

Complete Power Protection

Small to medium-sized businesses, networks and servers



Enterprise 1U Series

Telecom, extended runtime requirements



Enterprise Series



SmartSine Series



Surge Protection and DC UPS



XRT Series



MBK-E Series



Accessories and Add-ons



CPE Series



PRO-E Series

Small office/home office workstations, small phone systems



MN Series

Industrial and sensitive equipment, high-capacity requirements



MCP Series



MINUTE MAN[®] UPS

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Stand-by/Line-interactive UPS Models

UPS models for protecting small workstations, phone systems, and network equipment

MINUTEMAN MN™ Series



The **MINUTEMAN® MN™ Series** is a stand-by UPS with both battery backup/surge protection receptacles and surge-only protection receptacles as well as modem/phone protection. Units are available in both 325 VA and 525 VA sizes and fit easily under a desk. These models can even mount on the wall, making them perfect for protecting a small telephone system. In addition, either model is ideal for protecting networked PCs, telecom, and data processing equipment. Each model includes software for power monitoring and unattended shutdown. Both models are covered by a free 3-year parts and labor warranty for electronics and a 2-year warranty for batteries. Connected equipment is insured by the MINUTEMAN Platinum Protection Plan® for \$25,000 with the MN 325 and \$40,000 with the MN 525 (U.S. and Canada only).

Model	VA/Watts	Internal batteries Number/Type	Half Load/Full Load Runtime*	Receptacles	Dimensions (inches)	Ship Weight (lbs.)	Comm Port
MN 325	325VA/175W	1 / 12VDC 3 Ah	9.3 / 3.6 min.	2 UPS/Surge, 2 Surge-only	9.88 x 5.06 x 3.25	9	DB9
MN 525	525VA/275W	1 / 12VDC 7.2Ah	12.3 / 4.6 min.	3 UPS/Surge, 3 Surge-only	10.13 x 6.56 x 3.32	14	DB9

*Full- and half-load runtimes based on equipment rated loads. Actual runtimes vary based on equipment, temperature, battery age, and other factors.

MINUTEMAN MBK-E™ Series

The **MINUTEMAN MBK-E™ Series** is a line-interactive UPS with four UPS receptacles plus two surge-only receptacles specifically dedicated to protecting high-demand peripherals such as laser printers or scanners. Both the MBK550E and MBK750E models feature an Automatic Voltage Regulator (AVR) to boost low incoming AC voltage situations like brownouts and sags, built-in network or phone line protection, and Independent Battery Bypass™ technology allowing the units to provide AVR functions and surge and spike protection with weak or dead batteries. A USB communication cable and a CD with MINUTEMAN SentryII™ power management and diagnostic software are included with both models. Each also includes a free 3-year parts and labor warranty for electronics and a 2-year warranty for batteries. Connected equipment is insured by the \$50,000 MINUTEMAN Platinum Protection Plan® (U.S. and Canada only).



- Enhanced Features:**
- USB communication port
 - AVR voltage boost function
 - Network/modem protection
 - Adjustable voltage ranges

Model	VA/Watts	Internal batteries Number/Type	Half Load/Full Load Runtime*	Receptacles	Dimensions (inches)	Ship Weight (lbs.)	Comm Port
MBK550E	550VA/330W	1 / 12VDC 7.2Ah	14.2 / 5.3 min.	4 UPS/Surge, 2 Surge-only	7.56 x 6.38 x 12.56	22	USB
MBK750E	750VA/450W	2 / 12VDC 7Ah	24.8 / 10 min.	4 UPS/Surge, 2 Surge-only	7.56 x 6.38 x 12.56	29	USB

*Full- and half-load runtimes based on equipment rated loads. Actual runtimes vary based on equipment, temperature, battery age, and other factors.

Line-interactive UPS Models

UPS models for protecting small workstations, servers, and small to medium-sized phone systems

MINUTEMAN PRO-E™ Series

The **MINUTEMAN PRO-E™ Series** is a **line-interactive UPS** offering the ideal solution for protecting sensitive electronic equipment from power disruption. A built-in Automatic Voltage Regulator (AVR) provides double-boost and single-buck voltage regulation to compensate for a broader range of low AC voltage situations like brownouts and sags as well as high AC voltage situations like surges and spikes without using internal batteries. Other features include front-access battery replacement and Independent Battery Bypass™ to allow each unit to provide AVR functions and surge and spike protection with weak or dead batteries. Each PRO-E Series model also includes both USB and RS232 communication ports (cables included) and a copy of MINUTEMAN SentryII™ power management and diagnostic software. For peace of mind, all PRO-E models offer a free 3-year parts and labor warranty, and a \$50,000 MINUTEMAN Platinum Protection Plan® (U.S. and Canada only).



Enhanced Features:

- USB and RS232 communication ports
- AVR voltage double-boost and buck functions
- Network/modem protection
- Adjustable voltage ranges

Model	VA/Watts	Internal batteries Number/Type	Half Load/Full Load Runtime*	Receptacles	Dimensions (inches)	Ship Weight (lbs.)	Comm Port
PRO500E	500VA/350W	1 / 12VDC 9Ah	17.2 / 6.5 min.	4 UPS/Surge, 2 Surge-only	7.56 x 6.38 x 12.56	23	USB & DB9
PRO700E	700VA/490W	2 / 12VDC 7Ah	22.2 / 8.9 min.	4 UPS/Surge, 2 Surge-only	7.56 x 6.38 x 12.56	30	USB & DB9
PRO1100E	1100VA/770W	3 / 12VDC 7Ah	21.6 / 9.0 min.	6 UPS/Surge	8.03 x 6.38 x 16.18	43	USB & DB9
PRO1500E	1500VA/1050W	3 / 12VDC 9Ah	17.8 / 7.2 min.	6 UPS/Surge	8.03 x 6.38 x 16.18	47	USB & DB9

*Full- and half-load runtimes based on equipment rated loads. Actual runtimes vary based on equipment, temperature, battery age, and other factors.

MINUTEMAN XRT™ Series



The **MINUTEMAN XRT™ Series** is an **extended runtime, line-interactive, true sine wave UPS** featuring a fully isolated transformer that provides EMI/RFI filtering to eliminate line noise as well as a virtual firewall between power surges and protected equipment. The XRT's DC start-up feature lets you power-up your equipment during blackouts using the XRT's batteries. Their easily stackable battery packs give you maximum runtime capabilities with a small footprint. MINUTEMAN SentryII™ software is available for all XRT models. The XRT is the ideal solution for protection of critical servers and phone systems that require long runtimes. Each includes a free 3-year parts and labor warranty, and a \$40,000 MINUTEMAN Platinum Protection Plan® (U.S. and Canada only).

