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Find the *Haefely Technology PESD 3000* at our website: *Click HERE*

WHEN QUALITY IS AN ISSUE, THE CHOICE IS HAEFELY EMC

PESD 1600 & PESD 3000





# PESD 1600 & PESD 3000

## ELECTROSTATIC DISCHARGE TESTERS

HAEFELY TECHNOLOGY

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PESD 1600 & PESD 3000

# PESD 1600 & PESD 3000

## GENERAL

Electrostatic charges are created by bringing dissimilar insulation materials together and then parting them. Walking over an insulated floor is a typical example.

The resultant electrostatic discharge (ESD) represents a real threat to electronics, the induced effects ranging from a permantent damage of components, through dielectric breakdown or thermal effects, to data corruption resulting in logic errors or system reset.

PESD Testers are used to verify the immunity of all active equipment.
Some standards (requiring ESD testing) are:
IEC 1000-4-2, EN 61000-4-2, EN 50082-1, EN 50082-2, ISO TR 10605 (PESD 3000).
With additional impulse modules (PESD 3000):
MIL1541, 331A, STANAG 4239, ISO 7637, JEC and many other applications.

## FEATURES

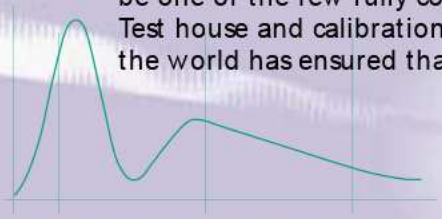
Common to both systems
- polarity switching
- microprocessor control
- compact test solution
- test fingers for air and contact discharge
- IEC test level indication
- single and repetitive discharge modes
- discharge counter
- RS232 optical interface
- supplied to ISO 9001

Additional in PESD 1600
- discharge voltage up to 16.5 kV
- light weight hand held unit
- Battery powered

Additional in PESD 3000
- discharge voltage up to 30 kV
- supplied with three discharge circuits
- power supply and control in smart desk top unit
- discharge modules easily changed by user

## FULLY COMPLIANT

The HAEFELY Electrostatic Discharge Testers are known to be one of the few fully compliant ESD Testers on the market. Test house and calibration laboratory feedback from around the world has ensured that fact!

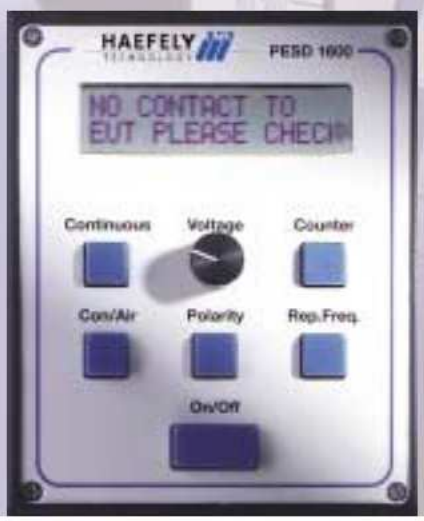


## CURRENT FLOW DETECTION

Current flow detection makes sure that a discharge actually occurs, particularly in the case when an EUT is painted or coated with non-conductive materials. This ensures a reliable product and repeatable test results in contact mode. This feature enhances test quality, repeatability and user confidence by:

- verifying the generator is touching the EUT during contact mode testing
- displaying an error message "No Contact" if contact is not made with the EUT

It is important to ensure current flows in metallic parts of an EUT, particularly if the metalwork has a protective coating.





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EMC

## HIGH PERFORMANCE

PESD Testers are designed to a high technical specification for product quality, flexibility and personnel safety.
Each unit includes an integrated high voltage relay for contact mode testing, this eliminates external connections and increases reliability. Discharge fingers are provided in accordance with the IEC and ISO standards and are a push fit onto the test pistol.

Contact mode discharges can be selected between a single impulse or discharges at 1, 2, 5, 10 and 20 Hz. Used with the programmable counter accurate and repeatable tests can be performed.

