

**A NEW LEVEL OF POWER**  
**Rugged Blade UPS™**  
**1251 and 1501 Models**

**SMALLER FOOTPRINT. LIGHTER WEIGHT. HIGHER POWER DENSITY.**

**New and Enhanced Rugged Blade UPS™ Family**

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

These units offer a new level of power portability to military applications in a narrow 1U chassis, providing significant savings of rack space.



**RUGGED  
RELIABLE  
POWER™**

Key Characteristics	ANG 1251	ANB 1501
Nominal Power	1250VA / 1000W	1500VA / 1250W
Input AC V for max Power	≥80VAC input, 1000W max output	≥100VAC input, 1250W max output
Temp max for max power	temp ≤60°C, 1000W max output	temp ≤50°C, 1250W max output
Standards	Heavy MIL	Light MIL
Primary features	<ul style="list-style-type: none"> <li>Flo-Thru™ (Sealed Chassis)</li> <li>True worldwide input™</li> <li>Online dual conversion</li> <li>Hot-swappable</li> </ul>	<ul style="list-style-type: none"> <li>Flo-Thru™ (Sealed Chassis)</li> <li>True worldwide input™</li> <li>Online dual conversion</li> <li>Hot-swappable</li> </ul>
Principal options	<ul style="list-style-type: none"> <li>LFP Battery</li> <li>N + 1 (max 8) , Fault Tolerant</li> <li>SNMP v3</li> <li>LFP Battery run-time at 1kW: 10 m</li> <li>External Battery, extended run time</li> </ul>	<ul style="list-style-type: none"> <li>LFP Battery</li> <li>N + 1 (max 2) , Fault Tolerant</li> <li>SNMP v3</li> <li>LFP Battery run-time at 1kW: 10 m</li> </ul>
Parallel options	Max 8, 8000W	Max 2, 2500W
Certification	<ul style="list-style-type: none"> <li>EMI – MIL-STD-461-F</li> <li>Shock - MIL-STD-810-G and MIL-S-901-D</li> <li>Vibration–MIL-STD-167-1</li> <li>Shipboard–MIL-STD-1399</li> <li>Environmental–MIL-STD-810-G</li> <li>DOD 28VDC MIL Vehicles–1275-D</li> </ul>	<ul style="list-style-type: none"> <li>Shock - MIL-STD-810-G</li> <li>Vibration–MIL-STD-167-1</li> <li>Shipboard–MIL-STD-1399</li> <li>Environmental–MIL-STD-810-G</li> </ul>
Connectors	Circular MIL Standard	Up to 5 x NEMA 5-20R (Base Model)
Inputs	AC and DC Auto-select	AC Auto-select
Outputs	AC and DC	AC
Size (H x W x D)	1U x 17" x 21" rack	1U x 17" x 21" rack
Weight	28 lbs (LFP Battery)	28 lbs (LFP Battery)

Reliability of communications is dependent on rugged power supplies. Acumentrics' powerful, portable Rugged Blade UPS™ than most UPS products, bringing 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 and 1501 Models**

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



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### Rugged Blade UPS Product Description

The **Acumentrics Rugged Blade UPS™** is double on-line conversion, with 1250W load performance. The Rugged Blade accepts 80 VAC to 265 VAC / 47 Hz to 440 Hz. 1250W output power performance requires  $\geq 100$ VAC input voltage (temperature  $\leq 50^\circ\text{C}$ ), 1000W output power requires  $\geq 80$ VAC input voltage (temperature  $\leq 50^\circ\text{C}$ ). This technology provides a pure sine wave AC, thus protecting equipment from surges, spikes, brownouts, blackouts and noise. The unique Flo-Thru™ design maximizes internal cooling while sealing electronic components from the damaging effects of moisture, airborne particles, and other contaminants in the operating environment.

The Rugged Blade is designed in a 1U mechanical package with airflow to provide cooling during all modes of operation. It offers high reliability for mission critical operations and high quality power for continuous load support.