Model	VA/Watts	Internal batteries Number/Type	Half Load/Full Load Runtime*	Receptacles	Dimensions (inches)	Ship Weight (lbs.)	Comm Port
XRT 600	600VA/420W	4 / 12VDC 7.2Ah	67.9 / 29.6 min.	4 UPS/Surge	19.75 x 8.75 x 10.0	67	DB9
XRT 1000**	1000VA/700W	Requires at least 1 battery pack	86.5 / 36.4 min.(with BP1)	6 UPS/Surge	19.75 x 8.75 x 10.0	57	DB9
XRT 1500 **	1500VA/1050W	Requires at least 1 battery pack	50.2 / 20.4 min.(with BP1)	6 UPS/Surge	19.75 x 8.75 x 10.0	81	DB9
XRT 2000 **	2000VA/1400W	Requires at least 1 battery pack	258.1 / 115.1 min.(with BP3)	6 UPS/Surge	19.75 x 8.75 x 10.0	83	DB9
XRT BP1	—	4 / 12VDC 18Ah	—	—	19.75 x 8.75 x 10.0	74	DB9
XRT BP3	—	4 / 12VDC 90Ah	—	—	25.00 x 15.0 x 16.0	275	DB9

* Full- and half-load runtimes based on equipment rated loads. Actual runtimes vary based on equipment, temperature, battery age, and other factors.

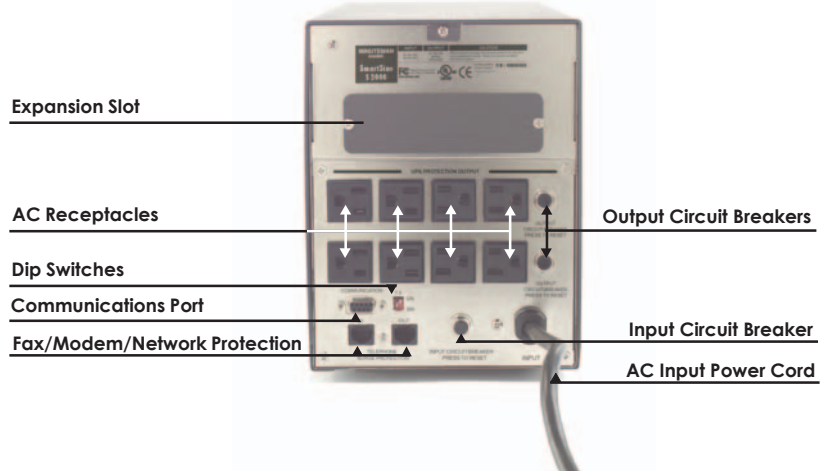
** XRT 1000 VA and larger models require at least one external battery pack.

Compact True Sine Wave UPS

MINUTEMAN SmartSine™ Series



SmartSine™ S 2000 Back View



Features/Benefits

- ▶ **Designed for:**
 - Networking/communication systems
 - Computer workstations and servers
 - Power sensitive electronics
- ▶ True sine wave output
- ▶ Line-interactive topology
- ▶ Independent Battery Bypass™ technology
- ▶ Fax/modem/network protection
- ▶ Expansion slot for accessory options including the Multi-Function Web/SNMP Card and Environmental Monitoring Device kit
- ▶ Includes MINUTEMAN SentryII™ power management and diagnostic software
- ▶ 3-year parts and labor warranty
- ▶ \$40,000 MINUTEMAN Platinum Protection Plan® (U.S. and Canada only)

Expensive features at an affordable price

The MINUTEMAN SmartSine™ UPS line maintains today's vital equipment despite utility power fluctuations and/or failures. Each unit provides a line-interactive design with a true sine wave output, a rich feature set with a lower price than competitive models. In addition, MINUTEMAN's powerful voltage regulators stabilize and condition input AC power anomalies providing today's sensitive electronic equipment with clean AC power. With MINUTEMAN's unique Independent Battery Bypass™ technology, the SmartSine™ UPS will continue to correct and condition incoming AC power without shutting down output power to your equipment even if the UPS batteries become discharged or disconnected.

Each unit also includes a copy of MINUTEMAN SentryII™ power management and diagnostic software for monitoring and shutdown of connected servers and workstations, a built-in expansion slot for adding optional accessory cards, a free 3-year parts and labor warranty and a \$40,000 MINUTEMAN Platinum Protection Plan® (U.S. and Canada only).

Model	VA/Watts	Internal batteries Number/Type	Half Load/Full Load Runtime*	Receptacles	Dimensions (inches)	Ship Weight (lbs.)	Comm Port
\$ 700	700VA/ 500W	2 / 12VDC 7 Ah	22 / 9 min.	8 UPS (Battery Backup & Surge)	8.9 x 6.5 x 17.8	42	DB9
\$ 1000	1000VA/ 700W	2 / 12VDC 12 Ah	23 / 9 min.	8 UPS (Battery Backup & Surge)	8.9 x 6.5 x 17.8	50	DB9
\$ 1400	1400VA/ 1000W	2 / 12VDC 17 Ah	27 / 11 min.	8 UPS (Battery Backup & Surge)	8.9 x 6.5 x 17.8	65	DB9
\$ 2000	2000VA/ 1400W	2 / 12VDC 17 Ah	17 / 7 min.	8 UPS (Battery Backup & Surge)	8.9 x 6.5 x 17.8	71	DB9

* Full- and half-load runtimes based on equipment rated loads. Actual runtimes vary based on equipment, temperature, battery age, and other factors.

1U Rack True Sine Wave UPS

MINUTEMAN Enterprise 1U™ Series



Features/Benefits

- ▶ Designed specifically for the protection of network components in rackmount environments
- ▶ Built-In AVR (Automatic Voltage Regulator) functions with buck and boost features to stabilize output voltage protecting equipment from sags and surges, saving batteries for blackout situations
- ▶ Independent Battery Bypass™ technology allows the UPS to provide voltage regulation with spike and surge protection on utility AC power even when the batteries are weak or dead
- ▶ Integrated USB and RS232 communication with simultaneous function for software control (USB and RS232 cables are included)
- ▶ Load-shedding allows output banks for removing non-critical loads during extended blackouts
- ▶ (12) front panel LEDs for diagnostics and to display connected loads and monitor battery capacities
- ▶ Includes MINUTEMAN Sentry Business™ power management and diagnostic software to provide added control and allow unattended PC shutdown, including load-shedding of non-critical equipment from remote locations (for use on individual PCs or multiple workstations on networks)

More features in less rack space

MINUTEMAN's new Enterprise 1U rackmount design incorporates sophisticated UPS features into a unique and compact rackmount format available in **700 VA, 1000 VA, and 1500 VA sizes** to cover a wide range of power requirements. As network installations demand more and more real estate in the rack, it is important to provide reliable UPS power without reducing available rack space. With its true sine wave output, the Enterprise 1U provides high-quality AC power, protecting today's sensitive network equipment. Additionally, MINUTEMAN has integrated true buck and boost voltage regulation to indefinitely stabilize output power, even during extreme sag or surge conditions. Add to that, the Enterprise 1U provides sophisticated communication features using USB and RS232, or optional SNMP interfaces. MINUTEMAN's unique Independent Battery Bypass™ technology, along with load-shedding, and front panel diagnostics make this the best-valued 1U rackmount product available.

