MINUTEMAN®
POWER TECHNOLOGIES
by Para Systems, Inc.

COMPREHENSIVE APPLICATION GUIDE

Power Solutions Across Every Industry

Security • Retail • Hospitality • Distributed Antenna System (DAS) • Medical • Gaming / Casino • Small-to-Medium Business (SMB) • Enterprise / IT • Grow Facilities • AI / Edge Computing • Education • Government • Home Office • Financial & Banking

INDUSTRIES COVERED

Security
UPS · PDU · Surge · Software

Retail
UPS · PDU · Surge · Software

Hospitality
UPS · PDU · Surge · Software

Distributed Antenna System (DAS)
UPS · PDU · Surge · Software

Healthcare
UPS · PDU · Surge · Software

Gaming / Casino
UPS · PDU · Surge · Software

Small-to-Medium Business (SMB)
UPS · PDU · Surge · Software

Enterprise / IT
UPS · PDU · Surge · Software

Grow Facilities
UPS · PDU · Surge · Software

AI / Edge Computing
UPS · PDU · Surge · Software

Education
★ *TAA Compliant Products*

Government
★ *TAA Compliant Products*

Home Office
UPS · PDU · Surge · Software

Financial & Banking
UPS · PDU · Surge · Software

This publication is intended to serve as a guideline for the use of Minuteman Power Technologies products. It is not to be considered all-inclusive, nor is it intended to replace the policy and procedures for any facility. Consult a qualified salesperson or contact Minuteman Technical Support for application-specific guidance.

MINUTEMAN PRODUCT PORTFOLIO

STANDBY UPS

Enspire-G® Series (450–900VA) — Entry-level desktop protection with USB management, surge + battery backup.

LINE INTERACTIVE UPS

Entrust-LG® (550–2000VA), PRO-RT2U® (750–2000VA), EXR® True Sine Wave (750VA–3kVA), SR Series (1000VA-1500VA) — AVR-equipped rack/tower solutions.

ONLINE UPS

Encompass® LCD (1–3kVA), Encompass® RTXL (1-3kVA) TAA Compliant, Endurance® Lithium (1-3kVA) LiFePO4, Endeavor® 5–10kVA, Endeavor® 6 & 10kVA Tower — Double-conversion, zero transfer time.

POWER DISTRIBUTION

OE Series Basic PDUs — Horizontal rack-mount power distribution with multiple outlet counts (6–20 outlets), 15A/20A circuit breaker options. Cost-effective in-rack power delivery.

REMOTE POWER MANAGEMENT

RPM® 2 - 24-Port, EV6 & LCD Series — Per-outlet switching, scheduling, energy metering with SNMP/web management.

MONITORING & SOFTWARE

SNMP Monitoring Cards, SentryHD UPS Software, Envision SNMP Management — Real-time visibility, automated shutdown, fleet monitoring.

CUSTOM SOLUTIONS & ACCESSORIES

Power Cabinets (24U/42U), Extended Battery Modules “EBMs”, Service Programs & Warranties — Complete power ecosystem.

INDUSTRY OVERVIEW

Security installations are mission-critical, 24/7 environments where power interruptions create immediate vulnerabilities. From IP cameras and DVR/NVR systems to access control panels and intrusion detection, every device in the security chain depends on clean, continuous power.

Power outages, surges, and brownouts compromise video recording, disable electronic locks, silence alarm systems, and create gaps in coverage that can lead to costly breaches. In multi-site deployments, the challenge compounds — hundreds of distributed devices across buildings, campuses, and remote locations all need reliable power with centralized visibility.

WHY INSTALL POWER PROTECTION FOR SECURITY SYSTEMS?

Continuous Surveillance

Cameras and DVRs must record 24/7 — even a brief outage creates evidence gaps that can have legal and safety consequences.

Access Control Integrity

Electronic locks, card readers, and biometric systems default to fail-safe or fail-secure modes during power loss, potentially locking out staff or leaving doors unsecured.

Alarm System Reliability

Intrusion detection and fire alarm panels require clean, stable power. Voltage sags and surges cause false alarms or missed detections.

Remote Site Challenges

Many security devices are deployed in IDF closets, parking structures, and unmanned locations where power quality is poorest, and service access is limited.

MINUTEMAN® POWER TECHNOLOGIES by Para Systems, Inc.

This application guide helps engineers, integrators, and security professionals select the right Minuteman power protection solutions for surveillance, access control, and alarm system installations.

EQUIPMENT PROTECTED

- IP Cameras & PTZ Systems
- DVR/NVR Recording Systems
- Access Control Panels & Card Readers
- Intrusion Detection & Alarm Panels
- Guard Station Workstations
- Video Analytics Servers
- Intercoms & Emergency Call Stations
- Network Switches for Security VLANs

RECOMMENDED MINUTEMAN SOLUTIONS

Enspire-G® Standby UPS (450–900VA)

- Ideal for individual cameras, small panels
- Compact desktop form for tight enclosures
- USB communication for monitoring
- Surge + battery backup in one unit

Entrust-LG® Line Interactive UPS (550–2000VA)

- AVR corrects brownouts common at remote sites
- Ultra-compact — fits inside DVR/NVR cabinets
- USB charging on select models
- LED/LCD status display

PRO-RT2U® Line Interactive UPS (750–2000VA)

- Rack/Tower convertible for head-end rooms
- Automatic Voltage Regulation (AVR)
- Protects access control servers and network switches
- RS-232 & USB communication ports
- SNMP card slot

SR Series Line Interactive (1000VA-1500VA)

- Shallow depth for retail network closets
- Ideal for space-constrained back rooms
- Line interactive with AVR
- Protects against surges and brownouts

EXR® Series Line Interactive UPS (750VA–3kVA)

- True sine wave output — critical for sensitive electronics
- Rack/Tower convertible form factor
- Hot-swap batteries on select models
- Expandable runtime with Extended Battery Modules “EBMs”
- SNMP card slot
- Ideal for video analytics servers

Encompass® RTXL Online UPS (1–3kVA)

- Double-conversion — zero transfer time
- Cleanest power for mission-critical head-end
- Rack/Tower form factors
- SNMP card slot
- Expandable runtime with EBMs

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs distribute UPS-protected power within security head-end racks, ensuring clean power reaches every DVR, switch, and access controller from a single UPS source.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective power distribution — delivers clean UPS power to every device in the rack

ACCESSORIES, SOFTWARE & SUPPORT

RPM® Remote Power Managers

Per-outlet switching for remote camera and DVR reboots without truck rolls. 2-port, 4-port, 8-port, and 16-port configurations with SNMP/web management.

SNMP Monitoring Cards

Real-time UPS status, alerts, and management integrated with security NOC dashboards and network monitoring platforms.

SentryHD Software

Automated graceful shutdown of DVR/NVR systems during extended outages. Email/SMS alerts for power events across multi-site deployments.

Free Online Tools

www.sizemyups.com
www.sizemypdu.com
www.comparemyups.com

INDUSTRY OVERVIEW

Point of Sale (POS) systems are the revenue heartbeat of any retail operation. When power fails mid-transaction, the consequences are immediate: lost sales, frustrated customers, corrupted transaction data, and potential payment processing errors.

