

PG 5-200 / PG 10-1000

High voltage pulse generator

Lightning Surge	1.2 / 50 μ s
Switching Voltage	10 / 700 μ s
Switching Current	5 / 350 μ s



According to

CCITT-K17/K20/K22

ITU-T/K44

IEC 61000-4-5

VDE 0847

The high-voltage pulse generator PG 5-200/ 10-1000 creates standard impulse voltages with waveforms 1.2/50 μ s and 10/700 μ s. It is designed for dielectric testing of components and systems as well as testing of the electromagnetic compatibility of electronic systems and devices acc. to CCITT-K17/K20/K22, ITU-T/K44, IEC 61000-4-5 etc.

Output impulse voltage waveform can be selected:

- Lightning Surge with waveform 1.2/50 μ s acc. to IEC 60060
- Switching Voltage with waveform 10/700 μ s acc. to IEC 61000-4-5
- Switching Current with waveform 5/320 μ s acc. to IEC 61000-4-5

Sales Partner:



ABSOLUTE EMC Llc.
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Page 1 of 3
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The peak value of the test voltage is continuously adjustable from 0.2kV/ 0.5kV to 5kV/ 10kV. Positive or negative polarity of output voltage can be selected. A built-in voltage divider 1000:1 allows monitoring of the impulse output waveform during testing.

The generator excels by its compact design, simple handling and precise reproducibility of test impulses. The generator uses maintenance-free semiconductor switches. It features a microprocessor controlled user interface and a 7" touch screen unit for ease of use. The microprocessor allows the user to execute either standard test routines or a "user defined" test sequence. A standard USB port provides the ability to print a summary of the test parameters as well as the results to a USB stick.

Moreover, all generator functions may be computer controlled.

The software program PG-REMOTE allows full remote control of the test generator via fiber optic Ethernet interface as well as documentation and evaluation of test results, accordingly to the IEC 17025. To record definite impulses, it is equipped with an Impulse Recording Function (IRF)

External coupling networks designed for testing telecom equipment with up to 8 ports are available.

Options	PG 5-200	PG 10-1000
PC software for remote control	PG-REMOTE	
PG Remote software test package, running under Microsoft Windows, for the external control of the device (XP, WIN7, WIN10) includes 5 m long fibre optic cable and Ethernet PC Interface		
External coupling/ decoupling network	CDN	
4 wire/ 8 wire; 5kV acc. IEC 61000-4-5	CDN 504/ CDN 508	
4 * 100 Ω	KN100-4	
PROTECTIVE COVER ON THE EQUIPMENT TOP	PA	
With safety interlock switch, connected to the safety interlock loop, red and green warning lamps installed acc. VDE 0104		
Type PA 503, Dimensions W * H * D	400 * 140 * 300 mm ³	
Type PA 505, Dimensions W * H * D	400 * 250 * 400 mm ³	
Version without protective cover		
TYPE PG 10-1KE	PG 10-1ke	
Pulse forming network acc. to IEC 60065		
Cs = 1 nF, Rs = 1kΩ		

Other configurations: PG 5-200-2:



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Page 2 of 3
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TECHNICAL SPECIFICATIONS		PG 5-200		PG 10-1000	
Mainframe					
Microprocessor controlled touch panel		7", capacitive			
Optical Ethernet Interface for remote control of the generator		optional			
Interface for saving reports		USB			
External Trigger input / output		Switch / 10 V			
Connector for external safety interlock loop and external red and green warning lamps acc. to VDE 0104		24 V = 24 V=, 40mA			
Mains power		90V - 264V, 50/60 Hz		230V, 50/60 Hz	
Dimensions: desk top case W * H * D		450 * 180 * 500 mm ³		450 * 330 * 500 mm ³	
Weight		22 kg		35kg	
High- Voltage Pulse Generator:					
Impulse output voltage, adjustable $\pm 10\%$		0.2 - 5 kV		0.5 – 10 kV	
Waveform of impulse output voltage		Selectable (acc. to IEC 60600) Tol. $\pm 30/\pm 20\%$:			
Surge waveform, acc. IEC60600-1		1.2/50 μ s	10/700 μ s	1.2/50 μ s	10/700 μ s
Energy storage capacitor	C _S	1.0 μ F	20 μ F	1.0 μ F	20 μ F
Max. stored energy	W _E	13 J	250 J	50 J	1000 J
Discharging resistor	R _E	76 Ω	50 Ω	76 Ω	50 Ω
Damping Resistor	R _D	13 Ω	15 Ω	13 Ω	15 Ω
Load capacitance	C _B	0.03 μ F	0.2 μ F	0.03 μ F	0.2 μ F
Waveform of impulse output current, front time/tail time		5/320 μ s		Tol. $\pm 20\%$	
Resistor in series to the output	R _S	0 Ω R _{Ges} =R _D + R _S = 13 Ω	2 * 25 Ω R _{Ges} =R _D + R _S = 40 Ω	0 Ω / 25 Ω / 25 Ω	
Output polarity, selectable		pos / neg /alt			
Trigger: a) manual		push button			
b) external Trigger input		switch			
c) internal		automatic			
Repetition time, selectable		5-1000 s	20-1000 s	5-1000 s	20-1000 s
Impulse voltage divider, built-in		v= 1000:1 $\pm 2\%$, 50 W			
Current Sense:					
Threshold value, selectable		1-500 μ As	1-2500 μ As	-	-
Current sense working range		0.2 kV - 5kV		-	
Impulse voltage divider, built-in		ratio 1000:1 $\pm 5\%$		-	
HV output, HV-OUT		HV connector		-	
Mains synchronous triggering, phase shifting		0 - 360 °, step 1°		-	
Accessories					
Mains cable, key, operation instructions					