Power management software allows total control

The new Enterprise 1U models are the first MINUTEMAN products to include simultaneous use of USB and RS232 communications, with both ports integrated into the back panel of the UPS. Both ports may be used to interface with the branded MINUTEMAN Sentry Business™ power management software. This software provides full diagnostic capabilities, as well as the ability to automatically shutdown connected equipment. With MINUTEMAN's load-shedding technology, it is now possible to shutdown non-critical equipment connected to the UPS in order to extend the runtime of critical network components during extended blackout conditions. MINUTEMAN also provides full SNMP capabilities through an optional internal SNMP card slot, which makes the UPS an addressable device on the network.

Unparalleled warranty offers peace of mind

MINUTEMAN offers a free, 3-year parts and labor warranty - STANDARD! Other UPS manufacturers charge extra for an extended year's warranty beyond the industry-standard 2 years. Plus, in the U.S. and Canada, the MINUTEMAN Platinum Protection Plan® protects your valuable equipment with up to \$40,000 in equipment insurance, provided your equipment has been properly connected to the UPS in accordance with your User's Manual instructions.

Model	VA/Watts	Internal batteries Number/Type	Half Load/Full Load Runtime*	Receptacles	Dimensions (inches)	Ship Weight (lbs.)	Comm Port
E700RM1U	700VA/ 490W	4 / 6VDC 9 Ah	13 / 6 min.	6 UPS (Battery Backup & Surge)	24 x 17 x 1.75	52	USB & DB9
E1000RM1U	1000VA/ 700W	4 / 6VDC 9 Ah	9 / 4 min.	6 UPS (Battery Backup & Surge)	24 x 17 x 1.75	61	USB & DB9
E1500RM1U	1500VA/ 900W	4 / 6VDC 9 Ah	7 / 3 min.	6 UPS (Battery Backup & Surge)	24 x 17 x 1.75	61	USB & DB9

* Full- and half-load runtimes based on equipment rated loads. Actual runtimes vary based on equipment, temperature, battery age, and other factors.

Rack/Wall/Tower/Xrun Sine Wave UPS

MINUTEMAN Enterprise™ Series



Features/Benefits

- ▶ True sine wave output delivers clean, continuous power to sensitive components
- ▶ Built-in fax/modem/network protection
- ▶ Unlimited, scalable 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 internal battery life
- ▶ Space-saving 16-inch (41 cm) depth accommodates large equipment plugs in cramped rack or cabinet environments
- ▶ Full protection against all voltage problems (sags, surges, spikes, brownouts) — EMI/RFI filters out line noise and harmonics
- ▶ Web/SNMP-capable for easy remote power management
- ▶ Includes MINUTEMAN SentryII™ power management and diagnostic software
- ▶ Front-access, hot-swappable batteries
- ▶ 3-year parts and labor warranty
- ▶ \$40,000 MINUTEMAN Platinum Protection Plan® (U.S. and Canada only)

A true sine wave, extended runtime UPS for enterprise-wide networks and other challenging environments

Today's global business demands the uninterrupted flow of information, whether the path is across the building or halfway around the world. When electrical power is disrupted, the business costs can be astronomical both in downtime expenses and lost business opportunities. That's why the MINUTEMAN Enterprise™ Series was developed — to keep vital equipment up and running right through utility power disruptions. The MINUTEMAN Enterprise Series features models rated from 500 VA to 3200 VA, each with Independent Battery Bypass™ technology and unlimited extended runtime options via daisy-chainable external battery packs. Plus, a built-in charger in every Enterprise battery pack delivers the fastest recharge in the industry — 4 hours or less. All Enterprise models can be easily configured for use in a desktop, tower, wallmount, or rackmount configuration (19-inch rackmount and tower mount hardware is included; the wallmount and 23-inch rackmount kits are optional at extra cost).



Tower configuration



Wallmount configuration



Optional kits for wallmount and 23-inch rack

Model	VA/Watts	Internal batteries Number/Type	Half Load/Full Load Runtime*	Receptacles	Dimensions (inches)	Ship Weight (lbs.)	Comm Port
E 500	500VA/300W	2 / 12VDC 4.5Ah	29.1 / 12.3 min.	3 UPS / Surge, 1 Surge-only	16 x 17 x 3.5	49	DB9
E 750	750VA/450W	2 / 12VDC 7.2 Ah	27.6 / 11.5 min.	3 UPS / Surge, 1 Surge-only	16 x 17 x 3.5	58	DB9
E 1100	1100VA/660W	4 / 12VDC 4.5 Ah	20.6 / 8.4 min.	5 UPS / Surge, 1 Surge-only	16 x 17 x 3.5	62	DB9
E 1500	1500VA/900W	4 / 12VDC 7.2 Ah	20.3 / 7.8 min.	5 UPS / Surge, 1 Surge-only	16 x 17 x 3.5	80	DB9
E 2300	2300VA/1380W	4 / 12VDC 12 Ah	23.5 / 9.6 min.	7 UPS / Surge, 1 Surge-only	16 x 17 x 5.25	94	DB9
E 3200	3200VA/1920W	4 / 12VDC 12 Ah	13.9 / 5.4 min.	7 UPS / Surge, 1 Surge-only	16 x 17 x 5.25	101	DB9
E BP1	External battery pack for E 500 - E 1500				16 x 17 x 3.5	57	-
E BP2	External battery pack for E 2300 - E 3200				16 x 17 x 5.25	76	-
E BP3	Large capacity external battery pack for E 500 - E 1500				16 x 17 x 3.5	81	-
E BP4	Large capacity external battery pack for E 2300 - E 3200				16 x 17 x 5.25	112	-

*Full- and half-load runtimes based on equipment rated loads. Actual runtimes vary based on equipment, temperature, battery age, and other factors.

