

Centurion II Power System



Incredible Functionality, Flexibility, and Scalability in a 2 RU DC Power System, 1.0 to 6.0 Kw

- 19", 2U rackmount shelf with integrated power distribution
- 90-250 VAC input, Power Factor Corrected
- 3 power bays accept 1000 or 2000 watt modular rectifiers
- 111 amp, 6000 watt total max. output capacity, (74 Amp, 4000 Watt, N+1) @ -48 or 24 VDC
- Output temperature compensated for precise battery charging
- 16 DC circuit breaker distribution capacity, with tripped breaker alarm
- Master disconnect breakers for two battery banks, with tripped breaker alarm
- Controller with digital display of system parameters with TCP/IP interface and SNMP monitoring/logging
- Alarm contacts monitor major system functions
- Low voltage disconnect built in
- Easily configures to meet site power requirements

Complete system design and assembly to your application parameters: Rectifier configuration, distribution circuit breaker installation, and programming of alarms and monitors. Installation in a relay rack with batteries and wiring also available.

System Power Configurations @ 48V* (220 VAC Input)			
Watts Per Rectifier	# of Rectifiers Installed		
	1	2	3
2000	37A (2000W)	74A (4000W)	111A (6000W)
1000	18A (1000W)	36A (2000W)	54A (3000W)

System Power Configurations @ 24V*			
2000 †	37A (2000W)	74A (4000W)	111A (6000W)

* @ 120 VAC: Derate 2 kW rectifiers 41%; 1 kW rectifiers 33%

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Specifications

AC Input

Nominal: 230V
Voltage Range: 90-300V (derate @ 115 input)
Frequency: Range: 45-65 Hz
Power Factor: >0.99
Efficiency: >94% (from 30-95% output power)

DC Output

Voltage	-48 volt	+24 volt
	Constant power	Constant power
Output Ratings:	48V to 58V	24V to 29V
Nominal Voltage:	48V	24V
Rated Voltage:	58V	29V

Power:

Rated maximum System Output Power:

6000W @ -48V, 3000 watts @ 24 volts

Individual Rectifier Power: (24 and 48 volt)

	1000 watt	2000 watt †
Amperage @ 230 vac in	18	37
Amperage @ 115 vac in	12	21

† Model C2R-2000 is rated for 1,000W or 37 amps at 24 volts

DC Distribution:

Load: 16 breaker position capacity, available amperages 6A, 10A, 15A, 20A, 30A, with alarm

Battery: 2 x 100A battery circuit breakers.

Breaker Fail Detection: Electronic fail detection on both load and battery breakers

Low Voltage Battery Disconnect: 125A battery LVD installed standard, with disconnect alarm

Monitoring & Control:

Monitors all power system conditions including DC voltage, rectifier current, battery current, battery temperature, and distribution failure. Visual notification of alarm conditions by LED's and a 4 line x 16 character alpha numeric display mounted on the front panel, with remote notification being enabled by relay contacts, RS232 or TCP/IP (using SNMP). It has a built-in web based configurator allowing setup of system parameters using a web browser and utilizes a USB communications port which allows for local monitoring of system operations as well as easy downloading of configuration files for multiple site installations.

General System

Protection:

Current Limit: Adjustable to 50-100% of maximum rated current.

Over Temperature: Automatic current reduction, backup shutdown protection.

Polarity Reversal: Output fuse with crowbar diode

Over Voltage: Adjustable limit.

Input Voltage: Auto shutdown, auto restart when correct voltage restored.

Input Inrush: <2x maximum input current.

Input Fuses: In phase and neutral.

Technical Characteristics:

Noise: Ripple <100Hz: <1mV rms unweighted

Voice band 100Hz-5KHz: <1mV rms psophometric

Wide band 5kHz-1MHz: <5mV rms unweighted

Peak to Peak 0-20MHz: <100mV peak to peak

Isolation: Input to Output: 4000V DC.

Input to Chassis: 3500V DC
(VDR to chassis removed)

Output to Chassis: 2100V DC

Regulation: Line = $\pm 0.1\%$, Load = $\pm 0.5\%$
(no load to full load)

Mechanical

Shelf: Dimensions 19" W x 3.5" H x 15.35" D

Weight: 19.84 Lbs. (excluding rectifier modules)

Rectifiers: Dimensions 4.25" W x 2.75" W x 11.1" D

Weight: 3.15 Lbs

Cooling: Forced cooled.

Compliances

Safety: EN60950

Electrostatic Discharge: CISPR24

Radiated Radio Freq: CISPR22

AC Harmonics: EN61000-3-2

AC Flicker & Fluctuation: EN61000-3-3

Other: CE & RoHS compliant