

# **EMC Test System**

## **(Brochure)**

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EMC&EMI Test System: <http://www.pegotester.com/products/EMC>

LED Test Equipment: <http://www.pegotester.com/products/LED>

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IEC60061-3 Lamp Guages: <http://www.pegotester.com/products/gauge>

IEC and UL Probes for verification: <http://www.pegotester.com/products/probe>

**EMC Includes:**

- IEC61000-4-2 Electrostatic Discharge Generator
- IEC61000-4-4 EFT Immunity Generator
- IEC61000-4-5 Surge Generator
- IEC61000-4-11 Voltage Dips and Short Interruption Generator
- IEC61000-4-12 Ring Wave Generator

**1. Electrostatic Discharge Generator**

**Introduction:**

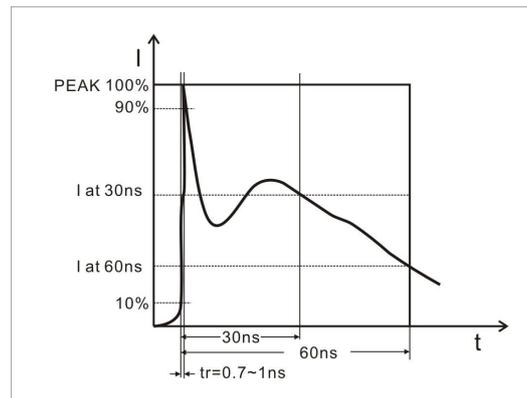
ESD simulator (ESD gun) is completely meet the requirements of IEC61000-4-2 and GB/T17626.2. The ESD generator is designed for the assessment of electrical and electronic equipment to withstand ESD performance. Electrostatic discharge generator is widely apply to the fields of industry control equipment, household appliance, chemical electronics, communication electronics, components, auto control equipment and etc.



**Parameters:**

Model		ESD-2000Q	ESD-2005Q
Output voltage	Contact	0.1—20kV ±3%	0.1—30kV ±3%
	Air discharge	0.1—20kV ±3%	0.1—30kV ±3%
Holding time		>5s	
Polarity of output voltage		Positive, negative, positive/negative auto	
Trigger mode		Single, counting, 20pps, other	
Discharge interval:		0.05~99.99s	
Numbers of discharge:		1~9999	
Energy storage capacitance:		150pF ±10% (replaceable)	
Discharge resistor:		330Ω ±10% (replaceable)	
Waveform of contact discharge		Meet the standards of EN/IEC 61000-4-2, GB/T 17626.2	
Rising time:		0.8ns ±25%	
Environment:		Temperature: 15°C—35°C; Humidity: 10%—75%	
Power supply:		AC220±10%, 50/60Hz, 300W	
Dimension:		260mm(W)×170mm(H)×360mm(D)	
Weight:		About 5kg	

Waveform:



Contact Discharge

## 2) EFT immunity measurement

Introduction:

EFT-5K series electrical fast transient generators is designed according to IEC61000-4-4, and completely meet the requirements of IEC61000-4-4 and GB/T17626.4. They are widely applied to the fields of industry control appliance, household appliance, medical equipment, components, auto control equipment and etc.



Features:

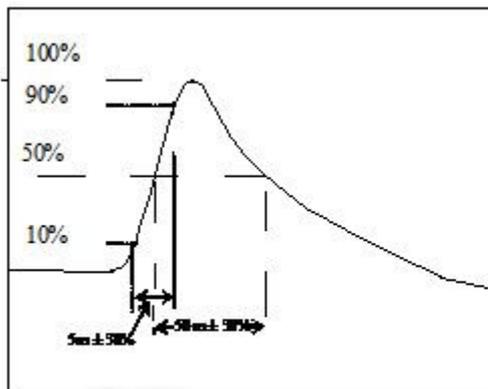
- 1) 7 inch LCD touch screen, easy to operation and update the software
- 2) 1000-group memories
- 3) Built-in 3-phase 5-wires coupling and decoupling network (20A)
- 4) Adopt imported high-power non-inductive resistor to make sure the waveform stable and no deformation
- 5) The coupling network adpots the newest technology with low attenuation and plentiful power
- 6) Built-in temperature-humidity sensor to monitor the environment at real time
- 7) With self-diagnosis function to judge the abnormal of high voltage and impulse output

Parameter:

