

V2 COMPLIANT CHS4

# Rugged-UPS™ 2500

CONTINUOUS OUTPUT POWER: 2500VA / 2000W



**RUGGED  
RELIABLE  
POWER™**

Acumentrics durable and versatile COTS Rugged-UPS™ 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.

### Unique Flo-Thru™ Technology

A unique heatsink tunnel design and gasket sealed enclosure provides maximum protection for components from the damaging effects of moisture, airborne particles, and other contaminants in the operating environment.

### Power Factor Corrected

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

### AC and DC Power Output

Power management allows various combinations of AC and DC power up to the maximum power rating of the unit. The combined power output (AC and DC) is indicated on the LED bar graph and protected from overloading.

### On-Line Double Conversion

The Rugged-UPS™ creates DC voltage which is then converted to the needed AC or DC 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 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 Lithium Iron Phosphate (LFP) or low maintenance, valve-regulated lead acid (VRLA) batteries, enclosed in a user-replaceable battery pack for rapid hot-swap field replacement.

### LFP Battery Pack

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 from 22 VDC to 32 VDC.



# V2 COMPLIANT TO CHS4 Rugged-UPS™ 2500

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## INPUT SPECIFICATIONS

**AC Voltage:** 80-265 VAC, single phase

**Frequency:** 47-440 Hz

**AC Circuit Breaker Rating:**

40A Double Pole Breaker

**DC Voltage:** 20-32 VDC

**Maximum 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.

Parallel units for greater load carrying capability

**Load Crest Factor:** 2.5 continuous

**Peak Current:** 44A (2000W AC output)

**AC Voltage:** 115 VAC +/-5%

**AC Frequency:** 60 Hz +/- 0.5 Hz

**AC Waveform:** Pure Sinusoidal

**DC Power (optional):** 250W, 600W, 1200W or 2000W @ 12, 24, 28 or 48 VDC +/- 1%,

200mVPP, 20MHz BW at full load

**Total Harmonic Distortion (THD):**

<2.5% with 2000W resistive load

## ENVIRONMENTAL

**Operating Temperature:**

with LFP battery: -20°C to 60°C

with VRLA battery: -20°C to 50°C

w/o battery: -30°C to 65°C

**Storage Temperature:** -32°C

to 66°C w/o battery: -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

## BATTERY SPECIFICATIONS

**Battery Type:** LFP or low maintenance VRLA

**Typical Run Times:** LFP 10 minutes,

VRLA 8 minutes

**Recharge Time:** LFP 3 hours, VRLA 5 hours

**External Battery Module Weights and Run**

**Times:** ACG2500XRBP:

with one VRLA battery: 70 lbs, 15 minutes

with two VRLA batteries: 120 lbs., 24 minutes

*Recharge Time for EBM: 4 hours to 90%*

## MECHANICAL SPECIFICATIONS

**Chassis Size (H x W x D):** 7" x 17" x 21"

**Envelope size (H x W x D):** 7" x 18.5" x 23"

**Weight:** w/o battery pack: 85lbs

with Lead-Acid battery: 135 lbs

with LFP battery: 103 lbs

## COMMUNICATION PORT

9-pin (DE-9/DB-9) for user interface and remote monitoring; RJ-45 SNMP is optional

## OPTIONS

*Consult Factory for other Standard Options and Part Number Configuration*

- **DC Output: 12, 24, 28 or 48 VDC Output**
- **AC Output: 230 VAC 50 Hz Output**
- **Rackmount Accessories**
- **External DC Input**
- **Extended Battery Pack(s)**
- **Parallel Operation for Loads up to 25kVA**
- **Simple Network Management Protocol Version - V3**
- **Shipboard – AC Output Unbonded Neutral**
- **Operational Transit Case (OTC)**
- **Fungus Mitigated Design – Includes PVC-Free Wiring and Conformal Coated Boards**

## STANDARDS

The Rugged-UPS™ 2500 is a COTS Rugged Mission Critical Power System for both Military/Commercial customers and is tested and certified to meet the following standards:

**EMI:** MIL-STD-461-F: RE102, CE102, CS101, RS103, CS114

**Shock:** Packaged MIL-STD-810-G method 516.4 IV, VI Operating MIL-S-901-D, grade A, class II, type B

**Vibration:** MIL-STD-167-1, type I vibration MIL-STD-810-G Cat. 8, procedure I

**Shipboard:** MIL-STD-1399 section 300A

**Rain:** Consult factory for this option

**Audible Noise:** Less than 53 dB

The ACG2500 Rugged-UPS™ works best with:

### ACG2500XRBP Extended Battery Chassis



### APG2500 PDU Power Distribution Unit



Rear Panel ACG2500 UPS



ACG2500R-XR  
with Optional Extended  
Battery

Contact  
Acumentrics  
to discuss  
customized  
solutions.

**RUGGED  
RELIABLE  
POWER™**

## Acumentrics Rugged-UPS™:

- **The Benchmark for Rugged Design – Unique Flo-Thru™ Technology**
- **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**

