

## ACT2500 – Dual Conversion Power Source™

### USER-CONFIGURABLE POWER SEQUENCING

#### A Complete Power Management Solution for Demanding Applications

With the Dual Conversion Power Source™, Acumentrics continues to provide innovative, rugged, reliable power solutions that meet the rigorous needs of soldiers in the field of battle around the world. End-users can rely on these for vehicle and C4ISR applications to work under hazardous conditions in the most austere, constrained and degraded situations. The Acumentrics Dual Conversion Power Source provides 2000W of configurable AC or DC output from 80 VAC to 265 VAC / 47 Hz to 440 Hz or 22 VDC to 32 VDC. True Worldwide Input™ enables users to harness power from field generators, vehicles and any international power standard. This durable and versatile power conditioning system contains advanced double on-line conversion to provide highly reliable power conditioning for the most sensitive electronic devices.

#### One-button Push Mode Setup

The system can be programmed with a single button to ensure that the appropriate systems are powered or not for the specific mode of operation (battle mode, silent watch, etc.)

#### Situational Load Shedding

The Dual Conversion Power Source can be programmed to shed the power of everything, but essential equipment should the system experience reduced or loss of primary power.

#### Power Factor Corrected

The Dual Conversion Power Source accepts a wide range of voltages and frequencies, while providing clean, DC power as well as seamless switching from AC shore power to DC power to the internal battery.

#### On-Line Double Conversion

True on-line, the Double Conversion Power Source continually creates a pure AC sine wave or DC output from an isolated DC output. This protects sensitive equipment from input surges, spikes, brownouts, blackouts, and noise.

#### Lightweight Aluminum Chassis

The Smart Power Conditioner is housed in a compact, lightweight chassis. All-aluminum, welded construction minimizes overall weight of the unit while maintaining high durability.



**RUGGED  
RELIABLE  
POWER™**

**Features of the COTS Dual Conversion Power Source include: power sequencing that helps to ensure reliable communications at all times and a one button programmable output power system that runs quiet with no visible lights.**

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## USER-CONFIGURABLE POWER SEQUENCING



**ACT2500**  
Dual Conversion  
Power Source

Contact  
Acumentrics  
to discuss  
customized  
solutions.

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### INPUT SPECIFICATIONS

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

**Frequency:** 47-440 Hz

**AC Input Circuit Breaker Rating:** 40A

**DC Input Voltage:** 22-32 VDC

- Vehicle DC In
- External DC In

**Maximum DC Current:** 120A

**Input Power Factor:** 0.99 typical

**Efficiency with 2000W load:**

AC-DC  $\eta$  = 0.86

DC-DC  $\eta$  = 0.82

### OUTPUT SPECIFICATIONS

**Continuous Output Power:** 28VDC, 72A, 2000W

**Peak Output Current:** 100A Max

**DC Output:** 2000W, 28 VDC +/- 2%

**DC Output Circuit Breaker Rating:** 120A

**Ripple:** <200mVpp, 20 MHz bandwidth, at full load

### ENVIRONMENTAL

**Operating Temperature:** -30°C to 60°C

**Storage Temperature:** -50°C to 70°C

**Humidity:** 10% to 95% (noncondensing)

**Altitude:** 0 to 15,000 ft operating,

0 to 40,000 ft non-operating

**Rain:** Consult factory for this option

### STANDARDS

The Dual Conversion Power Source™ is a COTS Rugged Mission Critical Power System for Military/Commercial customers and is tested/designed to meet the following standards:

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

**Shock:** Packaged MIL-STD-810-G Method 516.4 IV, VI Operating MIL-S-901-D, grade A, class II, type B

**Vibration:** MIL-STD-167-1, type I vibration MIL-STD-810-F Cat. 8, Procedure I

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

**Vehicle:** MIL-STD-1275-D

### MECHANICAL

**Chassis Size (H x W x D):** 7" x 12" x 21"

**Envelope size (H x W x D):** 7" x 12" x 22.75"

**Weight:** 55 lbs.

#### Connectors:

DC & AC MIL-VG95234

Vehicle DC Breaker

External DC Breaker

AC Breaker

Communication Port DB25

SNMP MIL Connector

### OPTIONS

**DC Output:** 12, 24, 28 or 48 VDC Output Available.

- 12VDC @ up to 1200W
- 24, 28, or 48VDC @ up to 2400W

- Protects sensitive equipment from surges, spikes, brownouts, blackouts, noise
- Easy to maintain
- Wide Operating Temperature Range
- Easy to monitor