

ED1000RM(T)2U - 1000VA/800W | ED2000RM(T)2U - 2000VA/1600W  
ED1500RM(T)2U - 1500VA/1200W | ED3000RM(T)2U - 3000VA/2100W

Endeavor UPS Model ED2000RM2U  
with standard 19-inch rack mount kit



The Minuteman® Endeavor™ Series on-line uninterruptible power supply combines double-conversion technology with industry-leading features in a versatile case design that allows the units to be installed in many different formats and environments.

In developing one of the best-valued, highest quality UPS products on the market, the Endeavor Series has these standard features:



Endeavor UPS Model ED2000RM2U with tower  
mount stand provided (standard)

- Floor-standing tower, 19-inch rack and cabinet installation kits included
- 23-inch rack or cabinet installation kit optional
- Wallmount installation kit optional
- 3.5-inch (2U) rack/tower case style
- Up to a 0.8 power factor (in watts) for larger capacities
- Output receptacle control for non-critical load shedding capability
- Extended runtime using external battery packs
- Independent battery pack chargers to reduce battery recharge times
- Simultaneous RS-232, USB and SNMP communications
- Minuteman® SentryPlus™ UPS monitoring and control software
- Front panel display with load/battery meter and status indicators
- Three-year non-prorated warranty (including batteries)
- Dedicated remote Emergency Power Off (EPO) port
- 120V and 208V models available
- Hot-swappable batteries
- RoHS compliant
- \$200,000 Minuteman Platinum Protection Plan® (U.S. and Canada only)

# MINUTEMAN® ENDEAVOR SERIES UNINTERRUPTIBLE POWER SUPPLY

The Endeavor Series is rich in standard features and optional accessories allowing users to order “off the shelf” products and yet retain the flexibility previously only available as a special order product.

Standard features ONLY offered on the Endeavor Series:

- Three-year non-prorated warranty (including batteries)
- RoHS compliancy for all models
- Rack/Tower/Wallmount installation formats
- Free SentryPlus software included
- Independent battery pack chargers
- Concurrent communications via RS-232, USB and optional SNMP card

## ELECTRICAL CHARACTERISTICS

**Output Power Factor:** All Endeavor models up to 2000VA come with a 0.8 output power factor that increases the watt capacity of the units. Offering larger capacities in smaller UPS VA sizes reduces the overall cost of the UPS solution for a specific load requirement. The 3000VA model comes with a 0.7 power factor that provides 2,100 watts capacity in a 3.5 inch (2U) rack space.

**Output Voltage:** All units in the Endeavor Series produce an electrical signal that does not vary from nominal voltage by more than 2%. Tightly regulating the output voltage increases the quality of power to connected equipment adding to its life expectancy, which lowers the total cost of ownership to users.

**Total Harmonic Distortion (THD):** THD is the distortion of a normal AC electrical signal commonly caused on UPS products when connected loads near the capacity of the units. This distortion can create internal heat build-up on sensitive equipment not designed to allow for these altered AC signals. The Endeavor Series maintains an output AC signal, at all times and with all loads, within 2% of a true sine wave.

**Output Receptacle Control:** The ability to extend the runtime of critical devices during an extended blackout is handled through the Endeavor's load shedding function. Each model in the Endeavor Series comes with two independently-circuited receptacle segments. Through the use of Minuteman's SentryPlus software or communication with the UPS through an Ethernet/SNMP connection, users can either turn on, off, or reset each segment independently of the other. By reducing the load amount on the UPS, the runtime of critical devices on the UPS battery can be extended.

