Acumentrics
TRUSTED POWER INNOVATIONS®

RUGGED
RELIABLE
POWER™

A NEW LEVEL OF POWER COMPLIANT TO CHS5

Rugged Blade UPS™ 1251

SMALL FOOTPRINT. LIGHTWEIGHT. HIGH POWER DENSITY.

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 1KW of continuous power from -40°C to 60°C. 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.

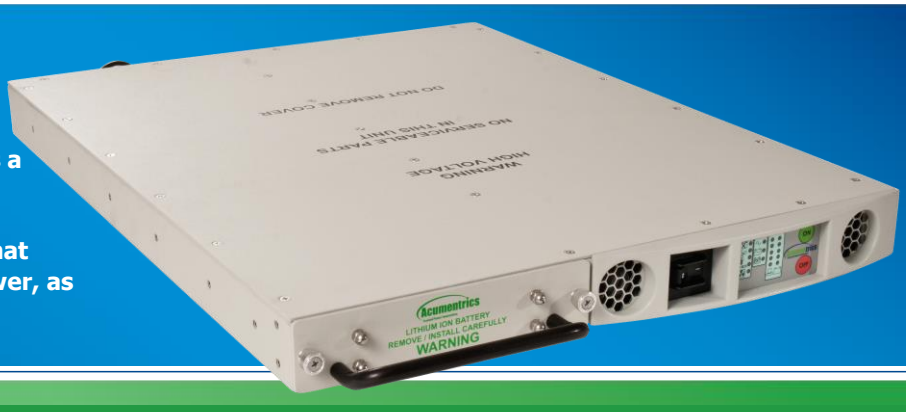
User-Replaceable Battery Pack

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 COTS 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.



ANG1251
99-0046_L
Specification may change without notification

Acumentrics, Inc.
10 Walpole Park South
Walpole, MA 02081
Tel: 1-844-RUPS-USA
(1-844-787-7872)
www.acumentrics.com

Made in USA

COMPLIANT TO CHS5

Rugged Blade UPS™ 1251

CONTINUOUS OUTPUT POWER: 1250VA/1000W

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Front Panel

Rear Panel

INPUT SPECIFICATIONS

AC Voltage: 80-265 VAC, single phase
Frequency: 47-440 Hz
AC Circuit Breaker Rating: 20A Double Pole Breaker
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 (0.8PF)/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: Pure Sinusoidal
Total Harmonic Distortion (THD):
<2.5% with 1000W resistive load

ENVIRONMENTAL

Operating Temperature: -40°C to 60°C*
*Some derating required at extremes
Storage Temperature: -32°C to 60°C
w/o battery: -40ºC to 70ºC
Storage Temperature for Optimal Battery Life: 10ºC to 25ºC
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 to 90%: 3 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/DE-9) for user interface and remote monitoring; SNMP v3 is optional

The ANG1251 Rugged Blade UPS™ works best with:

ANG1251XRBP Extended Battery Chassis

OPTIONS

Consult Factory for other Standard Options and Part Number Configuration

- **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:**
  AC Voltage: 230 VAC +/- 5%
  AC Frequency: 50 Hz +/- 0.5 Hz

- **Rackmount accessories**
- **External DC Input**
- **External Battery Pack(s)**
- **Parallel Operation for Loads up to 10kVA**
- **Simple Network Management Protocol V3**
- **Shipboard –** AC Output Unbonded Neutral
- **Operational Transit Case (OTC)**
- **Fungus Mitigated Design –** Includes PVC-Free Wiring and Conformal Coated Boards

STANDARDS

The Rugged Blade UPS™ is a COTS Rugged Mission Critical Power System for both Military/Commercial customers and is tested/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

RUGGED
RELIABLE
POWER™

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**

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