

## High-Voltage Impulse Generator

PG 12 - 1440

Lightning surge: 1.2 / 50 µs 0.5 - 12 kV

Switching surge: 10 / 700 µs 0.5 - 12 kV

acc. to CCITT, ITU-T, IEC



The high-voltage impulse generator PG 12-1440 standard impulse voltages with waveforms  $1.2/50~\mu s$  or  $10/700~\mu s$ . Output voltage is adjustable between 0.5 kV and 12 kV. The polarity of the output voltage is selectable. Positive, negative or alternating polarity of the output voltage can be preselected.

It is designed for dielectric testing of components and systems acc. to CCITT-K17/K20-K22, ITU-T/K44, IEC 61000-4-5, VDE 0847. The pulse forming network is referred to ground. The high-voltage output is available at a coaxial connector.

A built-in voltage divider 1000:1 allows monitoring of the impulse output waveform during testing.

PG 12-1440 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.

External coupling units with  $4*25\Omega$  designed for testing telecom equipment at reduced output voltage are available. They are controlled from the generator via optical-link.

The software program HILO-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	PG 12-1440
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	switch
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	555*604*600 mm <sup>3</sup>
Weight	65 kg
High-voltage pulse generator	
Impulse output voltage, adjustable	0.2-12.0 kV ± 5%
Polarity of output voltage/current, selectable	pos/neg/alt
Charging time	< 25 sec
Pulse forming networks:	selectable
a)Impulse voltage 1.2/50µs acc. to CCITT / ITU-T K22	PFN 1.2/50
Energy storage capacitor	1.0 µF / 12 kV
Discharging resistor	76 Ω
Series resistor	13 Ω
Load capacitor	33 nF
Wave form: front time/tail time	1.2 / 50 µs ± 30%/±20%
b)Impulse voltage 10/700µs acc. to CCITT / ITU-T K17/K20, IEC 1000-4-5	PFN 10/700
Energy storage capacitor	20 μF / 14.6 kV
Discharging resistor / Series resistor	50 $\Omega$ / 15 $\Omega$
Load capacitance	0.2 μF
Wave form: front time/tail time	10 / 700 μs ± 20%
Direct pulse voltage output on the rear panel	HV-Out coaxial
Coupling impedance output A and B	2 x 25 Ω
for connection of external coupling devices  Monitor output for pulse output voltage	ratio = 1000 : 1 ± 5%
Option :	
Software HILO-REMOTE, for remote control	
With Impulse Recording Function (IRF)	
( XP, WIN7, WIN8, WIN10 ) incl. 5m long light guide and PC Ethernet interface	
Option :	
Description of Remote control commands	
Incl. Ethernet PC-interface and 5m long light-guide	
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