via UPS-Driver software.
- **local or remote administration** (SNMP/WEB) of the UPS and the protected servers, using Solution-Pac software.



Solution-Pac ensures clean individualized shutdown of servers in heterogeneous environments.

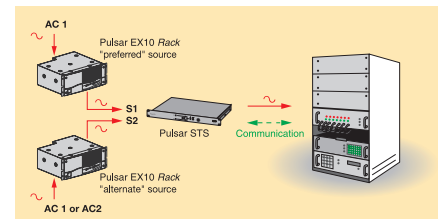
► Solution-Pac software

Solution-Pac may be used to:

- alert users;
- automatically shut down different servers in a heterogeneous environment;
- remotely supervise and control UPSs.

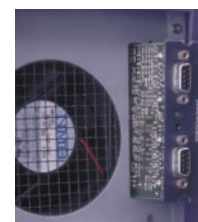
► High-availability pack

A Pulsar STS source transfer switch combined with two Pulsar EXtreme UPSs provides effective power redundancy.



► Communications slot

Lets you add a USB, SNMP, JBus, Relay contact, etc. communication card. The cards make UPS communication totally independent. For example, they keep you informed of UPS status when the server is shut down.



Communications slot



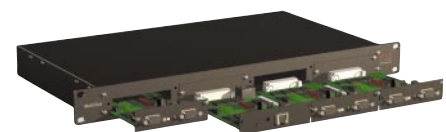
UPSControl remote control panel

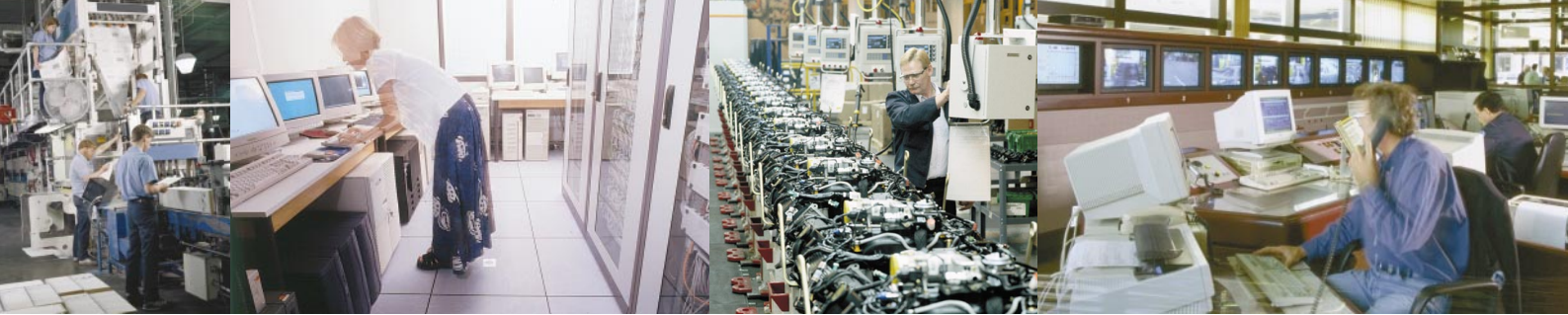
► UPSControl remote display

Using UPSControl, the various UPS parameters are remotely displayed.

► MultiSlot expansion module

This module provides three additional communications slots and concentrates the data from an installation comprising redundant UPSs.





Ease of use

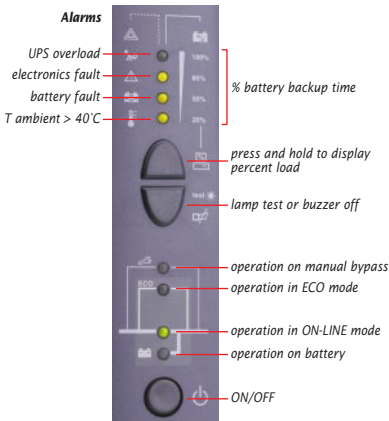
► Easy installation and integration

- Tower or 19"-rack models
- Complete installation kit
- Quick start-up guide
- Easy connection to AC power
- Optional caster-mounted support for easy handling



The Pulsar Extreme 3000 Rack comes with sliding rails for 600 to 900 mm rack-mount cabinets.

► Comprehensive display and controls



► Warranty and services

Pulsar Extreme is covered by a two-year full warranty. The optional MGE Warranty+ extension ensures user peace of mind for three years on site.



Flexible and scalable

► Backup times from 10 minutes to several hours

Pulsar Extreme offers a standard backup time of 10 minutes.

To ensure greater continuity of service, it is possible to:

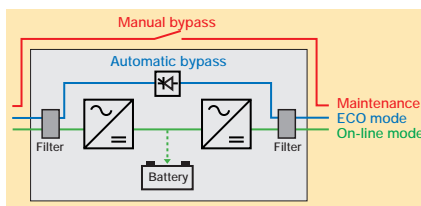
- connect up to two EXB battery extension modules to the UPS, without interrupting the supply of power to the protected applications;



- use the CLA module (long backup-time charger) for very long backup times of up to eight hours at full rated load. Feel free to contact us for details.

