

FP-EFT 100M2

Three Phase Coupling
/ Decoupling Network for EFT /
Burst

Datasheet



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General Description

IEC / EN and ANSI standards cover burst testing of single and three phase AC and DC power ports. They include recommendations for the test equipment, the test set-ups and the test procedures. The IEC 61000-4- 4 Edition 3: 2015 now defines the impulse shape not only at the generator output but also at the CDN output.

This Edition 3 requires a pure common mode coupling only. This means that the burst signals are coupled simultaneously into all paths at the same time. Because of this no coupling path selection during testing is necessary. This speeds up the test time.

The FP-EFT 100M2 couples the burst into an EUT while preventing the impulses from polluting the three phase power supply.

The FP-EFT 100M2 has manual coupling path selection to verify the functionality of each path as recommended in the IEC 61000-4-4 Edition 3: 2015. This can also be used to select different coupling paths according to ANSI standards which requires a path by path burst test.

Used together with the AXOS5/AXOS8, or PEFT 8010, the FP-EFT 100M2 can be used to inject EFT/burst impulses on the three phase supply.

Features	Advantages
▪ 5/50 ns impulse shape	☑ International application – Specifically designed to meet and exceed the requirements of IEC, EN, and ANSI tests for power line applications.
▪ 8 kV impulse voltage	☑ Maximum Mains voltage – FP-EFT 100M2 is designed to operate at the maximum power supply voltages available anywhere in the world.
▪ Manual coupling path selection	☑ Easy – The simple design allows operators to test safely and easily.
▪ 690Vac phase-phase 400Vac phase-neutral	☑ Mains switch – This switch allows the disconnection of all phases and neutral so that no mains voltage is present at the CDN output.
▪ 100 A per phase EUT Current	☑ Sturdy and Reliable – Careful component selection ensures that the FP-EFT 100M2 will continue to operate under the most strenuous testing regime.
▪ Phase angle synchronization possible	☑ Faster completion of testing program - Since the IEC 61000-4-4 Edition 3: 2015 requires a pure common mode test only the test time is sped up.

Applications

- Three phase power line systems
- IEC/ EN 61000-4-4 Edition 3 Power lines
- ANSI C62.41 & C.37.90.1 Power lines

Scope of Supply

- FP-EFT 100M2 CDN
- Coaxial HV cable 0.33 m with SHV plugs
- Cable set
- Copper foil for ground connection
- Users Manual

Technical Data

Device	
Maximum Impulse Voltage	8 kV Burst
Maximum AC Voltage	690 V (Phase-Phase) 400 V (Phase-Neutral)
Maximum DC Voltage	110 V
Maximum AC Current	100 A
Maximum DC Current	100 A
Mains Connection	4 mm safety banana sockets
EUT Connections	4 mm safety banana sockets
Phase Sync. Source	fixed between L3 and PE
Coupling Paths	Manual selection
Residual Pulse Voltage at Line Input	max. 10% of the applied impulse amplitude

Mechanical	
Dimensions (W x D x H)	300 x 160 x 200 mm (11.8 x 6.3 x 7.9 in)
Weight	approx.. 6 kg Net. (13.2 lb)

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HIGH VOLTAGE



INSTRUMENTS



EMC

