

HIGH-VOLTAGE PULSE GENERATOR PG 10-700

Switching Surge
10 / 700 μ s

Lightning Surge
1.2 / 50 μ s

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The high-voltage pulse generator PG 10-700 creates standard impulse voltages with waveforms 1.2/50 μ s and 10/700 μ s. It is designed for dielectric testing of components and systems as well as testing of the electromagnetic compatibility of electronic systems and devices acc. to CCITT-K17/K20/K22, IEC 1000-4-5 VDE 0847 etc.

Output impulse voltage waveform can be selected:

- Lightning Surge with waveform 1.2/50 μ s acc. to IEC 60
- Switching Surge with waveform 10/700 μ s acc. to IEC 60

The peak value of the test voltage is continuously adjustable from 0.1 kV to 4.4 kV. Positive or negative polarity of output voltage can be selected. A built-in voltage divider 1000:1 allows monitoring of the impulse output waveform during testing.

The PG 10-700 excels by its compact design, simple handling and precise reproducibility of test impulses. The generator uses maintenance-free semiconductor switches.

The generator features a microprocessor controlled user interface and display for ease of use. The microprocessor allows the user to execute either standard test routines, or a 'user defined' test sequence. The test parameters, which are shown on the built-in display, are easily adjusted by means of the rotary encoder. A standard parallel interface provides the ability to print a summary of the test parameters whilst testing is being carried out.

Moreover, all generator functions may be computer controlled via the isolated optical interface. The software program PG 10-700 allows full remote control of the test generator, documentation and evaluation of test results.

External coupling networks designed for testing telecom equipment with up to 80 ports are available. They are controlled from the generator via optical link.

Technical specification:
PG 10-700
Mainframe:

Microprocessor controlled LCD module		8*40 characters
Parallel printer interface for on-line documentation		25-way 'D' connector
Optical-interface for remote control of the generator		built-in
Optical-interface for remote control of external CDN's		built-in
External Trigger input		10 V at 1 k Ω
External Trigger output		10 V at 1 k Ω
Diagnostic input for monitoring of the test device		4 channels, 5 V - Level
Connector for external safety interlock loop and external red and green warning lamps acc. to VDE 0104		24 V = 230 V, 60W
Mains power		230 V, 50/60 Hz
Dimensions: desk top case	W * H * D	471*156*520 mm ³
Weight		18 kg

Generator section:

Peak value of impulse output voltage, adjustable, 20 V steps		200 - 4400 V \pm 5%
Waveform of impulse output voltage, acc. to IEC 60		selectable:
Surge waveform, PFN acc. to CCITT K17/K22		1.2/50 μs 10/700 μs \pm 20%
Energy storage capacitor	C _S	1.0 μ F 20 μ F
Max. stored energy	W _E	10 J 200 J
Discharging resistor	R _E	75 Ω 50 Ω
Damping Resistor	R _D	13 Ω 15 Ω
Load capacitance	C _B	0.03 μ F 0.2 μ F
Resistor in series to the output	R _S	0 Ω / 2 *25 Ω
Output polarity, selectable		pos./neg.
Charging time		<15 sec
Impulse voltage divider, built-in		ratio 1000:1 \pm 2%
Trigger:	a) manual b) external Trigger input c) internal, automatics	push button 10 V / 1 k Ω test procedure

Option 1: Software PG-700 for remote control of the generator, incl. light guide, l = 5 m, and PC-Interface.