

# Lightning Surge Generator

## LSG-512H Series 【Introduction】

The LSG-512 series, is a lightning surge generator capable of outputting up to 12 kV. It features a full- color capacitive touchscreen control, advanced technology, and mature product design, providing users with a reliable and consistent basis for lightning surge testing in their products. The 1.2/50  $\mu$ s generator comes standard with a pulsed magnetic field function

### Compliance Standards

IEC 61000-4-5 Ed.3 、 EN 61000-4-5 、 GB/T 17626.5 、 ITU K.21 、 ITU K.20 、 ANSI C 62.41

### Application Fields

New energy vehicles, wind power industry, solar energy industry, industrial equipment, electrical power meters, automotive electronics, medical devices, lighting fixtures, communication transmission, audio-visual equipment, low-voltage electrical appliances, electronic components, electric tools, information technology equipment, railway and aerospace electrical appliances, instrumentation.

### Technical Features

- ◆ A 7" color capacitive touchscreen provides a user-friendly and powerful human-machine interface ;
- ◆ The interface allows for direct and rapid test program creation, truly realizing intelligent test operation ;
- ◆ Wireless WIFI remote upgrade functionality ;
- ◆ Rich and comprehensive communication interface design, standard with RS485 serial port, LAN port, USB port, and WIFI ;
- ◆ Excellent interference waveform and interference characteristics ;
- ◆ Built-in IEC standard settings and user-defined settings, enabling one-click power-on testing ;
  
- ◆ Switchable between Chinese and English interfaces, with a universal power supply design to meet testing needs of users in different regions ;
- ◆ Security lock and external synchronization functions ;
- ◆ External triggering capability ;
- ◆ Expandable pulsed magnetic field functionality ;
- ◆ USB data recording function (optional).

## Parameter List

Specification Model	LSG-512H-12CB	LSG-512H-07CB	LSG-512H-07CT
Interference Type	Lightning surge immunity		
Output Polarity	Positive/Negative/Automatic Alternation between Positive and Negative		
Output Voltage	100 V ~ 12 kV±10% 10 V step	100 V ~ 7 kV±10% 10 V step	100 V ~ 7 kV±10% 10 V step
Output Impedance	2 Ω±10%	2 Ω±10%	15 Ω/40 Ω±10% switchable
Output Current	50 A ~ 6000 A±10%	50 A ~ 3500 A±10%	6.7 A ~ 466.7 A±10%   or 2.5 A ~ 175 A±10%
Source Output Voltage Waveform	Rise Time : 1.2 μs±30% Half-Peak Time : 50 μs±20%	Rise Time : 1.2 μs±30% Half-Peak Time : 50 μs±20%	Rise Time : 10 μs±30% Half-Peak Time : 700 μs±20%
Source Output Current Waveform	Rise Time : 8 μs±20% Half-Peak Time : 20 μs±20%	Rise Time : 8 μs±20% Half-Peak Time : 20 μs±20%	Rise Time : 5 μs±20% Half-Peak Time : 320 μs±20%
Source Output Overshoot	Below 30% of the peak voltage/current		—
Adapter for EUT Power Supply	AC ≤ 900 V DC ≤ 1500 V	AC ≤ 900 V , DC ≤ 1500 V	AC ≤ 900 V DC ≤ 1500 V
Pulse Magnetic Field Test Parameters (Requires Additional Magnetic Field Coil PMF-801C-F, SC-1000, or SC-300)			
Magnetic Field Strength	100 A/m ~ 2000 A/m		—
Current Wave	8 <sup>+2.4</sup> <sub>-0.8</sub> μs(1 m*1 m Coil); 8 <sup>+3.2</sup> <sub>-0.8</sub> μs(1 m*2.6 m Coil)		
Half-Wave Width of Current Wave	20 <sup>+6</sup> <sub>-2</sub> μs(1 m*1 m Coil); 20 <sup>+8</sup> <sub>-2</sub> μs(1 m*2.6 m Coil)		
Pulse Polarity	Positive and negative poles, alternating in polarity		
Number of Pulse Outputs	1 ~ 9999 times		
Pulse Interval Time	10 ~ 9999s		
General Parameters			
Operating Power Supply	AC 85 V ~ 264 V 50/60 Hz 120 W		

Display Interface	Color touchscreen with language options: Chinese/English (selectable)
Host Computer Interface	WiFi, LAN Interface
Dimensions	19"/4 U
Weight	20 kg
Temperature	15°C~ 35°C (Operating Conditions)
Humidity	30% ~ 60%(Operating Conditions)
Atmospheric Pressure	86 kPa ~ 106 kPa
Standard Accessories	Main unit, test cable, power cord, fuse, test report, user manual
Optional Accessories	
Power Line Coupling/Decoupling Network	CDN-5320H series, CDN-5320M series
Signal Line Coupling/Decoupling Network	CDN-508S, CDN-508SUS, CDN-508SUD
Magnetic Field Coil	PMF-801C-F, SC-300, SC-1000