## COMMUNICATION FEATURES

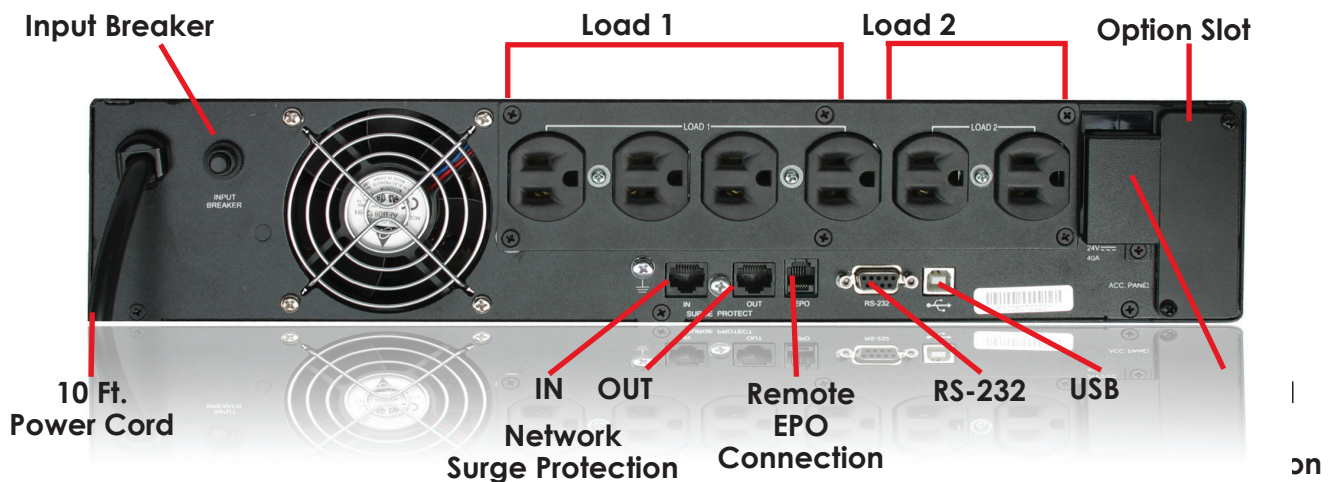
**Simultaneous RS-232, USB and Ethernet/SNMP Communications:** The Endeavor Series provides users with the ability to communicate with the UPS simultaneously through three separate protocols: RS-232, USB and SNMP. Users can now directly connect, and manage, the UPS from multiple stand-alone, or networked, computers. By including concurrent Ethernet communications, (SNMP or direct IP address), the Endeavor Series can provide detailed monitoring and management to many various environments.

## OTHER FEATURES

**RoHS Compliancy:** Recognizing the benefit of being environmentally conscious, Para Systems developed the Endeavor Series to be compliant with the European Economic Unions directive on the reduction of hazardous substances (RoHS), in electronic equipment.

**Manual and Automatic Self-Testing:** The Endeavor Series is designed to proactively notify users of any impending faults or failures with the UPS. This allows for preemptive repair or replacement of components or batteries preventing unexpected downtime caused by the UPS.

**Dedicated EPO Port:** This direct access port allows users to perform an immediate remote shutdown of the UPS in cases of emergency or when access to the UPS is restricted or inconvenient.



Back of Endeavor UPS Model ED1000RM2U

## BATTERY CHARACTERISTICS

**Extended Runtime Capability:** All models in the Endeavor Series come standard with internal batteries. To protect critical devices through extended blackouts, the Endeavor Series utilizes external battery packs that can be daisy-chained in unlimited quantities to provide a virtually unlimited amount of runtime.

**Fast Battery Recharge:** With independent chargers in each battery pack offered for the Endeavor Series, the maximum recharge time for depleted batteries is 4-8 hours, no matter how many battery packs are installed on a UPS. Without these chargers, if more than one battery pack is used battery charging could take more than an entire day.

**Battery Pack Models:** Because each UPS has different battery requirements to support its maximum load capacity, the Endeavor Series uses battery packs sized to match each UPS model:

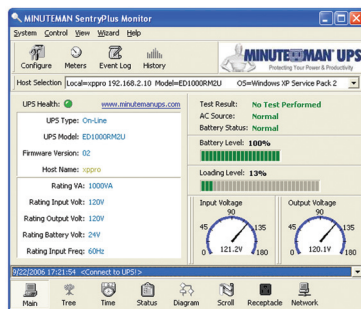
- **ED1000RM2U and ED1000RMT2U – EDBP24XL**
- **ED1500RM2U and ED1500RMT2U – EDBP48XL**
- **ED2000RM2U and ED2000RMT2U – EDBP48XL**
- **ED3000RM2U and ED3000RMT2U – EDBP72XL**

**Battery Technology:** All Endeavor units and battery packs use valve-regulated lead-acid batteries (VRLA). All are safe for any type of freight transport: air, sea or ground. For added protection, all Endeavor UPS models ship with these batteries disconnected. A “Quick Installation Guide” is included in each Endeavor box to detail how to connect the batteries before turning the units on.