True On-line Rack / Tower UPS

MINUTEMAN CPE™ Series



Double conversion, on-line, true sine wave, rack/tower UPSs for mission-critical equipment

Available in sizes from 1000 VA to 3000 VA, the new MINUTEMAN CPE Series uses double conversion technology to deliver continuous on-line, true sine wave power in a slim, compact UPS. Hot-swappable batteries with Independent Battery Bypass™ provide maximum reliability and virtually unlimited runtimes can be achieved with add-on battery packs. CPE 1000, 2000 and 3000 VA models are available in both rackmount and tower configurations at prices comparable to line-interactive models with fewer features. Free power management and diagnostic software is included, plus a free 3-year parts and labor warranty and a \$40,000 MINUTEMAN Platinum Protection Plan® for connected equipment (U.S. and Canada only).

Features/Benefits

- ▶ True sine wave output is perfect for power sensitive equipment and applications
- ▶ Double conversion design continuously converts utility AC to DC, then back to clean AC for connected equipment
- ▶ Unlimited runtime with optional external battery packs
- ▶ Both rack and tower configurations available
- ▶ Power Factor Correction (PFC) - Reduces harmonic distortion, corrects the power factor of non-linear loads to >0.98
- ▶ 3-year parts and labor warranty
- ▶ \$40,000 MINUTEMAN Platinum Protection Plan® (U.S. and Canada only)

Model	VA/Watts	Internal batteries Number/Type	Half Load/Full Load Runtime*	Receptacles	Dimensions (inches)	Ship Weight (lbs.)	Comm Port	
CPE1000	1000VA/700W	3 / 12VDC 7.2 Ah	23 / 8 min.	4 (5-15R) UPS / Surge	15.8 x 5.8 x 8.78	40	DB9	
CPE2000	2000VA/1400W	6 / 12VDC 7.2 Ah	22 / 7 min.	4 (5-15R) & 2 (5-15/20R) UPS / Surge	18.9 x 5.1 x 14.4	71	DB9	
CPE3000	3000VA/2100W	8 / 12VDC 7.2 Ah	23 / 8 min.	6 (5-15R) & 2 (5-15/20R) UPS / Surge	17.8 x 7.5 x 14.4	84	DB9	
CPEBP1000	External battery pack for CPE1000					15.9 x 7.1 x 15.2	78	-
CPEBP2000	External battery pack for CPE2000					24.0 x 7.1 x 15.2	126	-
CPEBP3000	External battery pack for CPE3000					24.0 x 7.1 x 15.2	115	-
CPE1000RM	1000VA/700W	3 / 12VDC 7.2 Ah	22 / 7 min.	4 (5-15R) UPS / Surge	15.2 x 17.4 x 3.5	42	DB9	
CPE2000RM	2000VA/1400W	6 / 12VDC 7.2 Ah	22 / 7 min.	4 (5-15R) & 2 (5-15/20R) UPS / Surge	18.9 x 17.4 x 5.2	73	DB9	
CPE3000RM	3000VA/2100W	8 / 12VDC 7.2 Ah	22 / 7 min.	6 (5-15R) & 2 (5-15/20R) UPS / Surge	19.0 x 17.4 x 6.9	97	DB9	
CPEBP1000RM	External battery pack for CPE1000RM					19.0 x 17.3 x 3.5	56	-
CPEBP2000RM	External battery pack for CPE2000RM					19.0 x 17.3 x 6.9	95	-
CPEBP3000RM	External battery pack for CPE3000RM					19.0 x 17.3 x 6.9	117	-

*Full- and half-load runtimes based on equipment rated loads. Actual runtimes vary based on equipment, temperature, battery age, and other factors.

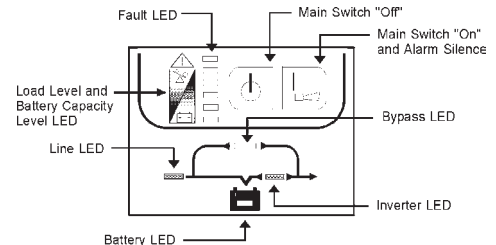
True On-line Double Conversion UPS

MINUTEMAN MCP™ Series



On-line, true sine wave, double conversion technology

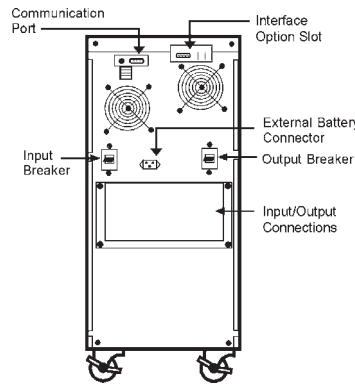
Designed to protect PBX systems and critical servers, the MINUTEMAN MCP 6001 (6 kVA) and MCP 10001 (10 kVA) tower models have isolation/step-down transformers to allow dual voltages within a single unit. Free MINUTEMAN SentryII™ power management and diagnostic software is included, plus a free 2-year parts and labor warranty and a \$40,000 MINUTEMAN Platinum Protection Plan® for connected equipment (U.S. and Canada).



Front View
MCP Main Control Panel

Features/Benefits

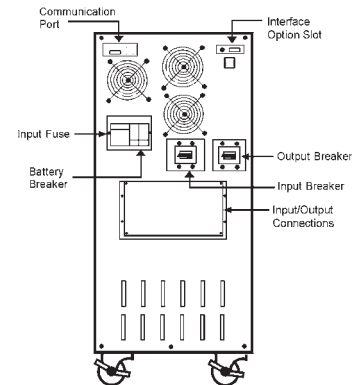
- ▶ Designed for:
 - Telecommunications and Voice-over-Data
 - ISPs, critical servers, data centers, and Internetworking computers
 - High availability applications
 - Manufacturing equipment
- ▶ Intelligent microprocessors
- ▶ Constant output voltage regulation
- ▶ Input power factor correction
- ▶ Customizable input/output configurations
- ▶ SNMP-ready
- ▶ Free MINUTEMAN SentryII™ power management and diagnostic software
- ▶ 2-year parts and labor warranty
- ▶ \$40,000 MINUTEMAN Platinum Protection Plan® (U.S. and Canada only)



Rear View
MCP 6001

Input Options
208 Volts
240 Volts

Output Options
120 Volts
120 Volts / 120 Volts
208 Volts
120 Volts / 208 Volts
240 Volts
120 Volts / 208 Volts



Rear View
MCP 10001

Model	VA/Watts	Internal batteries Number/Type	Half Load/Full Load Runtime*	Receptacles	Dimensions (inches)	Ship Weight (lbs.)	Comm Port
MCP 6001 (Dual Voltage)	6000VA/4200W	20 / 12VDC 7.2Ah	29.3 / 13.0 min.	Hardwired	24.0 x 10.3 x 31.5	344	DB9
MCP 10001 (Dual Voltage)	10000VA/7000W	40 / 12VDC 7.2Ah	28.9 / 12.0 min.	Hardwired	27.2 x 13.3 x 38.0	613	DB9
MCP BP1 Battery Pack	—	20 / 12VDC 25Ah	—	—	33.0 x 10.0 x 40.0	555	—

*Full- and half-load runtimes based on equipment rated loads. Actual runtimes vary based on equipment, temperature, battery age, and other factors.

