HIGH-VOLTAGE IMPULSE GENERATOR
PG 6 - 364

Lightning surge:
1.2 / 50 µs

Switching surge:
10 / 700 µs
0.5 / 700 µs
1.0 / 700 µs
0.5 / 1000 µs
1.0 / 1000 µs

CCITT, ITU-T, IEC, VDE

The high-voltage impulse generator PG 6-364 generates standard impulse voltages with waveforms 1.2/50 µs and 10/700 µs. 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

<table>
<thead>
<tr>
<th>PG 6-364</th>
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</table>

## Mainframe
- Microprocessor controlled touch panel
- 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 kΩ
- 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 mm³
- Weight: 35 kg

## Pulse forming networks
- 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 Ω / 25 Ω / 25 Ω
- Impulse voltage divider integrated: ratio = 1000:1 ± 2%
- **Impulse voltage 1.2/50µs** acc. to CCITT / ITU-T K22, IEC
  - Energy storage capacitor: 1.0 µF / 6.3 kV
  - Max. stored energy: 20 J
  - Discharging resistor: 75 Ω
  - Series resistor: 13 Ω
  - Load capacitor: 0.03 µF
  - Wave form front time/tail time: 1.2 / 50 µs ± 20%
- **Impulse voltage 10/700µs** acc. to CCITT / ITU-T K17/K20, IEC
  - Energy storage capacitor: 20 µF / 6.3 kV
  - Max. stored energy: 400 J
  - Discharging resistor: 50 Ω
  - Series resistor: 15 Ω
  - Load capacitance: 0.2 µF
  - Wave form front time/tail time: 10 / 700 µs ± 20%

## Option: PG Remote
- 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

## Option
- One additional wave form, alternative built-in
- **Impulse voltage 0.5/700 µs acc. to CNET** PFN 0.5/700
  - Discharging resistor: 50 Ω
  - Series resistor: 15 Ω
  - Load capacitance: 0.007 µF
  - Wave form front time/tail time: 0.5 / 700 µs ± 30/20%
- **Impulse voltage 1/700 µs** PFN 1/700
  - Discharging resistor: 50 Ω
  - Series resistor: 15 Ω
  - Load capacitance: 0.015 µF
  - Wave form front time/tail time: 1 / 700 µs ± 30/20%
### Impulse voltage 0.5/1000 μs acc. to CNET

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharging resistor</td>
<td>75 Ω</td>
</tr>
<tr>
<td>Series resistor</td>
<td>15 Ω</td>
</tr>
<tr>
<td>Load capacitance</td>
<td>0.007 µF</td>
</tr>
<tr>
<td>Wave form front time/tail time</td>
<td>0.5 / 1000 µs ± 30/20%</td>
</tr>
</tbody>
</table>

### Impulse voltage 1/1000 µs

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharging resistor</td>
<td>75 Ω</td>
</tr>
<tr>
<td>Series resistor</td>
<td>15 Ω</td>
</tr>
<tr>
<td>Load capacitance</td>
<td>0.015 µF</td>
</tr>
<tr>
<td>Wave form front time/tail time</td>
<td>1 / 1000 µs ± 30/20%</td>
</tr>
</tbody>
</table>

### Option

### Impulse voltage 100/700 µs acc. to CCITT/ITU-T K17

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impulse output voltage, adjustable</td>
<td>0.2-5.0 kV ± 10%</td>
</tr>
<tr>
<td>Discharging resistor</td>
<td>50 Ω</td>
</tr>
<tr>
<td>Series resistor</td>
<td>15 Ω</td>
</tr>
<tr>
<td>Load capacitance</td>
<td>2.0 µF</td>
</tr>
<tr>
<td>Wave form front time/tail time</td>
<td>100 / 700 µs ± 30/20%</td>
</tr>
</tbody>
</table>

### Additional accessories

- Coupling network 4 * 100 Ω: KN 100-4
- Test cabinet: PA 503 / PA505