

# HV-IMPULSE GENERATOR IPG 605 IPG 1012 IPG 1218

1.2 / 50  $\mu$ s  
0.20 kV – 6.25 kV  
0.20 kV - 10 kV  
0.25 kV - 12 kV



Picture: incl. Option 1

**Surge testing acc to:  
IEC/EN60664, VDE 0110, VDE 0411, VDE 0420 etc. Insulation test of inductors and coils**

High-Voltage Pulse Generators IPG 605 / 1012 / 1218 create standard impulse voltages with waveform 1.2 / 50  $\mu$ s acc. to IEC 60. They are designed for testing impulse dielectric strength of components, insulations, air- and surface flash-over gaps acc. to IEC/EN 60664, VDE 0110, VDE 0411, VDE 0420 etc..

The peak value of the test voltage is continuously adjustable from 0.2 - 6.25 / 10 / 12 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 generators possess two high-voltage outputs with different source impedance. The HV output terminals are located beyond a dielectric cover with safety interlock. The transparent test cabinet prevents accidental contact with live parts of the test object and allows observation of the test object during testing.

The generator output possesses a current monitor detecting breakdown or flashover of the test object. The threshold of the current monitor is adjustable.

The generator features a microprocessor controlled user interface and display for ease of use. The microprocessor allows the user to execute either standard test routines, or a 'user defined' test sequence. The test parameters, 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 software program IPG-TEST allows full remote control of the test generator and documentation and evaluation of test results.

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

**Technical specification:**
**IPG 605**
**IPG 1012**
**IPG 1218**
**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 k $\Omega$
External Trigger output		10 V at 1 k $\Omega$
Connectors for external safety interlock loop (not with Opt. 1) and external red and green warning lamps acc. to VDE 0104		24 V = 230 V, 60 W
Mains power		230 V, 50/60 Hz
Dimensions: 19" desk top case W * H * D		450*180*425 mm <sup>3</sup>
Weight		18 kg

**Generator section:**

Peak value of impulse output voltage, adjustable	0.2-6.25 kV	0.2-10 kV	0.25-12 kV
Tolerance of output voltage amplitude		$\pm 5\%$	
Waveform of impulse output voltage, acc. to IEC 60		1.2 / 50 - $\mu$ s	$\pm 30/20\%$
Max. stored energy	5 Joule	12 Joule	18 Joule
Energy storage capacitor	C <sub>S</sub>	0.25 $\mu$ F	
Load capacitance	C <sub>S</sub>	0.003 $\mu$ F	
Resistor in series to the output	R <sub>S</sub>	50 $\Omega$	
Output polarity, selectable		pos./neg.	
Trigger:	a) manual	push button	
	b) external Trigger input	10 V / 1 k $\Omega$	
	c) internal, automatic, adjustable via test procedure	1 – 1000 pulses	
	Repetition time, selectable	1-1000 sec	2-1000 sec
CURRENT SENSE, threshold value, selectable		50 - 500 $\mu$ As	
current sense working range		1 kV - V-max	
Impulse voltage divider, built-in		ratio 1000:1 $\pm 2\%$	

**OPTION 1:** Protective cover on the equipment top, PA 503, (see figure on page 1)  
 Dimensions: W \* H \* D, ca. 400 \* 150 \* 250 mm<sup>3</sup>  
 With safety interlock switch connected to the safety interlock loop,  
 red and green warning lamps installed, see picture on page 1.  
 + additional resistor in series to the output, R<sub>S2</sub> 500 $\Omega$

**OPTION 2:** Software IPG-TEST for remote control of the generator,  
 incl. light guide, l = 5 m, and PC-Interface.

**OPTION 3:** Description of Remote control commands included  
 Incl. PC-interface and light-guide 5 m long.