PESD 1600 is a battery powered device, but in the case that the battery is exhausted during testing, the standard recharging unit can be connected, set to charge and operate. The test can then continue with the battery charging at the same time. To help prevent this situation a low charge indicator flashes on the control panel display.

PESD 3000 is powered from a desk-top unit which also houses the microprocessor controller.

## EASY OPERATION

PESD Testers embody all the features expected of full compliance ESD testers, in a light weight comfortable hand held package.
An easily read display shows the Testers operating and rogram status at a glance. Large control panel push buttons make it easy to enter



- discharge polarity (PESD 1600)
- contact / air mode
- discharge count number
- repetition frequency
- continuous operating mode

Discharge voltage is adjusted using a rotary knob.
IEC test levels are programed in the Tester so that switching between air and contact modes, automatically maintains the correct level for the selected mode.

During product development parameters can be manually changed on the control panel to determine susceptibility levels for an EUT.

Current flow detection ensures a reliable product and repeatable test results in contact mode.
A tripod mounting point is provided for endurance tests using continuous discharge mode. A fibre optic interface enables programming from one of the Haefely software packages or together with the PEFT 4010 (PESD 1600).

## TECHNICAL SPECIFICATION

| Type | PESD 1600 | PESD 3000 |
|---|---|---|
| Output Air discharge | 200 V to 16,5 kV | 1000 V to 30 kV |
| Output Contact discharge | 200 V to 9 kV | 1000 V to 25 kV |
| Polarity | Positive or Negative | Positive or Negative |
| Contact discharge repetition frequencies | Single, 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz | Single, 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz |
| Standard discharge circuit | 150 pF / 330 Ω | Standard impedance module 150 pF / 330 Ω<br>IEC/ISO: 150 pF / 2000 Ω<br>330 pF / 2000 Ω |
| Discharge circuit changable | no (built in) | yes (modular) |
| Impulse parameters | full compliant acc. to IEC 1000-4-2 | full compliant acc. to IEC 1000-4-2 and ISO TR 10605 |
| Impulse triggering | manual or automatic | manual or automatic |
| Discharge counter | 1 to 9999 impulses | 1 to 9999 impulses |
| Discharge electrodes | air and contact easily changeable | air and contact easily changeable |
| Remote interface | RS232 optical | RS232 optical |
| Weight | approx. 1,4 kg | approx. 1,6 kg |
| Battery powered | yes (standalone operation possible) | no (powered from a desk-top unit ) |
| Power supply | 115 / 230 V ac, 50/60 Hz, 50 VA | 115 / 230 Vac, 50/60 Hz, 35 VA |

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| ORDERING INFORMATION | | ORDERING NO. |
|---|---|---|
| PESD 1600 | Electrostatic Discharge Test System up to 16.5 kV | 249330 |
| PESD 3000 | Electrostatic Discharge Test System up to 30 kV | 249590 |

ACCESSORIES

| | | |
|---|---|---|
| PESD | Remote Control RS232 converter with fiber optic link | 249667 |
| VCP | Vertical Coupling Plane including resistor cable (1.5x500x500 mm) | 249558 |
| HCP | Horizontal Coupling Plane including resistor cable (2x1580x780 mm) | 249688 |
| ESD | Test Table Metal free, completely wooden table (750x1600x800 mm) | 249687 |
| GRP | Ground Reference Plane (2x2580x1780 mm) | 249591 |
| 2 Ω | Target for wave shape verification up to 30 kV | 249563 |



EMC WARRANTY 2 YEARS

PESD 1600 & PESD 3000

Worldwide Headquarters

**Haefely Test AG**
**Business Unit EMC**
Bernstrasse 90, P.O. Box
CH-8953 Dietikon - Zurich
Switzerland

Phone: +41.61. 373 41 11

North American Office

**Haefely Test Inc.**
1308 Devils Reach Road
VA 22192 Woodbridge
USA

Phone: +1 703 494 1900

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