

A NEW LEVEL OF POWER

Rugged Blade UPS™ 1251/1501

SMALL 1U 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 1250 W of AC or 1000 W 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 1250 W of continuous power from -20 °C to 55 °C, 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 an isolated 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.

3 Phase AC Input Supported

Acumentrics' Rugged Blade 1U UPS can support a balanced 3-ph input via a paralleled 3, 6, or 9 UPS stack. 1, 2, or 3 UPS are tied to a 1-ph leg which the parallel N+1 cabling provides balancing/load sharing capability for the end user.

Optional Advanced Paralleling

Advanced N+1 paralleling makes the Rugged Blade UPS™ the building block in a modular system up to 11.25 kW 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.

Hot-Swappable Battery Pack

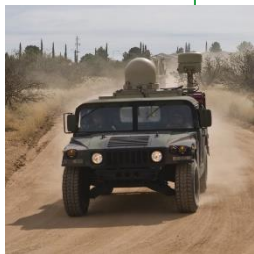
The Rugged Blade UPS™ features Lithium Iron Phosphate (LFP) or Valve-Regulated Lead Acid (VRLA) batteries, enclosed in a user-replaceable battery pack for rapid hot-swap field replacement. The LFP battery pack provides a lighter weight energy source with longer shelf life and cycle life.

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.

Frequency Conversion for Aircraft Application

Acumentrics UPS's can be used as frequency converters for 400 Hz to 50/60 Hz or a DC output. Output frequency is user selectable to 50 or 60 Hz.



**RUGGED
RELIABLE
POWER™**

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 on-line double conversion unit is packed with technology that provides high power density, continuous output power, as well as ease of installation and maintenance.



Rugged Blade UPS™ 1251/1501

CONTINUOUS OUTPUT POWER: 1250 VA : 1000 W / 1500 VA : 1250 W



INPUT		ANG1251/1501
AC Voltage	80 - 265 V	
Frequency	47 - 440 Hz	
AC Breaker Rating	20 A	
DC Voltage	22-32 V	
Max DC Current	80 A	
Power Factor	0.99	
Efficiency @ Load	AC(in)=83%; DC(in)=82%	

OUTPUT	
Continuous Power	1500 VA / 1250 W 1250 VA / 1000 W
Load Crest Factor	2.15 (continuous)
AC Voltage	115 or 230 V ± 5%
AC Frequency	60 or 50 Hz ± 0.5%
AC Waveform	Sinusoidal

BATTERY		Run Time (Minutes)	
LOAD	LFP	VRLA	
250 W	53	33	
500 W	28	14	
750 W	18	8	
1000 W	13	6	
1250 W	10	2	
Recharge Time	4 hours	5 hours	

MECHANICAL		1U
Chassis Size (H x W x D)	1.75" x 17" x 22"	(45 x 432 x 554 mm)
Envelope Size (H x W x D)	1.75" x 19.5" x 24.75"	(45 x 495 x 629 mm)
Weight (w/o battery)	20 lbs. (9.1 kg)	
w/ LFP	28 lbs. (12.7 kg)	
w/ VRLA	33 lbs. (15.0 kg)	

COMMUNICATION
SNMP v3 and RS-232

ENVIRONMENTAL	
Operating Temp.	-20 °C to 55 °C
Storage Temp.	-40 °C to 65 °C
Humidity	5% to 95% (non-condensing)
Altitude	up to 15,000 ft. operating up to 40,000 ft. non-operating

**RUGGED
RELIABLE
POWER™**

STANDARDS
MIL-STD-810-G (Environmental, Shock, Vibration) 500.4, 500.5, 501.5, 502.5, 506.5, 507.4, 507.5, 510.4, 514.6, 514.7, 516.6
MIL-STD-461F (EMI/EMC) RE102, CE102, RS103, CS101, CS114, CS115 CS116, CS118
RTCA/DO-160G 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
MIL-HDBK-704-3 (Airborne) SAC101-110, 201, 301-303, 401, 601, 603
MIL-S-901-D grade A, class II, type B
MIL-STD-1399 (Shipboard) Section 300A

- OPTIONS**
Consult Factory for other Options and Part Number Configuration
- **AC Output: 230 V, 50 Hz**
 - **DC Output: 24, 28, or 48 V Output**
DC only unit delivers up to 1000 W of DC power.
Units with AC and DC have up to 500 W of DC with remaining output AC (Total power DC+AC ≤ 1250 W).
Set Point Accuracy: +/- 2.3% at 50% Load
Load Regulation: + 2% at 0% Load & -2% at 100% Load
Other outputs available upon request.
 - **Rackmount Accessories**
 - **External DC Input**
 - **External Battery Pack(s)**
 - **Parallel Operation for Loads up to 11.25 kW (9 UPS)**
 - **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
 - **CE Certification** – Consult Factory
 - **The Rugged Blade UPS™ works best with:**



APB3001 PDU



ANG1251XRBP Extended Battery Chassis

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**

