HIGH-VOLTAGE PULSE GENERATOR
PG 5-200-1

Switching Surge
10 / 700 µs

CCITT K17-K22
ITU – T, K44

The high-voltage pulse generator PG 5-200 creates standard impulse voltages with waveform 10/700 µs. 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:

- Switching Surge with waveform 10/700 µs acc. to IEC 60060

The peak value of the test voltage is continuously adjustable from 0.2 kV to 5 kV. 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 PG 5-200 excels by its compact design, simple handling and precise reproducibility of test impulses. The generator uses maintenance-free semiconductor switches.

The generator excels by its compact design, simple handling and precise reproducibility of test impulses. It features a microprocessor controlled user interface and a 5” 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 to a USB stick.

The software program HILO-REMOTE allows full remote control of the test generator via Ethernet light guide 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). Moreover all generator functions may be computer controlled via the isolated optical interface.

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

Technical specification:	**PG 5-200-1**
Mainframe	
Microprocessor controlled touch panel	5”, 800X480, 24 bit
Optical Ethernet Interface for remote control of the generator	optional
Interface for saving reports	USB
External trigger input /output	10 V at 1 kΩ
Nominal voltage, nominal current	250 V, 16 A ≈ / 10 A =
Connector for external safety interlock loop	24 V =
External red and green warning lamps	230 V, 60W
Mains power	230 V, 50/60 Hz
Dimensions of desk top case W * H * D	450*185*500 mm^3
Weight	25 kg
Generator section:	
Peak value of impulse output voltage, adjustable, 1 V steps	200 V - 5000 V ± 10%
Waveform of impulse output voltage, acc. to IEC 60600	selectable:
Surge waveform, acc. IEC60600-1	10/700µs ±30/±20%
Energy storage capacitor C_S	20 µF
Max. stored energy W_E	200 J
Discharging resistor R_E	50 Ω
Damping Resistor R_D	15 Ω
Load capacitance C_B	0.2 µF
Resistor in series to the output R_S	2 * 25 Ω $R_{Ges}=R_D+R_s$ = 40Ω
Output polarity, selectable	pos / neg /alt
Trigger: a) manual	push button
b) external Trigger input	10 V / 1 kΩ
c) internal, automatic, adjustable via test procedure	1 – 1000 pulses
Repetition time, selectable	20-1000 s
Impulse voltage divider, built-in	ratio= 1000:1 ± 2 %, 50 W
Current Sense:	
Threshold value, selectable	1-2500 µAs
Current sense working range	0.2 kV - 5kV-max
Impulse voltage divider, built-in	ratio 1000:1 ± 2%
HV output, HV-OUT	HV connector
Mains synchronous triggering, phase shifting, digitally selectable	0 - 360 °, step 1°
Accessories: power cable, turn key, instruction manual	
Option :	
Software IPG-REMOTE, for remote control	
With Impulse Recording Function (IRF)	
(XP, WIN7) incl. 5 m fibre optic cable and PC Ethernet interface	
Option:	
External coupling / decoupling network, CDN 304, 4 wire, acc. IEC 61000-4-5	