

# SURGE CURRENT GENERATOR

## PG 6 - 2402

**Surge current**

**8/20  $\mu$ s**

**2 \* ( 1 - 25 ) kA**

**acc. to IEC 60, VDE 0432**

**Surge current testing of  
surge protection devices**



The high-current pulse generator PG 6-2402 is designed for surge current testing of electrical components, over-voltage protectors and electronic circuits acc. to IEC, VDE etc. It generates standard impulse currents with waveform 8/20 $\mu$ s. Pulse current output amplitude can be set to 2 - 50 kA.

The generator has two pulse current outputs; it allows simultaneous testing of two-gap over-voltage protectors. Paralleling both outputs, the user can get up to 50 kA short circuit current amplitude. Using only one output with up to 25 kA peak output current is possible.

Pulse current output amplitude is controlled by preset of charging voltage. Positive or negative polarity of output current can be selected. The impulse current output is located at the top of the equipment and provides high-current connectors for a plug-in test adapter. A dielectric cover with safety interlock protects the high-voltage output terminals. Upon lifting of the cover, switching-off of the generator or mains blackout a built-in high-voltage grounding switch discharges the test object and the internal energy storage capacitor.

The pulse-forming network contains a high pulse-fidelity current viewing resistor for measurement of the output current amplitude and waveform with a scope.

The high-current pulse generator PG 6-2402 features a microprocessor controlled user interface and display unit for ease of use. The microprocessor allows the user to operate the generator manually or to generate, save and execute a 'user defined' test sequence. The test parameters, charging voltage, polarity number of pulses and pulse repetition time, 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.

The generator excels by its compact design, simple handling and precise reproducibility of test impulses. Moreover all generator functions may be computer controlled via the isolated optical interface.

**Technical specification:**

**PG 6-2402**

**Mainframe:**

Microprocessor controlled LCD display			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 kΩ
External Trigger output			10 V at 1 kΩ
Connector for external safety interlock loop and external red and green warning lamps acc. to VDE 0104			24 V = 230 V, 60W 230 V, 50/60 Hz
Mains power			
Dimensions:	19" rack	W * H * D	453*480*620 mm <sup>3</sup>
Weight			110 kg
<b>Pulse forming network:</b>	<b>surge current 8/20 μs,</b>		<b>50 kA</b>
Charging voltage, adjustable			0.25 - 6.25 kV
Surge current, (short circuit at the output) waveform acc. to IEC 60, VDE 0432			2 * ( 1 - 25 )kA ± 10 % 8 / 20 μs ± 20%
Max. stored energy			2400 Joule
Charging time for max. charging voltage			< 40s
High current output terminals:			12 mm Ø, connector
Monitor output for output current			25V ≡ 50 kA ± 5%

**Safety test cover:**

mounted on the top of the equipment,  
safety interlock loop connected to the limit switch,  
red an green warning lamps installed  
Dimensions: W \* H \* D

440\*180\*300 mm<sup>3</sup>