

Surge Current Generator PG 20 - 14000

Waveform:
8/20 μ s / +/-10%

Surge current amplitude:
up to 100 kA

acc. Standard IEC 61643-11



The surge current generators PG20-14000 generate standard impulse currents with waveform 8/20 μ s according to IEC, EN, VDE. Pulse current output amplitude is controlled by preset charging voltage and can be adjusted up to 100 kA.

The generator is designed for testing electrical components, over-voltage protectors and surge protection devices. The generator possess an electronically regulated high-voltage power supply, which allows an excellent reproducibility of the pulse output amplitude.

The pulse-forming network contains a pulse-fidelity current viewing resistor for monitoring the output waveform. The impulse current output is located at the top of the equipment and provides high-current bolts M12 with a changing test adapter M12.

The generator features a microprocessor controlled user interface and display unit for ease of use. The microprocessor allows the user to either execute standard test routines, or a 'user defined' test sequence. The test parameters, which are shown on the built in display, are easily adjusted by means of the rotary encoder. A standard parallel interface provides the ability to print a summary of the test parameters whilst testing is being carried out.

TECHNICAL SPECIFICATIONS	PG 20-14000
Control unit:	
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 k Ω
Diagnostic input for monitoring of the test device	4 channels, 5 V - Level
Mains supply voltage	230V / 50-60 Hz
Build in 19"-cabinet	
Internal red and green warning lights according to VDE 0104	220V/60W
Pulse generator section:	
Max. stored energy	14000 Ws
Peak value of charging voltage, adjustable,	0 - 20 kV, \pm 2%
Charging time for max. charging voltage	< 117 sec
Waveform of impulse output current 30 – 100 KA	8 / 20 μ s \pm 10 %
Impulse output current, adjustable via charging voltage	5 - 100 kA \pm 10 %
Output pulse polarity, switchable	POS/NEG
Pulse repetition rate for 100 KA	1/117 sec
Pulse repetition rate for 40 KA (and with Varistor with Vv=1800V on HV output)	< 1/60 sec
Current viewing resistor, built-in	0.25 m Ω (1 m Ω), 10 MHz
Impulse current output terminals: in the test chamber	M12 bolts
test adapter on the output terminals	M12 bolts
Ground rod	in test chamber
Dimensions: 19"-cabinet W * H * D	ca. 560*1950*950 mm ³
Weight	265 kg
OPTION: Remote control PC Software, with Impulse Recording Function (IRF) (XP, WIN7) incl. 5m long light guide and PC Ethernet interface	
OPTION: Test chamber on top, build in 19" rack, with security glass door, safety interlock protects the high-voltage output terminals. Upon opening of the door, switching-off of the generator or mains blackout a built-in high-voltage grounding switch, discharges the test object and the internal energy storage capacitor Test space ca. W*H*D 470*530*490 mm ³	
OPTION: Current impulse triggering synchronization 0-360° to the zero crossing of the sinusoidal mains voltage, phase angle in steps of 1° Mains power (E.U.T. power supply) 400V/50Hz, 0.5A Without decoupling from HV - power supply	
OPTION: Galvanic isolated measurement of current impulse with a Pearson coil, Model 1432	
OPTION: Polycarbonate security door with solid hinges and fasteners made of stainless steel	