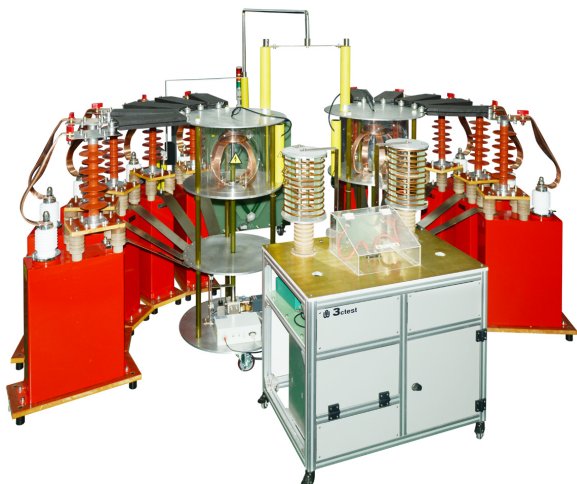


# Automatic Two-path Impulse Current Test System LCG D series

## 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 D series impulse current test system is a multi-pulse test generator self development by 3ctest with high integration, automation control system and easy operation. With different optional modules, it can simulate corresponding waveforms with an all-in-one high voltage test system. By setting parameters on setup page, LCG D series test system can switch all kinds of waveforms automatically only with one button.

### Features

- > Color touch screen, easy to operate
- > PLC control system, high interference immunity, stable, and reliable
- > Two-path pulse output, delay time 0~99.9 $\mu$ s adjustable
- > Min. test current is about 1 kA
- > Controlled silicon charging mode to save energy
- > Protection function with Audible and visual alarm
- > Measurement and analyze waveform parameters automatically
- > with MCS2000 automatic control system

### Application Areas

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

Technical Parameters	
Item	8/20 $\mu$ s current wave, two-path output
Output Peak	35 kA $\times$ 2, 65 kA $\times$ 2, 120 kA $\times$ 2, 150 kA $\times$ 2
T1 front time	8 $\mu$ s $\pm$ 10%
T2 Wave Tail Time	20 $\mu$ 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 In Stability	Less than 1%
External Sync Input	50 Hz
Trigger Mode	Automatic or manual, single trigger available
Trigger Malfunction Ratio	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	10 inch TFT color touch screen
Measurement Display Resolution	Better than 3%
DUT Type	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 RM (common port COMMON to reference ground 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 $\Omega$
Structure	Open-style, base and control separated
Test room size	5 M*5 M (base)+3 M*5 M (control)
Operation 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	LCG30D	LCG65D	LCG120D	LCG150D
Two-path test peak	30 kA	65 kA	120 kA	150 kA
Parallel test peak	60 kA	130 kA	240 kA	300 kA
Stored energy	20 kJ	62.5 kJ	160 kJ	250 kJ
Charging voltage	30 kV	40 kV	60 kV	80 kV
Supply mains	AC220V 32 A	AC220V 50 A	AC220V 50 A	AC220V 100 A
Weight	1000 kG	1500 kG	2000 kG	3000 kG

Other Test Waveforms 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
D	10/1000	Current wave	20 kA	20 kV	1 Ω
E	100/1000	Current wave	20 kA	20 kV	1 Ω
F	1/10	Current wave	20 kA	50 kV	2.5 Ω
P	Other waveform can be customized.				

\* Internal two-path output waveform for each equipment. Other waveform can be customized.

Optional Accessories for LCG -D series Simulator			
Name	Model and Description	Installation (connection) mode	Reference picture
Oscilloscope	MDO3012	External	
Current probe	TR1080, 200 kA	Internal	
Attenuator	A10, 10:1, 50 Ω	External	
Voltage probe	P6015 A, 40 kV Peak	External	
Differential probe	VCF 80, test up to 8kV	External	
PC control software	MCS3000, programmable test from PC port, support Win xp, Win7	RS232	
Decoupling network	SGN1000, 100 A two-path decoupling network	External	



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