

# High-Voltage Pulse Generator

## PG 6 - 401

**Surge testing of  
X- and Y- capacitors**

**33 nF - 470 nF**

**0.2 - 6 kV**

**1.6 / 47  $\mu$ s**

**IEC 60384-14, EN 132400  
VDE 0565**



The High-Voltage Pulse Generator Type PG 6-401 is designed for dielectric testing of X- and Y-capacitors with standard impulse voltages 1.6/47  $\mu$ s up to 6 kV acc. to IEC 384-14, etc. The generator has the same principle of operation as the IPG 809 but allows testing capacitance values of 33 nF - 470 nF.

The impulse voltage output connectors are located at the top of the equipment and are protected by a dielectric cover with safety interlock. Upon lifting of the cover, 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 devices are connected to a plug-in test adapter.

The pulse generator PG 6-401 features a microprocessor controlled user interface and display unit for ease of use. The microprocessor allows the user to operate the generator manually or to generate, save and execute a 'user defined' test sequence. The test parameters, charging voltage, polarity number of pulses, pulse repetition time 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.

Moreover all generator functions may be computer controlled via the isolated optical interface.

The generator excels by its compact design, simple handling and precise reproducibility of test pulses.

The generator uses maintenance-free semiconductor switches for surge current generation.

<b>Technical specifications</b>	<b>PG 6-401</b>
<b>Mainframe</b>	
Microprocessor controlled LCD module	8*40 characters
Parallel printer interface for on-line documentation	25-way 'D' connector
Optical-interface for remote control of the generator	Built-in
External Trigger input	10 V an 1 kΩ
External Trigger output	10 V an 1 kΩ
Mains power	230 V / 50 /60Hz
Dimensions, 19" desk top case	453*320*520 mm <sup>3</sup>
Weight	25kg
<b>Pulse forming network for surge testing of capacitors</b>	
Surge voltage output amplitude, adjustable via charging voltage	0.2 - 6.0 kV ± 5 %
Waveform of impulse output voltage:	
Rise time	1.6 μs - 0/+50%
Release time	47 μs - 0/+50%
Polarity selectable	pos/neg
Max. energy content	400 Joule
Charging time at max. charging voltage	ca. 14 sec
Internal load capacitor	3300 pF ± 10%
Damping resistor Rs	selectable
Load capacitance Cx = 33 nF	25 Ω
Load capacitance Cx = 47 nF	13 Ω
Load capacitance Cx = 68 nF	9 Ω
Load capacitance Cx = 100 nF	7 Ω
Load capacitance Cx = 150 nF	5 Ω
Load capacitance Cx > 180 nF	3 Ω
Impulse voltage divider, monitor output, BNC	ü=1000:1 ±2 %
Impulse voltage output connector	6 mm Ø
<b>Safety test cover</b>	
Mounted on the top of the equipment, Safety interlock loop connected to the limit switch	
Dimensions, W * H * D	400 * 150 * 250 mm <sup>3</sup>
<b>Accessories</b>	
Power cable, turn key and instruction manual	
<b>Option PC software</b>	
PC Software for remote control of the generator, running under XP-WIN7, PC Interface USB/RS232, optically isolated and light guide, 5m	
<b>Option Connection PA 503</b>	
Connection of IPG 809 at the safety test cover PA 503, provided Safety interlock connection to IPG 809	