HV-IMPULSE GENERATOR

IPG 1218
IPG 1012
IPG 605

1.2 / 50 µs
0.25 kV - 12 kV
0.20 kV - 10 kV
0.20 kV - 6.25 kV

Picture: incl. Option PA 503

Surge testing acc to:
IEC 60664, VDE 0110, VDE 0411, VDE 0420
IEC 60335 : 2010
etc. Insulation test of inductors and coils

High-Voltage Pulse Generators IPG 1218 / 1012 / 605 generate standard impulse voltages with waveform 1.2 / 50 µs acc. to IEC 60060. They are designed for testing impulse dielectric strength of components, insulations, air- and surface flash-over gaps acc. to IEC.

The peak value of the test voltage is continuously adjustable from 0.2 - 6.25 / 10 / 12 kV. Positive or negative polarity of the 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 threatening 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 excels by its compact design, simple handling and precise reproducibility of test impulses. It features a microprocessor controlled user interface and a 5” 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.

TECHNICAL SPECIFICATIONS	IPG 605	IPG 1012	IPG 1218
Mainframe			
Microprocessor controlled touch panel	5”, 800X480, 24 bit		
Optical Ethernet Interface for remote control of the generator	optional		
Interface for saving reports	USB		
External Trigger input	10 V at 1 kΩ		
External Trigger output	10 V at 1 kΩ		
Connector for external safety interlock loop	24 V =		
External red and green warning lamps	230 V, 60W		
Mains power	230 V, 50/60 Hz		
Dimensions of desk top case W * H * D	450*185*500 mm^3		
Weight	18 kg		
Generator section			
Peak value of impulse output voltage, adjustable	0.2-6.25 KV	0.2-10KV	0.25-12 kV
Tolerance of output voltage amplitude	± 5%		
Waveform of impulse output voltage, acc. to IEC 60060	1.2 / 50 -µs ± 30/20%		
Max. stored energy	5 Joule	12 Joule	18 Joule
Energy storage capacitor Cs	0.25 µF		
Load capacitance Cl	0.003 µF		
Resistor in series to the output HV1 Rs1	500 Ω		
Resistor in series to the output HV2 Rs2	Standard 50Ω (opt. 40 or 200Ω)		
Output polarity, selectable	pos / neg / alt		
Trigger: a) manual	push button		
b) external Trigger input	10 V / 1 kΩ		
c) internal, automatic, adjustable via test procedure	1 – 1000 pulses		
Repetition time, selectable	1-1000 s	3-1000 s	3-1000 s
Current Sense			
Threshold value, selectable	1-830 µAs	1-1200 µAs	1-1500 µAs
Current sense working range	1 kV - V-max		
Impulse voltage divider, built-in	ratio 1000:1 ± 2%		
HV output, HV-OUT	HV connector		
Mains synchronous triggering, phase shifting, digitally selectable	0 - 360 °, step 1°		
Accessories: power cable, turn key, instruction manual			
Option :			
Protective cover on the equipment top	see figure on page 1		
With safety interlock switch connected to the safety interlock loop, red and green warning lamps installed	see figure on page 1		
PA 503, Dimensions:	400 * 150 * 250 mm^3		
PA 505, Dimensions:	400 * 250 * 400 mm^3		
Option :			
Software IPG-REMOTE, for remote control			
With Impulse Recording Function (IRF)			
(XP, WIN7) incl. 5m long light guide and PC Ethernet interface			
Option :			
Description of Remote control commands			
Incl. Ethernet PC-interface and 5m long light-guide			