AC Input / DC Output UPS

MINUTEMAN ParaShield DC™ Series



Features/Benefits

- ▶ **Designed to support:**
 - Cable Telephony
 - Wireless Local Loop (WLL)
 - Fiber to the Home (FTTH)
 - Fiber to the Curb (FTTC)
 - Integrated Access Devices (IAD)
 - Voice over IP Sets
 - Voice over DSL
- ▶ **ParaShield 1224 (12-volt model)**
- ▶ **Easy, user-replaceable, hot-swappable battery**
- ▶ **Cold-start capable**
- ▶ **Microprocessor-based, intelligent control**
- ▶ **Optional extended runtime**
- ▶ **Universal input voltage 87-264 VAC**
- ▶ **3-year warranty for internal electronics
2-year warranty for batteries**
- ▶ **Wallmount capability**

DC Applications

Throughout the United States, educational, corporate, and residential users are shifting the technology base of their telephone, network and multimedia requirements to infrastructures that require the support of DC power solutions. MINUTEMAN UPS, in a leading effort to support these shifts in technology requirements is introducing its first DC UPS product with all the features and support our customers have come to expect from our history of AC-powered UPS products.

Protect Your Investment

The MINUTEMAN ParaShield™ Series offers a cost-effective solution to powering IP-based telephony, fiber-based communication, and other DC-based customer premise equipment (CPE). Within these high-bandwidth networks, ParaShield provides a local backup power solution at a significantly lower cost to the user than traditional CO-based UPS support devices. Locating the DC UPS indoors also dramatically reduces the cost of ownership by extending the lifetime of the hot-swappable batteries over traditional outdoor battery-based solutions.

Emergency Battery Support

As industries adapt to IP-based telephony and fiber-based integrated access devices, providing power reliability during short, or extreme, blackout conditions is essential. Communication over these protocols will require power backup for emergency services. Without it users will not have access to emergency services or to any other outside communication until power is restored.

Reliability - Guaranteed

MINUTEMAN UPS products are backed by an unprecedented 3-year warranty that covers all electronics and 2-year warranty that covers batteries. The MINUTEMAN Platinum Protection Plan® insures properly connected equipment against damages for up to \$25,000.

Model	Watts	Internal batteries Number/Type	Input / Output	Dimensions (inches)	Ship Weight (lbs.)	Comm Interface
ParaShield PS1224	24W	1 / 12VDC 7.2Ah	120VAC Power Inlet / 12VDC Hardwire	6.6 x 9.4 x 3.2	10	On Battery, Replace Battery, Battery Missing, Low Battery

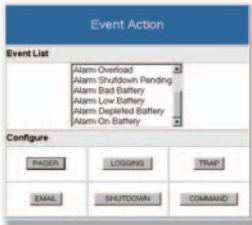
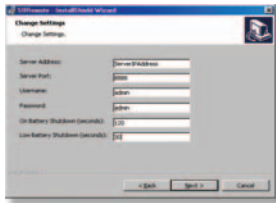
Power Management Software

MINUTEMAN SentryII™ Power Management & Diagnostic Software



Features/Benefits

- ▶ Easy-to-use Web browser-based management interface
- ▶ Automatic response to power events
- ▶ Allow up to 10 users to administer or view status of a single UPS
- ▶ Manage a UPS connected to a remote system over a network
- ▶ Configure responses for power events
- ▶ Send e-mail notification of power events to 5 e-mail addresses
- ▶ Send SNMP traps as power event notifications
- ▶ Send a message to a pager automatically when an event occurs
- ▶ Run a program automatically when an event occurs
- ▶ Perform a safe, unattended shutdown of UPS and/or operating system
- ▶ Stay updated with built-in alarms and diagnostic tools
- ▶ Schedule events like UPS and operating system shutdown and/or restart
- ▶ Auto-event logging for view and export



MINUTEMAN SentryII™ power management and diagnostic software is a powerful Web browser-based software tool that provides complete monitoring and diagnostics when connected to a workstation or server and a MINUTEMAN UPS. The software offers a wealth of useful features and control options from the comfort of a familiar browser interface.

Customizable automatic response to power events

SentryII allows configuration of automated responses to any predefined power event in the way that you desire. Event actions include e-mail responses, SNMP traps, pager notifications, running of predefined programs, and graceful unattended shutdown of an operating system, PC, UPS, and even other computers over the same network. Best of all, each response is customizable to meet the needs of almost any power management application.

Complete protection, manageable from anywhere in the world

SentryII software works in conjunction with a MINUTEMAN UPS to provide a total power protection solution that is browser-based and accessible from virtually anywhere in the world. The user only needs a Web browser, a network connection, and the SentryII computer's IP address to connect to the UPS and manage it. For flexibility and security, SentryII provides password protection for up to 10 users per installation. The administrator has the option of issuing complete administrative rights to provide full control over the UPS or status viewing only privileges to each user as needed.

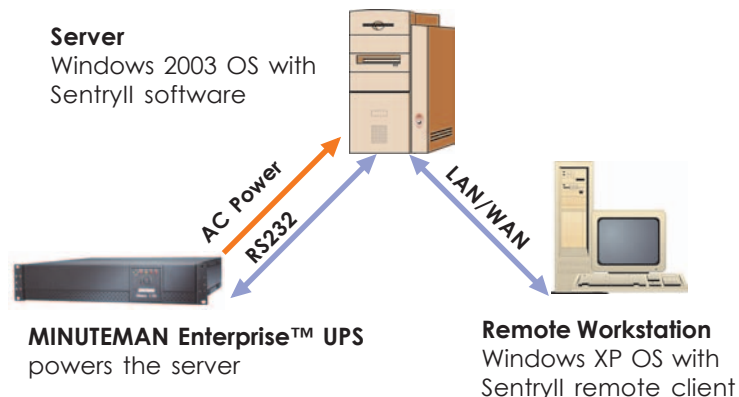
Unlimited computer and operating system shutdown

In an enterprise environment it is important to be able to shutdown multiple servers in a sequential order, such as a database server followed by a remote file server.