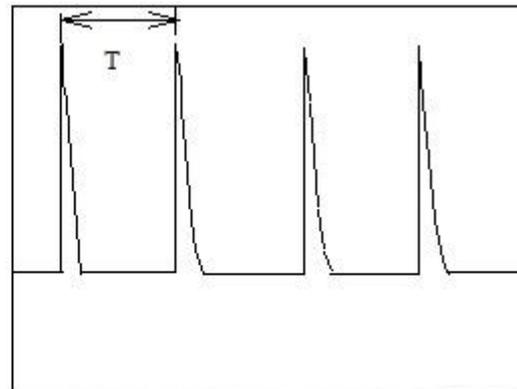
Model	EFT-5K16	EFT-5K30
open circuit output voltage	0.25—5kV $\pm 5\%$	
50 $\Omega$ load output voltage	0.125—2.5kV $\pm 5\%$	
Wave sharp of the pulse	5/50ns, 50 $\Omega$ /1000 $\Omega$ load	
Rise time	5ns $\pm 30\%$ , 50 $\Omega$ load/5ns $\pm 30\%$ , 1000 $\Omega$ load	
duration	50ns $\pm 30\%$ , 50 $\Omega$ load/50ns—15/+100sn, 1000 $\Omega$ load	

Impedance	50Ω ±20%		
Output polarity	Negative/positive		
Repetition frequency	0.1 – 1200.0kHz ±10%		
burst duration	Standard	15ms@2.5kHz/5kHz, 750μs@100kHz, 250μs@300kHz	
	Adjustable	Nos of pulse can adjust at 1-255 Burst duration= ( pulse number-1 ) /repetition frequency	
Burst period	100 – 999ms		
Burst mode	Synchronous or asynchronous		
Synchronous phase	Free set at 0 – 3600 , resolution: 1°		
Test function:	IEC standard or set test mode freely (1000 groups)		
Built-in coupling and decoupling network	AC	3-phrased 380V, 16A, 50/60Hz	3phrased
	DC	380V, 16A (Max)	380V, 30A (Max)
Coupling mode	L1, L2, L3, N, PE, freely setup		
Coupling capacitors:	33nF ±10%		
Environment requirements	Temperature: 15°C – 35°C; Humidity: 10% – 75%		
Power requirements	AC220±10%, 50/60Hz, 300W		
Dimension	470mm(W)×215mm(H)×500mm(depth)		

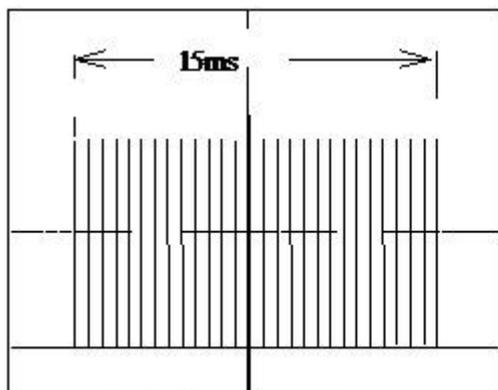
Waveform:



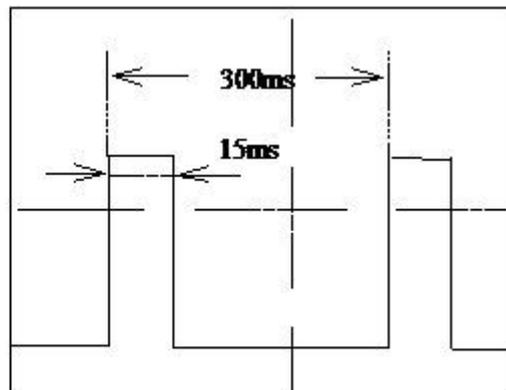
Impulse waveform



Impulse Repetition Frequency (1/T=2.5K/5K/100KHZ)



Burst Width 15ms



Burst Cycle 300ms

### 3. Surge Generator

Introduction:

LSG-6K10 surge generator is designed according to IEC61000-4-5 and GB/T17626.5, and completely meet the requirements of the standards. It is widely used in the fields of industry control equipment, house-holding appliance, medical electronics, communications electronics, components, auto control equipment and etc.



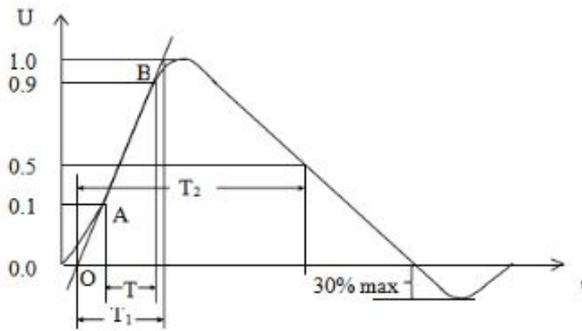
Features:

1. 7 inches LCD touch screen, with plentiful functions, easy to operation and update the software.
2. User can design the test program, and has 1000 groups memories.
3. Monitoring the surge voltage and current waveform by work with an external oscilloscope.
4. Built in single phrase 10A (16A) network, makes the equipment smaller and convenient. With high-strength plug in the panel, EUT can connect with the equipment convenient and reliable.
5. Monitoring the work voltage and current of the EUT. Overvoltage protection and overcurrent protection.
6. Intelligent test the surge output, warning at voltage error and no output.

