



Pulsar EX

700-3000 VA

*Smart Protection
for Critical Equipment*

Advanced Features

- ▶ "True" On Line Double Conversion technology
- ▶ Free-standing or rack-mounted models
- ▶ Lightest & smallest rack-mounted UPS available
- ▶ 10/100 Ethernet connection option
- ▶ SNMP and Web based remote supervision
- ▶ Smart battery management
- ▶ Sine wave output
- ▶ Input power factor correction
- ▶ Fault tolerant mode
- ▶ Contact closure option
- ▶ Optional maintenance bypass and output step-up transformer



MGE UPS SYSTEMS' Pulsar EX models provide a superior on-line solution from 700 to 3000 VA in a 2U and 3U high power density package, as well as a convenient free-standing tower.

True on line double conversion technology provides the maximum availability of your critical systems. Any interruptions, surges or other poor quality power conditions are totally removed while a stable, noise free pure sine wave output is supplied to the equipment.

MGE
UPS SYSTEMS

Increased Critical Device Uptime

All the Technical Features You're Looking For

Features

- ▶ Smart battery management
- ▶ Sine wave output
- ▶ Extended back-up time (EX 10 & above)

Benefits

The built-in microprocessor optimizes the charging sequence to prolong battery life and reduce charging time to only 3 hours, 80% capacity

Total compatibility with sensitive power supplies

Extended battery runtime for Internet servers or Telecom applications by adding hot-swappable modules to the UPS

On-Line Technology Delivers More Than Traditional Line-Interactive UPSs

Features

- ▶ Continuous voltage regulation
- ▶ Input power factor correction
- ▶ Wider input operating range
- ▶ Light weight
- ▶ Low profile rack-mounted unit

Benefits

Longer life for your computer hardware. Continuous voltage regulation prevents output voltage disturbances typical of line-interactive UPSs

Reduces harmonics. Increases UPS output power

In extreme brownout conditions (down to 70 volts at 1/3 load), the UPS continues to operate without switching to batteries

Heavy 60 Hz magnetics eliminated

Saves valuable space in rack enclosure

For Any Network Application

Whatever your need is, there is an EX waiting for you, in two convenient form factors, Tower or Rack-mount.



- Pulsar EX 7** (700 VA)
For high-end workstations or PABXs
- Pulsar EX 10** (1000 VA) — 2U
For workgroup servers
- Pulsar EXB** — 2U
Battery extension for EX models (1000-3000 VA)
- Pulsar EX 15** (1500 VA) — 2U
For departmental servers
- Pulsar EX 20** (2000 VA) — 3U
For up to 4 servers
- Pulsar EX 30** (3000 VA) — 3U
For up to 6 servers



Convenient Installation



Integrated handles make it easy to slide UPS out of any enclosure

Up to two outlet types to fit all needs



Expansion slot for optional communication cards. Choose between:

- ▶ Ethernet/SNMP
- ▶ Contact closure card

Facility wiring fault indicator



Guides for mounting rails



Includes universal rail system to install the UPS in any enclosure

Input circuit breaker

Battery connector for optional extended runtimes (up to 4 hours)

