CSP-S12000
Seismic Energy Source

Key features
- High energy level for increased penetration
- High current and voltage solid state (semi-conductor) discharge method
- Meets EC emissions regulations enabling interference-free field use
- All settings externally selectable
- No requirement for extra separate capacitor bank
- ‘Automatic Variable Input Power Circuitry’ (AVIP) for reduced generator demand
- Additional safety/protection features
- Supplied in robust transit case, with HV junction box (HVJ 3000), mains lead and HV connector plug

CSP-S12000 Overview
The CSP-S12000 is a compact ‘all-in-one’ power source for marine sparker applications, specifically the applied acoustics’ Delta Sparker.

The high charge rate allows for fast, high energy sound pulses from the sparker that is used in deep water geohazard surveys.

Technical Specification

PHYSICAL – CSP-S12000

<table>
<thead>
<tr>
<th>Size</th>
<th>Transit case (21U) with covers in place and lifting eyes/handles flat: 116cms(H) x 69cms(W) x 96cms(D)</th>
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<tbody>
<tr>
<td>Weight</td>
<td>Case and cover: 183kg</td>
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**ELECTRICAL SPECIFICATION**

| Mains Input                           | 240VAC 45–65Hz@5.0kVA single phase 3 pin connector  
|                                       | Variable input power circuitry (AVIP) 'soft start' circuitry |
| Voltage Output                        | 2500 to 3950VDC, 4 pin interlocked connector. Solid state semi-conductor discharge method |
| Output Energy                         | Externally selectable in Joules  
|                                       | CSP–S12000: 600–12000J |
| Charging Rate                         | 2500J/second for continuous operation at 0–45°C |
| Capacitance                           | CSP–S12000: 1536μF, 10⁴ shot life |
| Trigger                               | +ve key opto isolated or isolated closure set by front panel switch, BNC connector on front panel and remote box (optional) |
| Repetition rate                       | 6pps max  
|                                       | Limited by charge rate, energy level and sound source rating |
| Earth                                 | MB stainless steel stud on front panel |

**SAFETY FEATURES**

| Features                             | Main electronic control circuits and secondary layer of safety circuitry  
|                                     | Specially designed HV connector with interlock  
|                                     | High speed dump resistors for high voltage components  
|                                     | Capacitor bleed resistors  
|                                     | Open circuit shutdown  
|                                     | Timer shutdown  
|                                     | Output current monitor and shutdown  
|                                     | Over temperature shutdown  
|                                     | Cover and connector interlocks  
|                                     | HV fault indicator for internal temperature, low input voltage or capacitor fault  
|                                     | Remote control available for triggering and operation |

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–S12000: Delta Sparker

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

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