High Current Pulse Generator

PG 10-7k

Surge Current

10 / 350 µs

Surge Voltage
1,2 µs

For surge current testing of lightning protection components

The High Current Pulse Generator type PG 10-7k generates lightning surge currents with the waveform 10 / 350µs according to IEC, VDE etc.

The peak value of the surge current can be continuously adjusted by varying the charging voltage up to the maximum value. The generators are used for shock testing of electrical components, surge arresters and electronic circuits.

The pulse current output is located on the top side and has high-current sockets to accommodate a pluggable test adapter. The pulse-forming network contains a broadband current measuring resistor for monitoring the pulse current.

With the help of the microprocessor-controlled operating and display unit, the user can define test sequences, store them in the device and execute them. The test parameters: charging voltage, polarity, number of pulses and repetition rate are set via a digital rotary encoder and shown in the display.

The test parameters can be logged on a printer during the test.

Technical specifications:	PG10-7k
Basic device, control	
Microprocessor control, display with LCD module	8*40 Character
Optically isolated interface for remote control of the generator	built-in
Parallel printer interface for online logging	D 25 pol
External trigger input	10 V an 1 kEll
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Connections for external safety circuit	24 V =
as well as external red and green warning lamps according to VDE 0104	230 V, 60W
mains connection	230 V , 50/60 Hz
Construction: 19 "small cabinet, on driving base, B * H * T	ca. 553*800*1250 mm^3
Weight	240 kg
High-voltage charger	
Charging voltage adjustable	0.2 - 10 kV ± 2 %
charging capacitor	140uF
Max. Energy Content	7000 Ws
Max. Charging time	< 60 sec
Max. Repetition	1/80 sec
Pulse shaping network	
Curve shape of the short-circuit current, according to IEC 60060-2	**10 / 350 µs** ±20 %
Current peak value, adjustable via charging voltage	**50 - 2500 A** ±10 %
Voltage rise idle	**1.2 µs** ±30 %
Polarity of the pulse output variable, switchable	POS/NEG/ALT
High current output, sockets rear device	12 mm Ø
Ground connection for grounding the device	12 mm Screw.
Impulse current measuring resistor, built-in	2 mΩ, 1.0 MHz
Option: Remote control	
Remote control PC software incl. 5 m long fiber optic cable and USB-PC interface.	
Option: test chamber	
Test chamber in 19 "cabinet, with safety glass door and safety switch, protects against HV output terminals. When the test chamber door is opened, the generator is switched off, or the mains voltage fails, the earthing switch closes and discharges the test object and the internal storage capacitor.	Testing Room ca. W*H*D 470*530*490 mm^3
Option: Synchronization	
Current pulse trigger synchronization 0-360 ° to the zero crossing of the sinusoidal AC voltage, phase angle adjustable in increments of 1 ° Supply voltage (E.U.T. power supply) 400Veff / 50Hz Without decoupling from HV - AC power supply.	
Option: Pearson Coil	
Galvanically isolated measurement of the current pulse with a Pierson coil.	
Option: Security Door	
Polycarbonate security door with solid stainless-steel closures.	