

Impulse Current Simulator S6/S8/S10/S20 Series

Datasheet



In Compliance with

- > IEC 61643-1
- > UL 1449
- > YD-T 5098
- > YD-T 1235.2
- > GB/T 11032
- > GB 18802.1
- > TB/T 3074

Introduction

The S6/S8/S10/S20 series are intelligent multi-functional simulators, which is designed on the basis of the 3rd generation platform of our company. It fully meets the requirements of IEC 61643-1, GB18802.1, UL1449, YD-T1235[1].2 and TB/T 3074 surge standards and used for testing of surge protective devices such as MOV, TVS and GDT etc., and lightning-proof testing of various mains or scientific research in other field. With features of high integration, intelligent control easy operation, users can perform automatic tests only through easy setting on menu.

Features

- > Color touch screen operation to monitor test operation
- > Constant current charging, stable and accurate; stable output
- > flexible test setup for different tests requirements
- > External CDN are available on request
- > Built-in high-accuracy Roosevelt coil for data acquisition waveform check

Application Areas

- > Communication
- > Information technology
- > Telecom
- > Military
- > Medical
- > Aviation
- > Radio and TV
- > New energy power
- > Railway

Technical Parameters				
Model No.	S6	S8	S10	S20
Output Waveform	8/20 μ s、10/350 μ s			
Front Time T1	8 μ s \pm 10%、10 μ s \pm 30%			
Wave tail time T2	20 μ s \pm 10%、350 μ s \pm 20%			
Current Peak Ip	100 A, 1200 A, 6 kA, 10 kA	50 A ~1500 A	10 kA, 15 kA, 20 kA	20 kA, 30 kA, 40 kA
Current Output Range	10% ~100%	50 A ~100%	1 kA ~100%	1 kA ~100%
Equivalent Output Impedance	50 Ω , 5 Ω , 1 Ω , 0.5 Ω	5 Ω	1 Ω , 0.75 Ω , 0.5 Ω	1 Ω , 0.75 Ω , 0.5 Ω
Charging Voltage	Up to 6 kV	Up to 8 kV	Up to 10 kV	Up to 20 kV
Internal Measuring Range Grade	I grade	-	III grades, automatic switch	III grades, manual switch
Voltage Polarity	+/- (automatic switch)			
Impulse Interval	10 s ~999 s			
Number of Continuous Pulses	1 ~99			
Charging Voltage instability	Less than 1%			
Trigger Mode	Automatic or manual, single trigger available			
Trigger Malfunction Rate	Less than 1%			
Trigger Range	100% rated charging voltage			
Measurement Display Resolution	Better than 3%			
Insulation Strength	\leq 500 V rms (common port COMMON to ground reference PE)			

General Parameters				
Power supply	AC220 V(\pm 10%), 50 Hz/60 Hz, 10 A			
Ambient Temperature	15 $^{\circ}$ C ~ 35 $^{\circ}$ C			
Relative Humidity	45%-75%			
Ground resistor	\leq 0.5 Ω			
Dimension	19" 6U	19" 22U	19" 22U	19" 35U
Weight	Approx. 35 kg	Approx. 120 kg	Approx. 120 kg	Approx. 200 kg
No conductive dust, no fire or explosion danger, no corrosive metal and insulation air. Waveform of mains voltage is sine wave. The THD is <5%.				

Attached Table

Test Waveform and Output Capacity						
No.	Waveform	Type	Max. Output Peak			
			S6	S8	S10	S20
A	10/350	Current wave	200 A	1500 A	2 kA	5 kA
B	4/10	Current wave	2 kA		5 kA	10 kA
C	8/20	Current wave	10 kA		20 kA	40 kA
D	10/1000	Current wave	100 A		1 kA	2 kA
E	100/1000	Current wave	100 A		1 kA	2 kA
F	1/10	Current wave	1 kA		5 kA	10 kA
G	2 ms	Current wave	50 A		200 A	600 A
P	Other waveform can be customized.					

Options for S10 series simulator:

Name	Model and Parameters
Oscilloscope	MDO3012
Current Probe	TR5056, 20 kA
Voltage Probe	P6015A, 40 kV Peak
Peak Acquisition System	Internal acquisition system for voltage and current; touch screen display
Test Box	PA 350
Remote Control Software	EMSlab, programmable test on PC port, support Win XP, Win7



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