Server and remote workstation shutdown

The **Server** is connected to UPS via RS232 cable.

The **Remote Workstation** is running SentryII remote client waiting for a shutdown command from Server.



MINUTEMAN MMS™ Surge Suppressors

Feature-rich designs at affordable prices have been MINUTEMAN's focus for over twenty years. This overriding concept continues with the MINUTEMAN MMS™ surge suppressor product line.

Solid power protection through intelligent design

The **MMS900** and **MMS2100** both feature ergonomic case designs with lighted LED indicators that inform the user of proper circuit grounding and active surge protection. A seven foot power cord, with an integrated right angle plug, allows the strip to access many remote, or under desk locations. Recessed, back panel keyholes also allow the MMS™ products to be mounted on a wall at almost any height from an electrical outlet. Both models have seven outlets, with one strategically placed for transformer block use without covering up secondary outlets. Additionally, each outlet comes with sliding safety covers to prevent accidental shock or unintentional installation of improper devices.

The electrical protection provided by the strips starts with a recessed ON/OFF switch, which prevents the accidental tripping of the device. This ON/OFF switch is lighted to indicate whether the device is actively providing power. It also has an integrated 15-amp circuit breaker to prevent an overloading of the devices. The MMS900 comes with 900 Joules of energy absorption and the MMS2100 has 2100 Joules of absorption capability. In addition to surge absorption technology, both models are designed with catastrophic event protection. This built in fail-safe mode will disconnect the device from utility power in the event the unit has been internally damaged or compromised, thus protecting all connected devices.

For additional protection, the MMS2100 also features an integrated RJ11 input port and two (2) RJ11 output ports to shield a phone/fax/modem line from surges or spikes.

Complete warranty protection for peace of mind

By designing products with intelligent and practical protection components, MINUTEMAN can offer a Limited Lifetime Warranty for the MMS900 and MMS2100. Plus, in the U.S. and Canada, each product includes the MINUTEMAN Platinum Protection Plan® guarantee that protects your valuable equipment (up to \$25,000 for the MMS900 and up to \$50,000 for the MMS2100). All equipment must be properly connected and maintained according to the terms and conditions in the operating instructions included with each unit.

Features/Benefits

- ▶ 900 or 2100 Joules of surge protection
- ▶ Phone/fax/modem protection on MMS2100 (1 input/2 outputs)
- ▶ 7 Outlets (including 1 transformer-spaced outlet)
- ▶ Sliding safety covers
- ▶ Right-angle plug for cramped spaces
- ▶ Wallmount capability
- ▶ Limited lifetime warranty

Model	Joules	Input Plug and Receptacles	Dimensions (inches)	Ship Weight (lbs.)	Fax/Modem Protection
MMS900	900	7 ft. cord with right-angle plug, 6 and 1 Transformer-friendly	9.88 x 5.06 x 3.25	9	-
MMS2100	2100	7 ft. cord with right-angle plug, 6 and 1 Transformer-friendly	10.13 x 6.56 x 3.32	14	1 inlet / 2 outlets

Power Distribution Units

MINUTEMAN MMPD™ Power Distribution Units



Power distribution for the entire network

The increasing density of today's network infrastructure within racks and cabinets is placing a strain on how utility power is delivered safely to these devices. Additionally, IT Managers are demanding greater value of the support devices that utilize precious real estate within these structures. A product that solves both of these issues, The MINUTEMAN MMPD Series of power distribution units, (PDU), is a uniquely versatile line that incorporates the varying needs of users into a flexible family of products. This combination of design and engineering creates the best value option available for IT professionals while safely providing multiple distribution outlets for all types of network devices. The MMPD line offers products ranging in capacity from 12 to 24 amps, in both vertical and horizontal orientations, as well as models featuring surge-suppression, load metering and IP addressable control.

Rock-solid durability

All MINUTEMAN PDU products come in a sturdy, black, aluminum case with heavy-duty receptacles. The power cords are all 15 feet long and strain-relieved with molded plugs. All models also come with an external ground stud.

UL60950-1 and UL1449 certifications

Stressing the need to support standards within the IT community, all of the power distribution products offered by MINUTEMAN are UL certified under the new UL60950-1 rating. This rating assures IT professionals that the MMPD Series is compatible with any data center or network installation. Additionally, all the surge suppression models have UL1449 certification.

Features/Benefits

- ▶ Available in 12 different models including 0U, 0U/1U, and 2U configurations
- ▶ Amp-metering standard on some models
- ▶ UL60950-1 certification on all models
- ▶ UL1449 surge suppression on surge-protected PDU models
- ▶ \$50,000 MINUTEMAN Protection Plan® on surge-protected PDU models
- ▶ 3-year warranty

Models suitable to fit virtually any environment

MINUTEMAN has simplified the almost infinite number of feature-based PDU configurations into a definable number of models. By integrating many different configurations into a single model, at or below the price of other lower-featured models, MINUTEMAN can offer the best value options available. For example, instead of offering 4, 6, and 8 outlet models, MINUTEMAN provides an 8-outlet model at the price level of many 4-outlet brands. By standardizing all our PDU models on a fifteen-foot power cord, and pricing them at the same level as 6-foot models from other suppliers, MINUTEMAN has eliminated the need for 6, 8, 10, or 12-foot options. More plugs, longer cords, and more features are what make the MMPD Series the best value today. Even more valuable is the ability of each 1U PDU to be mounted vertically inside or outside the rack/cabinet. Instead of providing these specialty-mounting brackets as a separate option, MINUTEMAN has included these with each unit, at no extra charge.

Simplicity, quality, and value

By adhering to the same philosophies and quality standards used in the design of our uninterruptible power supplies, MINUTEMAN has brought simplicity, quality, and value to products that supply rack and cabinet power to today's sophisticated network installations.

