

## FP-COMB 32

### 3-phase Coupling / Decoupling Networks (CDN) for AXOS 5/8

IEC/EN 61000-4-4, IEC/EN 61000-4-5,  
IEC/EN 61000-4-12, ANSI C62.41 & 62.45

- Surge Combination Wave, 1.2/50  $\mu$ s - 8/20  $\mu$ s
- Ring Wave, 100 kHz
- Electrical Fast Transient (EFT) / Burst
- 7 kV impulse voltage for Surge Combination Wave and Ring Wave
- 5 kV impulse voltage for EFT/Burst
- Line voltage 480 V AC / DC (Phase – Phase)
- 32 A EUT current per phase (depending on the voltage and frequency)



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**For AXOS devices from  
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#### Overview

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, as well as test to meet the overvoltage requirements of ANSI/IEEE C62.41 and others.

The FP-COMB 32 is controlled by the AXOS 5 / AXOS 8 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.

#### Key facts

- Phase angle synchronization for each coupling path
- All-in-one – Combined CDN for Surge, Ring Wave and EFT / Burst
- Easy to use – LEDs indicate active mode and coupling path
- Automatic selection of surge impedance
- Remote controlled via AXOS 5 / AXOS 8



## FP-COMB 32

### 3-phase Coupling / Decoupling Networks (CDN) for AXOS 5/8

Technical data	
<b>FP-COMB 32</b>	
<b>Coupling</b>	
CDN Inputs	Banana socket 5 connectors
CDN Outputs	Banana socket 5 connectors
Waveforms	
EFT/Burst	IEC / EN 61000-4-4 Ed. 3
Surge Comb. Wave	IEC / EN 61000-4-5 Ed. 3
Ring Wave	IEC / EN 61000-4-12 Ed. 3
Maximum input voltage	
EFT / Burst	5 kV
Surge Comb. Wave	7 kV
Ring Wave	7 kV
Coupling path selection	automatic IEC and ANSI
Synchronization	10 V to 480 V
<i>Sync. On coupling path, output BNC rear panel</i>	input voltage 0° - 359°, step 1°
<b>Decoupling</b>	
Voltage AC	up to 480 V AC 16.7 Hz, 50 Hz, 60 Hz
Voltage DC	up to 480 V DC
Nominal current	32 A
Input voltage range	
EFT / Burst	0.2 kV – 5 kV
Surge Comb. Wave	0.2 kV – 7 kV
Ring Wave	0.2 kV – 7 kV
Coupling path selection	automatic
Synchronization	10 V to 480 V input voltage 0° - 359°, step 1°
<b>Interface</b>	
Extension Connector	Warning on AXOS display <i>(37 pol. Sub-D connector)</i>
LEDs	Indication of coupling path Power ON LED CDN active LED

Options – 3-phase CDNs		
2490170	FP-EFT 32M	Manual 3-phase CDN for EFT/Burst 32 A / 690 V AC / 110 V DC
2495860	FP-EFT 100M2	Manual 3-phase CDN for EFT/Burst 100 A / 690 V AC / 110 V DC
2490700	FP-SURGE 32A	Auto. 3-phase CDN for Surge 32 A / 690 V AC/DC
2499990	FP-COMB 63/690-1	Auto. 3-phase CDN for Surge, Ring Wave, EFT/Burst, 63 A / 690 V AC/DC
2490180	FP-SURGE 100M2	Manual 3-phase CDN for Surge, 100 A / 690 V AC / 110 V DC

Scope of delivery	
FP-COMB 32 (No. 2490430)	AC mains cable country specific
EUT mains cable 32 A	EUT mains adapter 32 A
Surge cable to AXOS	EFT/Burst cable to AXOS
Calibration certificate	User manual

All information regarding appearance and technical data correspond to the current state of development at the time of release of this data sheet. We reserve the right to make technical changes. 052309