**Hot-Swappable Batteries:** All models in the Endeavor line offer battery replacement, through the front panel of the UPS, without having to remove the UPS from service. Connected loads are protected from voltage anomalies and spikes and surges while the batteries are being replaced.

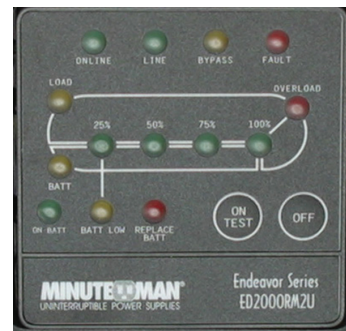
## MINUTEMAN SENTRYPLUS SOFTWARE

Minuteman's SentryPlus UPS monitoring and control software comes included with each Endeavor UPS unit at no extra charge. SentryPlus is compatible with Windows (XP, 2000, Server 2003, NT 4.0, ME and 98), Unix and Linux operating systems. With SentryPlus software users can monitor and control both new and previously sold or installed Minuteman UPS products on a connected network from one application session. The ease of installation, ease of use, and backward compatibility makes it the best software of its kind.



## LED FRONT PANEL DISPLAY

The LED indicators on the Endeavor Series provide many diagnostic details about the condition of the UPS as well as the utility input power. These indicators can provide visual confirmation of anticipated battery failures or UPS faults so that preventative maintenance can be performed on the UPS. The Endeavor UPS also comes with a LED meter that measures both connected load capacity and battery runtime capacity. The LED panel is designed so that it can be oriented vertically or horizontally depending on the installation format of the UPS.



## PARA SYSTEMS SERVICE

Features and value are not the only assets of the Endeavor Series. Para Systems offers some unique resources to assist in the proper selection and sizing of a UPS installation:

- [minutemanups.com](http://minutemanups.com) – Provides full product specifications, literature and support documents as well as contact information.
- [SizeMyUPS.com](http://SizeMyUPS.com) – Provides customized UPS sizing solutions as well as a library of common equipment loads to assist you in getting the proper UPS solution.
- [CompareMyUPS.com](http://CompareMyUPS.com) – Provides a competitive feature analysis of Minuteman UPS products versus other manufacturers.
- [SizeMyPDU.com](http://SizeMyPDU.com) – Provides a customized website for selecting a specific Minuteman PDU product for any installation.

In addition to web resources, Para Systems offers personal support of all our products through our customer support department and highly-trained sales staff.

## SentryPlus Features Include:

- **SNMP/Ethernet compatibility**
- **Concurrent monitoring through single or multiple computers via RS-232, USB and Ethernet connections**
- **Monitor and control multiple UPS devices from a single application session**
- **Perform scheduled shutdowns and restarts**
- **Program e-mail, pager or network broadcast of user-defined UPS events**
- **Full diagnostic and event reporting**
- **Realtime graphical displays of user-defined UPS and utility conditions**
- **Record and save graphical event and history logs for future analysis**

