

**PRODUCT  
DATASHEET**



[www.marine-seismic-equipments.net](http://www.marine-seismic-equipments.net)

**POWER SUPPLIES  
FOR UHR SEISMICS**



**SIG PULSE  
Energy  
sources**

The **SIG Pulse** series is a power supply dedicated to sparker and boomer seismics. To make the impulse : the high voltage capacitors are charged and quickly discharged by a high voltage switch called thyristor. The thyristor is a semiconductor component, very stable and constant, with no energy loss, nor overheating. The capacitors are connected in parallel and coupled with especially designed high voltage relays, according to the energy required.



**3 Models**

**S1 : 20-300 joules**

**M2 : 100-2000 joules**

**L5 : 100-6000 joules**



- ⇒ **SAFE HIGH VOLTAGE**
- ⇒ **HAND PORTABLE**
- ⇒ **ROBUST AND RELIABLE**



**APPLICATIONS  
FOR SPARKER BOOMER SEISMICS**

- High resolution seismics**
- Oceanographic research**
- Geotechnical & Marine Engineering**
- Mineral exploration & Dredging**
- Full ocean depth geological survey**

**SIG PULSE  
SUB-BOTTOM PROFILER**

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**MANUFACTURER since 1970**

→10-20 m

→50 m

→100 m

→150 m

→500 m

→1000 m

→3000 m

→4000 m

### ✓*SIG Pulse S1*

**10-300 JOULES**

**Dimensions :** 50 x 55 x 28 cm / **38 kg**

**Power selections :**

20-30-40-50-60-80-100-120-140-160-180-200-225-250-300 Joules

**Applications :** 0-100 m shallow and very shallow. In salty water with electrodes. In fresh or brackish water with boomer plate.

**Penetration/resolution :**

140 ms (240 ms) in 40 (90) m of water depth with resolution of 35 cm achieved.

### ✓*SIG Pulse M2*

**100-2000 JOULES**

**Dimensions :** 50 x 55 x 38 cm / **49 kg**

**Power selections :**

100-200-300-400-500-600-700-800-900-1000-1200-1400-1600-1800-2000 Joules

**Applications :** 50-2500 m shallow water on continental margins, to the full ocean water depths

**Penetration/resolution :**

Depending on conditions, 250 m in depths of 150 m, with resolution of about 60 cm, 1000 m @ 1500 J, in depths of 1500 m, 400 m in water depths of 3000 m.

**Dominant frequency :** 1000-1400 Hz @ 500 J with ELC1200.

### ✓*SIG Pulse L5*

**100-6000 JOULES**

**Dimensions :** 50 x 55 x 38 cm / **49 kg**  
+ 50 x 55 x 28 cm / **38 kg**

**Power selections :**

100-200-300-400-500-600-700-800-900-1000-1200-1400-1600-1800-2000 Joules

2500-3000-3500-4000-4500-5000-5500-6000 joules

**Applications :** complete from coastal areas with 2000J box, to deep ocean surveys with full system.

**Penetration/resolution :**

Average penetration of 500 m in 5000 m of water depths, up to 900 m in good conditions.

**Dominant frequency :** 500 Hz @ 2500 J with ELP1250.



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#### SPECIFICATIONS

Input voltage:	230 VAC, 50-60 Hz
Generator required:	
Model S1s	2000 W rated, 5.5 A, for charging rate @ 500 J/s
Model S1	3700 W rated, 16 A for charging rate @ 1500 J/s
Models M2 and L5	3900 W rated 17 A for charging rate @ 2000 J/s
Output voltage :	From 3.0 to 4.0 kV DC
Max peak current :	18 A
Trigger :	+ve 4-12 V, 1 ms min. Fiber optic isolated

#### SAFETY MEASURES

- ✓ Lid interlock
- ✓ Temperature control
- ✓ Overload monitoring
- ✓ Charging control
- ✓ Discharge control
- ✓ Warning for non-immersed HV cable