Retail environments face unique power challenges. Checkout lanes, kitchen display systems, receipt printers, barcode scanners, and payment terminals all depend on clean power — yet retail spaces often share electrical circuits with lighting, HVAC, and refrigeration equipment that create constant voltage fluctuations.

WHY INSTALL POWER PROTECTION FOR POS SYSTEMS?

Transaction Protection

A mid-transaction power outage can corrupt payment data, lose the sale, and require voiding and re-ringing — creating lines and customer frustration.

Data Integrity

POS servers store inventory, pricing, employee records, and sales history. Power events cause database corruption that can take hours to resolve.

Equipment Protection

Receipt printers, touchscreens, and payment terminals are sensitive to surges and brownouts common in retail electrical environments.

Multi-Location Challenges

Retail chains need consistent power protection across hundreds of locations with limited on-site IT staff to manage and maintain systems.

MINUTEMAN® POWER TECHNOLOGIES by Para Systems, Inc.

This application guide helps retail operators, IT managers, and system integrators select power protection solutions for POS terminals, payment processing, and retail back-office equipment.

EQUIPMENT PROTECTED

- POS Terminals & Touchscreens
- Receipt & Label Printers
- Cash Drawers
- Payment Processing Terminals
- Barcode Scanners
- Kitchen Display Systems (KDS)
- Back-Office POS Servers
- Network Switches & Routers

RECOMMENDED MINUTEMAN SOLUTIONS

Enspire-G® Standby UPS (450–900VA)

- Compact form fits under checkout counters
- Powers individual POS lanes
- USB charging ports on select models
- USB management port
- Affordable per-lane deployment

Entrust-LG® Line Interactive (550–2000VA)

- AVR stabilizes power for sensitive POS equipment
- Ultra-compact for under-counter mounting
- USB charging ports on select models
- Quiet operation for retail floor
- Multiple outlet configurations

PRO-RT2U® Line Interactive (750–2000VA)

- Rack/Tower for back-room server closets
- Protects POS servers and network gear
- LCD status display for easy monitoring
- SNMP communication card slot
- Hot-swap batteries on select models

SR Series Line Interactive (1000VA-1500VA)

- Shallow depth for retail network closets
- Ideal for space-constrained back rooms
- Line interactive with AVR
- Protects against surges and brownouts

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs organize UPS-protected power distribution within back-room retail server racks — delivering clean power to POS servers, switches, and network equipment from a centralized UPS.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective clean power distribution delivered to every device in the rack

ACCESSORIES, SOFTWARE & SUPPORT

RPM® Remote Power Managers

Remote outlet control for multi-location retailers. Scheduled reboots after hours eliminate unnecessary truck rolls. Web-based management from any browser.

SNMP Monitoring Cards

Centralized fleet monitoring across all store locations. Integrates with retail NOC platforms for proactive power event management.

SentryHD Software

Automated graceful shutdown of POS servers during extended outages. Email/SMS alerts keep regional IT managers informed.

Free Online Tools

www.sizemyups.com
www.sizemypdu.com
www.comparemyups.com

INDUSTRY OVERVIEW

Hotels and resorts depend on a complex ecosystem of technology to deliver seamless guest experiences. Property Management Systems (PMS), door lock controllers, in-room entertainment, reservation systems, VoIP phone networks, and back-office servers must all operate without interruption.

Power quality in hospitality environments is often problematic — large HVAC systems, commercial kitchens, laundry equipment, and elevators create electrical noise and voltage fluctuations throughout the property. A single power event can disable front desk check-in, lock guests out of rooms, and disrupt revenue-generating restaurant and conference operations.

WHY INSTALL POWER PROTECTION FOR HOSPITALITY?

Guest Experience

Power disruptions disable room keys, crash in-room entertainment systems, and shut down front desk operations — directly impacting guest satisfaction and online reviews.

Revenue Protection

PMS downtime means no check-ins, no reservations, and no billing. Conference AV failures lose event revenue. Restaurant POS outages halt food service.

Distributed Infrastructure

Hotels have networking, AV, and security equipment in dozens of closets across multiple floors and buildings — all needing reliable, managed power.

Property-Wide Impact

A single power failure in a critical closet can cascade, affecting door locks, VoIP phones, Wi-Fi, and security cameras across entire wings of the property.

MINUTEMAN® POWER TECHNOLOGIES by Para Systems, Inc.

This application guide helps hotel operators, property IT teams, and system integrators select power protection solutions for guest services, property management, and back-office infrastructure.

HOSPITALITY — EQUIPMENT & SOLUTIONS

EQUIPMENT PROTECTED

- Property Management Systems (PMS)
- Front Desk & Reservation Workstations
- Door Lock Controllers
- In-Room Entertainment Systems
- VoIP Phone Systems
- Conference & Event AV Equipment
- Wi-Fi Access Points & Network Switches
- Restaurant/Bar POS Systems

RECOMMENDED MINUTEMAN SOLUTIONS

Entrust-LG® Line Interactive UPS (550–2000VA)

- Compact AVR for front desk PMS terminals
- Ultra-quiet for guest-facing areas
- Protects concierge workstations
- Multiple outlet configurations

PRO-RT2U® Line Interactive UPS (750–2000VA)

- Rack/Tower for IT closets across property
- AVR handles noisy hotel power environments
- Protects network switches, VoIP, servers
- Hot-swap batteries — minimize disruption

Encompass® RTXL Online UPS (1–3kVA)

- Double-conversion for PMS servers
- Zero transfer time — critical for door lock controllers
- True sine wave output
- Rack/Tower form for IT closets
- SNMP-ready for centralized monitoring
- Extended battery module support

EXR® Series Line Interactive UPS (750VA–3kVA)

- True sine wave output for conference AV equipment
- Rack/Tower convertible
- SNMP-ready for centralized monitoring
- Extended battery module support

Endeavor® 5–10kVA Online

- High-capacity for property data centers
- Double-conversion online protection
- LCD display
- SNMP-ready for centralized monitoring
- Extended battery module support

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs distribute UPS-protected power within IDF closets across hotel floors — organizing connections to network switches, VoIP gateways, Wi-Fi controllers, and door lock systems.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective power distribution — delivers clean UPS power to every device in the rack

ACCESSORIES, SOFTWARE & SUPPORT

RPM® Remote Power Managers

Remote power management across the entire property. Per-outlet scheduling for distributed closets. Eliminates walking to remote IDF locations for reboots.

SNMP Monitoring Cards

Real-time UPS visibility across all property locations from a single management console. Integrates with property engineering and IT monitoring systems.

SentryHD Software

Automated alerts and graceful shutdown for PMS servers. Multi-UPS monitoring across the entire property from one interface.

Power Cabinets (24U/42U)

Organized IT rack enclosures for main and distributed equipment rooms. Locking doors, cable management, and integrated UPS solutions. Pre-populated, customized solutions available for plug-and-play deployment.

Free Online Tools

www.sizemyups.com
www.sizemypdu.com
www.comparemyups.com

INDUSTRY OVERVIEW

Distributed Antenna Systems deliver cellular, Wi-Fi, and public safety radio signals to areas where coverage is limited or nonexistent — large buildings, stadiums, tunnels, hospitals, and underground facilities. DAS head-ends and remote units require continuous, clean power to maintain signal distribution.

