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CSP-SNv1250 Seismic Energy Source

Key features

- Microprocessor configuration and control
- Intuitive user interface, with LCD display and LED indicators
- 4000J per second peak charge rate
- Fire-Delay mode
- Flip-Flop mode
- Master / slave key support
- Additional safety/protection features
- 'Automatic Variable Input Power' circuitry (AVIP) for reduced generator demand
- Programmable voltage technology allows operator tuning to suit application
- High current and voltage solid state (semi-conductor) discharge method
- Debug log and diagnostics
- Remote control unit available for triggering and stop/start
- Meets EC emissions regulations enabling interference-free field use
- Supplied in robust transit case, with HV junction box (HVJ 3004) and mains lead

CSP-SNv 1250 Overview

The CSP-SNv is built on the proven high voltage technology of the industry leading CSP range of power supplies. Incorporating microprocessor control and configuration for greater configuration flexibility and reliability whilst retaining a fail-safe logic design.

The CSP-SNv provides a solution to the industry requirement of acquiring UHR seismic data in challenging environments with a ≤1m shot point interval. The 4000 Joule per second peak charge rate delivered from a single phase AC voltage supply allows repetition rates less than 0.3s at 1000 Joule output.

The CSP-SNv has been engineered for use with the dual deck Dura-Spark UHD 400+400 catamaran, providing Flip-Flop and Fire-Delay modes of operation.

Technical Specification

PHYSICAL

Size	Transit Case, 19" rack, 11U high
Weight	CSP-SNv 1250, case and cover: 91kg

ELECTRICAL SPECIFICATION

Mains Input	240VAC 45-65Hz@ 6.0kVA single phase. 3 pin connector
Voltage Output	3536 to 3953VDC, 4 pin interlocked connector Solid state semi-conductor discharge method
Output Energy	Easy switch selectable in increments CSP-SNv 1250 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000 Joules 125, 250, 375, 500, 625, 750, 875, 1000, 1125, 1250 Joules
Charging Rate	4000J/second for continuous operation at 0-45°C
Capacitance	CSP-SNv 1250 176µF @ 10^8 shot life
Trigger	User configured: External: +ve key (5-12Vdc), -ve key or isolated closure (CSP and Remote unit) Internal: User defined Manual: Key press Fire-Delay option Flip-Flop mode Opto isolated BNC connector on front panel and remote box (optional)
Repetition rate	User configured: External: 10pps maximum. Internal: 200ms to 9975ms Limited by charge rate, energy level and sound source rating
Earth	M8 stainless steel stud on front panel

SAFETY FEATURES

Features	Main microprocessor control circuits with fail-safe layer of logic circuitry LCD display with system status information, configuration Specially designed HV connector with interlock High speed dump resistors for high voltage components Capacitor bleed resistors HV output open circuit shutdown Trigger monitoring with time out and over clock shutdown HV output current monitor and shutdown Supply Voltage monitoring and shutdown High Voltage monitoring Over temperature shutdown Cover and connector interlocks Diagnostic log download for improved support Remote unit available to configure, trigger and operate remotely

The unit's internal design has a modular construction for ease of servicing and capacitor replacement.
However, for safety reasons, only applied acoustics trained engineers should attempt a repair.

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Due to continual product improvement specification information may be subject to change without notice.
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COMPATIBLE SOUND SOURCES

CSP-SNv 1250	Dura-Spark 240/400, Dura-Spark 400+400, S-Boom triple plate boomer

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