

Technical specifications

(in conformity with IEC 801-2)

Discharge voltage V_0 (air-discharge)	2 - 25 kV (0.2 - 2.5 kV optional)
Discharge voltage V_0 (with contact discharge adapter)	2 - 9 kV
Polarity	positive/negative
Discharge capacitor C_s	150 pF \pm 10 %
Discharge resistor R_d	330 Ω \pm 10 % or other value, depending on the discharge network
Operating modes	single/repetitive discharge
Test finger	conforms to IEC 801-2
Max. discharge energy	350 mJ (47 mJ at 150 pF)
Rise time (air-discharge)	< 1 ns for voltages \leq 8 kV
Rise time (with contact discharge adapter)	0.7 - 1 ns
First current peak (with contact discharge adapter) at a voltage set to:	2 kV 7.5 A \pm 10 % 4 kV 15 A \pm 10 % 6 kV 22.5 A \pm 10 % 8 kV 30 A \pm 10 %
Current pulse shape	conforms to IEC 801-2
Voltage indication tolerance (LCD)	\pm 5 %
Holding time	> 5 s
Charging resistor R_{ch}	100 M Ω



Generator NSG 432

The generator housing, in a handy pistol shape, is formed from robust ABS onto which one or other of the many HV discharge networks can be mounted to suit the application. A multi-turn potentiometer enables the necessary high voltage to be easily set; the actual voltage being shown on an LC-display. A toggle switch sets the operating mode to either a single pulse or repetitive pulsing at 20 Hz. Pulse triggering is by means of a press-button integrated into the hand-grip. A flexible, coiled cable connects the generator to its power supply. A tripod mount is provided for testing that requires a large number of discharges.

Important ESD Standards

- IEC 801-2
Electrostatic discharge Requirements
- EN 55101-2
ESD Requirements
- ISO/CD 10605/E
Road Vehicles - Electrical Disturbance from
Electrostatic Discharges
- SAE J1113, Part 5
Susceptibility to Electrostatic Discharges
- ANSI - IEEE
Guide for electrostatic discharge test methodo-
logies and criteria for electronic equipment
- VDE 0847, Part 2
Measurement techniques for the assessment of
electromagnetic compatibility (Messverfahren
zur Beurteilung der elektromagnetischen Ver-
träglichkeit)
- ECMA
- European computer manufacturers association
- ESD immunity testing of ITE, TR/40
- MIL-STD-883C
Electrostatic Discharge Sensitivity Classification
- etc.