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CSP-Nv Seismic Energy Source

Key features

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

CSP-Nv Overview

The CSP-Nv 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.

Adding to standard safety systems and operational functions found across the entire applied acoustics range of CSP energy sources, the CSP-Nv is the adaptable 'work-horse' of the CSP range.

The CSP-Nv is available in a 1200 J and 2400 J version and is compatible with all of applied acoustics' Dura-Spark sound sources and Boomer systems.

Technical Specification

PHYSICAL	
Size	Transit Case (7U) with cover in place and handles flat: 29 (H) x 56 (W) x 56 (D) cm
Weight	CSP-Nv 1200, case and cover: 69.4 kg CSP-Nv 2400, case and cover: 74.0 kg

ELECTRICAL SPECIFICATION	
Mains Input	240 V AC 50 Hz @ 3.5 kVA single phase. 3 pin connector
Voltage Output	2500 to 3950 V DC, 4 pin interlocked connector Solid state semi-conductor discharge method
Output Energy	Easy switch selectable in increments CSP-Nv 1200: 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600 700, 800, 900, 1000, 1100, 1200 Joules CSP-Nv 2400: 50, 100, 150, 200, 250, 300, 400, 500, 600, 700, 750, 800, 900, 1000, 1250, 1500, 1750, 2000, 2250, 2400 Joules
Charging Rate	2000J/second for continuous operation at 0-45°C
Capacitance	CSP-Nv 1200 208μF, 10^8 shot life CSP-Nv 2400 304μF, 10^8 shot life
Trigger	User configured: External: +ve key (5 – 12 VDC), -ve key or isolated closure Internal: +ve key (5 – 12 VDC), -ve key Opto isolated BNC connector on front panel and remote box (optional)
Repetition rate	User configured: External: 10 pps maximum Internal: 166 ms to 60 seconds 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
	Intelligent remote control available to configure, trigger and operate remotely

The units 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.

COMPATIBLE SOUND SOURCES

CSP-Nv 1200	AA251/AA301 boomers and S-Boom triple plate boomers; Dura-Spark L200, Dura-Spark 240/400 and Dura-Spark 400+400
CSP-Nv 2400	AA251/AA301 boomers and S-Boom triple plate boomers; Dura-Spark 240/400 and Dura-Spark 400+400

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