**Acumentrics "Auto Select AC Frontend Shipboard/True Worldwide Power"** The Rugged Blade UPS features a worldwide input design which automatically adjusts our UPS to run off any available power from 80-265 VAC include Navy Shipboard Power. To accomplish the worldwide input power we use a front end that allows for a hot and neutral isolated input from ground. We use a double pole input breaker to ensure safety and convert the AC input power, whether it has two hot lines or a hot line and a neutral, into DC power which gets converted to a perfect AC output sine wave. Our Rugged UPS will run off of any worldwide power source including, shore power or shipboard power without requiring any modifications from the user.

**Acumentrics "Battery Saver Spacers™ (Patent Pending)"** are used to fasten a partially removed battery pack so that it is positively secured to the front panel of the UPS but electrically disconnected. This insures that there is no current draw from the battery into the UPS while it is being transported or stored in a warehouse. When the UPS is being transported or warehoused the Acumentrics "Battery Saver Spacers™" are placed between the battery pack and the front panel of the UPS and are held in place using the battery pack's front panel hold-down screws. The "Battery Saver Spacers™" are always secured to the battery pack using a lanyard so they do not get misplaced when not in use. The Acumentrics Battery Saver Spacers™ allows a very easy compliance to the UN3481 regulation – Lithium Ion Batteries contained in equipment – Shipping by AIR battery pack included inside our system (must be shipped in the system disconnected).



### 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

V2 COMPLIANT TO CHS4  
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CONTINUOUS OUTPUT POWER: 1250VA/1000W and 1500VA/1250W

**Flo-Thru™: Technology** trademarked by Acumentrics: 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 allowing very high quality and reliability.

**Online dual conversion:** Creation of DC voltage, which is then converted to the needed AC or DC output voltage, protecting sensitive equipment from surges, spikes, brownouts, blackouts and noise. The output signal quality is independent of the input signal quality.

**LFP Battery:** The latest Lithium Iron Phosphate (LFP) chemistry provides a Lead Acid Battery replacement with a very safe solution that provides a much longer run time (>2X) and is much lighter (X/2) with a storage time that is 3 to 5 times longer.

**N+1:** Is the ability to deliver a fault tolerant power system by adding units in parallel with handshake functionality between units, that delivers a very clean power when one unit becomes non operational. It also supports the navy ship zonal design architecture that is critical to deliver power to mission critical systems.

**SNMP:** Simple Network Management Protocol provides the communication interface for exchanging information between network devices. This protocol is commonly used for military and DOD applications and also used in other industrial applications. SNMPv3 provides an addition of cryptographic security required for secure operations.

**Trusted Power Solutions**

**ANG 1251**



**ANB 1501**



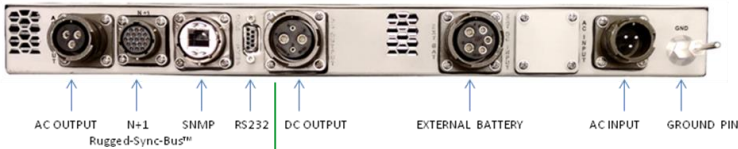
ANB 1501 Base Model



ANB 1501 N+1 Fault Tolerant Model



Contact Acumentrics to discuss customized solutions.



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# A NEW LEVEL OF POWER Rugged Blade UPS™ 1251 and 1501 Models

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



With the introduction of the NEW Rugged Blade UPS™ Acumentrics continues to push the reduction in Size & Weight, and increase Power with a cost reduction per kW of Power, supporting the USMC's MAGTF Modernization and permanent SWaP-C improvements for Tactical and Expeditionary Networking On The Move and other type of applications. Acumentrics continues to deliver Total **Trusted Power Solutions**, when clean power is mission critical under extreme harsh conditions.

ANB 1501 Rugged Blade UPS, key attributes:

- 1U height, 19" rack and 19" transit case ready
- 25% Power increase, delivering 1250W AC pure sine wave
- 25% Gravimetric Power Density increase (45 W/lbs)
- 25% Volumetric Power Density increase (1.9 W/Cubic Inch)
- 25% Lighter than other solutions (28lbs versus 35lbs)
- SAFE and lighter LFP battery chemistry with long life and long run time
- Up to 5 AC outputs limiting PDU requirements (size and weight)
- N+1 Fault Tolerant architecture with load sharing limiting backplane requirements (size and weight) and delivering highest reliability in harsh environments
- MIL Standards Certified

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