

II Type 8/20 Automatic Impulse Current Test

LCG S series

Datasheet



In Compliance with

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

Introduction

LCG S series is impulse current test system developed by 3ctest. It is mainly used to conduct lightning test for surge protection devices, such as MOV, TVS, GDT and SPD. It is features with high integration, intelligent control and easy operation. Setting parameters on setting page, test can be conducted automatically with one button.

Features

- > Split-type with elegant appearance
- > Three-dimensional centripetal layout, small circuit inductance and stable discharging
- > Independent test room with access control to ensure safety
- > High integration and automatic control, easy to operation
- > With crowbar to conduct 10/350us test, output current up to 100kA
- > Multiple waveforms can be generated with different networks
- > Equipped with automatic control system MCS2000

Application Areas

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

Technical Parameters	
Item	8/20 μ s current wave
Output Peak	35 kA, 65 kA, 120 kA, 150 kA, 200 kA
T1 front time	8 μ s \pm 10%
T2 wave tail time	20 μ s \pm 10%
Reversed Overshoot	<20%
Front Oscillatory	<5%
Voltage Polarity	+/-, (automatic switch)
Waveform Switch	Automatic switch
Charging Time	10 s~999 s
Charging Voltage Instability	Less than 1%
External Sync Input	50 Hz
Trigger Mode	Automatic or manual, single trigger available
Trigger Malfunction Rate	Less than 1%
Trigger Range	100% rated charging voltage
Phase Test Range	0~360°
Operating Load Test	Internal 0~500 V 5 A continuous supply
Display Screen	10inch TFT color touch screen
Measurement Display Resolution	Better than 3%
DUT	MOV, TVS, GDT, SPD, mains surge protection device
DUT Residual Voltage	<5 kV
Current Measurement (optional)	Internal test box, Rogowski coil measurement, panel BNC output
Voltage Measurement (optional)	Internal test box, pure-resistance voltage divider, panel BNC output
Oscilloscope	MDO3012, optional
Insulation strength	\leq 500 V RMS (common port COMMON to ground reference PE)

General Parameters	
Power Supply	AC 220 V \pm 10%, 50/60 Hz,
Temperature	-10~+40 °C
Humidity	35%-85% RH (no condensation)
Ground Resistance	No more than 0.5 Ω
Structure	Open style, control and base separated
Size of Test Room	5 M * 5 M (base) + 3 M * 5 M (control)
Control table	1.8 M (width) * 1.1 M (height) * 1 M (depth)
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%.	

Technical parameters of standard model					
Model	LCG 30S	LCG 65S	LCG120S	LCG 150S	LCG 200S
Two-path test peak	30 kA	65 kA	120 kA	150 kA	200 kA
Stored energy	10 kJ	32kJ	80 kJ	125 kJ	180 kJ
Charging voltage	30 kV	40 kV	60 kV	60 kV	80 kV
Supply mains	AC 220 V 32 A	AC 220 V 32 A	AC 220 V 32 A	AC220 V 50 A	AC 220 V 50 A
Weight	800 Kg	1200 Kg	1500 Kg	2000 Kg	2500 Kg

Other test waveform and output capacity					
No.	Waveform	Type	Two-path max. Output Peak	Charging Voltage	Equivalent Output Impedance
A	10/350	Current wave	50 kA	20 kV	0.4 Ω
B	4/10	Current wave	100 kA	100 kV	1 Ω
C	8/20	Current wave	250 kA	100 kV	0.4 Ω
F	1/10	Current wave	20 kA	50 kV	2.5 Ω
P	Other waveform can be customized				

*Internal one waveform for each equipment. Other waveform can be customized.

Optional Accessories for LCG S series Simulator			
Name	Model and description	Installation (connection) Mode	Reference picture
Oscilloscope	MDO3012	External	
Current probe	TR1080, 200 kA	Internal	
Attenuator	A10, 10:1, 5 0Ω	External	
Voltage probe	P6015 A, 40 kV Peak	External	
Differential probe	VCF 80, test up to 8 kV	External	
PC control software	MCS3000, programmable test from PC port, support Win xp, Win7	RS232	
Operating load mains	CDN 1500, 1500 A continuous current mains	External	



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3ctest is always striving for product innovation and quality improvement.

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