

MINUTEMAN Enterprise™ Series



true sinewave, line-interactive, extended runtime power protection



Specifically designed for enterprise-wide networks and challenging environments

Pure sinewave output provides clean, continuous power for critical equipment

Line-interactive voltage regulation protects against all voltage irregularities (sags, surges, spikes, and brownouts) — EMI /RFI filters out line noise and harmonics

Longest warranty in the industry – three (3) years

Scalable, unlimited runtime with daisy-chained external battery packs

External battery packs with independent chargers — the industry's fastest recharge

Double Boost and Double Buck voltage regulation extends battery life

Space-saving 16-inch depth accommodates large plugs in cramped quarters

SNMP-capable for easy, Web-based remote power management

MINUTEMAN SentryII™ Power Management Software included

Built-in fax / modem /and data protection

Front-access, hot-swappable batteries

Universal design for rackmount, wallmount, tower, or desktop installation (wallmount and 23-inch rack kit is optional)



MINUTE MAN[®]
UNINTERRUPTIBLE POWER SUPPLIES

minutemanups.com

800.238.7272

The MINUTEMAN Enterprise™ Series UPS

Power Protection for the Entire Enterprise

Today's global business demands the uninterrupted flow of data, whether the path is across the building or halfway around the world. When electrical utility power is disrupted, the business costs can be astronomical — research by Frost & Sullivan estimates that power interruptions cost American businesses as much as \$50 billion each year.



Every Enterprise Series model mounts easily into a standard equipment rack...

Enterprise-wide networks encompass more than just servers and workstations. Bridges, data switches, hubs, routers, and telephone systems now comprise an "enterprise" system, and these sensitive devices require clean, continuous AC power to ensure data integrity, hardware stability, and maximum equipment life. To ensure optimum performance with all types of electronic equipment, every Enterprise Series UPS produces a **continuous, true sinewave output** that these sensitive, mission-critical devices demand.

Flexible Design for Multiple Configurations and Challenging Conditions

MINUTEMAN Enterprise Series models are available in **500, 750, 1100, 1500, 2300, and 3200 VA** sizes to cover a wide range of power protection applications. All Enterprise models can be easily configured for use as a rackmount (either 19- or 23-inches wide), wallmount, tower, or desktop unit. Best of all, Enterprise units are designed for harsh conditions and constrained locations and are considerably more compact than most UPS models – Enterprise models are 2U and 3U and only 16 inches deep so they can accommodate large plugs and power cords even in a cramped equipment rack.



...or mounts on the wall (optional wall mount / 23" rack mounting kit).

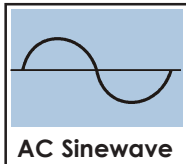
Line-interactive, Stable Sinewave, Unlimited Runtime

An Enterprise UPS keeps vital equipment up and running in spite of utility power fluctuations or failures. When incoming utility power falters, your Enterprise Series UPS automatically conditions and stabilizes the sinewave to provide the clean AC power required by critical electronics. MINUTEMAN's powerful Double Buck and Double Boost voltage regulators handle the majority of the line conditioning workload while MINUTEMAN's Independent Battery Bypass topology ensures that, even if the UPS battery becomes discharged or disconnected, the Enterprise UPS continues to condition the incoming AC power and correct every electrical anomaly short of a complete loss of power. Should AC power fail altogether, Enterprise units switch to battery backup in 1.8 milliseconds – about twice as fast as competitors' models. Adding optional Enterprise external battery packs backs up your systems for an unlimited length of time.



Or stands as a tower...

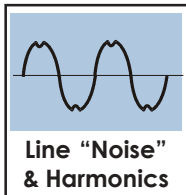
"Power from the Plug" is Not Always Reliable



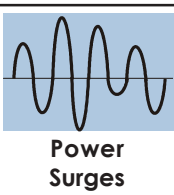
AC Sinewave

Most mission-critical business systems are highly susceptible to variations in the quality of the AC sinewave supplied to it, especially servomotor devices, monitors, and some telecom equipment. According to EPRI, an unprotected microprocessor will malfunction if AC power is interrupted for even a single cycle. "Power from the plug" as supplied from electrical utility mains is not nearly that reliable — even at 99% reliability, **equipment downtime caused by "dirty" utility AC power exceeds 87 hours per year.**

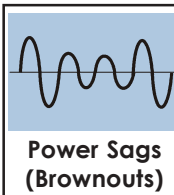
Causes of "Dirty Power"



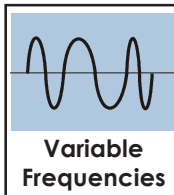
Line "Noise" & Harmonics



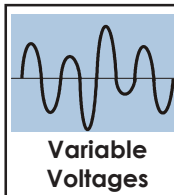
Power Surges



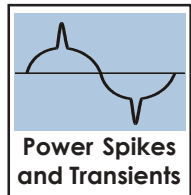
Power Sags (Brownouts)



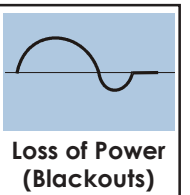
Variable Frequencies



Variable Voltages



Power Spikes and Transients



Loss of Power (Blackouts)

