

High-Voltage Pulse Generator

PG 6 - 401

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

33 nF - 470 nF

0.2 - 6 kV

1.5 / 50 μ s

**IEC 384-14, EN 132400
VDE 0565(1999)**



The High-Voltage Pulse Generator Type PG 6-401 is designed for dielectric testing of X- and Y-capacitors with standard impulse voltages 1.5/50 μ 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 it's compact design, simple handling and precise reproducibility of test pulses.

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

Technical specification:
PG 6-401
Mainframe:

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 at 1 kΩ
External Trigger output			10 V at 1 kΩ
Mains power			230 V, 50/60 Hz
Dimensions:	desk top case	W * H * D	453*320*520 mm ³
Weight			25 kg

Pulse forming network for surge testing of capacitors: 33 - 470 nF

Surge voltage output amplitude, adjustable via charging voltage			0.2 - 6.0 kV ± 5 %
Waveform of impulse output voltage			1.5/50µs ± 30%
Polarity selectable			pos./neg.
Max. energy content,	Cs		400 J
Charging time at max. charging voltage			ca. 14 sec
Internal load capacitor			3300 pF ± 10%
Damping resistor,	Rs		selectable:
Load capacitance	Cx = 33 nF		16.0 Ω
Load capacitance	Cx = 47 nF		11.2 Ω
Load capacitance	Cx = 68 nF		8.0 Ω
Load capacitance	Cx = 100 nF		5.6 Ω
Load capacitance	Cx = 150 nF		3.64 Ω
Load capacitance	Cx = 220 nF		2.68 Ω
Load capacitance	Cx = 330 nF		1.82 Ω
Load capacitance	Cx = 470 nF		1.24 Ω
Impulse voltage divider			ratio=1000:1 ±2%
Impulse voltage output connector:			6 mm Ø

safety test cover:

mounted on the top of the equipment,			
safety interlock loop connected to the limit switch			
Dimensions:	W * H * D		400*150*250 mm ³

Acc.: power cable, turnkey, instruction manual.

OPTION 1: Software for remote control of the generator, running under Windows 98.
PC Interface card, optically isolated and light guide, 5 m long.

OPTION 2: Connection of IPG 809 at the safety test cover PA 501, provided.
Safety interlock connection to IPG 809.