

AXOS⁸

The new AXOS⁸ expandable test system integrates all of the best features of several stand alone test systems into one single economic solution.

It can be individually combined either with 7 kV Surge Combination Wave, 7 kV Ring Wave, 7 kV Telecom Wave*, 5 kV EFT/Burst or 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, ITU, IEEE and UL standards.

The AXOS⁸ 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, AXOS⁸ 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.



AXOS⁸ front view



AXOS⁸ rear view

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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

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

- ^v- IEC/EN 61000-4-4 EFT / Burst
- IEC/EN 61000-4-5 Surge Edition 2 & 3 (1.2/50µs...8/20µs)
- IEC/EN 61000-4-5 Surge (10/700µs)*
- IEC/EN 61000-4-9 Magnetic Field**
- IEC/EN 61000-4-11 AC Dips and Interrupts***
- IEC/EN 61000-4-12 Ring Wave
- IEC/EN 61000-4-29 DC Dips and Interrupts
- IEC/EN 61000-6-1 Generic Residential
- IEC/EN 61000-6-2 Generic Industrial
- IEC/EN 60335-1 Household
- IEC/EN 60601-1 Medical
- IEC/EN 60950
- EN 55024
- IEEE C62.41
- ITU K.20, K.21, K.44, K.45

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GENERAL DATA

Control power	85 V - 264 V 50/60 Hz	Dimensions (W x H x D)	22" / 6U (45 x 27 x 50 cm)
User test storage	unlimited	Weight	30 kg
Remote interface	Ethernet, RJ45	USB	for USB memory stick
Display	7" / 800x480 / 24 bit with touch-screen	AUX. interface	D-sub 37p external CDN, external transformer etc.
External trigger input	5 V TTL	Synch input	BNC, 10 V – 264 V AC
Trigger output	5 V TTL	Ext. 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 μ s – 1 s
Output impedance	50 Ohms	Burst period	1 ms – 10 s
Rise time	5 ns $\pm 30\%$	Test time	1 s – 1000 minutes
Impulse duration	50 ns $\pm 30\%$ at 50 ohm 50 ns –15 +100 ns at 1000 Ohm	Trigger	automatic, manual, external trigger input
Burst mode	normal, continuous, real, random	Integrated single phase coupling / decoupling network	264 V AC / 16 A 220 V DC / 10 A

IEC / EN 61000-4-5 EDITION 2 & UPCOMING EDITION 3 SURGE

Output voltage	0.2 – 7.0 kV $\pm 10\%$	Output current	0.1 – 3.5 kA $\pm 10\%$
Voltage rise time	1.2 μ s $\pm 30\%$	Current rise time	8 μ s $\pm 20\%$
voltage duration	50 μ s $\pm 20\%$	Current duration	20 μ s $\pm 20\%$
Polarity	pos / neg / alternate	Integrated single phase CDN	264 V AC / 16 A 220 V DC / 10 A
Output impedance	2 Ohms	Impulse trigger	automatic 2 s – 100 min manual external trigger input
Phase sync	0 – 359° with 1° steps or asynchronous mode	Peak voltage monitor	BNC output: 1000:1 display: 3 digits
Counter	100000	Peak current monitor	BNC output: 1 kA/V display: 3 digits

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IEC / EN 61000-4-5 Telecom Wave / ITU K.20, K.21, K.44, K.45 (external TW 8 module)

Output voltage	0.2 - 7.0 kV \pm 10%	Source impedance / coupling	15 Ohm x 1 40 Ohm x 4 40 Ohm gas arresters x 4
Front time OCV	10 μ s \pm 30%	Front time SCC	5 μ s \pm 20%
Decay time OCV	700 μ s \pm 20%	Front time SCC	5 μ s \pm 20%
Polarity	Pos., neg., alt.	Weight	10 kg
Outputs	4 mm banana socket	Dimensions	19" / 4U, (45 x 18 x 49 cm)

IEC / EN 61000-4-12 EDITION 2 AND ANSI / IEEE C62.41 Ring Wave

Max. voltage	0.2 - 7.0 kV \pm 10%	Repetition rate	Up to 30 pulses / min
Frequency	100 kHz	Polarity	Positive / negative / alternate
Rise time OC	5 μ s	Floating output	Max. 460 V / AC
Rise time SC	1 μ s	Phase sync accuracy	\pm 1°
Impedance	12 Ohm, 30 Ohm	Damping rate	0.4 < peak1/peak2 < 1.1 0.4 < peak3/peak2 < 1.1 0.4 < peak4/peak3 < 1.1
Peak voltage monitor	BNC output: 1000:1 Display: 3 digits	Peak current monitor	BNC output: 1kA / V Display: 3 digits

IEC / EN 61000-4-11 EDITION 2 AND IEC / EN 61000-4-29 DIPS & INTERRUPTS

Max. voltage	264 V AC/DC	Interrupt time	0.5 period – 800 periods 100 μ s – 1000 minutes
Max. current	16 A AC/DC continuous 20 A for 5 s 23 A for 3 s 40 A for 3 s > 500 A inrush current	Interval time	1 period – 800 periods synch 100 μ s – 1000 minutes asynch
Trigger	automatic manual external trigger input	Test time	1 s – 1000 minutes 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

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