APPLIED ACOUSTICS
Underwater Technology
An AAE Technologies Group Company

Applied Acoustic Engineering Ltd
Marine House, Marine Park, Gapton Hall Road
Great Yarmouth, NR31 0NB
United Kingdom

CSP-Nv Seismic Energy Source

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.

The CSP-Nv seismic energy source is the driving force behind Applied Acoustics' Dura-Spark range of sound sources that have extremely hard wearing electrode sparker tips.

The CSP-Nv adds to the standard safety systems and operational functions found across the entire range of CSP energy sources, the CSP-Nv is also suitable for use with the Applied Acoustics' S-Boom and single plate boomer systems.

Key Features

- **Microprocessor configuration and control.**
- **Intuitive user interface, with LCD display and LED indicators.**
- **Enhanced operator system feedback**
- **User programmable 'soft start'**
- **Master / Slave Key Support**
- **Additional safety/protection features**
- **Programmable voltage technology allows operator tuning to suit application**
- **All settings externally selectable**
- **High current and voltage solid state (semi-conductor) discharge method**
- **Debug log and diagnostics.**
- **Meets EC emissions regulations enabling interference-free field use**
- **Supplied in robust transit case, with HV junction box (HVJ3004) and mains lead.**

Technical Specification

PHYSICAL

Size	Transit Case (7U) with cover in place and handles flat: 50cm(H) x 58cm(W) x 74cm(D)
Weight	CSP-Nv1200, case and cover: 61.5kg
	CSP-Nv2400, case and cover: 63.5kg

ELECTRICAL SPECIFICATION

Mains Input	240Vac 45-65Hz@ 5.0kVA single phase. 3 pin connector
	Variable Input Power Circuitry (AVIP) 'soft start' circuitry

CSP-Nv Technical Specification

Voltage Output	2500 to 3950Vdc, 4 pin interlocked connector Solid state semi-conductor discharge method
Output Energy	Easy switch selectable in increments CSP-Nv1200 50,100,150,200,250,300,350,400,450,500,550,600 700,800,900,1000,1100,1200 Joules CSP-Nv2400 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-Nv1200 208µF, 10^8 shot life CSP-Nv2400 304µF, 10^8 shot life
Trigger	User configured: External: +ve key (5-12VDC), -ve key or isolated closure Internal: +ve key (5-12VDC), -ve key Opto Isolated BNC connector on front panel and remote box (optional)
Repetition rate	User configured: External: 6pps maximum Internal: 166ms to 60seconds Limited by charge rate, energy level and sound source rating
Earth	M8 stainless steel stud on front panel

SAFETY 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 shut-down
Cover and connector interlocks
Diagnostic log download for improved support
Intelligent remote control available to configure, trigger and operator 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.

COMPATIBLE SOUND SOURCES

CSP-Nv1200	Dura-Spark UHD
CSP-Nv2400	AA201, AA251 and AA301 Boomer plates. S-Boom System

APPLIED ACOUSTICS
Underwater Technology
An AAE Technologies Group Company

Registration No. QU180081a
ISO9001:2015

Applied Acoustic Engineering Ltd
Marine House, Marine Park
Gapton Hall Road
Great Yarmouth NR31 0NB
United Kingdom

T +44(0)1493 440355
F +44(0)1493 440720
E general@appliedacoustics.com
W www.appliedacoustics.com