► ECO mode

This operating mode offers energy savings by optimizing the efficiency of your UPS. In ECO mode, your applications are supplied via the automatic bypass. In the event of a problem, Pulsar EXTreme switches to on-line double-conversion mode without any interruption in the supply of power.



Operating principle

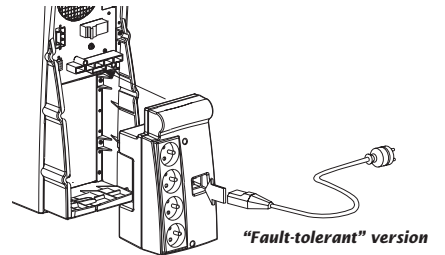


Rear view of Pulsar Extreme "Hot-swap" version

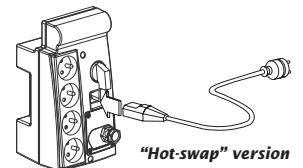
► Flexibility of connections

Pulsar Extreme offers different connection possibilities:

- plug-in ("Fault-tolerant" and "Hot-swap" versions) for direct connection;



"Fault-tolerant" version

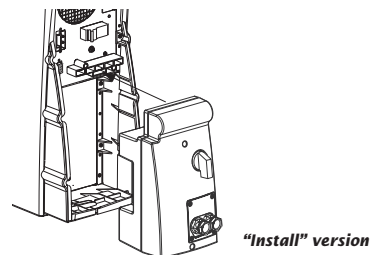


"Hot-swap" version



Different outlets for different countries

- terminal blocks ("Install" version) for installations in an electrical environment. This version must be installed by a qualified technician.



"Install" version

Characteristics

Pulsar EXtreme		1500 VA	2000 VA	2500 VA	3000 VA
General					
Power		1500VA/1000W	2000VA/1330W	2500VA/1665W	3000VA/2000W
Input-voltage range		84/120/160 to 265 without using battery power (1)			
Frequency range		50/60 Hz			
Power factor (THDI)		0.99 (< 5%)			
Sinusoidal output voltage		200/208/220/230/240 Volts			
Harmonic distortion		<3% for linear loads, <5% for non-linear loads			
Efficiency	On-line mode	87%	89%	89%	90%
	ECO mode	94%	94%	94%	94%
Crest factor		4.1	3.1	3.8	3.1
Short circuit current (A)		27	27	41	41
Overload capacity (On-line mode)		130% for 60s, 160% for 10s, 250% for 1s			
Batteries					
Standard backup time	100% rated output	11 min	9 min	11 min	9 min
	50% rated output	25 min	20 min	25 min	20 min
EXB battery extension module	LA	25 min	20 min	25 min	20 min
	XLA	50 min	36 min	50 min	36 min
	2XLA	80 min	66 min	80 min	66 min
Automatic battery test		Yes, at regular intervals without risk of interrupting protected applications			
Communication					
		1 RS232/U-Talk port + 1 communications slot			
Optional cards for UPS or MultiSlot module		<ul style="list-style-type: none"> ▪ SNMP ▪ 2 RS232 U-Talk or Basic (volt-free contacts) ports ▪ RS232 or RS485 JBus/ModBus ▪ 6 relay contacts 250V 2A ▪ USB ▪ 2 RS232 COM ports (HID protocol) ▪ 2 AS400 (volt-free contacts) or/and remote shutdown ports 			
Environment					
Acoustic noise		45 dB			
Operating temperature		0 to 35°C			
Standards					
Performance		EN 50091-3			
Safety		EN 50091-1, IEC 60950			
EMC		EN 50091-2, EN 55022/B, EN55011/B, IEC 61000-4, IEC 61000-3-2			
Marking and certifications		CE, TÜV/GS, UL, cUL, C-Tick			
Design and manufacture		ISO 9001, ISO 14001			
Dimensions (HxWxD in mm) and weight (in kg)					
UPS and EXB or CLA module dimensions		443x173x465 (tower)		177(4U)x483x462 (rack)	
UPS weight		28 (tower)	31 (rack)	33 (tower)	36 (rack)
EXB module weight	LA	22 (tower)	25 (rack)	28 (tower)	31 (rack)
	XLA	36 (tower)	39 (rack)	48 (tower)	51 (rack)
CLA module weight		-	11 (tower) 14 (rack)	-	11 (tower) 14 (rack)
Warranty					
		2 years, extendable by contract			

(1) Values for operation at 50%, 66% and 100% rated output.

Typical applications	router + 2 hubs	PABX (1000 lines)	2 Unix workstations	6 tower PCs	4 PC servers	5 file servers
Power (VA)	500	1000	1500	2000	2500	3000
Pulsar EXtreme 2000	50 min	20 min	11 min	9 min	-	-
Pulsar EXtreme 3000	80 min	36 min	20 min	14 min	11 min	9 min



MGE UPS SYSTEMS

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140, avenue Jean Kuntzmann
ZIRST - Montbonnot Saint Martin
38334 St Ismier Cedex - France
Tel: (33) (0)4 76 18 30 00

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