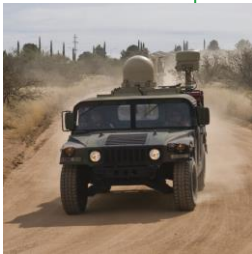


A NEW LEVEL OF POWER  
**Rugged Blade UPS™ 1251**

SMALL FOOTPRINT. LIGHTWEIGHT. HIGH POWER DENSITY.



**RUGGED  
RELIABLE  
POWER™**

**Power Has Never Been More Portable**

Acumentrics uses advanced technologies in power conversion, high performance digital controls and an innovative high frequency transformer to create the Rugged Blade UPS™.

This unit offers a new level of power portability to military applications in a narrow 1U chassis, providing significant savings of rack space.

**Light in Weight, Not Power**

Despite being lightweight, the Rugged Blade UPS™ provides extremely high-power density. Offering 1000W of AC or DC output power in half the space of a traditional UPS, it is one of the most powerful and compact UPS products on the market. The system can provide 1000W of continuous power from -20°C to 60°C (with LFP battery pack option). Some derating required at the extreme limits of specifications.

**Power Factor Corrected**

This UPS accepts a wide range of voltages and frequencies, while providing clean, reliable AC and DC power as well as seamless switching from AC shore power to DC power to the internal battery.

**On-Line Double Conversion**

The Rugged Blade 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.

**Flo-Thru™ Technology**

With Acumentrics' unique Flo-Thru™ technology and heatsink tunnel design, this UPS delivers maximum protection to components from airborne particles and other contaminants. Advanced fan controls provide the correct airflow for cooling, while minimizing noise and extending fan life.

**Optional Advanced Paralleling**

Advanced N+1 paralleling makes the Rugged Blade UPS™ the building block in a modular system up to 10kVA and ensuring redundancy, fault tolerance with no system downtime – essential for mission critical applications.

**Dual Input with Automatic Priority**

A Rugged Blade UPS™ with AC or DC input prioritizes AC shore, then DC input and then internal battery power sources. In the event of loss of AC power, the external DC input takes precedence over the internal battery, which provides back up power if both AC and DC input power is lost.

**RUPS Transfer Time**

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

**User-Replaceable Battery Pack**

The Rugged Blade UPS™ features Lithium Iron Phosphate (LFP) or valve-regulated lead acid (VRLA) batteries, enclosed in a user-replaceable battery pack for rapid hot-swap field replacement. The LFP battery pack provides a lighter weight energy source with longer shelf life and cycle life.

**Accepts True Worldwide Input™**

The Rugged Blade UPS™ accepts AC input power from 80 VAC to 265 VAC / 47 Hz to 440 Hz, or DC input from 20 VDC to 32 VDC.

Reliability of communications is dependent on rugged power supplies. Acumentrics' powerful, portable Rugged Blade UPS™ brings a new level of power portability to a wide range of military applications and environments. This double on-line conversion unit is packed with technology that provides high power density, continuous output power, as well as ease of installation and maintenance.



V2 COMPLIANT TO CHS4  
**Rugged Blade UPS™ 1251**

CONTINUOUS OUTPUT POWER: 1250VA/1000W



Front Panel



Rear Panel



Weather Proof Kit - Front Panel



Weather Proof Kit - Rear Panel

Contact Acumentrics to discuss customized solutions.

**RUGGED  
RELIABLE  
POWER™**

**INPUT SPECIFICATIONS**

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

**Frequency:** 47-440 Hz

**AC Circuit Breaker Rating:** 20A

**DC Voltage:** 20-32 VDC

**Maximum DC Input:** 80A

**Power Factor:** 0.99 typical

**Efficiency with 1000W Load:**

AC in = 83% DC in = 82%

**OUTPUT SPECIFICATIONS**

**Continuous Power:** 1250VA/1000W

parallel units for greater load carrying capability

**Max Load Crest Factor:** 2.15

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

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

**AC Waveform:** Sinusoidal

**Total Harmonic Distortion (THD):**

<2% with 1000W resistive load

**ENVIRONMENTAL**

**Operating Temperature:** -20°C to 50°C\*

Without battery: -32°C to 50°C

With battery: -20°C to 50°C

\*Battery operation limited below 0°C

**Storage Temperature:** -32°C to 60°C

w/o battery: -40°C to 70°C

**Humidity:** up to 95% (non-condensing)

**Max. Altitude:** 15,000 ft. operating;

40,000 ft. non-operating

**BATTERY SPECIFICATIONS**

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

**Typical 1KW Run Time:** LFP 10 minutes,

VRLA 4 minutes

**External Battery Pack Run Times:** LFP 30

minutes, VRLA 12 minutes

**Recharge Time:** LFP 3 hours, VRLA 4 hours

**MECHANICAL SPECIFICATIONS**

**Chassis Size (H x W x D):** 1.75" x 17" x 21"

**Envelope size (H x W x D):** 1.75" x 19.5" x 24.75"

**Weight:** w/o battery pack: 20 lbs.

with VRLA: 33 lbs. with LFP battery: 28 lbs.

**COMMUNICATION PORT**

9-pin (DB-9) for user interface and remote

monitoring; SNMP v3 is optional

**OPTIONS**

• **DC Output: 24, 28 or 48 VDC Output**

DC only unit delivers up to 1000W of DC power.

Units with AC and DC have up to 500W of DC with remaining output AC (Total power DC+AC <= 1000W).

Set Point Accuracy: +/- 2.3% at 50% load

Load Regulation: + 2% at 0% Load

- 2% at 100% Load

*Other outputs available upon request.*

• **Optional AC OUTPUT:**

**Continuous Power:** 1250VA/1000W

Parallel units for greater load carrying capability

**Max Load Crest Factor:** 2.15

**AC Voltage:** 230 VAC +/- 5%

**AC Frequency:** 50 Hz +/- 0.5 Hz

**AC Waveform:** Sinusoidal

**Total Harmonic Distortion (THD):** <1.5% with 1000W resistive load

• **Rackmount accessories**

• **External DC Input**

• **External Battery Pack(s)**

• **Parallel Operation for Loads up to 10kVA**

• **Simple Network Management Protocol V3**

• **Shipboard** – Double-pole circuit breaker approved for use with shipboard Delta power

**STANDARDS**

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

**EMC:** MIL-STD-461-F: RE102, CE102, CS101, CS114, CS115, CS116, RS103

**Environmental:** MIL-STD-810-G : 500.4, 507.4, 514.6, 516.6, 506.5: (Consult factory for this option.)

**MIL-HDBK-704:** SAC101, SAC102, SAC103, SAC104, SAC105 SAC106, SAC107, SAC108, SAC109, SAC110, SAC201, SAC301, SAC302, SAC303, SAC401, SAC601, SAC603

**RTCA/DO-160:** 4.5.1, 4.5.2, 4.5.3, 4.5.4, 4.6.1, 4.6.2, 4.6.3, 5.0.2, 6.0.2, 7.2, 7.3.1, 7.3.2

**Shipboard:** MIL-STD-1399

*Note: Consult factory for actual configuration and part number.*

**Acumentrics Rugged Blade 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**

