

High-Voltage Impulse Generator

PG 20 - 4000

Lightning surge:

Pulse Voltage:
20 kV, 10 / 700 μ s

Pulse Current:
500 A, 5 / 320 μ s

acc. to CCITT/ITU-T etc.



The high-voltage impulse generator PG 20-4000 generates standard impulse voltages with waveform 10/700 μ s. Output voltage is adjustable between 1 kV and 20 kV. The polarity of the output voltage is selectable, positive or negative.

It is designed for dielectric testing of components and systems acc. to CCITT K17/K20/K22, ITU-T/K44, IEC 61000-4-5, EN 61000-4-5, VDE 0847. One high-voltage output with a series resistor of 25 Ω for direct testing of surge protection devices is available. The short circuit current with the waveform 5/310 μ s can be adjusted up to 500 A by selection of charging voltage.

PG 20-4000 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 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 20-4000
Mainframe:	
Microprocessor controlled touch panel	7", 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 k Ω
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*800 mm ³
Weight	110 kg
High-voltage pulse generator	
Impulse output voltage, adjustable	1-20 kV \pm 5%
Polarity of pulse output, selectable	pos/ neg / alt
Max. energy stored	4000 J
Charging time, max.	< 50 sec
max. repetition rate	1/60 sec
Pulse forming network	
	10/700 μ s
Peak output voltage, adjustable by preset of charging voltage	1 - 20 kV \pm 5%
Wave form of open loop output voltage: front time/tail time	10 / 700 μ s \pm 30%/20%
Peak output current, adjustable by preset of charging voltage	25 - 500 A \pm 10%
Waveform of short circuit output current: front time/tail time	5/320 μ s \pm 20%
Option :	
Software HILO-REMOTE, for remote control (Windows)	
With Impulse Recording Function (IRF)	
Incl. 5m long light guide and PC Ethernet interface	
Option :	
Description of Remote control commands	
Incl. Ethernet PC-interface and 5m long light-guide	
Option :	
Different test cabinets	
Option:	
Impulse voltage divider integrated	ratio = 1000:1 \pm 5%
Monitor output for pulse output current, built-in	20 m Ω , 1.0 MHz