Model	Mounting	Maximum Capacity	Amp Meter	Surge Protection	Front Receptacles	Rear Receptacles	Dimensions (in.)	Ship Weight (lbs.)
MMPD815HV	1U/0U	12 Amp	-	-	2 (5-15R)	6 (5-15R)	3.5 x 17 x 1.74	6
MMPD1415HV	1U/0U	12 Amp	-	-	6 (5-15R)	8 (5-15R)	3.5 x 17 x 1.74	6
MMPD1415HVA	1U/0U	12 Amp	Yes	-	6 (5-15R)	8 (5-15R)	3.5 x 17 x 1.74	6
MMPD1815V48	0U	12 Amp	-	-	18 (5-15R)	-	1.63 x 48 x 1.5	7
MMPD2415V62	0U	12 Amp	-	-	24 (5-15R)	-	1.63 x 62 x 1.5	8
MMPD1020HV	1U/0U	16 Amp	-	-	2 (5-15/20R)	8 (5-15/20R)	3.5 x 17 x 1.74	7
MMPD1420HV	1U/0U	16 Amp	-	-	6 (5-15/20R)	8 (5-15/20R)	3.5 x 17 x 1.74	7
MMPD2420V62	0U	16 Amp	-	-	24 (5-15/20R)	-	1.63 x 62 x 1.5	9
MMPD2420VA62	0U	16 Amp	Yes	-	24 (5-15/20R)	-	1.63 x 62 x 1.5	9
MMPD81530H	2U	24 Amp	-	-	4 (5-15R)	4(L5-30R)	3.5 x 17 x 3.47	11
MMS1015HV	1U/0U	12 Amp	-	Yes	2 (5-15R)	8 (5-15R)	3.5 x 17 x 1.74	6
MMS1020HV	1U/0U	12 Amp	-	Yes	2 (5-15/20R)	8 (5-15/20R)	3.5 x 17 x 1.74	7

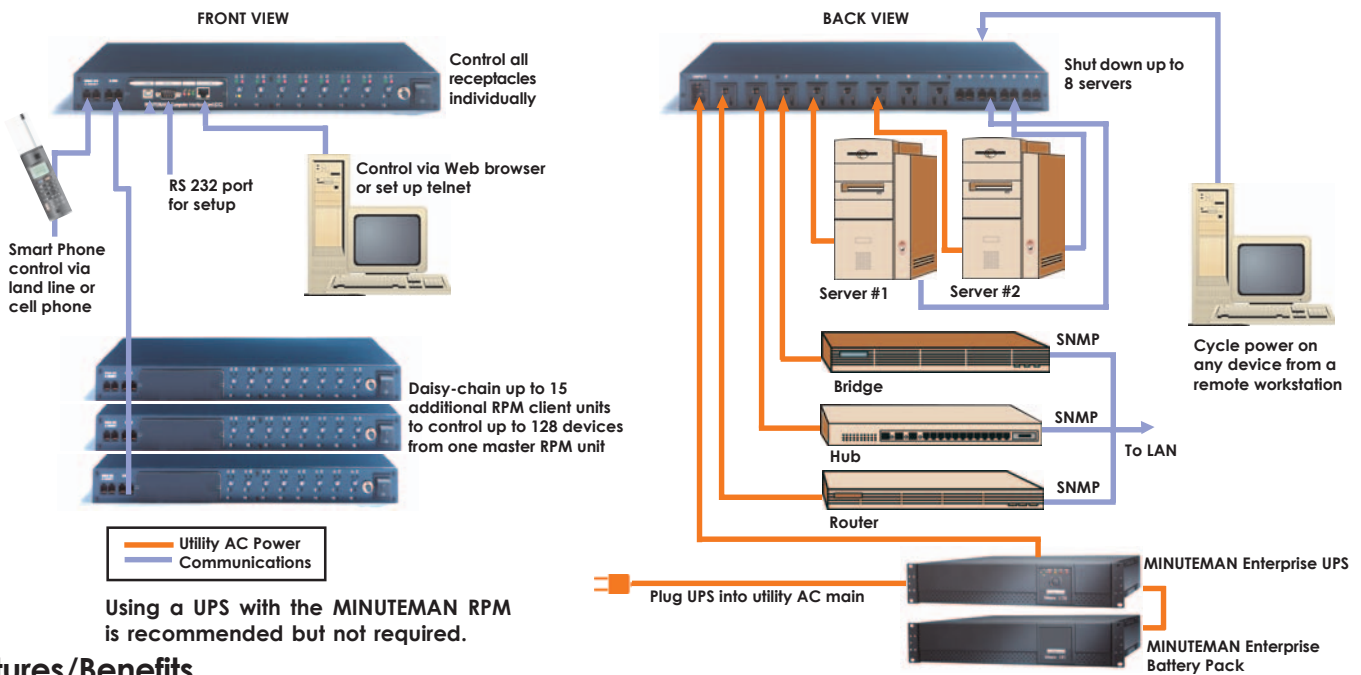
Remote Power Management Systems

MINUTEMAN RPM™ (Remote Power Manager)



The MINUTEMAN RPM™ (Remote Power Manager) is the ultimate power nerve center for controlling multiple network devices and services. This powerful technology gives network administrators the ability to individually control AC power for as many as eight different connected devices such as servers, hubs, routers, modems, and telephone systems. Up to 15 additional client nodes can be added to one MINUTEMAN RPM™ unit for a total of 128 manageable outlets.

Sample Network Installation of the MINUTEMAN RPM™



Features/Benefits

- ▶ Configure and control RPM units worldwide through the network using a single IP address and Web browser interface
- ▶ Smart telephone interface allows fail-safe device rebooting from any telephone (cell or land line) — no modem needed
- ▶ RPM units accommodate most network and security protocols
- ▶ As many as eight Microsoft® Windows® XP/2000/NT4.0 or Linux servers can be logically shutdown in a specified order with each RPM unit
- ▶ RPM units have built-in surge and spike protection plus EMI/RFI filters to remove interference
- ▶ Optional RPM/UPS interface card allows communication with a UPS

Model	Server Shutdown Ports	Net Control / Support	Receptacles	Dimensions (in.)	Ship Weight (lbs.)
RPM 1601 (15 Amps)	None	HTTP Server & SNMP Agent TCP/IP, MIBS	8 NEMA 5-15R	17 X 6.5 X 1.5	7
RPM 1609 (15 Amps)	8 each RJ11 / RS232	HTTP Server & SNMP Agent TCP/IP, MIBS	8 NEMA 5-15R	17 X 6.5 X 1.5	7
RPM 1600 Client (15 Amps)	None	Add 8 more controllable outlets via daisy-chain link	8 NEMA 5-15R	17 X 6.5 X 1.5	7
RPM 2001 (20 Amps)	None	HTTP Server & SNMP Agent TCP/IP, MIBS	8 NEMA 5-15R	17 X 6.5 X 1.5	9
RPM 2009 (20 Amps)	8 each RJ11 / RS232	HTTP Server & SNMP Agent TCP/IP, MIBS	8 NEMA 5-15R	17 X 6.5 X 1.5	9
RPM 2000 Client (20 Amps)	None	Add 8 more controllable outlets via daisy-chain link	8 NEMA 5-15R	17 X 6.5 X 1.5	9
RPM 3001 (30 Amps)	None	HTTP Server & SNMP Agent TCP/IP, MIBS	6 NEMA 5-15R & 2 L5-30R	17 X 8.5 X 3.5	16
RPM 3009 (30 Amps)	8 each RJ11 / RS232	HTTP Server & SNMP Agent TCP/IP, MIBS	6 NEMA 5-15R & 2 L5-30R	17 X 8.5 X 3.5	16
RPM 3000 Client (30 Amps)	None	Add 8 more controllable outlets via daisy-chain link	6 NEMA 5-15R & 2 L5-30R	17 X 8.5 X 3.5	16

RPM Clients are available with Windows NT/2000 and Linux shutdown ports.

