



### RUGGED SERIES

The Acumentrics **Rugged UPS™ 2500** is designed for worldwide deployment in harsh physical and electrical environments.

Our **Rugged UPS™ 2500** is uniquely suited for use in demanding remote or mobile applications.

The **Rugged UPS™** provides 2500VA of nominal 115VAC output from an input range of 80-265 VAC / 47-400Hz, or 22-32 VDC. This wide voltage and frequency tolerance enables users to power up with field generators in any international power standard. Optional DC input makes this system ideal for use aboard tracked and wheeled tactical vehicles.

Our durable and versatile UPS system contains advanced on-line technology to provide highly reliable power back-up and conditioning for the most sensitive electronic devices.

*Acumentrics designs and manufactures innovative products for power quality and on-site generation. Product lines include: Tubular solid oxide fuel cell systems, uninterruptible power supplies and inverters.*

Call today: 800-332-0277

### FEATURES:

#### Flow Through Design

A unique heatsink tunnel design provides maximum cooling while sealing components from the damaging effects of moisture, airborne particles, and other contaminants in the operating environment.

#### Power Factor Corrected, Wide Input

The **Rugged-UPS™** accepts a wide range of voltage and frequency inputs while providing seamless active power-factor correction and clean, reliable AC power.

#### On-line

This true on-line, double conversion uninterruptible power supply continually creates a pure sine wave AC output from a DC bus, thus protecting sensitive equipment from surges, spikes, brownouts, blackouts, and noise.

#### Dual Input, Automatic Power Selection

On DC input models, our innovative design allows the UPS to automatically select AC or DC power. In the event of an AC power failure the external DC input take precedence over the internal battery.

#### User-Replaceable Battery Pack

Zero-maintenance, valve-regulated lead acid batteries are enclosed in a user-replaceable battery pack for rapid, hot-swap field replacement.

#### Aluminum Chassis

The **Rugged-UPS™** is housed in a compact, lightweight chassis. All aluminum, welded construction allows overall weight of the unit to be minimized while still maintaining high durability.

#### Wide Operating Temperature Range

A rated operating temperature range of -18°C to +50°C (0°F – 122°F) makes this UPS the product of choice for extreme environments.

#### Communication Port

The microprocessor-controlled **Rugged-UPS™** is equipped with a 9-pin communication port for user interface and remote monitoring.

### OPTIONAL FEATURES:

#### DC Input/ DC output

- Isolated DC input of 22-32 volts for operation from vehicle power.
- Up to 250W output available as either 24 or 28 VDC, while providing the balance of the 2000 watts as 115 VAC.

#### Extended Run (XR)

Can be equipped with battery input for extended run operation.

#### Parallel Operation

Up to ten (10) separate units or 20 kW

#### Rackmount

Stainless steel slide rail kits are available to fit 19" racks, depths 24-32"

## BENEFITS:

- Protects sensitive equipment from surges, spikes, brownouts, blackouts, noise.
- Easy to maintain.
- Won't fail in heat or cold.
- Easy to monitor.

## MODELS:

*(All models available in shipboard configuration and parallel configuration)*

*ACG2500R-52B: AC input, AC output*

*ACG2500R -24-52B: AC input, AC output, DC output*

*ACG2500R -XR: AC input, AC output, extended run input*

*ACG2500R -24-XR: AC input, AC output, DC output, extended run input*

*ACG2500U-52B: AC and DC input, AC output*

*ACG2500U-24-52B: AC and DC input, AC and DC output*

*ACG2500U-XR: AC and DC input, AC output, extended run input*

*ACG2500U-24-XR: AC and DC input, AC and DC output, extended run input*

## INPUT SPECIFICATIONS

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

*Frequency: 47-400 Hz*

*AC Input Circuit Breaker Rating: 40A*

*DC Input Voltage: 22-32 VDC*

*Maximum DC Current: 120A*

*Input Power Factor: 0.99 typical*

*Efficiency with 2000W load: AC $\eta$  = 0.86 DC $\eta$  = 0.82*

## OUTPUT SPECIFICATIONS

*Continuous Output Power: 2500VA/ 2000W*

*Units can be paralleled for greater load carrying capability*

*Peak Output Current: 44A*

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

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

*AC Output Waveform: Sinusoidal*

*DC Output (-24 models only): 250W @ 24 or 28 VDC*

*Total Harmonic Distortion: <1% with 2000W resistive load*

## ENVIRONMENTAL

*Operating Temperature: -18° C to 50° C (without battery -30°C to 65 °C)*

*Storage Temperature: -32° C to 66° C (without battery -40°C to 70 °C)*

*Humidity: 10% to 95% (non condensing)*

*Altitude: 0 to 15,000 ft operating, 0 to 40,000 ft non-operating*

*Rain: operates in blown precipitation*

## STANDARDS

*EMI: MIL-STD-461E: RE102, CE102, CS101, RS103, CS114*

*Shock: Packaged MIL-STD-810F Method 516.4 IV, VI*

*Operating MIL-STD 901D, grade A, class II, type B*

*Vibration: MIL-STD-167-1, type I vibration*

*MIL-STD-810F Cat. 8, Procedure I*

*Shipboard: MIL-STD-1399 Section 300A*

## BATTERY SPECIFICATIONS

*Battery Type: Zero-maintenance VRLA*

*Typical Run Time: 8.5 minutes full load (30 min with XR units)*

*Recharge Time: 4 hours to 90%; temperature compensated float voltage*

## MECHANICAL

*Chassis Size (H x W x D): 7" x 17" x 21"*

*Envelope size (H x W x D): 7" x 18.33" x 22.75"*

*Weight: 135 lbs. (85 lbs. w/o battery pack)*

*Connectors: (MIL-C-5015 type)*

*AC Input: CA02COME22-2PB*

*DC Input: CA02COME28A16PB*

*AC Output: CA02COME22-2SB*

*DC Output: CA02COME18-10SB*