SURGE CURRENT GENERATOR

PG 10-10000

8/20 µs,
2 * 2 - 50 kA

pulse current test of
surge protection devices

The SURGE TEST GENERATOR PG 10-10000 delivers surge current pulses with the waveform 8/20µs, acc. to IEC 60. It was designed for testing surge protection devices. Moreover the generator can be used for testing two-gap over-voltage protectors. It delivers surge current pulses synchronous at two impulse current outputs, peak value adjustable 0.5 - 50 kA for each output. Positive or negative polarity of output current can be selected.

Output terminals are located on the top of the generator and are protected by an isolating cover, see option 1. The safety test cover has a limit switch, which is connected to interlock loop of the generator. Interrupting the safety interlock loop causes deenergization of the high-voltage pulse generator and discharging of the energy storage capacitor.

PG 10-10000 features a microprocessor controlled user interface and display unit for ease of use. The microprocessor allows the user to define and execute test sequences. 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.

Technical specification: **PG 10-10000**

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
External Trigger input			10 V at 1 kΩ
External Trigger output			10 V at 1 kΩ
Connector for external safety interlock loop			24 V =
and external red and green warning lamps acc. to VDE 0104			230 V, 60W
Mains power			230 V, 50/60 Hz
Dimensions:	desk top case	W * H * D	556*800*900 mm^3
Weight			24 kg

High-voltage unit, pulse generator section:

Charging voltage, adjustable			0.2 - 10 kV ± 2 %
max. energy stored			10 000 J
Waveform of short circuit output current, acc. to IEC 60 - 2			**8/20 µs** ±20%
Peak output current, adjustable by preset of charging voltage			**5 - 100 kA** ±10%
Polarity of pulse output current, selectable			POS/NEG/ALT
Output current terminals on the top of the equipment			
plug-in connectors, 12 mmØ, one terminal referred to ground			
Monitor output for pulse output current, built-in			0.5 mΩ, 1.0 MHz
Impulse triggering	a) manual		Push Button
	b) ext. trigger input		10 V / 1 kΩ
	c) internal, automatic		mc control
Mains synchronous triggering:			
	Phase shifting, digitally selectable		0 - 360 °
	Mains trigger pick-up for 230/400 Vac		built-in
Number of pulses, selectable			1 - 1000
Cycle time adjustable			100 - 1000 sec
Dimensions :19"-cabinet		W * H * D	ca. 553*1600*800 mm^3
Weight			165 kg

Option 1: PG **-*** software test package, for the external control of the device includes 5 m long fibre optic cable and PC Interface.

Option 2: Safety test cover on the top of the generator, PA 501.
Upon lifting of the cover, switching-off of the generator or mains blackout the test object and the internal energy storage capacitor are discharged by a built-in high-voltage grounding switch.
Dimensions: W * H * D 440*180*300 mm^3

Option 3: Safety test cover on the top of the generator, PA 504. see figure.
Upon lifting of the cover, switching-off of the generator or mains blackout the test object and the internal energy storage capacitor are discharged by a built-in high-voltage grounding switch.
Dimensions: W * H * D 440*280*500 mm^3