Public safety DAS (ERCES/BDA systems) face even stricter requirements. NFPA 1221, IFC Section 510, and local fire codes mandate battery backup durations of 12 to 24 hours for emergency responder communication systems. Power quality at DAS locations is often compromised by shared electrical infrastructure, and many remote units are in ceiling spaces, rooftops, or outdoor enclosures with limited access.

WHY INSTALL POWER PROTECTION FOR DAS?

Signal Continuity

Any power interruption to DAS head-end or remote units causes immediate loss of cellular and radio coverage — impacting thousands of users simultaneously.

Public Safety Compliance

NFPA 1221 and IFC Section 510 require battery backup for ERCES/BDA systems. Non-compliance can result in failed inspections and occupancy delays.

Remote & Harsh Locations

DAS equipment is often installed in rooftop enclosures, ceiling plenums, and parking structures where power quality is poorest and access for service is difficult.

Sensitive RF Electronics

DAS amplifiers, fiber-optic transceivers, and signal processing equipment are highly sensitive to power noise, harmonics, and voltage fluctuations.

MINUTEMAN® POWER TECHNOLOGIES by Para Systems, Inc.

This application guide helps RF engineers, DAS integrators, and facility managers select power protection solutions for indoor and outdoor DAS deployments, BDA/ERCES systems, and public safety communications.

DISTRIBUTED ANTENNA SYSTEM (DAS) — EQUIPMENT & SOLUTIONS

EQUIPMENT PROTECTED

- BDA/ERCES Head-End Equipment
- Remote Radio Units (RRH/RU)
- DAS Fiber-Optic Transceivers
- Public Safety Radio Amplifiers
- Cellular Small Cell Sites
- Signal Processing Equipment
- Network Switches for DAS Backbone
- Monitoring & Alarm Controllers

RECOMMENDED MINUTEMAN SOLUTIONS

EXR® Series Line Interactive (750VA–3kVA)

- True sine wave output UPS — essential for RF amplifiers
- Rack/Tower for IDF/MDF closets
- Extended battery modules “EBMs” for public safety runtime
- SNMP communication card slot

Encompass® RTXL Online UPS (1–3kVA)

- Double-conversion — zero transfer time
- Cleanest power for DAS head-end amplifiers
- Rack/Tower form factors
- TAA Compliant — government facility DAS
- SNMP monitoring card slot
- EBMs for public safety runtime

Endurance® Lithium Online UPS

- LiFePO4 battery — 10-year design life
- Wide operating temperature range for rooftop/outdoor
- High-density double-conversion
- Lightweight — ideal for ceiling/wall-mount locations
- Reduced service cycles vs. VRLA batteries

DISTRIBUTED ANTENNA SYSTEM (DAS) — ACCESSORIES & SUPPORT

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs organize power distribution within DAS head-end racks, delivering UPS-protected power to amplifiers, fiber modules, switches, and monitoring equipment from a centralized source.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective power distribution — delivers clean UPS power to every device in the rack

ACCESSORIES, SOFTWARE & SUPPORT

RPM® Remote Power Managers

Remote monitoring and power cycling of DAS nodes without dispatching technicians. SNMP/web management integrates with DAS NOC platforms.

SNMP Monitoring Cards

Real-time UPS visibility at every DAS node. Integrates with DAS monitoring platforms for proactive power event management across all sites.

Extended Battery Modules (EBMs)

Meet NFPA 1221 and local fire code requirements for 12–24-hour backup durations on public safety DAS/ERCES systems.

SentryHD Software

Centralized multi-site UPS management with automated alerts. Schedule battery tests and monitor runtime compliance across all DAS locations.

Free Online Tools

www.sizemyups.com
www.sizemypdu.com
www.comparemyups.com

INDUSTRY OVERVIEW

In healthcare environments, power reliability directly impacts patient safety and care continuity. Medical imaging equipment, patient monitoring systems, EMR/EHR servers, nurse call systems, and medication dispensing cabinets all require clean, uninterrupted power.

Healthcare facilities face unique challenges: aging electrical infrastructure, large motor loads from HVAC and imaging equipment, and strict regulatory requirements including HIPAA data protection, Joint Commission standards, and CMS conditions of participation. Power quality problems don't just cause IT downtime — they can compromise patient care and create compliance exposure.

WHY INSTALL POWER PROTECTION FOR HEALTHCARE?

Patient Safety

Power interruptions to patient monitoring, infusion pumps, and life-support equipment can have direct clinical consequences. Clean power prevents false alarms and data loss.

EMR/EHR Protection

Electronic Medical Record systems are the backbone of modern healthcare. Power events cause database corruption, provider lockouts, and documentation gaps.

Regulatory Compliance

Joint Commission, CMS, and HIPAA all require continuous access to patient data and clinical systems. Power-related downtime creates compliance risk.

Imaging & Diagnostics

CT, MRI, ultrasound, and X-ray systems are extremely sensitive to power quality. Harmonics and voltage sags cause image artifacts and exam failures.

MINUTEMAN® POWER TECHNOLOGIES by Para Systems, Inc.

This application guide helps healthcare facility managers, biomedical engineers, and IT professionals select power protection solutions for patient-critical devices and healthcare IT infrastructure.

HEALTHCARE — EQUIPMENT & SOLUTIONS

EQUIPMENT PROTECTED

- Patient Monitoring Systems
- EMR/EHR Servers & Workstations
- Medical Imaging Equipment
- Nurse Call Systems
- Medication Dispensing Cabinets
- Diagnostic Lab Equipment
- Telemedicine Endpoints
- Clinical Network Infrastructure

RECOMMENDED MINUTEMAN SOLUTIONS

Encompass® LCD Online UPS (1–3kVA)

- True double-conversion — zero transfer time
- TAA Compliant — VA and DoD healthcare procurement
- Ideal for imaging equipment and monitoring systems
- True sine wave output
- Local status LCD display
- Tower form for clinical equipment rooms
- Extended runtime with extended battery modules

Encompass® RTXL Online UPS (1–3kVA)

- TAA Compliant — VA and DoD healthcare procurement
- Compact online protection for clinical areas
- Rack/Tower form factor
- SNMP-ready for biomed monitoring
- Extended runtime with extended battery modules

Endurance® Lithium Online

- LiFePO4 — safer battery chemistry
- 10-year battery design life reduces service disruption
- High-density double-conversion
- Ideal for medication dispensing and nursing stations

Endeavor® 5–10kVA Online

- Large-capacity for healthcare data centers
- Advanced power factor correction
- LCD panel, SNMP slot
- SNMP monitoring ready
- Extended runtime with extended battery modules

PRO-RT2U® Line Interactive UPS (750–2000VA)

- Rack/Tower for clinical IT closets
- AVR for brownout-prone hospital environments
- Hot-swap batteries — minimize disruption
- USB & RS-232 communications
- SNMP monitoring ready

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs distribute UPS-protected power within healthcare IT racks — organizing connections to EMR servers, network switches, nurse call controllers, and clinical workstation infrastructure.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective power distribution — delivers clean UPS power to every device in the rack

ACCESSORIES, SOFTWARE & SUPPORT

RPM® Remote Power Managers

Remote outlet management for distributed clinical equipment rooms. Per-outlet energy monitoring. SNMP/web management integrates with hospital building management systems.

SNMP Monitoring Cards

Real-time UPS visibility for biomedical engineering and hospital IT teams. Integrates with healthcare facility monitoring and DCIM platforms.