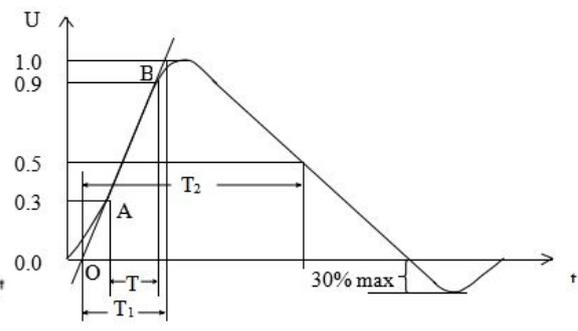
Parameters:

Model	LSG-6K10
Output voltage (open)	6kV (Max) $\pm 5\%$
Front time	1.2 $\mu$ s $\pm 30\%$
Time to half-value	50 $\mu$ s $\pm 20\%$
Output voltage (short)	3kA $\pm 5\%$ (max)
Front time	8 $\mu$ s $\pm 20\%$
Time to half-value	20 $\mu$ s $\pm 20\%$
Output polarity	Positive, negative, positive/negative automatically
Output impedance	2 $\Omega$ $\pm 10\%$
Trigger mode	Synchronization, asynchronization
Inject phrase	Freely set at 0—360°, resolution: 1°
Trigger mode	Auto or manual, single
Surge times	1-9999 times
Memories	1000 groups
Surge interval	20-9999s
Accuracy:	5%
CDN	AC: single phase 300V, 10A (16A Max), 50/60Hz
	DC: 300V, 10A (16A Max)
EUT power supply	AC 110-220V $\pm 10\%$ , 50/60Hz
Coupling mode	L-N, L-PE, N-PE, L+N-PE
Working environment	Temperature: 15°C—35°C humidity: 0%—75%
Power supply	AC 220 $\pm 10\%$ , 50/60Hz

Waveform:



Output Voltage (Open circuit)



Output Voltage (Short circuit)

#### 4. Voltage Dips and Short Interruption Generator

Introduction:

Voltage dips and short interruption generator is designed to simulate voltage dips, short interruption and voltage variations. The generator is completely meet the requirements of IEC61000-4-11 and GB/T17626.11. It is widely apply to all kinds of electronic equipment.



Parameters:

Model	CSS-20P1
Wave Generator	AC sine wave
Voltage dips:	0~265V±10% (1V step)
Dip phase set:	0~359°(1°step)
IEC level built in:	0%, 40%, 70%, 120% UT
Triggle mode:	Counting, 50ms
Durations for voltage dip:	0001~9999 cycles (1cycles step)
Interval for voltage dip:	0001~9999cycles (1 cycles step)
Environment:	Temperature: 10℃~35℃ Humidity: 30%~60%
Power:	Single phase, AC220V±10%,50 / 60Hz
Weight:	About 100kg

## 5. RWG-4K16 Ring wave Generator

### Introduction:

Ring wave generator is completely meet the requirements of IEC61000-4-12, GB/T17626.12 and ANSIC62.41/45. Ring wave generator is used for the simulating electrical network, the power supply of the reactive load the control line switch, as well as sensing the ring wave of the low voltage cables terminal equipment caused by the disconnection of the power circuit, fault and insulation breakdown or lightning stroke. It is widely used in electronic equipment.



### Parameters:

Voltage Oscillation frequency (open):	100kHz±10%
Output voltage(open):	(250V~4000V) ±10%
Frontier(open circuit voltage, T1, 10%~90%):	0.5μs±30%
Frontier(short circuit voltage, T2, 10%~90%):	≤0.9μs
Short circuit current at 3500V(PK1):	292A±10% @12Ω
	117A±10%@30Ω
Interval:	1s~99s
Impulse times:	1~9999times
Output mode:	Positive, negative, positive/negative auto
Output Impedance:	12Ω, 30Ω
Phrase:	asynchronous, synchronous
Coupling and decoupling network(CDN):	16A single Phrase or 20A 2phrases/5wires