

# Automatic Double-Waveform Impulse Current Testing System

## LCG C Series

## Datasheet



### In Compliance with

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

### Introduction

LCG C series are comprehensive impulse current testing systems with high system integration, intelligent control, easy operation. Equipped with different modules, different waveforms can be generated, ideal for one-stop testing solutions. The automatic control system allows for easy test setting, waveform switching and one-button automatic running.

### Features

- > Open structure, 3D centripetal layout, with small inductance and even discharge
- > Easy & flexible operation with highly integrated automation (test scheduling); automatic control system: MCS 2000
- > High capacity: impulse current up to 30 kA for Level 1, up to 200 kA for Level 2; charging voltage up to 80 kV
- > Two waveforms, free switching
- > Optional LCM 25D module, to raise the output current (10 / 350  $\mu$ s)

### Application Areas

- > Telecom
- > Medical
- > Broadcasting
- > Railway & rail transit
- > IT
- > Military
- > Avionics
- > New energy

Technical Parameters		
Current Waveform	8 / 20 $\mu$ s	10 / 350 $\mu$ s
Peak Output Current	65 kA, 120 kA, 150 kA, 200 kA	5 kA, 15 kA, 25 kA, 30 kA
Front Time T1	8 $\mu$ s $\pm$ 10%	<50 $\mu$ s
Tail Time T2	20 $\mu$ s $\pm$ 10%	350 $\mu$ s $\pm$ 10%
Reverse Overshooting	<20%	N/A
Wave Front Oscillation	<5%	<5%
Voltage Waveform Distortion	<5% (sine wave)	
Voltage Polarity	+ / -, automatic switching	
Switching Of Waveforms	Automatic	
Charging Time	10 s – 999 s	
Charging Voltage Instability	<1%	
External Sync. Input	50 Hz	
Triggering Method	Automatic / manual, can be single-time triggering	
Triggering Error Rate	<1%	
Triggering Range	100% rated charging voltage	
Phase Range	0°- 360°	
Operating Duty Test	Built-in, 0 V – 500 V, 5 A continuous	
Display	10" TFT color touch screen	
Measurement Accuracy	3%	
EUT Types	MOV, TVS, GDT, SPD, power supply type SPD etc	
EUT Residual Voltage	<5 kV	
Optional Current Measurement	Built-in test box, Ross coil, BNC output;	
Optional Voltage Measurement	Built-in test box, pure voltage divider, BNC output	
Optional Oscilloscope	MDO 3012	
Insulation Strength	$\leq$ 500 V RMS (common terminal to PE)	

General Parameters	
Operating Power Supply	AC 220 V $\pm$ 10%, 50 Hz / 60 Hz, 10 A
Operating Temp.	15 °C - 35 °C
Operating Relative Humidity	45% - 75%
Grounding Resistor	$\leq$ 0.5 $\Omega$
Dimension of Test Room	5 x 5 m (main body) plus 3 x 5 m (control unit)
Dimension of Operating Platform	1,800 x 1,100 x 1,000 m

Option of Models				
Models	LCG 65C	LCG 120C	LCG 150C	LCG 200C
8/20 Peak Value	65kA	120 kA	150 kA	200 kA
10/350 Peak Value	5 kA	15 kA	25 kA	30 kA
Stored Energy	20 kJ	74 kJ	128 kJ	200 kJ
8/20 Charging Voltage	30 kV	60 kV	60 kV	80 kV
10/350 Charging Voltage	15 kV	15 kV	18 kV	22 kV
Operating Power Supply	AC 220 V, 32 A	AC 220 V, 50 A	AC 220 V, 50 A	AC 220 V, 100 A
Weight	1,500 kg	2,000 kg	2,500 kg	3,500 kg

Other Waveforms					
No.	Waveform	Type	Max Output	Charging Voltage	Equivalent Output Impedance
A	10/350	Current waveform	50 kA	20 kV	0.4 Ω
B	4/10	Current waveform	100 kA	100 kV	1 Ω
C	8/20	Current waveform	250 kA	100 kV	0.4 Ω
D	10/1000	Current waveform	20 kA	15 kV	0.5 Ω
E	100/1000	Current waveform	20 kA	15 kV	0.5 Ω
F	1/10	Current waveform	20 kA	50kV	2.5 Ω
P	Other waveforms can be customized				
Note: The default configuration for each equipment of this series is equipped with two waveform modules. Other configuration can be customized.					



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