SentryHD Software

Automated graceful shutdown of EMR servers during extended outages. Multi-UPS monitoring with email/SMS alerts for biomedical and IT teams.

Power Cabinets (24U/42U)

Organized, locking rack enclosures for medical IT rooms and equipment closets. Structured cable management for clinical environments. Pre-populated, customized solutions available for plug-and-play deployment.

Free Online Tools

www.sizemyups.com
www.sizemypdu.com
www.comparemyups.com

INDUSTRY OVERVIEW

Casino and gaming environments operate 24/7/365, generating revenue every minute. Slot machines, electronic gaming tables, gaming controllers, player tracking systems, cage operations, and comprehensive surveillance systems all depend on clean, uninterrupted power.

Casino electrical environments are uniquely challenging. Massive lighting loads, HVAC systems, kitchen equipment, and hundreds of gaming machines sharing circuits create constant voltage fluctuations. Regulatory bodies require continuous surveillance recording and precise gaming transaction integrity — making power protection a compliance requirement, not just an operational preference.

WHY INSTALL POWER PROTECTION FOR GAMING?

Revenue Protection

Every minute of slot machine downtime is lost revenue. A single power event affecting a bank of machines can cost thousands in lost play and customer walk-away.

Surveillance Compliance

Gaming commissions require continuous, uninterrupted surveillance recording. Power events that cause recording gaps create compliance violations and regulatory exposure.

Transaction Integrity

Cage operations, player tracking, and gaming controllers must maintain data integrity through power events. Corrupted transactions require manual reconciliation.

Noisy Electrical Environment

Casino floors share circuits with massive lighting, HVAC, kitchen, and entertainment loads that create constant power quality problems for sensitive electronics.

MINUTEMAN® POWER TECHNOLOGIES by Para Systems, Inc.

This application guide helps casino operations managers, IT directors, and system integrators select power protection solutions for gaming floors, surveillance systems, and cage operations.

GAMING / CASINO — EQUIPMENT & SOLUTIONS

EQUIPMENT PROTECTED

- Slot Machine Cabinets
- Electronic Gaming Controllers
- Casino Surveillance DVR/NVR Systems
- Cage & Accounting Workstations
- Player Tracking Systems
- Gaming Servers & Data Centers
- VoIP & Communication Systems
- Digital Signage & Display Systems

RECOMMENDED MINUTEMAN SOLUTIONS

Entrust-LG® Line Interactive (550–2000VA)

- Compact UPS for slot machine cabinets
- AVR stabilizes noisy casino floor power
- Quiet operation maintains casino atmosphere
- LED/LCD status display

EXR® Series Line Interactive (750VA–3kVA)

- True sine wave output for gaming electronics
- Rack/Tower convertible
- Critical for Class III gaming machines
- SNMP card slot for monitoring
- Hot-swap batteries
- Extended runtime with extended battery modules

Encompass® RTXL Online UPS (1–3kVA)

- Zero transfer time — machines see no power blip
- Double-conversion clean power
- Rack/Tower form
- Ideal for cage & accounting systems
- SNMP card slot for monitoring
- Extended runtime with extended battery modules

Endeavor® 5–10kVA Online

- High-capacity for surveillance server rooms
- Advanced online double-conversion
- LCD display, SNMP ready
- Hot-swap batteries
- Extended runtime with extended battery modules

PRO-RT2U® Line Interactive (750–2000VA)

- Rack/Tower for gaming server rooms
- AVR handles voltage swings on busy floors
- Protects gaming controllers and CDCs

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs distribute UPS-protected power within gaming server rooms and surveillance racks — organizing connections to gaming controllers, DVR arrays, and cage operation servers.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective clean power distribution delivered to every device in the rack

ACCESSORIES, SOFTWARE & SUPPORT

RPM® Remote Power Managers

Remote control of gaming equipment banks. Scheduled outlet cycling for maintenance windows. Per-outlet energy monitoring for operational reporting.

SNMP Monitoring Cards

Centralized monitoring across casino floor zones. Integrates with gaming operations dashboards for proactive power event management.

SentryHD Software

Automated alerts for gaming operations and IT teams. Multi-UPS monitoring across the property with email/SMS notifications.

Free Online Tools

www.sizemyups.com
www.sizemypdu.com
www.comparemyups.com

INDUSTRY OVERVIEW

Small and medium businesses face the same power threats as large enterprises — surges, brownouts, blackouts, and electrical noise — but with smaller IT budgets, fewer dedicated resources, and less infrastructure redundancy. A single power event can knock out workstations, crash servers, corrupt data, and silence VoIP phones for an entire office.

SMBs need power protection that is affordable, easy to deploy without specialized IT staff, and scalable as the business grows. The right solution protects workstations, network gear, VoIP phones, small servers, and shared peripherals while providing the monitoring and management capabilities that growing businesses require.

WHY INSTALL POWER PROTECTION FOR SMB?

Affordable Protection

Power events cost small businesses an average of $8,000-$50,000 per incident in lost productivity, data recovery, and equipment damage. UPS protection costs a fraction of a single event.

Easy Deployment

SMBs can't afford complex power infrastructure. Minuteman solutions are plug-and-play, with simple setup that doesn't require a dedicated IT team.

Data Protection

Small business servers store everything — accounting, customer records, inventory, email. Power events corrupt databases and can take days to recover.

VoIP & Communications

Modern SMBs depend on VoIP phones and internet connectivity. A power outage silences every phone and disconnects every employee.

MINUTEMAN® POWER TECHNOLOGIES by Para Systems, Inc.

This application guide helps small business owners, office managers, and IT service providers select right-sized power protection solutions for office environments and small server rooms.

SMALL-TO-MEDIUM BUSINESS (SMB) — EQUIPMENT & SOLUTIONS

EQUIPMENT PROTECTED

- Office Workstations & PCs
- VoIP Telephone Systems
- Network Switches & Routers
- Small Business Servers & NAS
- Shared Printers & Copiers
- Wireless Access Points
- AV Conference Room Equipment
- External Hard Drives & Backup Devices

RECOMMENDED MINUTEMAN SOLUTIONS

Enspire-G® Standby UPS (450–900VA)

- Entry-level desktop/tower protection
- Ideal for workstations and peripherals
- USB management port
- Compact, affordable per-desk deployment

Entrust-LG® Line Interactive (550–2000VA)

- AVR corrects common office brownouts
- Multiple outlet configurations
- LED/LCD status display
- Ultra-compact for office environments
- Quiet operation

PRO-RT2U® Line Interactive (750–2000VA)

- Rack/Tower for SMB server closets
- Hot-swap batteries on select models
- RS-232 & USB communications
- Affordable high-performance UPS
- SNMP-ready for remote monitoring

EXR® Series Line Interactive (750VA–3kVA)

- True sine wave output for server-grade equipment
- Rack/Tower convertible
- Extended battery module support
- SNMP card slot
- Ideal for growing businesses

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs organize power distribution within small server closets and network racks — a cost-effective way to distribute UPS-protected power to multiple devices from a single UPS.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective clean power distribution delivered — delivers clean UPS power to every device in the rack

ACCESSORIES, SOFTWARE & SUPPORT

RPM® 2-Port and 4-port Remote Power Manager

Simple two and four-outlet remote power control for small server rooms. Web-based management eliminates after-hours office trips for router and server reboots.

