HV - IMPULSE GENERATOR IPG 620 IPG 1050

1.2 / 50 µs
0.3 kV - 6 kV /
0.3 kV - 10 kV

Surge testing acc. to CCITT, ITU-T

HV - Impulse generators IPG 620 and IPG 1050 create standard impulse voltages with waveform 1.2 / 50 µs acc. to IEC 60. The generators simulate surges caused by switching of inductive loads, power system switching, lightning strokes etc.

They are designed for testing of impulse dielectric strength of components, insulation, air-and surface flash-over gaps as well as for testing surge immunity of devices and systems acc. to CCITT - K22, ITU-T-K44.

The peak value of the test voltage is continuously adjustable from 0.2 kV to 6 / 10 kV respectively. Positive, negative and alternat polarity of output voltage can be selected. A built-in voltage divider 1000:1 allows monitoring of the impulse output waveform 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.

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TECHNICAL SPECIFICATIONS	IPG 620	IPG 1050
Mainframe		
Microprocessor controlled touch panel	5”, 800X480, 24 bit	
Optical Ethernet Interface for remote control of the generator	optional	
Interface for saving reports	USB	
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	0.3 – 6 k V	0.3 - 10 kV
Tolerance of output voltage amplitude		
Waveform of impulse output voltage, acc. to IEC 60060	1.2/50 µs ± 30 % / 20 %	
Max. stored energy	20 Joule	50 Joule
Energy storage capacitor Cs	1 µF	
Discharging resistor R_E	76 Ω	
Series resistor R_S	13 Ω	
Load capacitance C_B	0.03 µF	
Resistor in series to the output R_O	25 Ω	
Output polarity, selectable	pos / neg / alt	
Loading time	5 sec	10 sec
Trigger: a) manual	push button	
b) external Trigger input	10 V / 1 kΩ	
c) internal, automatic, adjustable via test procedure	1 – 1000 Impulse	
Repetition time, selectable	5–1000 sec	10–1000 sec
Current Sense	build in	
Threshold value, selectable	1 - 3000 µAs	1 - 5000 µAs
Current sense working range	0.5 kV - V-max	1 kV - V-max
Impulse voltage divider, built-in	1000:1 ± 2 %	
HV output, isolated from ground, HV-OUT	0 - 359°, step 1°	
Mains synchronous triggering, phase shifting, digitally selectable	HV Stecker	
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		