

V2 COMPLIANT CHS4  
**Rugged-UPS™ 1253**

CONTINUOUS OUTPUT POWER: 1250VA / 1000W



**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 LFP or low maintenance, valve-regulated lead acid (VRLA) external batteries, enclosed in a user-replaceable battery pack.

**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 20 VDC to 32 VDC.

**Shipboard**

Double-pole circuit breaker approved for use with shipboard Delta power

**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.



V2 COMPLIANT TO CHS4  
**Rugged-UPS™ 1253**

CONTINUOUS OUTPUT POWER: 1250VA/1000W



Contact  
 Acumentrics  
 to discuss  
 customized  
 solutions.

**RUGGED  
 RELIABLE  
 POWER™**

**INPUT SPECIFICATIONS**

**AC Voltage:** 80-265 VAC, single phase  
**Frequency:** 47-440Hz  
**AC Circuit Breaker Rating:** two 20A  
**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:** 1250VA/1000W  
 parallel units for greater load carrying capability  
**Load Crest Factor:** 2.5 continuous  
**Peak Current:** 20A (1000W AC output)  
**AC Voltage:** 115 VAC +/- 5%  
**AC Frequency:** 60Hz +/- 0.5Hz  
**AC Waveform:** Sinusoidal  
**DC Power (optional):** 150W @ 24, 28 or 48 VDC  
 +/- 1%, 200mVPP, 20MHz bandwidth at full load  
**Total Harmonic Distortion (THD):**  
 <2% with 1000W resistive load

**ENVIRONMENTAL**

**Operating Temperature:**  
 with LFP battery: -20°C to 60°C with  
 Lead Acid battery: -18°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  
**Rain:** Operates in blown precipitation

**EXTERNAL 1U BATTERY SPECIFICATIONS**

**Battery Type:** LFP or low maintenance VRLA  
**Recharge Time:** LFP 3 hours, VRLA 4 hours  
**Energy, Weights and Run Times:**  
 LFP: 25.6V/31.2Ah, 35 lbs, 30 minutes  
 LAB: 24V/16Ah, 30 lbs, 15 minutes  
*Recharge Time for EBM: 4 hours to 90%*

**MECHANICAL SPECIFICATIONS**

**Chassis Size (HxWxD):** 3.5" x 17" x 22.5"  
**LFP Battery Pack (HxWxD):** 1.75" x 17" x 21"  
**LAB Battery Pack (HxWxD):** 1.75" x 17" x 16"  
**Weight:** w/o battery pack: 53lbs

**COMMUNICATION PORT**

SNMP for user interface and remote monitoring; SNMP is optional

**OPTIONS**

- DC Output: 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 10kVA
- Simple Network Management Protocol Version - V3

**STANDARDS**

The Rugged-UPS™ 1253 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
- Environmental:** MIL-STD-810-G

**MODELS** All Rugged-UPS™ models are available in shipboard configuration, parallel configuration and optional DC output configurations.

- C#** = Bundled Product  
**La** = Lead Acid Battery; **Li** = LFP Battery  
**Y** = Bypass  
**N** = SNMP; **W** = USB  
**P** = Parallel  
**S** = Shipboard  
**X** = External Run Battery  
**#.#K** = Wattage of DC Out  
 (Ex. .3K = 300W, .6K = 600W, 1K = 1000W)  
**12** = 12 Volt DC Output; **24** = 24 Volt DC Output  
**28** = 28 Volt DC Output; **48** = 48 Volt DC Output  
**i** = 230 VAC 60 Hz Option; **ia** = 230 VAC 50 Hz Option  
 Nothing = 115 VAC (standard)  
**U** = AC & DC Input; **R** = AC Input  
**1** = 1U; **2** = 2U  
**250** = 2500VA / 2000W; **125** = 1250VA / 1000W  
 Color option:  
**G** = Gray (standard); **B** = Black; **T** = Tan  
**C** = Current Model; **N** = New Generation  
**A** = Acumentrics

*Note: When a particular designation is missing from the part number then that option is NOT present in the device.*

**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