SentryHD Software

Simple automated shutdown without a dedicated IT team. Monitors UPS status and performs graceful OS shutdown during extended outages.

SNMP Monitoring Cards

Network visibility for managed service providers (MSPs) monitoring SMB clients. Integrates with remote monitoring and management (RMM) tools.

Free Online Tools

www.sizemyups.com
www.sizemypdu.com
www.comparemyups.com

INDUSTRY OVERVIEW

Enterprise IT environments demand the highest levels of power quality and management visibility. Modern data centers require UPS systems that deliver true double-conversion online protection, support high power density, integrate with DCIM and monitoring platforms, and scale with organizational growth.

From core switching and virtualization hosts to SAN storage and VoIP infrastructure, every component in the enterprise stack requires clean, conditioned power with zero tolerance for transfer time or power quality degradation. Enterprise power infrastructure must also support remote management, and energy-efficient operation to meet organizational sustainability and cost objectives.

WHY INSTALL ENTERPRISE POWER PROTECTION?

Zero Downtime

Enterprise applications, databases, and communication systems require 99.999% availability. Even millisecond power events can cause server reboots, cluster failovers, and data corruption.

Power Density

Modern data centers pack more compute per rack than ever. High-density UPS solutions must deliver maximum protection in minimum rack space.

Deployment Ready

Enterprise power infrastructure must grow with the organization. Pre-fabricated and IT deployment ready UPS solutions allow capacity expansion without forklift upgrades.

Management & Visibility

IT teams need real-time power metrics, predictive alerts, and integration with DCIM, SNMP, and monitoring platforms for proactive infrastructure management.

MINUTEMAN® POWER TECHNOLOGIES by Para Systems, Inc.

This application guide helps data center managers, network engineers, and IT directors select enterprise-grade power infrastructure for mission-critical server rooms and network environments.

ENTERPRISE / IT — EQUIPMENT & SOLUTIONS

EQUIPMENT PROTECTED

- Data Center Server Racks
- Network Core Switching
- SAN/NAS Storage Systems
- Virtualization & HCI Hosts
- VoIP & UC Infrastructure
- Colocation Equipment
- Enterprise Wi-Fi Controllers
- Building Management System Servers

RECOMMENDED MINUTEMAN SOLUTIONS

Endeavor® 5–10kVA Online

- 5–10kVA scalable capacity
- High power factor (>0.9)
- Advanced energy efficiency (up to 96%)
- LCD display, SNMP slot
- Extended battery modules “EBMs” available for extended runtime

Endeavor® 6 & 10kVA Tower UPS

- Large-capacity tower for data centers
- True double-conversion online
- SNMP card slot, LCD display
- EBM support for extended runtime
- Ideal for server rooms and network cores

Endurance® Lithium Online

- LiFePO4 — 10-year battery design life
- High-density double-conversion
- Lighter weight for high-density racks
- Remote management ready
- Lower TCO vs. VRLA batteries

Encompass® RTXL Online UPS (1–3kVA)

- TAA Compliant — government IT procurement
- Double-conversion online protection
- Compact rack/tower form factor
- SNMP monitoring card slot
- EBM support for extended runtime

Power Cabinet (24U / 42U)

- Integrated UPS + rack enclosure solution
- Organized cable management
- 42U and 24U configurations
- Locking security, ventilation options

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs are essential for enterprise rack deployments — distributing UPS-protected power across multiple servers, switches, and storage devices within each rack. Multiple outlet configurations and form factors fit any rack layout.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective clean power distribution delivered to every device in the rack

ACCESSORIES, SOFTWARE & SUPPORT

RPM® Remote Power Managers

2-port, 4-port, 8-port, 16-port, EV6/LCD configurations. Per-outlet switching, scheduling, and energy metering. SNMP/web management integrates with DCIM platforms.

SentryHD Software

Multi-UPS monitoring and automated graceful shutdown for VMware, Hyper-V, and bare-metal servers. Centralized dashboard for entire UPS fleet.

Free Online Tools

www.sizemyups.com
www.sizemypdu.com
www.comparemyups.com

SNMP Monitoring Cards

Real-time UPS metrics, alerts, and management. Integrates with enterprise monitoring platforms (Nagios, PRTG, SolarWinds, etc.) with advanced encryption protocols: HTTPS, SSL, SSH, SNMPv3. Compatible with IPv4 and IPv6 support.

Service Programs

Extended warranty, preventive maintenance, battery replacement programs, and on-site service to maximize UPS lifecycle and minimize unplanned downtime.

INDUSTRY OVERVIEW

Commercial grow facilities operate sophisticated environmental control systems that manage lighting, HVAC, CO2 enrichment, irrigation, and nutrient dosing with precision timing. A power interruption — even brief — can disrupt light cycles, crash environmental controllers, disable ventilation, and ultimately destroy entire crop cycles.

Grow facility electrical environments are particularly challenging. High-intensity lighting (HID and LED), large HVAC motor loads, and CO2 generation equipment share circuits with sensitive controllers and monitoring systems, creating constant voltage fluctuations and electrical noise. Many facilities operate in repurposed industrial spaces with aging electrical infrastructure that compounds these challenges.

WHY INSTALL POWER PROTECTION FOR GROW FACILITIES?

Crop Protection

Even brief light cycle interruptions during flowering can trigger hermaphroditism or reduced yields. Environmental controller failures can cause cascading crop losses worth tens of thousands per room.

Environmental Control

HVAC, CO2 enrichment, dehumidification, and ventilation systems depend on controller reliability. Power events reset setpoints and create dangerous temperature or gas concentration spikes.

Compliance & Tracking

Seed-to-sale tracking systems and security cameras must operate continuously for regulatory compliance. Power events that create gaps in records can trigger compliance violations.

Harsh Electrical Environment

High-intensity lighting, large motor loads, and CO2 generators create extreme electrical noise. Sensitive controllers and monitoring equipment need clean, conditioned power to operate reliably.

MINUTEMAN® POWER TECHNOLOGIES by Para Systems, Inc.

This application guide helps cultivation facility managers, MEP engineers, and system integrators select power protection solutions for cannabis, hemp, and horticultural grow operations.

EQUIPMENT PROTECTED

- Environmental Controllers
- Lighting Control Systems
- HVAC & Dehumidification Controllers
- CO2 Enrichment & Monitoring
- Irrigation & Fertigation Systems
- Seed-to-Sale Tracking Systems
- Security & Surveillance Systems
- Facility Management Workstations

RECOMMENDED MINUTEMAN SOLUTIONS

Encompass® RTXL Online UPS (1–3kVA)

- Double-conversion — eliminates all power disturbances
- Zero transfer time for critical control systems
- Ideal for CO2 monitoring and dosing systems
- Rack/Tower form factors
- Cleanest power for sensitive controllers
- Extended battery module support

EXR® Series Line Interactive (750VA–3kVA)

- True sine wave output for grow automation controllers
- Rack/Tower convertible
- Extended battery module support
- SNMP communication card slot
- Protects against utility power disturbances

PRO-RT2U® Line Interactive (750–2000VA)

- Rack/Tower for control server rooms
- AVR for voltage instability in warehouse environments
- Protects seed-to-sale tracking servers
- Hot-swap batteries
- SNMP-ready

Endeavor® 5–10kVA Online UPS

- High-capacity for facility-level protection
- Zero transfer time
- Powers multiple grow room control panels
- Advanced power factor correction
- SNMP communication card slot
- Extended battery module support

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs distribute UPS-protected power within grow facility control racks — organizing connections to environmental controllers, irrigation systems, CO2 monitors, and tracking servers.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective clean power distribution delivered to every device in the rack

ACCESSORIES, SOFTWARE & SUPPORT

RPM® Remote Power Managers

Remote cycling of grow room equipment and controllers. Outlet scheduling for maintenance. Per-outlet energy monitoring for operational cost tracking.

