

AXOS 5

Compact

IEC/EN 61000-4-4, IEC/EN 61000-4-5,
IEC/EN 61000-4-11*, IEC/EN 61000-4-9**, a.o.

- **Multifunctional device:**
Many test functions combined in one device!
- Integrated and automated test modes
- Easy operation via touch screen
- Automatic generation of a test report
- Integrated 1-phase CDN, 16 A

**addit. voltage drop transformer "DIP 116" required*

***addit. antenna coil "MSURGE-A" required*



**For economical and
efficient testing.**

Overview

The new AXOS 5 compact test system from HAEFELY combines the advantages of our stand-alone test systems in a single economical solution. This allows fast and fully automated testing according to the most common IEC, EN, ANSI, IEEE and UL standards such as 5kV EFT/Burst, 5 kV Combination Wave (1.2/50 μ s & 8/20 μ s), AC/DC Dips & Interrupts (with DIP 116) and pulsed magnetic fields (with MSURGE-A) and also includes an integrated single-phase coupling/decoupling power supply, 16 A.

The AXOS 5 can be operated either via a touch screen or via optional software on a PC. The simple menu navigation and predefined tests enable efficient testing, even for less experienced users.

Numerous additional functions, such as the external start/stop function, allow easy integration of the test system into customer-specific test environments.

All test parameters can be varied in a range far beyond the requirements of the standards. Together with the ability to change test parameters on the fly, AXOS 5 is the ideal product for compliance and pre-compliance testing, and also for monitoring and debugging functions during the development phase.

A wide range of cost-effective and user-friendly coupling/decoupling networks for power lines as well as for balanced and unbalanced data and signal lines are optionally available.

Key facts

- Software-supported test preparation, predefined test routines and visually supported test setups
- Touchscreen guarantees time and labor savings
- Safe and reliable operation with safety interlock, warning lamp and emergency stop switch
- Voltage and current monitoring of surge pulses and EUT power
- Automatic generation of a test report, including test parameters, test setup and test result
- Application: Compliance, pre-compliance, CE testing, product development and product troubleshooting



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Technical data

Axos 5 General

Control power	85 V – 264 V 50/60 Hz
User test storage	unlimited
Remote Interface	Ethernet, RJ45
Display	7" / 800x480 / 24 bit with touchscreen
External Trigger input	5 V TTL
Trigger output	5 V TTL
EUT failed input	5 V TTL
Warning lamp output	2 x 24 V / 1 A DC
USB	for USB memory stick

AUX interface	D-Sub 37p for external CDN, transformer
Synch input	BNC, 10 V - 264 V AC
External start/stop	5 V TTL, starts/stops predefined tests sequen.
Analog output	0 - 10 V, for use with external options
Safety circuit	Stops the test when unlocked
Dimensions (W x H x D)	19" / 4U (45 x 18 x 49 cm)
Weight	25 kg

IEC / EN 61000-4-4 EFT/Burst

Output voltage	0.2 – 5.0 kV $\pm 10\%$ at coaxial output
Polarity	pos. / neg. / alternate
Output impedance	50 Ohm
Rise time	5 ns $\pm 30\%$
Impulse duration	50 ns $\pm 30\%$ at 50 Ohm 50 ns –15 +100 ns at 1,000 Ohm
Burst mode	normal, continous, real, random

Spike frequency	1 Hz - 1 MHz
Burst duration	10 μ s - 1 s
Burst period	1 ms - 10 s
Test time	1 s – 1,000 min.
Trigger	automatic, manual, external trigger input
Integrated 1-phas. CDN	264 V AC / 16 A 220 V DC / 10 A

IEC / EN 61000-4-5 Surge combination wave

Output voltage	0.2 – 5.0 kV $\pm 10\%$
Voltage rise time	1.2 μ s $\pm 30\%$
Voltage duration	50 μ s $\pm 20\%$
Polarity	pos. / neg. / alternate
Output impedance	2 Ohm
Phase sync	0 - 359° with 1° steps or asynchronous operation
Counter preselected	1 – 1,000 / infinite
Counter	100,000
Peak voltage monitor	BNC output: 1000:1 display: 3 digits

