

ESD ONYX 30

ESD Simulator 30 kV

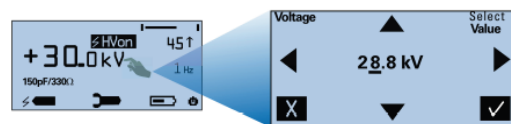
ISO 10605, IEC / EN 61000-4-2,
IEC / EN 61000-6-1 /-2 and others

- 30 kV Air and contact discharge
- For requirements with different R (Ω) and C (pF) combinations
- With charge absorber
- Ergonomic all-in-one design
- Easy operation via touch screen
- Predefined tests according to standards
- Battery or mains operation
- With self-test for reliable control



 HAEFELY

**With extensive accessories
in a practical carrying case.**



Overview

The ONYX 30 ESD simulator is suitable for carrying out EMC tests on systems and installations in accordance with the ISO 10605 standard. The modular design of the system allows further tests to be carried out in accordance with different standards and customer specifications. ONYX is a modern ESD test generator with 30 kV air discharge (AIR) and contact discharge (CON), which does not require a base unit. It can be operated either via a built-in rechargeable battery or via a mains supply.

The easy-to-use touch screen, ergonomic design, multi-language interface, remote control software, integrated LED light and temperature / humidity display allow trouble-free use of the ONYX in all types of test sites. ONYX also includes a bleeder resistor which is connected in parallel with the output of the high-voltage power supply circuit.

This ensures that the high voltage power supply is completely discharged after each injected pulse to an EUT or if the ESD simulator itself will be turned-off by the user (bleed-off).

The smart key button, integrated into the trigger button has various functions that can be defined by the user including polarity switching, LED light, counter reset, voltage stepping up/down and others.

The ONYX also features a unique self test which verifies all of the main components of the unit are working correctly. This ensures that accurate and reliable tests are performed every time the gun is used.

Key facts

- Modular system with capacitor and resistor modules that can be combined as required
- User-defined "Smart Key" function
- Multilingual
- Automatic polarity switching



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Technical data

Onyx 30

Air discharge voltage	1 - 30 kV
Contact discharge	1 - 30 kV
Discharge repetition	single/0.1/0.2/0.5/1/2/5/ 10/20 Hz
Discharge counter	1 .. 9999
Default RC - network	150 pF / 330 Ω
Voltage resolution	100 V steps
Discharge polarity	positive & negative
Operating modes	single & continuous

Battery type	NiMH
Battery charger power requirements	100 V – 240 V, 47-63 Hz, 17 VA
Battery charging time	approx. 3.5 h
Battery duration	contact discharge 30 kV, 1 Hz, approx. 8 h
Dimensions (W x H x T)	290 x 270 x 110 mm
Weight	1.7 kg

Standards

- ISO 10605
- IEC/EN 61000-4-2 Ed. 2 (2009)
- IEC/EN 61326
- IEC/EN 61000-6-1 & -6-2
- IEC 61340-3-1
- IEC/EN 60601-1
- GMW 3097
- Ford AB/AC
- ANSI C63.16
- PSA B21 7110
- ISO 14304
- ITU-T K.20
- MIL-STD-331 / -464 / -883 / -1512 / -1514 / -1541 / -1542
- RTCA/DO-160
- JEDEC 22-A114
- GR-78 / -1089-CORE
- And others

Carrying case (scope of delivery)

- ESD simulator Onyx 30 (No. 2499982)
- Test tip contact discharge
- RC module 150 pF/330 Ω
- Battery charger unit incl. AC adapter for Europe, USA, China, UK
- 2 rechargeable battery packs
- Ground cable



Accessoires (scope of delivery)

- Carrying case (incl. content)
- User manual with quick start guide
- Calibration certificate



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Options – Accessoires		
No. 4700531	RC Module	150 pF / 2000 Ω (ISO 10605)
No. 4700532	RC Module	330 pF / 2000 Ω (ISO 10605)
No. 4700618	RC Module	330 pF / 330 Ω (ISO 10605)
No. 4700622	RC Module	100 pF / 1500 Ω
No. 4700620	RC Module	150 pF / 150 Ω
No. 4700619	RC Module	500 pF / 500 Ω
No. 4700621	RC Module	500 pF / 5000 Ω
No. 4700633	RC Module	50 pF .. 1 nF / 50 Ω .. 5000 Ω (custom)
No. 4700526	30kV AD Tip	Discharge tip with 30 mm diameter for air discharge tests
No. 4700527	Fast Rise Time Tip	Fast Rise Time Tip reduces the rise time of the ESD pulse to 0.3 ns
No. 2490214	AC Mains Adapter	Power supply replaces the rechargeable batterie pack for continuous testing
No. 4700585	Onyx Battery Pack	Onyx Battery Pack Single battery pack for Onyx ESD guns (2 pieces required)
No. 4700813	Onyx Balancer	Balancing tool with mounting system up to 2.3 kg
No. 2490216	Software	Control & reporting function incl. fiber optic cable

Further accessories, such as Verification Set, HCP, VCP... can be found on our homepage.

All information regarding appearance and technical data correspond to the current state of development at the time of release of this data sheet. We reserve the right to make technical changes. 162311