## Minuteman® Endeavor™ Series On-line UPS Specifications

MODEL	ED1000RM2U (ED1000RMT2U)	ED1500RM2U (ED1500RMT2U)	ED2000RM2U (ED2000RMT2U)	ED3000RM2U (ED3000RMT2U)
<b>GENERAL</b>				
Maximum Power Capacity (VA/Watts)	1000/800	1500/1200	2000/1600	3000/2100
Topology	On-line Uninterruptible Power Supply			
Power Factor	0.8			0.7
Battery and Surge Protected Receptacles	[6] 5-15R ([4] 6-15R)	[6] 5-15/20R & [1] L5-20R ([4] 6-15/20R & [1] L6-20R)	[6] 5-15/20R & [1] L5-30R ([4] 6-15/20R & [1] L6-30R)	[6] 5-15/20R & [1] L5-30R ([4] 6-15/20R & [1] L6-30R)
Input Connection (with 10 ft power cord)	5-15P (6-15P)		5-20P (L6-20P)	L5-30P (L6-30P)
Mounting/Installation	Rackmount, tower and wallmount			
<b>INPUT</b>				
Nominal Voltage	120VAC (208VAC)			
Voltage Range	80-138VAC (160-280VAC)	90-138VAC (160-280VAC)		
Frequency Range	50/60Hz +/-6Hz Auto-sensing			
Power Factor Correction	≥97% at full load			
<b>OUTPUT NON-BATTERY OPERATION</b>				
Voltage /Frequency Range	117.6 - 122.4VAC (204 - 212VAC) / 50/60Hz ±6Hz			
Wave Form	True sine wave			
Efficiency (Line Mode)	>87% (full load)			
<b>OUTPUT BATTERY OPERATION</b>				
Nominal Voltage	120VAC (208VAC), User selectable: 110VAC (240VAC)			
Voltage Regulation	Nominal ±2% until low battery warning			
Frequency	50/60Hz ±0.1Hz unless synchronized to line			
Voltage Total Harmonic Distortion T.H.D.	≤3% at full rated linear load			
Dynamic Response	±5% at 100% load change in 30ms			
Transfer Time	0ms			
Runtime: Half Load/Full Load (minutes)	13/4			15/5
<b>BATTERY SYSTEM</b>				
Battery Type	Sealed, non-spillable, maintenance free, value regulated lead acid			
Typical Recharge Time	8 hours from total discharge			
Typical Battery Life	3-5 years, depending on discharge cycles and ambient temperature			
System Voltage	24VDC	48VDC		72VDC
Internal Battery Module	BM0035	BM0036	BM0037	BM0032
<b>SURGE PROTECTION AND FILTERING</b>				
Surge Energy Rating (Joules)	800J (600J)			
Surge Current Capability	6500Amps total			
Surge Response time	0ns (instantaneous) normal mode; 5ns common mode			
Noise Filter	normal and common mode EMI/RFI suppression			
Audible Noise at 1 m (3 ft.)	<45dBA		<60dBA	
<b>ENVIRONMENTAL</b>				
Operating (max)/Storage Temperature	+32 to +104°F (0 to 40°C) / +5 to +113°F (-15 to +45°C)			
Operating/Storage Humidity	95% non-condensing			
Operating/Storage Elevation	0 to 10,000 ft (0 to 3,000 m) / 0 to 50,000 ft (0 to 15,000 m)			
<b>PHYSICAL</b>				
Size - Net (H x W x D) in	3.5 x 17.3 x 13.1 in	3.5 x 17.3 x 17 in		3.5 x 17.3 x 24 in
Size - Net (H x W x D) mm	89 x 440 x 335 mm	89 x 440 x 432 mm		89 x 440 x 610 mm
Size - Shipping (H x W x D) in	9 x 20 x 23.6 in			9 x 23.6 x 39.4 in
Size - Shipping (H x W x D) mm	230 x 508 x 600 mm			230 x 600 x 1000 mm
Weight - Net lb (kg)/Shipping	28.6/39 lb (13/17.5 kg)	46.2/55 lb (21/25 kg)		110.9 lb (50.4/57.3 kg)
<b>BATTERY PACKS</b>				
Battery Pack	EDBP24XL	EDBP48XL		EDBP72XL
Typical Recharge Time	8 hours maximum			
Size - Net (H x W x D) in	3.5 x 17.3 x 13.1 in	3.5 x 17.3 x 17 in		
Size - Net (H x W x D) mm	89 x 440 x 335 mm	89 x 440 x 432 mm		
Size - Shipping (H x W x D) in (mm)	9 x 20 x 23.6 in (230 x 508 x 600 mm)			
Weight - Net lb (kg)	39.6 lb (18 kg)	66 lb (30 kg)		55 lb (25 kg)
Weight - Shipping lb (kg)	49 lb (22 kg)	75 lb (34 kg)		64 lb (29 kg)
<b>REGULATORY COMPLIANCE</b>				
Safety and Approvals	RoHS Compliant, UL, cUL, CE, FCC Class B for 1000KVA, Class A for 1500, 2000, 3000KVA and Battery Packs			
Warranty / Platinum Protection Plan	Three-year non-prorated warranty / \$200,000 (U.S. and Canada only)			



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