

ESD - simulator IEC, ISO, ANSI,...

SESD 30000

With self-test of the simulator



Saving costs for re-calibration

Absolutely necessary for automatically tests



- ◆ 30 kV air discharge and 30 kV contact discharge
- ◆ Version SESD 30000 - A Battery and / or main operation
- ◆ Automatic charge absorber integrated
- ◆ Plug-in R and C networks - it is possible to combine various C - modules and R – modules

Introduction

The ESD simulator SESD 30000 can be used for EMC tests on systems and installations according to the standards IEC / EN 61000-4-2 and ISO 10605 (Automotive).

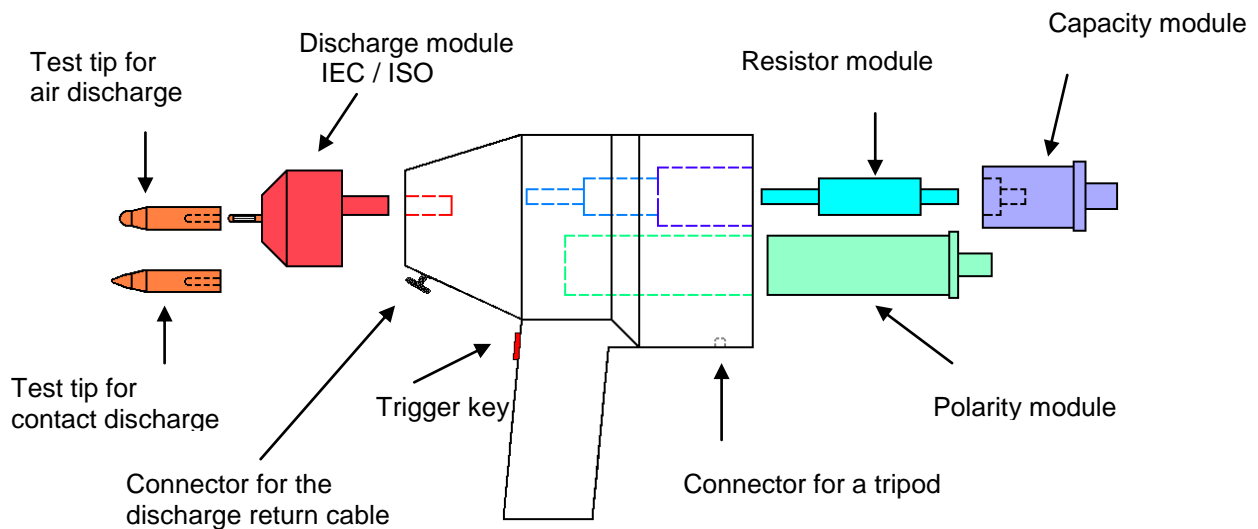
The flexible set-up of the SESD 30000 allows further tests according to different standard and customer definitions.

Benefits

- ◆ Capacity modules available up to 1000 pF
- ◆ Resistor modules available from 50 Ohm up to > 5 kohm; **Special module 0 Ohm** (only for air discharge)
- ◆ **Automatic polarity switching module** (optional)
- ◆ **Fast Rise Time module to 0,3 ns** (optional). Possibility of stricter and more aggressive tests (e.g. ANSI)
- ◆ Desktop control unit with a **big display** and digits which are easy to read
- ◆ All **modules** are being **electronically recognised** – the result is shown on the display
- ◆ **Ergonomic grip** with big trigger key
- ◆ **Big keys** for easy and fast parameter adjustments
- ◆ User defined adjustments possible as following: contact discharge with contact control or external triggering via separate key
- ◆ Remote control including RS 232 optical set with 10 m fibre optics cable and control software (optional)
- ◆ Self-test of the ESD-generator, adjustment by remote control or service menu

Example: test level and voltages according to IEC and ISO

| | | |
|---------------------|--------------------------------|--|
| IEC / EN 61000-4-2: | | -> 150 pF / 330 Ohm, discharge voltage up to 30 kV |
| ISO TR 10605: | Tests from inside the vehicle | -> 330 pF / 330 ohm and 2000 Ohm, up to 30 kV |
| | Tests from outside the vehicle | -> 150 pF / 330 ohm and 2000 Ohm, up to 30 kV |



Technical data SESD 30000

Generator

| | | |
|--|---|--|
| Output voltage | ⊗ adjustable via digital pot | |
| Air discharge | ⊗ 1 kV up to 30 kV | |
| (with contact control) | in steps of 100 V | Contact discharge ⊗ 1 kV up to 30,0 kV |
| | in steps of 100 V | |
| Polarity | ⊗ positive and negative | |
| Mode | ⊗ air discharge and contact discharge | |
| Repetition frequency of the discharge pulses | | |
| Air discharge | ⊗ single or multiple pulses (frequency depends on the distance between probe and EUT) | |
| Contact discharge | ⊗ single pulse, 0.1 Hz, 0.2 Hz, 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz | |
| Continuous operation | ⊗ at air discharge and contact discharge | |
| Pre-selection counter | ⊗ 1 - 9999 | |
| Impedance standard: | ⊗ 150 pF / 330 Ω (IEC / EN 61000-4-2) | |
| Others: | see options | |
| Probes | ⊗ acc. IEC / EN 61000-4-2 and ISO / TR 10605 | |
| Operation temperature | ⊗ 0 - 40° Centigrade | |
| Rel. humidity | ⊗ 0 - 60% | |
| Weight | ⊗ app. 1500 g | |

Basis configuration

Mechanical polarity module
 Capacity module 150 pF
 Resistor module 330 Ohm

Desktop control unit

| | |
|----------------|----------------------------|
| Power supply | ⊗ 85 - 264 VAC, 47 - 63 Hz |
| Consumed power | ⊗ < 50 VA |
| Weight | ⊗ app. 1450 g |



Options

| | |
|---------------|--|
| SESD 30000 P | ESD generator includes electronically polarity module |
| SESD 30000 A | ESD generator for battery and / or main operation |
| SESD 30 Cxxx | Capacity module (values up to 1000 pF) |
| SESD 30 Rxxx | Resistor module (values (0) 50 Ohm up to > 5 kOhm) |
| SESD 30 P200 | Electronic polarity module |
| SESD 30 M200 | Faster discharging module (rise time to 0,3 ns) |
| SESD 30 S100 | Optical set and remote software |
| SESD 30 MOD-1 | HBM – module 100 pF / 1500 Ohm with rise time > 5 ns |
| SESD 271 | VCP – vertical coupling plate, include earth cable SESD 272 |
| SESD 272 | Earth cable include 2 x 470 kOhm resistor, 2m long |
| SESD 3025 | Test tip, diameter 30 mm, for AIR discharge > 15 kV |
| SEDS 3026 | Test tip, length 50 mm with spring pin, for automatic tests with contact discharge |
| SESD 8800-4 | ESD verification set 2 Ohm (4 GHz) to verify the ESD pulse |