

# HIGH-VOLTAGE IMPULSE GENERATOR

## PG 6 - 364

**Lightning surge:**  
**1.2 / 50  $\mu$ s**

**Switching surge:**  
**10 / 700  $\mu$ s**

**0.5 / 700  $\mu$ s**  
**1.0 / 700  $\mu$ s**  
**0.5 / 1000  $\mu$ s**  
**1.0 / 1000  $\mu$ s**

**CCITT, ITU-T, IEC, VDE**



The high-voltage impulse generator PG 6-364 generates standard impulse voltages with waveforms 1.2/50  $\mu$ s and 10/700  $\mu$ s. Output voltage is adjustable between 0.2 kV and 6 kV. The polarity of the output voltage is selectable. Positive, negative or alternating polarity of the output voltage can be preselected.

The generator is designed for dielectric testing of components and systems as well as testing of the electromagnetic compatibility of electronic systems and devices acc. to CCITT K17/K20/K22, ITU-T/K44, IEC 61000-4-5, VDE 0847.

The PG 6-364 excels by its compact design, simple handling and precise reproducibility of test impulses. A built-in voltage divider 1000:1 allows monitoring of the impulse output waveform during testing.

PG 10-504 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. The test parameters and even the settings of an external CDN, which are shown on the built in display, are easily adjusted by means of touch screen. A standard USB port provides the ability to print a summary of the test parameters to a USB stick.

Moreover, all generator functions may be computer controlled. The software program PG-REMOTE allows full remote control of the test generator via fiber optic Ethernet interface 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)

TECHNICAL SPECIFICATIONS	PG 6-364
<b>Mainframe</b>	
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	switch
External Trigger output	10 V an 1 k $\Omega$
Connector for external safety interlock loop	24 V =
External red and green warning lamps acc. to VDE 0104	230 V, 60W
Mains power	230 V, 50/60 Hz
Dimensions desk top case W * H * D	453*320*520 mm <sup>3</sup>
Weight	35 kg
<b>Pulse forming networks</b>	
Charging voltage, adjustable	0 - 6.3 kV
Polarity of the output pulse voltage selectable	pos/neg/alt
Charging time	< 15 sec
Impulse voltage outputs of the rear panel	coaxial
Current limiting resistors	0 $\Omega$ / 25 $\Omega$ / 25 $\Omega$
Impulse voltage divider integrated	ratio = 1000:1 $\pm$ 2%
<b>Impulse voltage 1.2/50<math>\mu</math>s</b>	acc. to CCITT / ITU-T K22, IEC
Energy storage capacitor	1.0 $\mu$ F / 6.3 kV
Max. stored energy	20 J
Discharging resistor	75 $\Omega$
Series resistor	13 $\Omega$
Load capacitor	0.03 $\mu$ F
Wave form front time/tail time	1.2 / 50 $\mu$ s $\pm$ 20%
<b>Impulse voltage 10/700<math>\mu</math>s</b>	acc. to CCITT / ITU-T K17/K20, IEC
Energy storage capacitor	20 $\mu$ F / 6.3 kV
Max. stored energy	400 J
Discharging resistor	50 $\Omega$
Series resistor	15 $\Omega$
Load capacitance	0.2 $\mu$ F
Wave form front time/tail time	10 / 700 $\mu$ s $\pm$ 20%
<b>Option: PG Remote</b>	
The software test package, running under Microsoft Windows, for the external control of the device includes 5 m long fibre optic cable and Ethernet PC Interface	
<b>Option</b>	
One additional wave form, alternative	built-in
<b>Impulse voltage 0.5/700 <math>\mu</math>s acc. to CNET</b>	PFN 0.5/700
Discharging resistor	50 $\Omega$
Series resistor	15 $\Omega$
Load capacitance	0.007 $\mu$ F
Wave form front time/tail time	0.5 / 700 $\mu$ s $\pm$ 30/20%
<b>Impulse voltage 1/700 <math>\mu</math>s</b>	PFN 1/700
Discharging resistor	50 $\Omega$
Series resistor	15 $\Omega$
Load capacitance	0.015 $\mu$ F
Wave form front time/tail time	1 / 700 $\mu$ s $\pm$ 30/20%

<b>Impulse voltage 0.5/1000 <math>\mu</math>s acc. to CNET</b>	PFN 0.5/1000
Discharging resistor	75 $\Omega$
Series resistor	15 $\Omega$
Load capacitance	0.007 $\mu$ F
Wave form front time/tail time	0.5 / 1000 $\mu$ s $\pm$ 30/20%
<b>Impulse voltage 1/1000 <math>\mu</math>s</b>	PFN 1/1000
Discharging resistor	75 $\Omega$
Series resistor	15 $\Omega$
Load capacitance	0.015 $\mu$ F
Wave form front time/tail time	1 / 1000 $\mu$ s $\pm$ 30/20%
<b>Option</b>	
<b>Impulse voltage 100/700 <math>\mu</math>s acc. to CCITT/ITU-T K17</b>	PFN 100/700
Impulse output voltage, adjustable	0.2-5.0 kV $\pm$ 10%
Discharging resistor	50 $\Omega$
Series resistor	15 $\Omega$
Load capacitance	2.0 $\mu$ F
Wave form front time/tail time	100 / 700 $\mu$ s $\pm$ 30/20%
<b>Additional accessories</b>	
Coupling network 4 * 100 $\Omega$	KN 100-4
Test cabinet	PA 503 / PA505