SNMP Monitoring Cards

Real-time UPS monitoring integrated with facility management and environmental control dashboards. Proactive alerts for power events.

SentryHD Software

Automated alerts for power events affecting grow operations. Graceful shutdown of tracking and environmental control servers during extended outages.

Free Online Tools

www.sizemyups.com
www.sizemypdu.com
www.comparemyups.com

INDUSTRY OVERVIEW

AI workloads and edge computing deployments represent the fastest-growing segment of IT infrastructure, pushing power density requirements to unprecedented levels. GPU-accelerated servers, inference appliances, and IoT gateways demand more watts per rack unit than traditional compute — and they demand it with zero tolerance for power interruptions.

Edge computing adds physical distribution challenges. Micro data centers, 5G MEC nodes, and AI inference points are deployed in retail locations, factory floors, cell towers, and autonomous vehicle infrastructure — locations where power quality is variable, space is constrained, and remote management is essential because on-site IT staff don't exist.

WHY INSTALL POWER PROTECTION FOR AI & EDGE?

GPU Workload Protection

AI training and inference jobs running on GPU clusters can take hours or days. A brief power event can corrupt model weights, lose training progress, and require full restart.

Power Density

GPU servers draw 2–4x more power than traditional servers. High-density UPS solutions must deliver maximum wattage in minimum rack space.

Edge Site Reliability

Edge deployments in unmanned locations need autonomous power protection with remote management — there's no IT team on-site to handle power events.

Data Pipeline Integrity

Real-time AI inference, sensor fusion, and autonomous systems require uninterrupted data pipelines. Power events at edge nodes cascade through the entire processing chain.

MINUTEMAN® POWER TECHNOLOGIES by Para Systems, Inc.

This application guide helps infrastructure architects, edge computing operators, and IT directors select power solutions for AI inference servers, GPU clusters, and distributed compute deployments.

AI / EDGE COMPUTING — EQUIPMENT & SOLUTIONS

EQUIPMENT PROTECTED

- GPU Inference Servers
- AI Training Clusters
- Edge AI Appliances (NVIDIA Jetson, etc.)
- IoT Gateway Aggregators
- 5G MEC Compute Nodes
- Autonomous Vehicle Infrastructure
- Real-time Sensor Fusion Platforms
- Edge Storage & Caching Servers

RECOMMENDED MINUTEMAN SOLUTIONS

Endurance® Lithium-Ion Online UPS

- LiFePO4 — ideal for high-density GPU rack rows
- Double-conversion, zero transfer time
- SNMP card slot
- 10-year battery design life — lower TCO
- Lightweight for edge site deployment
- Reduced service cycles in remote locations

Endeavor® 5–10kVA Online

- 5–10kVA for GPU server clusters
- High power factor (>0.9)
- Efficiency up to 96% — critical for always-on AI
- Handles high inrush current from GPU power supplies
- SNMP card slot
- Extended Battery Modules "EBMs" for extended runtime

Encompass® RTXL Online UPS (1–3kVA)

- TAA Compliant for government edge sites
- Compact double-conversion
- SNMP card slot
- Rack/Tower for space-constrained edge locations
- Extended runtime ready with EBMs

Power Cabinet (24U / 42U)

- Integrated rack + UPS for edge micro data centers
- Locking cabinet for unmanned sites
- 42U and 24U configurations
- Organized cable management and ventilation
- Plug and play ready for ease of IT deployment

EXR® Series Line Interactive UPS (750VA–3kVA)

- True sine wave output for ML accelerator cards
- Rack/Tower for micro data centers
- Extended runtime via EBMs
- SNMP ready for NOC integration

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs are critical for high-density AI/edge racks — distributing UPS-protected power to GPU servers, switches, and storage devices. Multiple outlet configurations support dense rack layouts.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective clean power distribution delivered to every device in the rack

ACCESSORIES, SOFTWARE & SUPPORT

RPM® Remote Power Managers

Remote reboot of edge nodes — eliminate truck rolls. Per-outlet energy monitoring for OpEx tracking. SNMP/web integration with AI operations monitoring stacks.

SNMP Monitoring Cards

Integration with AI infrastructure monitoring platforms. Real-time power metrics for capacity planning and GPU cluster power management.

SentryHD Software

Automated graceful shutdown of edge inference servers. Coordinated VM and container shutdown to protect AI workloads during extended outages.

Service Programs

Extended warranty and preventive maintenance for remote edge sites. Battery replacement programs ensure runtime readiness at unmanned locations.

Free Online Tools

www.sizemyups.com
www.sizemypdu.com
www.comparemyups.com

INDUSTRY OVERVIEW

Educational institutions manage sprawling technology infrastructure across multiple buildings and campuses — workstations in classrooms and computer labs, servers and switches in IDF/MDF closets, AV equipment in lecture halls, and administrative systems that keep the institution running.

Budget constraints, E-Rate eligibility requirements, and TAA compliance standards shape procurement decisions. Meanwhile, students and staff depend on uninterrupted access to learning management systems, student information systems, Wi-Fi networks, and campus communications. Power events don't just cause IT downtime — they disrupt learning.

WHY INSTALL POWER PROTECTION FOR EDUCATION?

Learning Continuity

Power events disrupt online testing, LMS access, and digital learning tools. In an era of one-to-one computing and cloud-based curricula, network downtime means lost instructional time.

TAA & E-Rate Compliance

Education procurement often requires TAA compliant products. Minuteman offers TAA compliant UPS solutions eligible for E-Rate and government education funding.

Distributed Campus Challenge

Schools and universities have IT equipment in dozens of IDF closets, server rooms, and classrooms across campus — all needing reliable, managed power protection.

Budget Optimization

Education IT budgets are tight. The right UPS solution must deliver maximum protection per dollar while minimizing ongoing maintenance and battery replacement costs.

MINUTEMAN® POWER TECHNOLOGIES by Para Systems, Inc.

This application guide helps school district IT directors, campus technology managers, and system integrators select TAA Compliant power protection solutions for K-12 and higher education environments.

