

axos<sup>5</sup>

# **COMPACT IMMUNITY TEST SYSTEM**







Haefely is a subsidiary of Hubbell Incorporated.

High Voltage Test Business







## **SUMMARY**

AXOS

#### **COMPACT IMMUNITY TEST SYSTEM**

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

It combines 5 kV Burst/EFT, Surge combination wave, AC/DC Dips & Interrupts, along with an integrated single-phase coupling / decoupling network into one compact test system.

This allows quick and completely automated testing to the most common IEC, EN, ANSI, IEEE and UL standards.

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.

### **OVERVIEW**

#### **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

#### **STANDARDS**

- IEC/EN 61000-4-4 EFT / Burst
- IEC/EN 61000-4-5 Surge
- IEC/EN 61000-4-9 Imp Magnetic Field
- IEC/EN 61000-4-11 AC Dip and Interrupt
- IEC/EN 61000-4-29 DC Dip and Interrupt
- IEC/EN 61000-6-1 Generic Residential
- IEC/EN 61000-6-2 Generic Industrial
- IEC/EN 60335-1 Household
- IEC/EN 60601-1 Medical
- and many more

#### **INDUSTRIES**

- Industrial
- Residential
- Components
- Medical
- Renewable energy
- Telecom

# **TECHNICAL SPECIFICATIONS**

GENERAL DATA				
Control power	85 V - 264 V 50/60 Hz	Dimensions (W x H x D)	19" / 4U (45 x 18 x 49 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 for external CDN, external transfor- mer etc.	
External trigger input	5 VTTL	Synch input	BNC, 10 V – 264 V AC	
Trigger output	5 VTTL	External start / stop input	5 VTTL, 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	

Contraction Contraction Contraction

ICE / EN 61000-4-4 EDITI	ON 2 EFT / BURST		
Output voltage	0.2 – 5.0 kV ±10% at co- axial output	Spike frequency	1 Hz – 1 MHz
Polarity	pos / neg / alternate	Burst duration	10 us – 1 s
Output impedance	50 Ohms	Burst period	1 ms – 10 s
Rise time	5 ns ±30%	Test time	1 s– 999 minutes
Impulse duration	50 ns ±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

### ICE / EN 61000-4-5 EDITION 2 SURGE COMBINATION WAVE

Output voltage	0.2 – 5.0 kV ±10%	Output current	0.1 – 2.5 kA ±10%	
Voltage rise time	1.2 us ±30%	Current rise time	8 us ±20%	
Voltage duration	50 us ±20%	<b>Current duration</b>	20 us ±20%	
Polarity	pos / neg / alternate	Integrated single	264 V AC / 16 A	
Output impedance	2 Ohms	phase CDN	220 V DC / 10 A	
Phase synch	0 – 359° with 1° steps or asynchronous mode	Impulse trigger	automatic 5 s – 99999 s manual	
Counter preselect counter	1 – 10000 / infinite 100000		external trigger input	
Peak voltage monitor	BNC output: 1000:1 display: 3 digits	Peak current monitor	BNC output: 1 kA/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	0.1 period – 9999 periods 0.02 ms – 999 minutes
Max. current	16 A AC/DC continuous 20 A for 5 s 40 A for 3 s 500 A inrush current	Interval time	1 period – 9999 periods synch 0.04 ms – 999 minutes asynch
Trigger	automatic manual external trigger input	Test time	1 s – 999 minutes infinite
Interrupt dip level	0% 0% – 99% with external voltage source	Phase synch	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

#### 5

P

# **SCOPE OF SUPPLY – OPTIONS & ACCESSORIES**

Contar Stategoroute Values Cole

### SCOPE OF SUPPLY AXOS<sup>5</sup>

2490400

Qty. 1	Immunity Test System AXOS <sup>5</sup>
Qty. 1	Mains Cable 10 A
Qty. 1	EUT Power Cable 16 A
Qty. 1	EUT Power Adapter
Qty. 1	User Manual
Qty. 1	Certificate of Calibration

Remain -

### **OPTIONS AND ACCESSORIES**

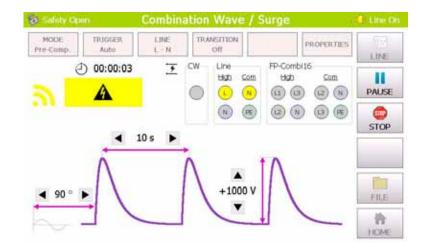
FP-COMB 32 FP-EFT 100 M2 IP4A	3-Phase / 32 A Power Line CDN Surge & EFT 3-Phase / 100 A Power Line CDN EFT Capacitive coupling clamp for EFT	2490430 2495860 2491300
FP-SURGE 100 M2	3-Phase / 100 A Power Line CDN SURGE	2490181
PCD 121 PCD 126 A DEC 5 DEC 6 DEC 7	Symmetrical Data & Control Line Coupler Asymmetrical Data & Control Line Coupler Symmetrical Data & Control Line Decoupler Symmetrical Data & Control Line Decoupler Asymmetrical Data & Control Line Decoupler	2498010 2498030 2490141 2490151 2490161
DIP 116	Automatic Dips Transformer 16 A 40/70/80%	2490410
MSURGE	Magnetic Field Test IEC / EN 61000-4-9	2495591
VTM 15000	Isolation Test 1.2/50 us up to 10 kV	2499960
PDP 8000 CP 101	HV differential Probe 1000:1 for Surge Current Probe Model for Surge	2499911 2499931
ES WL	External emergency stop Switch P12 External warning Lamp P12	4700751 4700750
WinFEAT'R	Control, Measurement & Reporting Software	2499701
Calibration	Accredited Calibration AXOS⁵	2490420

## AXOS – PERFECTION. DELIVERED.

#### **FEATURES**

- 7" / 800 x 480 / 24 bit touch-screen
- Reduction of daily working effort due to easy access menu structure
- Intuitive menu prompting

- Multilingual menus (English, German, French)
- Ethernet and USB connectivity





Headquarters Haefely Test AG Birsstrasse 300 4052 Basel Switzerland

🖀 + 41 61 373 41 11 ≞ + 41 61 373 49 12 🖅 emcsales@haefely.com

China (Sales & Service Office) HAEFELY Representative Office 8-1-602, Fortune Street No.67, Chaoyang Road, Chaoyang District Beijing, China 100025

> +86 10 8578 8099 ♣ +86 10 8578 9908
>  ☞ sales@haefely.com.cn

#### North American Office

Hipotronics Inc. Haefely EMC Division 1650 Route 22 Brewster, NY 10509

+1 845 279 3644 I +1 845 279 2467 ≣ emcsales@hubbell-haefely.com