Output current	0.1 – 2.5 kA $\pm 10\%$
Current rise time	8 μ s $\pm 20\%$
Current duration	20 μ s $\pm 20\%$
Integrated 1-phas. CDN	264 V AC / 16 A 220 V DC / 10 A
Impulse Trigger	automatic 2 s – 100 minutes manual external trigger input
Peak current monitor	BNC output: 1 kA/V display: 3 digits



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IEC / EN 61000-4-11 + IEC / EN 61000-4-29 Dips und Interrupts (Attention: exter. DIP 116)			
Max. voltage	264 V AC/DC	Interrupt time	0.5 period - 800 periods 100 µs – 1,000 minutes
Max. current	16 A AC/DC contin. 20 A für 5 s 23 A for 3 s 40 A für 3 s > 500 A inrush current	Interval time	1 period - 800 periods synchron 1 ms – 1,000 minutes asynchron
Trigger	automatic manual external trigger input	Test time	1 s – 1,000 min. infinite
Interrupt dip level	0% 0% - 99% with external voltage source	Phase sync	0 - 359° 16 / 40 / 50 / 60 Hz asynchronous mode
RMS voltage monitor	BNC output: 100:1 display: 4 digits	RMS current monitor	BNC output: 10 A/V display: 4 digits

Norms

- IEC/EN 61000-4-4 EFT / Burst
- IEC/EN 61000-4-5 Surge
- IEC/EN 61000-4-9 Magnetic Field
(+MSurge-A required)
- IEC/EN 61000-4-11 / -29
AC/DC Dips and
Interrupts
(+DIP 116 required)

Indoor and outdoor applications

Home appliances:

Household, lighting appliances, portable appliances, home automation

Industry:

Robotics, welding machines, packaging machines, production lines, laboratory equipment

Medical technology:

Monitoring, scanning, analyzing, pumps, implants

IT:

Computers, printers, modems, hubs, phones, servers

Renewable energies:

Solar panels, windmills, turbines, inverters, infrastructure

Telecommunications:

Ground-mounted equipment, amplifiers, switchgear, data concentrators, telecom centers

Transportation:

Automotive industry, motorcycles, trucks, electric vehicles, charging stations

Defense:

Component testing, communications, vehicles, aircraft, satellites



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Options – Accessories

FP-EFT 32M	3-phase CDN EFT/Burst 32 A / 690 V AC / 110 V DC
FP-EFT 100M2	3-phase CDN EFT/Burst 100 A / 690 V AC / 110 V DC
FP-COMB 32	3-phase CDN für Surge, Ring wave, EFT/Burst 32 A / 480 V AC/DC
FP-COMB 63 / 690-1	Auto. 3-phase CDN for Surge, Ring wave, EFT/Burst 63 A / 690 V AC/DC, also available in 125 A and 200 A
FP-COMB 63 / 1500-1	Auto. 3-phase CDN for Surge, Ring Wave, EFT/Burst, 63 A / up to 1000 V AC/1500 V DC, also available in 125 A and 200 A
FP-SURGE 32A	Automatic 3-phase CDN for Surge 32 A / 690 V AC/DC
FP-SURGE 100M2	3-phase CDN for Surge, 100 A (690 V AC / 110 V DC)
DEC 5	Decoupling network for testing symmetrically operated lines with Surge, Ring Wave 100 kHz and Telecom Wave 10/700 µs
DEC 6	Decoupling network for testing symmetrically operated lines with Surge, Ring Wave 100 kHz and Telecom Wave 10/700 µs
DEC 7	Decoupling network for testing asymmetrically operated lines with Surge, Ring Wave 100 kHz
PCD 121	Coupling network for 1.2/50 µs – 8/20 µs
PCD 126A	Coupling network for 1.2/50 µs – 8/20 µs and 100 kHz Ring wave
DIP 116	Automatic Dips transformer 16 A 40/70/80% voltage (for IEC / EN 61000-4-11 required)
MSURGE-A	Induction coil (for IEC / EN 61000-4-9 Magnetic Field Tests required)
Verification Adapter FP-EFT 100 M2	
Verification Adapter AXOS	
Remote Control Option for AXOS 5 and AXOS 8	
Reporting Software for AXOS 5 and AXOS 8	

Scope of delivery

AXOS 5
User manual
Mains cable
Calibration certificate

All information regarding appearance and technical data correspond to the current state of development at the time of release of this data sheet. Errors and technical changes excepted.

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