

FP-COMB 32

COMBINED AUTOMATIC 3-PHASE COUPLING / DECOUPLING NETWORK

■ The **FP-COMB 32** coupling/decoupling network – for Surge Combination Wave, Ring Wave and EFT/Burst – is fully compliant with the standard requirements of IEC/EN 61000-4-4, IEC/EN 61000-4-5 and IEC/EN 61000-4-12.

The FP-COMB 32 is controlled by the AXOS⁵ / AXOS⁸ expandable immunity test system(s). The CDN automatically changes the coupling paths, phase angles and source impedance based on test parameters set by the user via the AXOS controller – depending on the standard and coupling mode.

The FP-COMB 32 was designed to reduce residual voltage levels at the EUT mains input by integrating the proper decoupling inductors for each type of CDN application in order to meet the requirements (with regard to voltage drop at the rated current). Apart from covering the EN/IEC 61000-4-5 standard, the FP-COMB 32 also covers tests to meet surge requirements outlined in ANSI/IEEE C62.41.



FEATURES

- ☑ **Surge Combination Wave, 1.2/50us - 8/20us**
- ☑ **Ring Wave, 100kHz**
- ☑ **Electrical Fast Transient (EFT) / Burst**
- ☑ **7kV** impulse voltage for **Surge Combination Wave** and **Ring Wave**
- ☑ **5kV** impulse voltage for **EFT/Burst**
- ☑ Line voltage **480V AC / DC** phase-to-phase
- ☑ **32A** EUT current per phase
- ☑ **Phase angle** synchronization for each path

BENEFITS

- Combined CDN for Surge Combination Wave, Ring Wave and EFT/Burst
- LEDs indicate active mode and coupling path
- Automatic selection of Surge impedance
- Fully remote controlled by AXOS⁵ / AXOS⁸

APPLICATIONS

- Single & three phase power line systems
- IEC 61000-4-4 Edition 3
- IEC 61000-4-5 Edition 3
- IEC 61000-4-12
- ANSI C62.41 & C62.45 power lines
- Many IEC & EN product standards

SCOPE OF SUPPLY (ARTICLE NO. 2490430)

Qty. 1	FP-COMB 32
Qty. 1	AC mains cable country specific
Qty. 1	EUT mains cable 32A
Qty. 1	EUT mains adapter 32A
Qty. 1	Calibration certificate
Qty. 1	Surge cable to AXOS
Qty. 1	EFT/Burst cable to AXOS
Qty. 1	User's manual

TECHNICAL SPECIFICATIONS

Coupling

CDN Inputs	Banana socket front panel	5 connectors
CDN Output	Banana socket front panel	5 connectors
Waveforms	EFT/Burst	IEC/EN 61000-4-4 Ed. 3
	Surge Combination Wave	IEC/EN 61000-4-5 Ed. 3
	Ring Wave	IEC/EN 61000-4-12 Ed. 2, C 62.41
Maximum EFT/Burst Input Voltage	5kV	
Maximum Surge Combination Wave Input Voltage	7kV	
Maximum Ring Wave Input Voltage	7kV	
Coupling Path Selection	Automatic	IEC + ANSI
Synchronization	10V to 480V input voltage 0° to 359°, step 1°	Sync. on coupling path, output BNC rear panel

Decoupling

Voltage AC	Up to 480V AC 16.7Hz, 50Hz, 60Hz
Voltage DC	Up to 480V DC
Nominal Current	32A
EFT/Burst Input Voltage Range	0.2kV - 5kV
Surge Combination Wave Input Voltage Range	0.2kV - 7kV
Ring Wave Input Voltage Range	0.2kV - 7kV
Coupling Path Selection	Automatic
Synchronization	10V to 480V input voltage 0° to 359°, step 1°

Interfaces

Extension Connector (37 pol. Sub-D connector)	Warning on AXOS Display
LEDs	Indication of coupling path Power ON LED CDN active LED

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HAEFELY HIPOTRONICS has a policy of continuous product improvement. Therefore we reserve the right to change design and specification without notice.