Lightning Surge Simulator LSS-15AX Series

NoiseKen_®

Conforming to IEC61000-4-5

GENERAL

Surges represent transients that might be induced in cables by lightning. By their nature, fairly high energy charges may easily damage or upset unprotected electronics circuits and components. Surges are not a new problem. Many companies have been testing their products at various stages of the products life: design tests, qualification tests, production tests and diagnostic tests.

The advance of surge suppression devices and technique does not lessen the importance of surge testing, but rather increases it, as the requirement to reduce power consumption and to increase the operational speed of semiconductors has become more demanding. In addition, the issue of surge testing is attracting renewed interest since this form of immunity is now a must for almost all electronic products for access to the global market.

FEATURES

Fully compliant with the requirements called for in the 2nd edition of IEC 61000-4-5 standard, the LSS-15AX series simulators provide a testing facility for up to 15kV test voltage without sacrificing safety and ease of use. The LSS-15AX simulators generate the two combination pulses 1.2/50 us (8/20 uS) and 10/700 uS (5/320 uS).

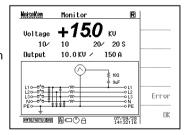
- Fully programmable and easy to use simulator that meets and far exceeds the IEC 61000-4-5 (2nd edition) requirements
- 15kV testing
- Advanced safety
- > Flexible test sequencing with Program Mode

MODEL: LSS-15AX-A1A

FUNCTION

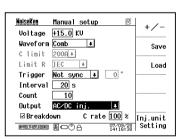
Peak level monitor

Values of the actual peak amplitudes are monitored and shown for both voltage and current.



Automatic stop function by detecting a breakdown

The simulator automatically stops generating the pulses if the peak current measured exceeds a limit, which can be freely set as the threshold



OPTIONS

- Insulation transformer unit
 - TF-2302P Input voltage: Single phase,240VAC max.(50/60H), Output current: 30A max.
 TF-6503P Input voltage: Single or 3-phase,600VAC max.(50/60 Hz), Output current: 50A max.
- Infra-red remote controller: Model:08-00006B
- Warning lamp: Model 11-00008A
- Memory Card: Model 08-00003A
- EUT interface (30A terminal blocks and multi-receptacle): Model 18-00048B
- Calibration cable set: Model: 05-00099A

SPECIFICATIONS

Item Models		LSS-15AX A1A	LSS-15AX C1A
		LSS-15AX A3A	LSS-15AX C3A
	Output waveform	1.2/50 μ s (8/20 μ s)	1.2/50 μ s(8/20 μ s)
•	Open circuit voltage		10/700 μ s (5/320 μ s)
	(short circuit current)		
Surge	Output voltage/current	15kV/7500A	15kV/7500A (1.2/50 μ s)
generating			15kV/375A (10/700 μ s, at output 40)
unit	Surge switching element	By Ignitron	
	Output polarity	Positive or negative	
	Surge repetition cycle	20 sec	20 sec. (1.2/50 μ s)
			30 sec. (10/700 μ s)
	Output impedance	2	2 (1.2/50 μ s)
			40 (10/700 μ s) with limiter resister)
AC/DC lines CDN	Injecting surge waveform	1.2/50 µ s	
	Injecting surge voltage/current	15kV/7500A maximum	
	Surge coupling	Between line and line:18 μ F Between line and PE: 10 +9 μ F	
	AC Power capacity	Single phase, AC240V/30A (LSS-15AX-A1A/C1A)	
		Single phase/3-phase, AC600V/50A (LSS-15AX-A3A/C3A)	
	Voltage drop	9V at 25A, 11V at 30A, 18V at 50A	
	DC Power capacity	DC60V/20A	
	Decoupling coil	1.5mH (each phase)	
	Decoupling capacitor	10 μ F (Between line and line, between line and PE)	
	Coupling phase angle control	0 ~ 360 ° (at 1 ° step)	
	Residual voltage	<15% of test	voltage or twice of rated voltages (peak) of EUT
Communication lines CDN	Injecting surge waveform		1.2/50 μ s
		_	10/700 μ s
	Injecting surge voltage	_	15kV max.
	Matching resistance		40 (1.2/50 μ s)
			25 (10/700 μ s)
	Total line number		4 lines
	Decoupling coil		20mH (each phase)
	Power capacity of EUT		DC50V 100mA
Voltage/ current monitor output	Voltage/current monitor	1/2000 (voltage monitor), 1000A/V (current monitor)	
	output ratio	W (
	Check circuit method		m measuring method by magnetic coupling
Auto control functions	Surge generating unit	Polarity selection	Surge waveform selection
		• Surge output port	Polarity selection
		selection	Output port selection
	A C/DC line - CDNI	• 10/700 μ s limiter resister selection	
	AC/DC lines CDN	 Surge injection line selection Coupling element selection 	
	Communication lines CDN	Coupling element selection	Matching resistance selection
	Communication lines CDN		• 2 lines/4 lines selection
			• Surge return line selection
Application	Operation mode	1) Manual test mode	0
function	Voltage/current monitor function	1)Peak level display	2)Break down detecting
	Communication function		-232C (Optional), GP-IB (Optional)
Power supply		AC90 ~ 120/200 ~ 240V 450VA 50/60Hz	
Dimensions (W) x (H) x (D)mm		555 X 1250 X 790 (A1A)	555 X 1500 X 790 (C1A)
		555 X 1500 X 790 (A3A)	555 X 1800 X 790 (C3A)
Weight		Approx. 200 kgs (A1A)	Approx. 270kgs (C1A)
		Approx. 200 kgs (A1A) Approx. 320 kgs (A3A)	Approx. 340kgs (C3A)
		Approx.320 kgs (A3A)	Approx. 340kgs (C3A)

Specifications are subject to change without notice.