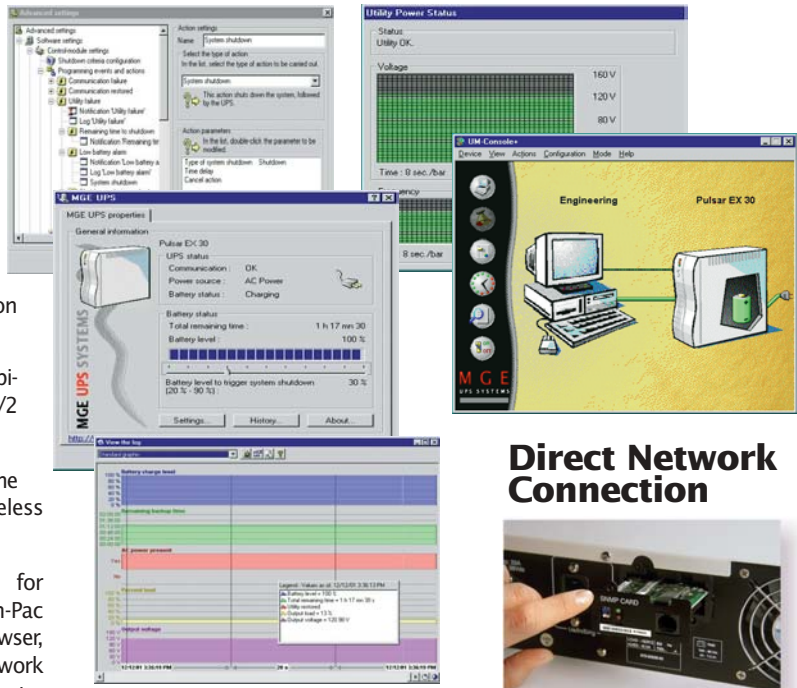
Smart communication port to interface with Solution-Pac power management software

Perfect Network Integration

Solution-Pac Power Management Software

All EX models are supplied with MGE's **Solution-Pac software**. This is the most comprehensive tool available for power management, UPS remote control, automation of everyday tasks (e.g. server startup & shutdown) and for setup of proactive measures during emergencies (orderly system shutdown, paging, etc.). Solution-Pac/WAN uses a TCP/IP-based, distributed architecture to take advantage of unmatched network communication capabilities:

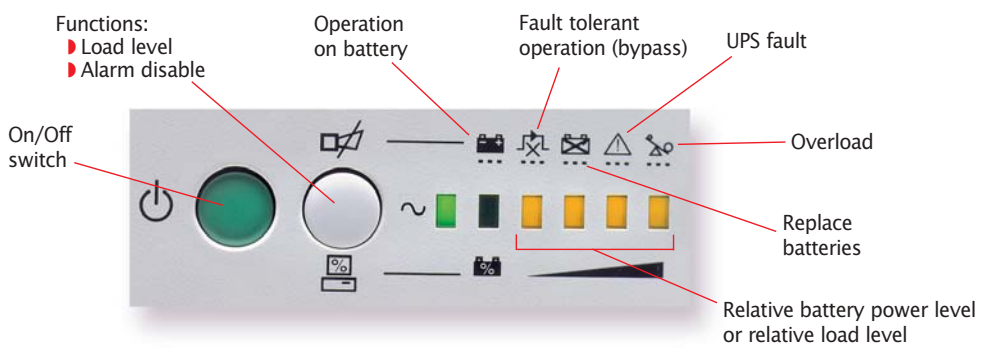
- ▶ Cross-platform compatibility for a combination of Windows NT, NetWare, Unix, OS/2 and VAX systems
- ▶ Multiple server shutdown, without the use of bulky, expensive and featureless external splitter boxes
- ▶ Built-in SNMP and Web capabilities for remote management from Solution-Pac Windows, any system with a Web browser, Unix-based consoles or from a distant network management system such as CA Unicenter TNG, HP OpenView, IBM NetView or SunNetManager.



Direct Network Connection

In addition to the convenient proxy agents provided with Solution-Pac, the optional SNMP/Web card provides direct network connection. The UPS will have its own IP address and ability to remotely control the server it protects. The optional status card is used for telecom applications where only basic information such as "UPS on battery" or "low battery" is required. It is also used to interface Pulsar EX with an IBM AS/400.

