

# HV - IMPULSE GENERATOR IPG 1201

**Surge testing  
acc. to EN 60065**

**up to 12 kV**

**Measurement of  
Insulation resistance  
Riso > 2MΩ  
with test voltage 500V=**



The High-Voltage Pulse Generator IPG 1201 is designed for testing of impulse dielectric strength of components, insulation, air- and surface flashover gaps. It is specially used for testing surge withstand capability of insulation between accessible parts and hazardous live parts, e.g. terminals for connection of antenna and mains supply terminals, refer to EN 60065.

The design of the impulse generator IPG 1201 corresponds to the proposal of EN 60065 standard. The peak value of the test voltage is continuously adjustable from 0.2 kV to 12 kV respectively. Positive and negative polarity of output voltage can be selected. A built-in voltage divider 1000:1 allows monitoring of the impulse output waveform during testing.

In addition to that, the generator allows measuring of the insulation resistance after execution of the impulse test.

The insulation resistance must be higher than 2 MΩ, see EN 60065.

A test voltage of 500 V= is used for this measurement. The insulation resistance value measured is shown on the display.

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. The insulation resistance value, measured after the impulse test, and a PASS/FAIL mark is also printed in the test report.

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 impulses.

**Technical specification:**

**IPG 1201**

**Mainframe:**

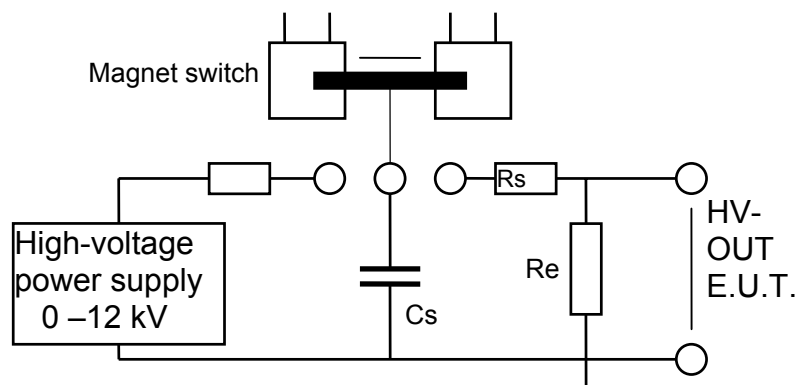
Microprocessor controlled LCD module	8*40 characters
Parallel printer interface for on-line documentation	25-way 'D' connector
Optical-interface for remote control of the generator	built-in
External Trigger input	10 V at 1 kΩ
External Trigger output	10 V at 1 kΩ
Connectors for external safety interlock 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	16.5 kg

**Generator section:**

Peak value of impulse output voltage, adjustable, ± 5%	0.1 - 12 kV
Max. stored energy	0.072 J
Energy storage capacitor C <sub>S</sub>	1.0 nF
Discharging resistor R <sub>E</sub>	4 MΩ
Series resistor R <sub>S</sub>	1 kΩ
Output polarity, selectable	pos./neg.
Charging time	< 2 sec
Trigger: a) manual	push button
b) external Trigger input	10 V / 1 kΩ
c) internal, automatic	test procedure
Pulse counter, pre selectable	1 - 1000 pulses
Pulse repetition rate	12 Imp. /min
Impulse voltage divider, integrated	ratio 1000:1 ± 2%

Measurement of insulation resistance R <sub>iso</sub> after the impulse test:	
test voltage for measuring R <sub>iso</sub>	500 V=
measuring range of insulation resistance	0.5 - 20 MΩ

PG 1201  
Schematic:



Technical specification subject to change

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