EQUIPMENT PROTECTED

- Classroom & Computer Lab Workstations
- Campus IDF/MDF Network Closets
- Student Information System (SIS) Servers
- Learning Management System (LMS) Servers
- Library & Administrative Workstations
- AV & Lecture Hall Equipment
- Campus Wi-Fi Controllers & Access Points
- Campus Security & Surveillance Systems

RECOMMENDED MINUTEMAN SOLUTIONS

Encompass® RTXL 1-3kVA Online UPS

- ★ TAA COMPLIANT — E-Rate & government procurement
- Double-conversion online protection
- Compact rack/tower form factor
- SNMP card slot
- Extended runtime ready with Extended Battery Modules “EBMs”
- Ideal for campus IDF/MDF closets

PRO-RT2U® Line Interactive UPS (750–2000VA)

- Rack/Tower for IT closets across campus
- Protects network switches, access points, servers
- Hot-swap batteries — minimize IT disruption
- RS-232 & USB communications
- SNMP-ready
- Affordable campus-wide deployment

Entrust-LG® Line Interactive UPS (550–2000VA)

- Cost-effective classroom and lab workstation protection
- AVR corrects campus power fluctuations
- Ultra-compact — fits under student and teacher desks
- Multiple outlet configurations

Endeavor® 5–10kVA Online

- ★ TAA COMPLIANT — E-Rate & government procurement
- Data center-grade protection for campus core
- High-capacity double-conversion online
- Advanced energy efficiency
- SNMP card slot
- Extended runtime ready with EBMs

EXR® Series Line Interactive UPS (750VA–3kVA)

- True sine wave output for campus servers
- Rack/Tower convertible
- Extended runtime for critical infrastructure
- SNMP card slot for campus NOC

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs distribute UPS-protected power within campus IDF/MDF racks — organizing connections to network switches, Wi-Fi controllers, VoIP gateways, and security equipment in every building.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective clean power distribution delivered to every device in the rack

★ TAA COMPLIANT — GSA Schedule Eligible | NDAA Section 889 Compliant | Government & Education Procurement Ready

ACCESSORIES, SOFTWARE & SUPPORT

RPM® Remote Power Managers

Remote outlet control for distributed campus IDF closets. Eliminates walking across campus for switch and AP reboots. Web-based management from any browser.

SentryHD Software

Centralized campus UPS management for IT staff. Monitors all UPS devices across campus from one console with automated alerts and graceful shutdown.

SNMP Monitoring Cards

Integrate with campus network management systems (NMS). Real-time UPS visibility across all buildings and closets.

Free Online Tools

www.sizemyups.com

www.sizemypdu.com

www.comparemyups.com

INDUSTRY OVERVIEW

Federal, state, and local government agencies require power protection products that meet stringent compliance standards. The Trade Agreements Act (TAA) governs GSA Schedule procurement. NDAA Section 889 prohibits certain telecommunications and surveillance equipment. The Buy American Act establishes domestic preference requirements.

Beyond compliance, government operations demand the highest levels of power reliability. Agency data centers, command and control facilities, SCIFs, emergency operations centers, and field installations all require zero-downtime power infrastructure with centralized monitoring and extended runtime capability. Minuteman's TAA Compliant portfolio is purpose-built for government procurement and mission-critical deployment.

WHY INSTALL POWER PROTECTION FOR GOVERNMENT?

TAA Compliance

Minuteman offers TAA Compliant UPS solutions eligible for GSA Schedule procurement. Products meet Trade Agreements Act manufacturing requirements for government purchasing.

NDAA Section 889

Minuteman TAA Compliant products meet NDAA Section 889 requirements, ensuring supply chain compliance for government IT infrastructure deployments.

Mission-Critical Reliability

Federal operations require the highest levels of power availability. Double-conversion online UPS that ensures continuity of operations (COOP) compliance.

Security Integration

Government facilities require power infrastructure that integrates with FISMA-compliant monitoring, SIEM platforms, and agency NOC dashboards for comprehensive visibility.

MINUTEMAN® POWER TECHNOLOGIES by Para Systems, Inc.

This application guide helps government IT managers, contracting officers, and system integrators select TAA Compliant power protection solutions meeting GSA Schedule, NDAA Section 889, and Buy American Act requirements.

EQUIPMENT PROTECTED

- Agency Data Center Server Racks
- SCIF / Classified Facility IT
- Command & Control Workstations
- Emergency Operations Centers (EOC)
- Campus Network Infrastructure
- Continuity of Operations (COOP) Sites
- Field Office IT Equipment
- Video Teleconferencing (VTC) Systems

RECOMMENDED MINUTEMAN SOLUTIONS

Encompass® RTXL 1-3kVA Online UPS

- ★ TAA COMPLIANT — GSA Schedule eligible
- NDAA Section 889 compliant
- Double-conversion online protection
- SNMP monitoring card slot
- Rack/Tower for agency deployments
- Extended battery module support

Endurance® Lithium 1-3kVA Online UPS

- ★ TAA COMPLIANT for government deployments
- LiFePO4 — 10-year battery design life
- High-density for SCIF and secure facilities
- Remote management & monitoring
- Lighter weight for mobile/field deployments

Endeavor® 5–10kVA Online UPS

- ★ TAA COMPLIANT for government deployments
- Large-capacity for agency data centers
- High power factor & energy efficiency
- LCD display, SNMP ready
- Extended battery module support

Power Cabinet (24U / 42U)

- ★ TAA COMPLIANT for government deployments
- Locking cabinet for secure facility deployments
- Organized cable management
- Integrated UPS + rack for classified environments
- 42U and 24U configurations
- Pre-fabricated solution for ease and ready to use IT deployment

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs distribute UPS-protected power within agency server racks and equipment cabinets — organizing connections to servers, switches, and communications equipment in secure environments.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective clean power distribution delivered to every device in the rack

★ TAA COMPLIANT — GSA Schedule Eligible | NDAA Section 889 Compliant | Government & Education Procurement Ready

ACCESSORIES, SOFTWARE & SUPPORT

RPM® Remote Power Managers

SNMP/web management for secure NOC integration. Per-outlet switching for controlled environment power management. 8-port, 16-port, and EV6/LCD configurations.

SentryHD Software

Automated shutdown meeting FISMA continuity requirements. Multi-UPS fleet monitoring with email/SMS alerts for agency IT and facility management teams.

Free Online Tools

www.sizemyups.com
www.sizemypdu.com
www.comparemyups.com

SNMP Monitoring Cards

Integration with agency SIEM and monitoring platforms. SNMP with advanced encryption protocols: HTTPS, SSL, SSH, SNMPv3 for federal security requirements. Real-time UPS metrics and alerting. IPv4 and IPv6 compatible.

TAA Program & Service

Dedicated government procurement support from Minuteman. Extended warranty, preventive maintenance, and battery replacement programs for government deployments.

INDUSTRY OVERVIEW

Home offices have become mission-critical workspaces. Remote workers depend on reliable internet connectivity, VoIP communications, and cloud-based applications to maintain productivity. Power events at home — surges from lightning, brownouts during peak demand, and blackouts — threaten expensive equipment and critical work output.

Unlike traditional office environments, home offices share electrical circuits with household appliances — HVAC systems, refrigerators, washers, and dryers — that create constant voltage fluctuations. Home-based professionals need affordable, compact, and quiet power protection that safeguards workstations, monitors, routers, modems, and NAS devices without requiring IT expertise to install or manage.

WHY INSTALL POWER PROTECTION FOR HOME OFFICE?

Work Continuity

A power outage during a video conference, file upload, or deadline-critical task means lost productivity, missed meetings, and potential data loss. UPS protection keeps you working through brief outages.

Equipment Protection

Personal workstations, high-end monitors, external drives, and networking equipment represent significant investment. Surges and brownouts from shared household circuits can damage or degrade sensitive electronics over time.

