

# AXOS<sup>5</sup>

Expandable test systems

*Datasheet*



## HAEFELY

Current and voltage – our passion

# General Description

The new AXOS<sup>5</sup> - Compact integrates all of the best features of our stand alone test systems into one single economic solution.

Combination Wave, 5 kV EFT/Burst, Dips & Interrupts, along with an integrated single-phase coupling / decoupling network. This allows quick and completely automated testing to the most common IEC, EN, ANSI, IEEE and UL standards.

The AXOS<sup>5</sup> can either be operated via front panel by large colour graphic interface or remotely from the PC. The easy to use menu together with the availability of predefined test routines for different standards makes testing easy and reliable, even for less frequently users. Numerous additional functions such as external

start/stop function allows easy integration of the test system also in customer specific test environments.

All the test parameters can be varied in a broad range wide above the requirements of the standards. Together with the ability of changing test parameters during test, AXOS<sup>5</sup> is not only the ideal product for compliance and pre-compliance testing, it is useful for monitoring & debugging function during design phase as well.

A wide range of cost efficient and user friendly coupling/decoupling networks for power lines as well as for symmetrical and asymmetrical data- and signal lines are available as options.

## Features & Benefits

- Easy to operate with manual and automated test modes, software assisted test preparation, pre-defined test routines and visual aided test setups
- Economic & Efficient
- Touch screen guarantees reduction of time and effort - Experience and know-how at a reasonable price
- Safe and reliable operation by using safety interlock, warning lamp and emergency stop functions
- Voltage and current monitoring of surge impulses and EUT power provides valuable feedback to the test engineer
- Automatic generation of test report, including test parameters, test setup and test result

# Applications

- Compliance & pre-compliance testing of electrical products
- CE marking
- Product development and debugging
- Compliance testing of telecom and wireless devices
- Overtesting

# Scope of Supply

|                   |                  |
|-------------------|------------------|
| AXOS <sup>5</sup> | Compact Immunity |
| AXOS <sup>5</sup> | Surge            |
| AXOS <sup>5</sup> | EFT/Burst        |
| AXOS <sup>5</sup> | Voltage Dips     |

|             |
|-------------|
| No. 2490400 |
| No. 2490401 |
| No. 2490402 |
| No. 2490403 |

## Included accessories

- Mains Cable
- User Manual
- Calibration certificate

# Technical Data

| General Data           |                                        |                             |                                                       |
|------------------------|----------------------------------------|-----------------------------|-------------------------------------------------------|
| Control power          | 85 V - 264 V 50/60 Hz                  | Dimensions                  | 19" / 4U (45 x 18 x 49 cm)                            |
| User test storage      | Unlimited                              | Weight                      | 25 kg                                                 |
| Remote interface       | Ethernet, RJ45                         | USB                         | for USB memory stick                                  |
| Display                | 7" / 800x480 / 24 bit with touchscreen | AUX. interface              | D-sub 37p for external CDN, external transformer etc. |
| External trigger input | 5 V TTL                                | Synch input                 | BNC, 10 V – 264 V AC                                  |
| Trigger output         | 5 V TTL                                | External start / stop input | 5 V TTL, starts / stops predefined test sequence      |
| EUT failed input       | 5 V TTL                                | Analog output               | 0 – 10 V, for use with external options               |
| Warning lamp output    | 2 x 24 V / 1 A DC                      | Safety circuit              | stops the test when unlocked                          |

| IEC / EN 61000-4-4 EDITION 2 & 3 EFT / Burst |                                                                |                                                       |                                           |
|----------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|
| Output voltage                               | 0.2 – 5.0 kV $\pm 10\%$ at coaxial output                      | Spike frequency                                       | 1 Hz – 1 MHz                              |
| Polarity                                     | pos / neg / alternate                                          | Burst duration                                        | 10 $\mu$ s – 1 s                          |
| Output impedance                             | 50 Ohm                                                         | Burst period                                          | 1 ms – 10 s                               |
| Rise time                                    | 5 ns $\pm 30\%$                                                | Test time                                             | 1 s – 1'000 minutes, infinite             |
| Impulse duration                             | 50 ns $\pm 30\%$ at 50 Ohm<br>50 ns – 15 + 100 ns at 1'000 Ohm | Trigger                                               | automatic, manual, external trigger input |
| Burst mode                                   | normal, continuous, real, random                               | Integrated single phase coupling / decoupling network | 264 V AC / 16 A up to 220 V DC / 10 A     |

| IEC / EN 61000-4-5 EDITION 2 & 3 Surge combination wave |                                             |                             |                                                       |
|---------------------------------------------------------|---------------------------------------------|-----------------------------|-------------------------------------------------------|
| Output voltage                                          | 0.2 – 5.0 kV $\pm 10\%$                     | Output current              | 0.1 – 2.5 kA $\pm 10\%$                               |
| Voltage rise time                                       | 1.2 $\mu$ s $\pm 30\%$                      | Current rise time           | 8 $\mu$ s $\pm 20\%$                                  |
| Voltage duration                                        | 50 $\mu$ s $\pm 20\%$                       | Current duration            | 20 $\mu$ s $\pm 20\%$                                 |
| Polarity                                                | positive / negative / alternate             | Integrated single phase CDN | 264 V AC / 16 A up to 220 V DC / 10 A                 |
| Output impedance                                        | 2 Ohm                                       | Impulse trigger             | automatic 2 s – 100 min manual external trigger input |
| Phase sync                                              | 0 – 359° with 1° steps or asynchronous mode |                             |                                                       |
| Counter preselect                                       | 1 – 1'000 / infinite                        | Peak current monitor        | BNC output: 1 kA/V display: 3 digits                  |
| Counter                                                 | 100'000                                     |                             |                                                       |
| Peak voltage monitor                                    | BNC output: 1000:1 display: 3 digits        |                             |                                                       |

| IEC / EN 61000-4-11 EDITION 2 & 3 AND IEC / EN 61000-4-29 DIPS & INTERRUPTS |                                                                                                 |                     |                                                        |
|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------|
| Max. voltage                                                                | 264 V AC/DC                                                                                     | Interrupt time      | 0.5 period – 800 periods<br>100 $\mu$ s – 1000 minutes |
| Max. current                                                                | 16 A AC/DC continuous<br>20 A for 5 s<br>23 A for 3 s<br>40 A for 3 s<br>> 500 A inrush current | Interval time       | 1 period – 800 periods<br>1 ms – 1000 minutes          |
| Trigger                                                                     | Automatic, manual, external                                                                     | Test time           | 1 s – 1000 minutes, infinite                           |
| Interrupt Dip level                                                         | 0%<br>0% – 99% (ext. voltage source)                                                            | Phase sync          | 0 – 359°, 50 / 60 Hz, external, asynchronous mode      |
| RMS voltage monitor                                                         | BNC output: 100:1 display: 3 digits                                                             | RMS current monitor | BNC output: 10 A/V display: 3 digits                   |

## Global Presence

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This document has been drawn up with the utmost care. We cannot, however, guarantee that it is entirely complete, correct or up-to-date.  
Subject to change without notice.

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