

# Rugged-UPS™ 2503

CONTINUOUS OUTPUT POWER: 2500VA / 2000W



**RUGGED  
RELIABLE  
POWER™**

Acumentrics durable and versatile Rugged-UPS™ equipment contains advanced double on-line conversion technology to provide highly reliable power conditioning and battery back-up for the most sensitive electronic devices in harsh and combat environments.

### Power Factor Corrected

The Rugged-UPS™ provides seamless active power-factor correction and clean, reliable AC power.

### On-Line Double Conversion

The Rugged-UPS™ creates DC voltage which is then converted to the needed AC output voltage, protecting sensitive equipment from input surges, spikes, brownouts, blackouts and noise.

### RUPS Transferring

These units transfer seamlessly without interrupting the load quality and have zero switch over time.

### Dual Input with Automatic Power Selection

On DC input (optional) models, our design allows the UPS to automatically select AC or DC power. In the event of an AC power failure, the external DC input takes precedence over the internal battery.

### User-Replaceable Battery Pack

The Rugged-UPS™ features low maintenance, valve-regulated lead acid (VRLA) or optional Lithium Iron Phosphate (LFP) batteries, enclosed in a user-replaceable battery pack for rapid hot-swap field replacement.

### LFP Battery Pack (optional)

Backward compatible with existing units, these packs offer a safe energy source that is light weight with high cycle life and long run time.

### Lightweight Aluminum Chassis

The Rugged-UPS™ is housed in a compact, lightweight chassis. All aluminum, welded construction minimizes overall weight of the unit while maintaining high durability.

### Accepts True Worldwide Input™

The Rugged-UPS™ accepts AC input power from 80 VAC to 265 VAC / 47 Hz to 440 Hz, as well as DC input (optional) from 20 VDC to 32 VDC.



# Rugged-UPS™ 2503

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Front Panel ACB2503 UPS



Back Panel 6 x NEMA 5-20R



Back Panel 4 x C19 optional



Contact Acumentrics to discuss customized solutions.

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## INPUT SPECIFICATIONS

**AC Voltage:** 80-265 VAC, single phase  
**Frequency:** 47-440 Hz  
**AC Circuit Breaker Rating:** 40A  
**DC Voltage :** 20-32 VDC optional  
**Max DC Current:** 120A  
**Power Factor:** 0.99 typical  
**Efficiency with 1000W Load:**  
 AC  $\eta$  = 0.86 DC  $\eta$  = 0.82

## OUTPUT SPECIFICATIONS

**Continuous Power:** 2500VA/2000W  
**Load Crest Factor:** 2.5 continuous  
**Peak Current:** 44A (2000W AC output)  
**AC Voltage:** 115VAC +/- 5%  
**AC Frequency:** 60Hz +/- 0.5Hz  
**AC Waveform:** Sinusoidal

## ENVIRONMENTAL

**Operating Temperature:**  
 with LFP battery: -20°C to 52°C optional  
 with Lead Acid battery: -20°C to 52°C  
 w/o battery: -30°C to 52°C  
**Storage Temperature:** -40°C to 70°C  
**Humidity:** 5% to 95% (non-condensing)  
**Altitude:**  
 0 to 15,000 ft operating  
 0 to 40,000 ft non-operating

## CONNECTORS

**AC Input:** MIL-C-5015  
**AC Output :** 6 x NEMA 5-15R

## COMMUNICATION PORT

Serial RS232, SNMP-V3 optional

## BATTERY SPECIFICATIONS

**Battery Type:** low maintenance VRLA or LFP optional  
**Typical Run Times:**  
 LFP – ACB2503BPLI: 6 minutes  
 VRLA – ACB2503BP: 4 minutes  
**Recharge Time:** LFP 3 hours, VRLA 5 hours  
**External Extended Battery Pack Optional**

## MECHANICAL SPECIFICATIONS

**Chassis Size (H x W x D):** 3U 5.25" x 17" x 22"  
**Envelope size (H x W x D):** 3U 5.25" x 18.5" x 23"

## Weight:

w/o battery pack: 61 lbs  
 with LFP battery – ACB2503BPLI: 70 lbs  
 with VRLA battery – ACB2503BP: 89 lbs

## OPTIONS

- AC Output: 230 VAC 50 Hz Output
- External DC Input 20-32 VDC, with 4 x NEMA 5-20R (not 6) for AC output
- LFP Battery Pack
- External Extended Battery Pack(s)
- Simple Network Management Protocol Version - V3
- Shipboard – Double-pole circuit breaker approved for use with shipboard Delta power
- Rack-mount Accessories
- 4 x IEC60320 C19 20A Connectors replacing the 6 x NEMA 5-15R Connectors

## STANDARDS

The Rugged 2503 UPS™ is designed to meet the following standards:

**EMC :** MIL-STD-461-F : RE102, CE102

**Environmental:** MIL-STD-810-G: 501.5, 502.5, 503.5, 507.4, 514.6, 516.6, 506.5: (Consult factory for this option.)

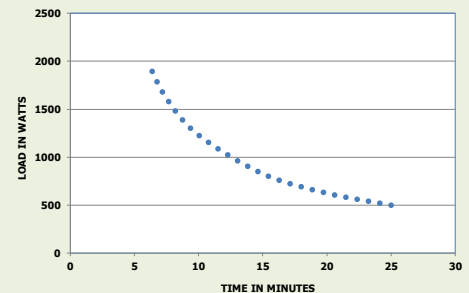
## ACB2503 MODELS

ACB2503UIHPNLI

Nothing - Lead Acid Battery
"LI" - LFP Battery
"N" - SNMP Capability
"P" - Parallel Output Option
"SH" - Shipboard Option, Floating Neutral
AC Output Voltage.
"1" - 230 VAC 60 Hz Option.
"1A" - 230 VAC 50 Hz Option. (Output derated to 2000VA).
Nothing - 115 VAC (standard).
"U" - AC & DC Input.
"R" - AC Input
"3" - 3U size
"250" - 2500 VA / 2000W
"B" - Color Black
"AC" - Acumentrics RUPS

**NOTE:** when a particular designation is missing from the Part Number then that option is NOT present in the device

2503 LFP BATTERY RUN TIME VERSUS POWER  
 (ROOM TEMPERATURE TESTING CONDITIONS)



## Acumentrics Rugged-UPS™:

- Dedicated Product Support – Rapid Configuration and Customer Response
- For Use in Harsh and Combat Environments – Certified to Military Standards
- True Worldwide input™ – Tens of Thousands of units Fielded

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ACB2503  
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 Specification may change  
 without notification

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