SNMP & Optional Accessories

SNMP Cards



SNMP-32L Card

Allows Web and SNMP management of SmartSine and Enterprise UPS systems.



SNMP-32S Card

Allows Web and SNMP management of MCP-E UPS systems.



NetAgent SNMP Card

Allows Web and SNMP management of CPE Series and MCP Series UPS systems.

Additional Accessories



Temperature Humidity Probe

Connects to SNMP-32S and SNMP-32L cards to provide temperature and humidity monitoring.



RPM/UPS Card

Allows SmartSine and Enterprise UPS to communicate with an RPM unit to provide orderly shutdown in the event of a power failure signal from the UPS.



Multi-RS232 Ports Card

Provides RS232 ports for one UPS to allow simultaneous shutdown of up to 3 servers.



Contact Closure Card

Provides contact closure capabilities to SmartSine and Enterprise UPS models.



Multi-slot Chassis

Allows one UPS to run up to 3 different option cards simultaneously.



USB to RS232 Adapter

For use with all UPS models that use SentryII software.



USB to RS232 (MN Series)

For use with MN Series

USB to RS232 Adapters

Provides USB connectivity to UPS systems with an RS232 communications port.

MINUTEMAN UPS & Sizing Basics

How to select the right-sized UPS

NOTE: The following instructions provided as a convenience for quick UPS sizing without the need for a computer or Internet connection. We recommend using SizeMyUPS.com to see the most accurate and complete list of UPS models.

Follow these steps to select the proper UPS solution:

1. **Determine the load of the equipment that you wish to protect.** Locate your equipment's power consumption information by checking the equipment user's manual or the nameplate on the equipment. This number is generally stated in Watts (W) or Amps (A) and sometimes in Volt Amps (VA). If you check both of these places and still cannot find the information, try checking the manufacturer's own Web site. Most electronics manufacturers post this information in product specifications pages or document libraries for their customers. If you need to protect more than one piece of equipment, locate all of the devices that need to be protected with a single UPS and add up their respective ratings.

Sizing Formulas
Input Voltage (V), (120V, 208V, 220V, 240V)
$Amps (A) = Watts \times 1.35 / Input\ Voltage (V)$
$Amps (A) = Volt\ Amps (VA) / Input\ Voltage (V)$ See Chart Above
$Volt\ Amps (VA) = Input\ Voltage (V) \times Amps$
1 kVA = 1000 VA

2. **Find a UPS that has the load in either VA or Watts that is greater than or equal to the total load of your equipment.** Keep in mind that this sizing chart assumes that the user is sizing a RATED load. In other words, a load that has been given by the manufacturer of the device instead of a load that has actually been measured. If the load has been measured accurately, we recommend using SizeMyUPS.com with the MEASURED load option selected.
3. **Decide how much backup time you need for your application should you experience a utility power failure and locate the corresponding UPS solution.**
4. **There are typically one or more UPS models in each technology that will suit your runtime requirements. Be sure to choose the UPS technology that best suits your application (see below).**

About Equipment Ratings and UPS Sizing

By requirement of regulatory agencies like CE and UL, electronic equipment manufacturers must provide ratings that their equipment will never exceed. Therefore, equipment is typically rated at a level well above the power it actually consumes. Often this rating is actually twice as high as the equipment's actual power draw. The recommended UPSs and their corresponding backup times are based on our best available information. Actual backup times may be affected by system configuration, battery condition, temperature, and load.

Which UPS system technology is the right one?

Stand-By UPS

This type of system provides surge and spike protection as well as battery backup when utility power fails. Voltage regulation is handled using internal batteries. The MINUTEMAN MN™ Series is a stand-by UPS system.

Applications: Small to large PCs, Phone Key Systems, and Workstations.

Line-Interactive UPS

This type of system provides full protection from surges and sags without going to batteries thereby increasing battery life for blackout conditions. The unit interacts with the utility line to regulate small changes in voltage. Minor voltage fluctuations are raised or lowered by the AVR function of the UPS. MINUTEMAN MBK-E™, PRO-E™, SmartSine™, Enterprise 1U™, Enterprise™, and XRT™ are all line-interactive UPS systems.

Applications: Small to large PCs, Key and PBX Phone Systems, Servers, Networking Equipment, Rackmount Servers and Workstations.

Sine wave UPS with Limited Runtime/Sine wave UPS with Extended Runtime

This type of system produces output power virtually identical to that of utility power. It is ideal for protecting sensitive types of electronic equipment or motors that require a true sine wave to operate properly. MINUTEMAN SmartSine™ and MINUTEMAN Enterprise 1U™ models provide a true sine wave output with a limited amount of battery runtime. MINUTEMAN Enterprise™ and XRT™ models provide a true sine wave output and offer extended runtime using external battery packs. MINUTEMAN SmartSine™, Enterprise 1U™, Enterprise™, and XRT™ are all line-interactive and sine wave UPS products.

Applications: Workstations, Servers, Internetworking, Telecom Equipment, Phone Systems, and any device that has internal motors such as large printers or factory equipment.

True On-line/Extended Runtime UPS

This type of system converts AC utility power into DC power and then back into AC power. This "double conversion" process ensures consistent power quality that is completely isolated from any utility power disturbances offering complete protection for attached equipment. The MINUTEMAN CPET™ and MCP™ Series models are true on-line UPS products that feature extended runtime options.

Applications: Workstations, PBX Phone Systems, Network Servers, Internetworking, Telecom Equipment, and Other Critical Devices.



Please contact us for additional information

MINUTEMANUPS.com

Our corporate Web site contains complete information about all MINUTEMAN UPS products and services, plus online technical support and facts about power protection. New information is added regularly, so bookmark us and visit often.

SizeMyUPS.com

An automated UPS sizing guide to assist you in configuring how much power (its system load) your equipment uses. SizeMyUPS.com automatically calculates and displays the MINUTEMAN UPS models that meet your requirements.

CompareMyUPS.com

An interactive tool designed to help you find a comparable MINUTEMAN UPS model given a competitor's model.

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