FP-COMB 32

Combined Automatic 3-Phase Coupling / Decoupling Network

Datasheet

HAEFELY

Current and voltage – our passion

General Description

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 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.

Features	Advantages
▪ Surge Combination Wave, 1.2/50 us - 8/20 us	☑ **All in One –** Combined CDN for Surge Combination Wave, Ring wave and EFT / Burst
▪ Ring Wave, 100 kHz	☑ **Easy to use –** LEDs indicate active mode and coupling path
▪ Electrical Fast Transient (EFT) / Burst	☑ **Automated –** Automatic selection of surge impedance
▪ 7 kV impulse voltage for Surge Combination Wave and Ring wave	☑ **Remote controlled –** Fully remote controlled by the AXOS[5] / AXOS[8]
▪ 5 kV impulse voltage for EFT/Burst	
▪ Line voltage 480 V AC / DC phase-to-phase	
▪ 32 A EUT current per phase	
▪ Phase angle synchronization for each path	

Applications

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

Scope of Supply

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

Technical Data

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

Decoupling	
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
EFT / Burst Input Voltage Range	0.2 kV – 5 kV
Surge Combination Wave Input Voltage Range	0.2 kV – 7 kV
Ring Wave Input Voltage Range	0.2 kV – 7 kV
Coupling Path Selection	Automatic
Synchronization	10 v to 480 V input voltage 0º to 359º, step 1º

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

Global Presence

Europe
HAEFELY AG
Birsstrasse 300
4052 Basel
Switzerland

☎ + 41 61 373 4111
sales@haefely.com

China
HAEFELY AG Representative Office
8-1-602, Fortune Street, No. 67
Chaoyang Road, Beijing 100025
China

☎ + 86 10 8578 8099
sales@haefely.com.cn

V2020.04

HAEFELY
Current and voltage – our passion

H HIGH VOLTAGE
I INSTRUMENTS
E EMC

precision. swiss made.