IPG 605/ IPG 1012/ IPG 1218

**HV - IMPULSE GENERATOR**

# Surge testing 1.2/50µs 0.2-6.25 kV

**0.2-10 kV**

**0.25-12 kV**



Picture: incl. Option PA 503

|  |  |
| --- | --- |
| **According to** | |
| **IEC 60664** | Testing impulse dielectric strength of components, insulations, air- and surface flash-over gaps |
| **VDE 0110** |
| **VDE 0411** |
| **VDE 0420** |
| **IEC 60335 : 2010** | 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 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 605 IPG 1012 IPG 1218** |
|  | |
| **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 mm³ |
| Type PA 505, Dimensions W \* H \* D | 400 \* 250 \* 400 mm³ |
|  | |
| **Software IPG-REMOTE, for remote control** | |
| With Impulse Recording Function (IRF) | |
| ( XP, WIN7, WIN10 ) incl. 5m long light guide and PC Ethernet interface | |
|  | |
| **Version without protective cover, current shunt Rm = 1,** | |
| BNC for measuring on the back | |

|  |  |  |  |
| --- | --- | --- | --- |
| **TECHNICAL SPECIFICATIONS** | **IPG 605** | **IPG 1012** | **IPG1218** |
|  |  | | |
| **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 mm3 | | |
| Weight | 18kg | | |
|  |  | | |
| **Generator section** |  | | |
| Peak value of impulse output voltage, adjustable, ± 5 % | 0.2-6.25 kV | 0.2-10 kV | 0.25-12 kV |
| Waveform of impulse output voltage, acc. to VD 0433, IEC 60060 | 1.2/50 µs ± 30 % / 20 % | | |
| Max. stored energy | 5 Joule | 12 Joule | 18 Joule |
| Energy storage capacitor Cs | 0.25 µF | | |
| Resistor in series to the output HV1 Rs1 | 500 | | |
| Resistor in series to the output HV2 Rs2 | Standard 50 (opt. 40 oder 200) | | |
| Output polarity, selectable | pos / neg / alt | | |
|  |  | | |
| Trigger : |  | | |
| a) manual | Push button | | |
| b) external Trigger input | Switch | | |
| c) internal, automatic, adjustable via test procedure | 1 - 1000 pulses | | |
| Repetition time, selectable | 1-1000 s | 3 -1000 s | 3 -1000 s |
|  |  | | |
| CURRENT SENSE | built-in | | |
| Threshold value, selectable | 1-830µAs | 1-1200 µAs | 1-1500 µAs |
| Impulse voltage divider, built-in | 1000:1 ± 2 % | | |
| Mains synchronous triggering, phase shifting, digitally selectable | 0 - 359°, step 1° | | |
| HV output, HV-OUT | HV connector | | |
|  |  | | |
| Accessories: power cable, turn key, instruction manual |  | | |