Surge Current Generators
PG **-****

Waveform
8/20 µs

Surge current:

40 kA - 100 kA

The surge current generators PG **-*** generate standard impulse currents with waveform 8/20 µs according to IEC, EN, VDE. 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 generators are designed for testing electrical components, over-voltage protectors and electronic circuits. They possess 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.

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Technical specification:

Mainframe:

Micro-processor 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.

Different types with output currents 40 kA up to 100 kA are available

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Technical Specifications:

Surge Current Generator PG 12-3600

Peak value of charging voltage, adjustable	0 - 12 000 V, ± 2%
Max. stored energy	3600 Ws
Charging time for max. charging voltage	< 60 sec
Waveform of impulse output current acc. to IEC 60-2	8 / 20 µs ± 20 %
Impulse output current, adjustable via charging voltage	**2 - 40 kA** ± 5 %
Output pulse polarity, switchable	POS/NEG/ALT
HV output: high current terminals on the top of the equipment	
Current viewing resistor, built-in	0.5 mΩ, 10 MHz
Max. pulse repetition rate	1/60 sec
Dimensions: 19"-cabinet W * H * D	ca. 553*1600*600 mm^3
Weight	95 kg

Surge Current Generator PG 12-5000

Peak value of charging voltage, adjustable,	0 - 12 500 V, ± 2%
Max. stored energy	5000 Ws
Charging time for max. charging voltage	< 60 sec
Waveform of impulse output current acc. to IEC 60-2	8 / 20 µs ± 20 %
Impulse output current, adjustable via charging voltage	**2 - 50 kA** ± 5 %
Output pulse polarity, switchable	POS/NEG/ALT
HV output: high current terminals on the top of the equipment	
Current viewing resistor, built-in	0.5 mΩ, 10 MHz
Max. pulse repetition rate	1/60 sec
Dimensions: 19"-cabinet W * H * D	ca. 553*1600*600 mm^3
Weight	95 kg

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Surge Current Generator — PG 15-5600

Peak value of charging voltage, adjustable,		0 - 15 kV, ± 2%
Max. stored energy		5600 Ws
Charging time for max. charging voltage		< 90 sec
Waveform of impulse output current		8 / 20 µs ± 20 %
Impulse output current, adjustable via charging voltage		**2 - 50 kA** ± 5 %
Output pulse polarity, switchable		POS/NEG/ALT
Current viewing resistor, built-in		0.5 mΩ, 10 MHz
Max. pulse repetition rate		1/100 sec
Dimensions: 19"-cabinet	W * H * D	ca. 553*1600*600 mm^3
Weight		165 kg

Surge Current Generator — PG 15-6600

Peak value of charging voltage, adjustable,		0 - 15 kV, ± 2%
Max. stored energy		6600 Ws
Charging time for max. charging voltage		< 90 sec
Waveform of impulse output current acc. to IEC 60-2		8 / 20 µs ± 20 %
Impulse output current, adjustable via charging voltage		**2 - 70 kA** ± 5 %
Output pulse polarity, switchable		POS/NEG/ALT
HV output: high current terminals on the top of the equipment		
Current viewing resistor, built-in		0.5 mΩ, 10 MHz
Max. pulse repetition rate		1/120 sec
Dimensions: 19"-cabinet	W * H * D	ca. 553*1200*600 mm^3
Weight		165 kg

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Surge Current Generator — PG 20-14000

Peak value of charging voltage, adjustable,	0 - 20 kV, ± 2%
Max. stored energy	14000 Ws
Charging time for max. charging voltage	< 120 sec
Waveform of impulse output current	8 / 20 µs ± 20 %
Impulse output current, adjustable via charging voltage	**2 - 100 kA** ± 10 %
Output pulse polarity, switchable	POS/NEG
Current viewing resistor, built-in	0.25 mΩ, 10 MHz
Max. pulse repetition rate	1/120 sec
Dimensions: 19"-cabinet W * H * D	ca. 553*2000*600 mm^3
Weight	265 kg

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Surge Current Generator PG 30-12 500

Charging voltage adjustable	0.2 - 30 kV ± 2 %
Max. stored energy	12 500 Ws
Charging time for max. charging voltage	< 120 sec
Waveform of impulse output current acc. to IEC 60 - 2	**8/20 µs** ±20 %
Impulse output current, adjustable via charging voltage	**1 - 60 kA** ±10 %
Output pulse polarity, fixed	NEG
Surge current output terminal	high current plug
Current viewing resistor, built-in	0.25 mΩ, 10 MHz
Max. pulse repetition rate	1/120 sec
Dimensions: : rack	ca. 1000*1100*600 mm^3

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