Comprehensive Display and Controls



Pulsar EX Specifications



EX7 shown



EX10 Rack shown

Dimensions and Weights

Model No.	Part No.	Dimensions WxHxD (in.)	Weight (lbs.)	Part No.	Dimensions WxHxD (in.)	Weight (lbs.)
EX 7 (700VA/490W)	89007	5.7x8.7x15.8	27			
EX 10 (1000VA/700W)	89010	5.7x8.7x15.8	31	89010R	2U-19x3.5x16.3	38
EX 15 (1500VA/1050W)	89015	5.7x8.7x15.8	43	89015R	2U-19x3.5x19.5	51
EX 20 (2000VA/1400W)	89021	7.6x13x17	77	89021R	3U-19x5.3x21.8	88
EX 30 (3000VA/2100W)	89030	7.6x13x17	77	89030R	3U-19x5.3x21.8	92
EXB 10 battery extension	89011	5.7x8.7x15.8	42	89011R	2U-19x3.5x16.25	49
EXB 15 battery extension	89016	5.7x8.7x15.8	56			
EXB 20/30 battery extension	89031	7.6x13x17	110			
Rack Kit EXB 10/15	8806U	6U-19x10.5x19	20			
Rack Kit EXB 20/30	8807U	5U-19x8.8x19	20			
EX 20 maintenance bypass	89020MBP	7.6x13x17	15			
EX 30 maintenance bypass	89030MBP	7.6x13x17	15			
EX 30 208 or 240 VAC step-up transformer	89032	7.6x13x17	65			

Sizing Guide and Battery Runtimes

	Sm. Business Server	Work-group Server	Departmental Server	2 Each PC Servers	Enterprise PC Server	RISC Server	5 Each PC Servers	6 Each PC Servers
Power (VA)	300	700	1000	1250	1500	2000	2500	3000
EX 7	23	8						
EX 10	50	16	9					
EX 15	60	18	10	8	5			
EX 20	130	45	23	19	17	10		
EX 30	130	45	23	19	17	10	8	5

Eg. 2 PC servers are protected for 8 minutes with an EX15, or 19 minutes with an EX20/30.

Characteristics

	EX7	EX10	EX15	EX20	EX30
Electrical					
Input voltage range			70-138 VAC		
Output power (VA/W)	700/490	1000/700	1500/1050	2000/1400	3000/2100
Output voltage			120 VAC ±3%		
Technology			True on-line double conversion		
Input frequency range			47-53 Hz or 57-63 Hz, auto-select		
Input power factor			>0.95		
Input plug	NEMA 5-15 w/6' cord	NEMA 5-15 w/6' cord	NEMA 5-15 w/6' cord	NEMA L5-20 w/6' cord	NEMA L5-30 w/6' cord
Output receptacles	3* NEMA 5-15	3* NEMA 5-15	3* NEMA 5-15	NEMA L5-20, 3* NEMA 5-15	NEMA L5-30, 3* NEMA 5-15
Crest factor			3:1		
Cold start			Yes		
Batteries					
Back-up time (100% load)	8 min.	9 min.	5 min.	10 min.	5 min.
Back-up time with extension module(s): One/two, EXB modules, (100% load)	N/A	33/60 min.	30/55 min.	40/90 min.	30/60 min.
Recharge time (internal battery, 80%)			3 hours		
			Periodic automatic self-test (frequency adjustable using EX Driver), protection against deep discharges. Safety: UL, cUL, FCC A. Surge: ANSI/IEEE C62.41 Cat. A. Design, production, logistics and service: ISO 9001.		
Fault Tolerance					
Automatic bypass			Standard		
Communications					
User interface			6 LEDs + bar graphs + audible alarms		
Diagnostics			Complete self-diagnostics on start-up, weekly self-test		
Communication			True RS232 port		
Software provided			EX Driver and Solution Pac		
Platforms supported		Novell, Windows NT, Windows 95/98, OS/2, SCO UNIX, HP/UX, IBM AIX, DEC UNIX, SUN Solaris, Linux, Mac/OS and others			
Network boards (optional)			SNMP/Web Card, status information/AS/400		
Environment					
Noise level			<41 dBA		
Environmentally friendly			Energy-saving function (sleep mode). Recyclable components. Packaging and documents made of recycled paper. Recovery of used batteries.		
Warranty (U.S. & Canada)					
Parts and labor			2 years, inc. batteries		
P3 equipment protection warranty			\$35,000		

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