Network Reliability

Home routers, modems, and mesh Wi-Fi systems are the lifeline for remote work. A brief power interruption disconnects VPN sessions, drops video calls, and interrupts cloud syncing — taking minutes to fully reconnect.

Simple & Quiet Operation

Home office power protection must be compact enough for a desk or shelf, quiet enough for a shared living space, and simple enough to set up without IT support. Minuteman solutions are plug-and-play.

MINUTEMAN® POWER TECHNOLOGIES by Para Systems, Inc.

This application guide helps remote workers, home-based professionals, and small office managers select power protection solutions for home office environments, personal workstations, and residential networking equipment.

HOME OFFICE — EQUIPMENT & SOLUTIONS

EQUIPMENT PROTECTED

- Desktop & Laptop Workstations
- Home Routers & Modems
- Mesh Wi-Fi Systems
- NAS & External Storage Drives
- Monitors & Displays
- VoIP & Softphone Systems
- Printers & Scanners
- Smart Home Office Devices

RECOMMENDED MINUTEMAN SOLUTIONS

Enspire-G® Standby UPS (450–900VA)

- Entry-level desktop/tower protection
- Ideal for home workstations and peripherals
- USB management port
- USB charging ports (select models)
- Compact, quiet — perfect for home environments

Entrust-LG® Line Interactive (550–2000VA)

- AVR corrects household power fluctuations
- Multiple outlet configurations
- USB charging ports (select models)
- LED/LCD status display
- Ultra-compact — fits on desk or shelf
- Quiet operation

PRO-RT2U® Line Interactive (750–2000VA)

- Rack/Tower for home server or network closet
- Hot-swap batteries on select models
- RS-232 & USB communications
- Ideal for home lab or NAS environments
- SNMP-ready for tech-savvy home users

EXR® Series Line Interactive (750VA–3kVA)

- True sine wave output for server-grade equipment
- Rack/Tower convertible
- Extended battery module support
- SNMP card slot
- Ideal for power users and content creators

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs organize power distribution within home office setups and network closets — a cost-effective way to distribute UPS-protected power to multiple devices from a single UPS.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective clean power distribution delivered to every device in the rack

ACCESSORIES, SOFTWARE & SUPPORT

RPM® 2-Port Remote Power Manager

Simple two-outlet remote power control for home networking equipment. Web-based management allows remote reboot of routers and NAS devices from anywhere.

SentryHD Software

Simple automated shutdown for home workstations and NAS devices. Monitors UPS status and performs graceful OS shutdown during extended outages — no IT expertise required.

SNMP Monitoring Cards

Network visibility for tech-savvy home users running home labs or NAS environments. Integrates with home automation and monitoring platforms.

Free Online Tools

www.sizemyups.com
www.sizemypdu.com
www.comparemyups.com

INDUSTRY OVERVIEW

Financial institutions operate in a zero-tolerance environment for downtime. ATMs, teller workstations, trading platforms, loan processing systems, and branch network infrastructure must maintain continuous availability to serve customers and process transactions securely.

Banks and financial offices face strict regulatory requirements including PCI DSS compliance, SOX controls, and FFIEC guidance — all demanding continuous data availability and transaction integrity. Power events that disrupt operations create compliance exposure, revenue loss, and erosion of customer trust.

WHY INSTALL POWER PROTECTION FOR FINANCIAL & BANKING?

Transaction Integrity

A power event during wire transfers, ACH processing, or loan closings can corrupt transaction data, delay settlements, and require manual reconciliation — creating regulatory risk and customer impact.

Regulatory Compliance

PCI DSS, SOX, and FFIEC guidelines require continuous access to financial data and transaction records. Power-related downtime creates compliance gaps and audit exposure.

ATM & Branch Availability

ATMs generate revenue around the clock. Teller workstations, cash recyclers, and check scanners are sensitive to power fluctuations. A single outage can shut down an entire branch.

Multi-Branch Management

Financial institutions operate dozens to hundreds of branches with limited on-site IT support. Centralized power monitoring and remote management are essential for operational efficiency.

MINUTEMAN® POWER TECHNOLOGIES by Para Systems, Inc.

This application guide helps bank branch managers, financial IT directors, and system integrators select power protection solutions for ATMs, teller workstations, trading platforms, and branch network infrastructure.

FINANCIAL & BANKING — EQUIPMENT & SOLUTIONS

EQUIPMENT PROTECTED

- ATMs & Self-Service Kiosks
- Teller Workstations & Terminals
- Cash Recyclers & Counters
- Check Scanners & Imaging Systems
- Trading & Loan Processing Servers
- Branch VoIP Phone Systems
- Vault & Security Systems
- Network Switches & Routers

RECOMMENDED MINUTEMAN SOLUTIONS

Enspire-G® Standby UPS (450–900VA)

- Compact form fits under teller stations
- Powers individual teller workstations
- USB charging ports on select models
- USB management port
- Affordable per-station deployment

Entrust-LG® Line Interactive (550–2000VA)

- AVR stabilizes power for sensitive banking equipment
- Ultra-compact for under-desk mounting
- USB charging ports on select models
- Quiet operation for branch floor
- Multiple outlet configurations

PRO-RT2U® Line Interactive (750–2000VA)

- Rack/Tower for branch server closets
- Protects banking servers and network gear
- LCD status display for easy monitoring
- SNMP communication card slot
- Hot-swap batteries on select models

SR Series Line Interactive (1000VA-1500VA)

- Shallow depth for branch network closets
- Ideal for space-constrained branch offices
- Line interactive with AVR
- Protects against surges and brownouts

OE SERIES POWER DISTRIBUTION UNITS (PDU)

OE Series Basic PDU — Rack-Mount Power Distribution

OE Series PDUs organize UPS-protected power distribution within branch server racks — delivering clean power to banking servers, ATM controllers, switches, and network equipment from a centralized UPS.

- Horizontal rack-mount form factor — 1U or 0U vertical configurations
- Multiple outlet counts (6, 8, 10, 12, 14, 16, 20) to match any deployment
- 15A and 20A circuit breaker options for standard and high-power loads
- Cost-effective power distribution — delivers clean UPS power to every device in the rack

ACCESSORIES, SOFTWARE & SUPPORT

RPM® Remote Power Managers

Remote outlet control for multi-branch financial institutions. Scheduled reboots after hours eliminate unnecessary truck rolls. Web-based management from any browser.

SNMP Monitoring Cards

Centralized fleet monitoring across all branch locations. Integrates with financial IT monitoring platforms for proactive power event management.

SentryHD Software

Automated graceful shutdown of banking servers during extended outages. Email/SMS alerts keep regional IT managers and branch operations teams informed.

Free Online Tools

www.sizemyups.com
www.sizemypdu.com
www.comparemyups.com

"Peace of mind when power failure is not an option."

Superior power protection since 1982. Minuteman delivers purpose-built solutions with the quality and reliability to support your operations demand. From protecting a single workstation to powering an entire enterprise data center, the right Minuteman solution is just a call away.

Website minutemanups.com	**Size My UPS** SizemyUPS.com	**Size My PDU** SizeMyPDU.com
TAA Program minutemanups.com/taa-program	**Technical Support** minutemanups.com/contact	**Sales Support** sales@minutemanups.com

Visit minutemanups.com for additional product information, specifications, and training resources.