



Impulse Current Simulator

S6D Series

- IEC 61643-11
- IEC 61212-1
- GB/T 18802.11

Features

- > 5.7-inch color touch screen front panel operation
- > Supports waveform analysis with the company's measurement and analysis software
- > Supports an external 10-channel cyclic distribution network.
- > Custom configurations are available to meet customer requirements

Introduction

The S6D Series are a new type of impulse current simulators developed in compliance with IEC 61643-11, GB/T 18802.11 and IEC 61312-1. The S6D Series can output 8/20 μ s impulse current waveforms with Max. impulse currents of 40 kA. The system supports connection to a CDN and the 10-channel cyclic distribution network SPN-10, allowing up to 10 EUTs to perform active or passive impulse current tests simultaneously. The system is equipped with the company's measurement and analysis software for professional waveform analysis. It offers easy operation, efficient testing, and excellent reliability.

Application Areas



Technical Parameters

S6D05	
Test Current Range	1 A ~ 50 A, $\pm 10\%$,
Charging Voltage	Max. 3.5 kV
Current Waveform	Rise time: $10\ \mu\text{s} \pm 20\%$ (10% ~ 90%) Duration time: $1,000\ \mu\text{s} \pm 20\%$ (50% ~ 50%)
Output Polarity	Positive, negative, alternative
Pulse Period	5 s ~ 99 s (The minimum time depends on the test voltage)
Source Output Impedance	50 Ω
Test Count	1 ~ 10,000
Impulse Current Monitoring (BNC Output)	Optional External Accessory
Trigger Mode	Manual, Auto, External Trigger
S6D60	
Test Current Range	10 A ~ 600 A, $\pm 10\%$,
Charging Voltage	Max. 6 kV
Current Waveform	Rise time: $10\ \mu\text{s} \pm 20\%$ (10% ~ 90%) Duration time: $1,000\ \mu\text{s} \pm 20\%$ (50% ~ 50%)
Output Polarity	Positive, negative, alternative
Pulse Period	5 s ~ 1,000 s (The minimum time depends on the test voltage)
Source Output Impedance	10 Ω
Test Count	1 ~ 10,000
Impulse Current Monitoring (BNC Output)	Optional External Accessory
Trigger Mode	Manual, Auto, External Trigger
S6D100	
Test Current Range	50 A ~ 1,000 A, $\pm 10\%$,
Charging Voltage	Max. 6 kV
Current Waveform	Rise time: $10\ \mu\text{s} \pm 20\%$ (10% ~ 90%) Duration time: $1,000\ \mu\text{s} \pm 20\%$ (50% ~ 50%)
Output Polarity	Positive, negative, alternative
Pulse Period	5 s ~ 1,000 s (The minimum time depends on the test voltage)
Source Output Impedance	6 Ω
Test Count	1 ~ 10,000
Impulse Current Monitoring (BNC Output)	Optional External Accessory
Trigger Mode	Manual, Auto, External Trigger

General Parameters

Display Screen	5.7" TFT touch screen
Working Power	AC 220 V, $\pm 10\%$, 50/60 Hz
Fuse	6 A
Max. Power Consumption	1,000 W
External Control Mode	25-pin parallel cable
External Trigger Input	BNC, 5 V TTL normally open contact. Triggered by oscilloscope when the internal circuit is closed.
Operation Control Input	BNC, 5 V TTL
Failure Detection	LCD display in front panel and stop work when failure occurs
Working Status Indication	LED indication and LCD display in front panel
Grounding Method	Flat grounding wire
Monitoring Output Method	Standard 1 m coaxial cable
Communication Mode	Ethernet LAN, RJ45
Dimension	S6D05: 6 U rack; S6D60: 22 U rack; S6D100: 22 U rack
Weight	S6D05: Approx. 50 kg; S6D60: Approx. 150 kg; S6D100: Approx. 180 kg;
Atmospheric Pressure	86 kPa ~ 106 kPa
Ambient Temperature	15°C ~ 35°C
Relative Humidity	45% ~ 75%, RH (no condensation)

Standard Accessories

Three-core Power Cord, User Manual, Test Cables, Grounding Wire, Fuse, Coaxial Cable

Optional Accessories

1	10-channel Cyclic Distribution Network	Model: SPN-10	
2	Coupling/Decoupling Network	Model: CPN 4516S	
3	Isolation Transformer	Model: DG-4.4 KVA	
4	Broadband Current Monitor Clamp	Model: CM 0220M	
5	Measurement Software	Model: MAS 3000	
2	PC Control Software	Model: Corelab > Support Windows 7/8/10; > Support Ethernet Interface; > Support sequence test, easy to operate, generate and export test report.	

Naming Rules

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02

Maximum Voltage	Waveform Code	Maximum Current
06: 600V 6: 6kV 8: 8kV 10: 10kV 15: 15kV 20: 20kV	A: 10/350 μ s C: 8/20 μ s D: 10/1000 μ s CT: Combination Type	05: 50A 10: 100A 60: 600A 100: 1000A 150: 1500A 600: 6000A 1000: 10kA 10000: 100kA

* Custom configurations are available according to customer requirements.

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