Surge Current

Generators PG 10-4000

Waveform:

10/50 µs
10/350 µs
10/700 µs
10/1000 µs

Surge current:

10 kA
500 A
1000 A

The surge current generators PG **-**** generate impulse currents with wave form 10/50 µs - 10/1000 µs acc. to IEC, VDE etc.. Pulse current output amplitude is controlled by preset charging voltage and can be adjusted up to the maximum value of the special type of generator. The generator is designed for testing electrical components, over-voltage protectors and electronic circuits. It possesses an electronically regulated high-voltage power supply, which allows an excellent reproducibility of the pulse output amplitude.

The pulse-forming network contains a pulse-fidelity current viewing resistor for monitoring the output waveform. The impulse current output is located at the top of the equipment and provides high-current connectors for a plug-in test adapter.

All generators feature a microprocessor controlled user interface and display unit for ease of use. The microprocessor allows the user to either execute 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.

Technical specification:

Mainframe:

Microprocessor controlled LCD display	8*40 characters
Remote control via optically isolated computer interface	5 m fibre optic cable
Parallel printer interface for on-line documentation	25-way ´D´ connector
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

OPTION 1: Remote control PC Software
Incl. 5 m long fibre optic cable and USB-PC Interface.

OPTION 2: Test chamber on top, build in 19" rack, with security glass door, safety interlock protects the high-voltage output terminals. Upon opening of the door, 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. Test space ca. W*H*D 470*530*490 mm³

OPTION 3: Current impulse triggering synchronization 0-360° to the zero crossing of the sinusoidal mains voltage, phase angle in steps of 1°.
Mains power (E.U.T. power supply) 400Veff / 50Hz
Without decoupling from HV – power supply.

OPTION 4: Galvanic isolated measurement of current impulse with a Pierson coil.

OPTION 5: Polycarbonate security door with solid hinges and fasteners made of stainless steel.

Surge Current Generator — PG 10-4000

Peak value of charging voltage, adjustable		0.2 - 10 000 V, ± 2%
Energy storage capacitor		75 µF / 10 kV
Charging time for max. charging voltage		60 sec
Impulse output current, adjustable via charging voltage		**10 - 500 A** ± 5 %
Waveform of impulse output current		**10 / 1000 µs** ±20 %
Current viewing resistor, built-in		20 mΩ, 20 MHz
Max. pulse repetition rate		1/60 sec
Dimensions: 19"-cabinet	W * H * D	ca. 553*1600*600 mm^3
Weight		125 kg