

Automatic square wave impulse current test system

LCG M series



As per	
>	IEC 61643-1
>	GB 18802.1
>	GB 11032
>	UL1449
>	YD-T 1235.2
>	YD/T 5098

Description
<p>LCG M series automatic square wave impulse current test system adopts two-path 10-level LC chain circuit to output square wave impulse current with 2ms duration. This system is mainly used for 2ms square wave impulse current withstand test for MOV. Controlled automatically, it is featured with high system integration and intelligence and easy operation. Setting test requirements on parameters setting page, test can be conducted with one button.</p>

Features
> color touch screen, easy operation
> PLC control system, powerful and stable immunity system
> controlled by manual, automatic or programmable to different test requirements
> 10 level LC chain to consist square wave circuit, smooth waveform with little oscillatory
> controlled silicon continuous current for charging to save energy
> protection function, visual and audible alarm
> measure and analyze waveform parameters automatically





Industries	
> Communication	> Technology
> Telecom	> Military
> Medical	> Avionics
> Broadcast	> New energy
> Railway	

Technical parameters	
Item	2ms square wave current
Output peak	1KA, 2KA, 3KA, 4KA, 5KA
Td duration	2ms (-0% + 20%)
Attenuation time	<Td×1.5
Reversed overshoot	--
Wave-front oscillatory	<5%
Voltage polarity	+/-, (Switch automatically)
Waveform switch	Switch automatically
Charging time	10s~999s
Instability of charging voltage	Less than 1%
Trigger mode	Automatic or manual, single trigger available
Trigger malfunction rate	Less than 1%
Trigger range	100% rated charging voltage
Display screen	10 inch TFT color touch screen
Measurement display resolution	Better than 3%
Type of DUT	MOV, TVS, GDT, SPD or mains surge protection device
DUT residual voltage	<5kV
Current measurement (optional)	Internal test box, Roosevelt coil measurement, BNC output
Voltage measurement (optional)	Internal test box, resistive voltage divider, BNC output
Oscilloscope	MDO3012, optional
Insulation strength	≤500V RMS (common port COMMON to ground reference PE)
General data	
Power supply	AC220V±10%, 50/60Hz, 10A
Temperature	15~35°C
Humidity	45%-75%
Ground resistance	No more than 0.5Ω
Construction	Open style, control system split base system
Size of test room	Depend on model (base system) +3M*5M (control system)
Operation table	1.8M (width) *1.1M (height) *1M (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

Technical parameters of standard models					
Models	LCG 1M	LCG 2M	LCG 3M	LCG 4M	LCG 5M
Current peak	0.1~1kA	0.2~2kA	0.15~3kA	0.2~4kA	0.25~5kA
Stored energy	30kJ	60kJ	100kJ	200kJ	300kJ
Charging voltage	20kV	20kV,	30kV	40kV	50kV
Equivalent output impedance	20Ω,10Ω	20Ω,10Ω	20Ω,10Ω	20Ω,10Ω	20Ω,10Ω
DUT residual voltage	6kV,20kV	6kV, 20kV	6kV,20kV	6kV,20kV	6kV,20kV
Supply mains	AC220V 32A	AC220V 50A	AC220V 50A	AC220V 100A	AC220V 150A
Installation	Frame style	Frame style	Frame style	Frame style	Frame style

Optional accessories for LCG M-series simulator:

Name	Model	Installation (connection) mode	Reference picture
Oscilloscope	MDO3012	external	
Current probe	TR1330,100kA	Internal	
Attenuator	A10, 10:1, 50Ω	external	
Voltage probe	P6015A, 40kV 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	
Operating load mains	CDN 1500, 1500A follow current	external	



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