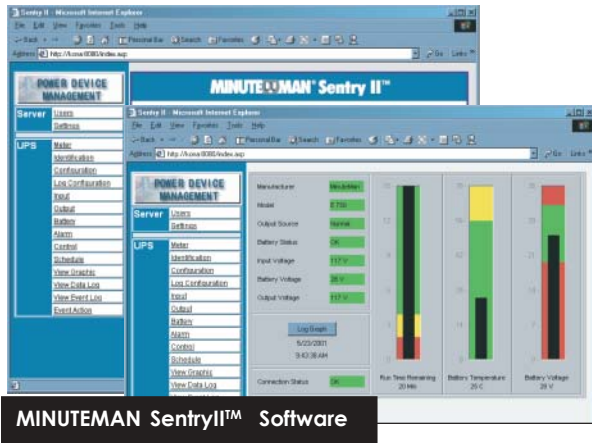
Powerful Features and Options

Independent Battery Chargers Ensure Constant Readiness and More Backup Power

Every Enterprise Series Battery Pack includes an internal, independent charger that can recharge the battery system in as little as two to five hours — about one-tenth the time it takes to charge UPS batteries that don't have built-in independent chargers. That prolongs battery life and backup power. Better still, Enterprise Series Battery Packs continue to maintain their rapid-recharge capability regardless of how many battery packs are daisy-chained together.

Power Management Software: Everything You Need Comes in the Box

Each Enterprise Series model includes a serial communications cable and a CD with the award-winning MINUTEMAN Sentry II™ power management and shutdown software. Sentry II software is compatible with most operating systems including: **UNIX, Linux, Windows, Windows NT, and Novell.**



Enterprise Series UPS models also feature a plug-in expansion slot for MINUTEMAN's Computer Interface Card (CIC), an optional SNMP card. Additional options allow you to setup your Enterprise Series UPS via the USB port and control it via the Microsoft® Windows® NT and Windows® 2000 UPS service control panel, or through a relay closure card configured for use with AS/400 computers.

Using the MINUTEMAN CIC lets you connect your Enterprise Series UPS as a node on your network and monitor it with your existing network management system, a Web browser, or an IP-based Telnet system so you can access your network remotely from almost anywhere in the world. For even more control, the Enterprise can work in conjunction with an optional power administration unit (such as the MINUTEMAN RPM™ Remote Power Manager) to control up to 128 individual receptacles through a Web browser.

An Unparalleled Warranty and the MINUTEMAN Platinum Protection Plan®

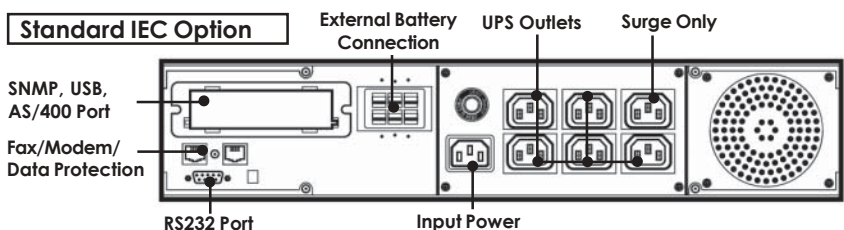
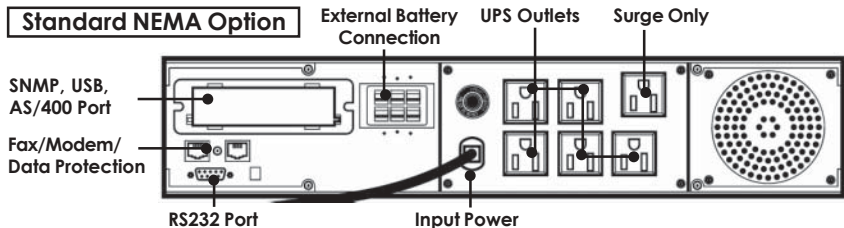
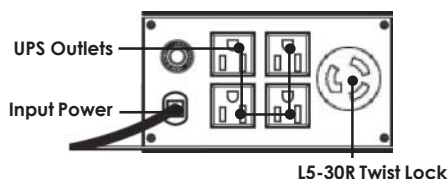
No one but MINUTEMAN offers a free, three-year parts and labor warranty — other UPS manufacturers charge extra for an extended year's warranty beyond the industry-standard two years. Plus, in the U.S. and Canada, the MINUTEMAN Platinum Protection Plan protects your valuable equipment with up to \$40,000 equipment insurance, providing your equipment has been properly connected to the Enterprise UPS in accordance with your Owner's Manual instructions.

Customize Your Enterprise

Custom Configuration Options for all Enterprise Series models:

Build your Enterprise UPS to your own specific needs. Every MINUTEMAN Enterprise model offers multiple back panel options: A standard NEMA panel and a standard IEC panel. Or to meet your needs more precisely, you can customize your Enterprise's back panel with your choice of receptacles.

