

# Surge Test Generator

## PG 24 - 2500c

**Surge voltage:**  
1.2/50  $\mu$ s, 0.5- 24 kV

**Surge current:**  
8/20  $\mu$ s, 0.2 - 12 kA

**acc. to:**  
IEC 61000-4-5,  
EN 61000-4-5,  
IEEE 587



The Surge Test Generator PG 24-2500c is a combined impulse current-/impulse-voltage generator which, for high-impedance loads,  $R_L > 100\Omega$ , delivers a standard impulse voltage with waveform 1.2/50 $\mu$ s and, for short-circuited output, a standard impulse current with waveform 8/20 $\mu$ s, as defined by IEC 60. The peak value of the pulse output voltage can be adjusted from 0.5 kV to 24 kV. The peak short circuit current amplitude is 12 kA.

The generator is designed for dielectric testing of components and systems or direct coupling to cable shields and shielding enclosures. PG 24-2500c consists of a microprocessor controlled control- and monitoring unit and a high-voltage unit, which contains the energy storage capacitor, the high-voltage switch and the pulse forming network.

The microprocessor control unit 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-TEST allows full remote control of the test generator and documentation and evaluation of test results.

**Technical specification:**
**PG 24-2500**
**Mainframe, control unit:**

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

External Trigger input	10 V at 1 k $\Omega$
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Connector for external safety interlock loop and external red and green warning lamps acc. to VDE 0104	24 V = 230 V, 60W
Mains power supply	230 V, 50/60 Hz

**HV-impulse generator:**

Peak value of the open-circuit output voltage Wave form acc. to IEC 60, VDE 0433	0.5 - 24 kV $\pm$ 10 % 1.2/50 $\mu$ s $\pm$ 30%/ $\pm$ 20%
Peak value of the short-circuit output current Wave form acc. to IEC 60, VDE 0433	0.2 - 12 kA $\pm$ 10% 8/20 $\mu$ s $\pm$ 20%

Polarity of surge output voltage / output current	+/- selectable
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max. stored energy	2500 J
Charging time at max. charging voltage	< 40 s

HV-output: High current terminals on the rear panel	HV-OUT
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Mains synchronous triggering: Phase shifting, digitally selectable	0 - 360 °
Display of peak values of impulse voltage and impulse current	

Monitor output for impulse voltage	2000 : 1 $\pm$ 5%
Monitor output for impulse current	12V $\equiv$ 12 kA $\pm$ 5%

Dimensions: 19"-cabinet, W * H * D	553*620*600 mm <sup>3</sup>
Weight	115 kg

**Option 1:** Software PG-TEST for remote control  
5 m fibre-optic cable and PC-interface