

Rugged Half Rack UPS AHB1002

SMALLER FOOTPRINT. LIGHTER WEIGHT. HIGHER POWER DENSITY.



Power Has Never Been More Portable

Acumentrics leverages advanced power conversion technologies and high-performance digital control to optimize the SWaP (Size, Weight, and Power) characteristics of our **1000W Rugged Half Rack UPS family**.

Designed for Tactical Edge AI/ML HPCs, and GPUs, Acumentrics Half Rack UPS units deliver continuous, reliable power to ensure mission-critical network and data systems remain operational across all phases of mission operations—even in **DDIL** and contested environments, including: On-the-move, At-the-halt, mounted, and dismounted.

The 2U Half Rack UPS features **agnostic power compatibility and flexible transit case integration**. It is designed to operate seamlessly with small form factor modules from **Dell, HPE, Cubic DTECH, KLAS, PACSTAR, Mercury**, and others. It also fits transit cases from **Ameripack, ECS, Desapro, Gemstar**, and more.

Light in Weight, Not in Power

Despite being lightweight, the Half Rack UPS provides extremely high-power density. Offering 1000W of 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 is rated to provide 1000W of continuous DC power from -20°C to 55°C

Power Factor Corrected

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

AC Input with Automatic Power Selection

In the event of loss of AC power, the UPS will seamlessly switch to external DC input as backup power, then to internal battery power to continue operation.

RUPS Transfer Time

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

User-Replaceable Battery Pack

The Half Rack UPS features Lithium Iron Phosphate (LFP) 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 Half Rack UPS accepts AC input power from 100 VAC to 264 VAC / 47 Hz to 63 Hz.

Dual-DC Output

The UPS is able to provide DC output to (4) loads simultaneously via (2) connectors



Reliability of networked communications and data is dependent on rugged mission critical power supplies. Acumentrics' powerful, portable COTS Half Rack UPS provides a new level of power portability to a wide range of military applications and environments. This off the shelf COTS UPS is packed with technology that provides high power density, continuous output power, as well as ease of installation and maintenance.



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CONTINUOUS OUTPUT POWER: 1000W

INPUT SPECIFICATIONS

AC Voltage: 100-264 VAC, single phase
Frequency: 47-63 Hz
AC Circuit Breaker Rating: 20A
DC Voltage: 22-32V
DC Circuit Breaker Rating: 50A

OUTPUT SPECIFICATIONS

DC Continuous Power: 1000W @ 29VDC
DC Max Current: 35A
DC Voltage: 20 – 29 VDC

ENVIRONMENTAL

Operating Temperature:
-20°C to 55°C
Storage Temperature:
-40°C to 60°C
**Storage Temp. for Optimal
Battery Life:** 10°C to 25°C
Humidity: up to 95% (non-condensing)
Max. Altitude: 15,000 ft operating;
40,000 ft non-operating

BATTERY SPECIFICATIONS

Battery Type: LFP
Typical Run Times:
20 minutes 400W load
6 minutes 1000W load
Recharge Time: 3 hours to 90%

I/O CONNECTORS

UPS AC Input Connector:
IEC 60320 C14
UPS DC Input Connector:
MS3470L14-4P
UPS DC Output Connector:
MS3470L14-4S

MECHANICAL SPECIFICATIONS

Rack Mount size (H x W x D): 3.5" x 9.4" x 15"
Envelope size (H x W x D): 3.5" x 9.4" x 17"
Weight: 18 Lbs.

COMMUNICATION PORT

9-pin (DB-9) for user interface and remote monitoring and SNMPv3 via Ethernet (RJ-45)

MIL STANDARDS

The Half Rack Rugged UPS is a COTS Rugged Mission Critical Power System for both Military/Commercial customers and is designed to meet the following MIL standards:

EMC: MIL-STD 461G: CE102, CS101, CS114, CS115, CS116, CS118, RE102, RS103

Environmental: MIL-STD-810H: Method 516.8 (Shock), MIL-PRF-28800F: Section 3.8.4.1 Class 3, Table 3 (Random Vibration), Section 3.8.4.2 Class 3, Table 4 (Sine Vibration)

MODEL:

AHB1002UK26NLI

AC/DC IN, DC Out 20-29VDC, 1000W, LFP Battery, SNMP



The Acumentrics 2U Half Rack UPS Shown in a Half Rack Transit case



Front Panel control and indicators



Rear Panel with AC IN, Ext. DC IN, (2) DC OUT, DB-9, and SNMP Interfaces

**RUGGED
RELIABLE
POWER™**

Acumentrics Half Rack UPS:

- The Benchmark for Rugged Design
- Dedicated Product Support – Rapid Configuration and Customer Response
- For Use in Harsh and Combat Environments – Certified to Military Standards

