

IPG 1201

HV - IMPULSE GENERATOR

Surge testing 0.2-12 kV

Measurement of Insulation resistance $R_{iso} > 2M\Omega$ with test voltage 500V=



Picture: incl. Option PA 503

According to

IEC 60065:2001	Surge withstand capability of insulation between accessible parts and hazardous live parts
IEC 60950-1	

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 IEC 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 M Ω , see IEC 60065.

The test voltage for measuring the insulation resistance is 500 V =. The measured value of the insulation resistance is displayed.

The generator excels by its compact design, simple handling and precise reproducibility of test impulses. It features a microprocessor controlled user interface and a 7" 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 IPG-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.

Options	IPG 1201
PROTECTIVE COVER ON THE EQUIPMENT TOP	
With safety interlock switch, connected to the safety interlock loop, red and green warning lamps installed acc. VDE 0104	See figure
Type PA 503, Dimensions W * H * D	400 * 140 * 300 mm ³
Type PA 505, Dimensions W * H * D	400 * 250 * 400 mm ³
Version without protective cover	
Software IPG-REMOTE, for remote control	
With Impulse Recording Function (IRF)	
(XP, WIN7, WIN10) incl. 5m long light guide and PC Ethernet interface	

TECHNICAL SPECIFICATIONS		IPG1201
Mainframe		
Microprocessor controlled touch panel		7", capacitive
Optical Ethernet Interface for remote control of the generator		Optional
Interface for saving reports		USB
External Trigger input/ output		Switch/ 10V
Connector for external safety interlock loop		24 V=
External red and green warning lamps		24 V=, 40 mA
Mains power		90V – 264V / 50/60 Hz
Dimensions of desk top case W * H * D		450*180*500 mm ³
Weight		18kg
Generator section		
Peak value of impulse output voltage, adjustable, $\pm 5\%$		0.2-12 kV, $\pm 5\%$
Max. stored energy		0.072 J
Loading resistor R_S		15 M Ω
Energy storage capacitor C_1		1.0 nF
Series resistor R_1		1 k Ω
Discharging resistor R_2		100 M Ω
Voltage divider R_3		0,1 M Ω
Output polarity, selectable		pos./neg.
Charging time		< 2 sec
Trigger :		
a) manual		Push button
b) external Trigger input		Switch
c) internal, automatic, adjustable via test procedure		Program
Impulsecounter, selectable		1 - 1000 pulses
Repetition time, selectable		12 Imp./min
Measurement of insulation resistance Riso		
test voltage for measuring Riso		500 V=
measuring range of insulation resistance		0.5 - 20 M $\Omega \pm 5\%$