

High-Power Fast Damped Oscillatory Wave Generator DOS 400F



■ IEC 61000-4-18

Features

- > 5.7-inch color touch screen front panel operation
- > The oscillatory frequency is 3 MHz / 10 MHz / 30 MHz, the test voltage up to 4.2 kV
- > Built in high-power three-phase AC/DC automatic coupling/decoupling network, EUT with load capacity of AC 1,000 V 100 A, DC 1,500 V 100 A
- > LAN Ethernet interface for remote control
- > Automatically switch coupling routes
- > Coupling path display (indicator light)

Introduction

The DOS 400F fast damped oscillatory wave generator can complete the testing of fast damped oscillatory waves required by the IEC 61000-4-18 standard.

The DOS 400F has three selectable oscillatory frequency points of 3 MHz/10 MHz/30 MHz, and the highest test voltage can reach 4.2 kV. It is equipped with a high-power three-phase DC automatic coupling/decoupling network. Oscillatory waves are repeatable transient disturbances that occur on high or medium voltage power lines, control lines, and signal lines.

Application Areas



Technical Parameters

Test Voltage	0.25 kV ~ 4.2 kV $\pm$ 10%
Calibration Voltage	500 V ~ 4 kV
Polarity	Positive, negative
Source Impedance	50 Ω $\pm$ 20%
Voltage Wave Rise Time	5 ns $\pm$ 30%
Frequency	3 MHz / 10 MHz / 30 MHz $\pm$ 10%
Attenuation	Pk ₅ > 50% of Pk ₁ Pk ₁₀ < 50% of Pk ₁
Repetitive Frequency	5 kHz $\pm$ 10%
Repetitions	Max. 9,999
Burst Duration	50 ms $\pm$ 20% @ 3 MHz 15 ms $\pm$ 20% @ 10 MHz 5 ms $\pm$ 20% @ 30 MHz
Burst Circle	300 ms $\pm$ 20%
Short-circuit Current	5 A ~ 80 A $\pm$ 20%
Calibration Current	10 A ~ 80 A
Current Wave Rise Time	3 MHz < 330 ns 10 MHz < 100 ns 30 MHz < 33 ns
Attenuation	Pk ₅ > 25% of Pk ₁ Pk ₁₀ < 25% of Pk ₁
Trigger Mode	Automatic, manual, external trigger
Coupling Network	Built in high-power three-phase DC automatic CDN EUT load capacity AC 1,000 V 100 A DC 1,500 V 100 A
Residual surge voltage at decoupling network power port	Not exceeding 15% of the applied test pulse voltage or twice the peak rated voltage of the coupling/decoupling network

General Parameters

Working Power	AC 220 V, $\pm$ 10%, 50 Hz/60 Hz $\pm$ 5%
Power Consumption	Max. 500 W
Fuse	6 A
Use Storage Space	Infinite (PC)
Communication Mode	Ethernet LAN, RJ45
Safe Loop	Stop working when the safety circuit is not closed
Failure Detection	Fault indication via front-panel LCD with automatic unit shutdown
Working Status Indication	LED indication and LCD display on the front panel
Grounding Method	Flat grounding wire

General Parameters

Dimension	19-inch/ 22U 600* (W)1,145 (H)*800 (D) mm
Weight	Approx. 145 kg
Ambient Temperature	15°C ~ 35°C
Relative Humidity	45% ~ 75% RH (no condensation)
Atmospheric Pressure	86 kPa ~ 106 kPa

Standard Accessories

Power Cord, Fuse, Test Cable, Grounding Wire, RF Cable, User Manual, Single-channel EFT/B Test Fixture

Optional Accessories

1	Splitter	Model: MCS 01B Sensitivity: 0.1 V / A Input Resistance: 0.1 Ω $\pm$ 2% Bandwidth: DC ~ 400 MHz	
2	EFT/B Calibration Kit	Model: EFT-CA-KIT(SHV) TFB 500(SHV) Input impedance: 50 Ω Attenuation ratio: 500:1 TFB 1000(SHV) Input impedance: 1,000 Ω Attenuation ratio: 1,000:1	
3	Capacitive Coupling Clamp	Model: CCC 100(SHV)	

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