A Custom Panel Example



MINUTEMAN Enterprise™ Specifications

Note: 230V Specs Shown in ()	E 500 (E 500i)	E 750 (E 750i)	E 1100 (E1100i)	E 1500 (E 1500i)	E 2300 (E 2300i)	E 3200 (E 3200i)
Maximum Load - VA / Watts	500/300	750/450	1100/660	1500/900	2300/1380	3200/1920
Battery Type - Spill Proof, maintenance free	(2) 12VDC 4.5AH	(2) 12VDC 7.2AH	(4) 12VDC 4.5AH	(4) 12VDC 7.2AH	(4) 12VDC 12AH	
Backup Receptacles	3 5-15R (3 IEC 320) Standard		5 5-15R (5 IEC 320) Standard		7 5-15R (7 IEC 320) Standard	
Surge Only Receptacles	1 5-15R (1 IEC 320) Standard		1 5-15R (1 IEC 320) Standard		1 5-15R (1 IEC 320) Standard	
Input Line	NEMA 5-15P plug with 6 ft. cord (1.8m IEC to IEC)				NEMA L5-30P	
Acceptable Input Voltage	75-164 (150-290) VAC					
Selectable On-battery Output Voltages	108,113,117 (215,225,235) VAC					
Output Voltage (On-line Operation)	120 VAC models +/- 12% (105-128) (220 VAC -5+12%) (210-250)					
Nominal Input Frequency	44-66 HZ Auto-selectable (Nominal +/- 6 HZ. On-line operation)					
Input Protection	Resettable Circuit Breaker					
Transfer Time	2 ms maximum					
On-battery Waveshape	True sinewave					
Protection	Overcurrent and short circuit protected latching shutdown on overload					
Surge energy rating (one time, 10/1000ms waveform)	508 J (440 J)					
Surge response time	0 ns (instantaneous) normal mode < ns common mode					
Noise filter	normal and common mode EMI/RFI					
Typical Battery Life	3-6 years, depending on the number of discharge cycles and ambient temperatures					
Typical Recharge Time	2 to 5 hours from total discharge					
10 Base-T Surge Let-through	<5%					
Phone Line Surge Protection Let-through	<1%					
Operating Temperature	32 to 104 degrees F (0 to 40 degrees C)					
Storage Temperature	5 to 113 degrees F (-15 to 45 degrees C)					
Electromagnetic Immunity	IEC 801-2 level IV, 801-5 level V					
Audible Noise at 3 ft. (1 m)	<45 dBA					
Safety and Approvals	UL 1778, CUL, CE EMC, CE Safety, TUV					
EMC Verification	FCC Part 15 Cat. B, DOC Class B, EN55022, EN50081-1, EN50082-1, Normal & common mode EMI/RFI suppression, 100 kHz to 10 mHz					
MINUTEMAN SentryII™ Power Management Software	Serial cable and software CD included (Microsoft Windows 95/98/ME/XP, Microsoft Windows NT 4.0 (SP6 recommended), Microsoft Windows 2000, Novell NetWare 4.11 and 5.1, Red Hat Linux version 6.12 and 7.1, SCO UnixWare version 7.1.1, SCO Open Server version 5.06, HP-UX version 11, IBM AIX version 4, other Unix/Linux systems)					
Software Communications Port	RS-232, USB optional plug-in card, SNMP optional plug-in card					
Dimensions H x W x D	3.5 x 17 x 16 in (8.9 x 43.2 x 40.7 cm)				5.25 x 17 x 16 in (13.4 x 43.2 x 40.7 cm)	
Net Weight / Shipping Weight	42.9 lbs (19.5 kg) / 48.4 lbs (22 kg)	51.7 lbs (23.5 kg) / 57.2 lbs (26 kg)	56.1 lbs (25.5 kg) / 61.6 lbs (28 kg)	73.7 lbs (33.5 kg) / 79.2 lbs (36 kg)	88 lbs (40 kg) / 93.5 lbs (42.5 kg)	94.6 lbs (43 kg) / 100.1 lbs (45.5 kg)
External Battery Packs						
Battery System	Standard E BP1 24VDC 14.4AH Extreme E BP3 24VDC 28.8AH				Standard E BP2 48VDC 12AH Extreme E BP4 48VDC 24AH	
Battery Pack Dimensions	3.5 x 17 x 16 in (8.9 x 43.2 x 40.7 cm)				5.25 x 17 x 16 in (13.4 x 43.2 x 40.7 cm)	
Battery Pack Net Weight / Shipping Weight	E BP1: 49 lbs (22.3 kg) / 57 lbs (25.9 kg) E BP3: 73 lbs (33.2 kg) / 81 lbs (36.8 kg)				E BP2: 66 lbs (30.0 kg) / 76 lbs (34.5 kg) E BP4: 102 lbs (46.4 kg) / 112 lbs (50.9 kg)	
Internal charger	Yes					
Maximum Runtime	Unlimited					
Warranty	3 years					
MINUTEMAN Platinum Protection Plan®	\$40,000 (Domestic US and Canada Only)					



SizeMyUPS.com

Need quick answers to your UPS questions? Visit our interactive UPS selection guide on the Web to find the right product for your needs *fast*.

MINUTEMAN
UNINTERRUPTIBLE POWER SUPPLIES

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