
# High-Power
# Fast Damping Oscillation Wave Generator
# DOS 400F

■ IEC61000-4-18:2019

## Features

> 5.7-inch color touch screen front panel operation

> The oscillation frequency is 3 MHz / 10 MHz / 30 MHz, the test voltage can reach up to 4.2 kV

> Built in high-power three-phase DC automatic coupling/decoupling network, EUT with load capacity of AC 1000 V 100 A, DC 1500 V 100 A

> LAN Ethernet interface for remote control

> Meeting the needs of enterprises, institutions, and testing institutions for anti-interference testing equipment, it can completely replace imported equipment.

> Automatically switch coupling routes

> Coupling path display (indicator light)

## Introduction

The DOS 400F fast damping oscillation wave generator has three selectable oscillation 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 phenomena that occur on high or medium voltage power lines, control lines, and signal lines. The DOS 400F fast damping oscillation wave generator can complete the testing of fast damping oscillation waves required by the IEC 61000-4-18 standard.

## Application Areas

## Technical Parameters

| | |
|---|---|
| Test Voltage Range | 0.25 kV ~ 4.2 kV ± 10%(Calibration voltage: 500 V ~ 4.0 kV) |
| Polarity | Positive and negative |
| Source Impedance | 50 Ω ± 20% |
| Voltage Wave Rise Time | 5 ns ± 30% |
| Frequency | 3 MHz / 10 MHz / 30 MHz ± 10% |
| Decay | Pk5>50% of Pk1<br>Pk10<50% of Pk1 |
| Repetitive Frequency | 5 kHz ± 10% |
| Repetitions | Maximum 999,9 |
| Pulse Train Duration | 50 ms ± 20% at 3 MHz<br>15 ms ± 20% at 10 MHz<br>5 ms ± 20% at 30 MHz |
| Group Cycle | 300 ms±20% |
| Short-Circuit Current | 5 A ~ 80 A ±20%(Calibration current: 10 A ~ 80 A) |
| Current Wave Rise Time | 3 MHz＜330 ns<br>10 MHz＜100 ns<br>30 MHz＜33 ns |
| Decay | Pk5>25% of Pk1<br>Pk10<25% of Pk1 |
| Trigger Mode | Automatic, manual, external triggering |
| Coupling Network | Built in high-power three-phase DC automatic coupling/decoupling network<br>EUT load capacity AC 1000 V 100 A<br>DC 1500 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

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|---|---|
| Scope of Working Power Supply | AC 220 V ±10%,50 Hz / 60 Hz ±5% |
| Fuse | 6 A |
| Use Ftorage Space | Infinite (PC) |
| Communication Method | Ethernet LAN, RJ45 |
| Instrument Weight | About 145 kg |
| Safety Circuit | Stop working when the safety circuit is not closed |
| Failure Detection | When it fails, the front panel LCD displays and interrupts the instrument operation |
| Instrument Working Status Indicator | Front panel LED indicator, LCD display |
| Instrument Grounding Connection Method | Use a flat grounding wire |
| Chassis Size | 19 inches / 22U 600 mm (W) * 1145 mm (H) * 800 mm (D) |
| Temperature Range | 15 ℃ ~ 35 ℃ |
| Humidity Range | 45% ~ 75% RH(No condensation) |
| Compressed Air | 86 kPa ~ 106 kPa |

## Standard Accessories

Power cord, Fuse, test wire, Grounding wire, RF cable, Instruction manual, Quality inspection report, Product warranty certificate, Pulse group single channel testing fixture

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|---|---|---|---|---|
| Optional Accessories | 1 | Splitter | 0.1 V/A Model: MCS 01B |  |
| | 2 | Pulse Group Calibration Kit | Model: EFT-CA-KIT(SHV)<br>EFT attenuator, meeting pulse group calibration requirements<br>TFB 500 (SHV): Input impedance 50 Ω, output impedance 50 Ω,<br>Attenuation ratio: 500 : 1<br>TFB 1000 (SHV): Input impedance 1000 Ω, output impedance 50 Ω,<br>Attenuation ratio:1000 : 1<br>High voltage RF connector: SHV-BNC-JJ<br>BNC to Banana Plug: BNC (K) -2BP (J)<br>RF cable: 2*BNC/J-142-PNR-1000mm |  |
| | 3 | Capacitive Coupling Clamp | Satisfy the technical requirements for capacitive coupling clamps in IEC61000-4-4, and conduct EFT/ Burst<br>anti-interference tests<br>on the input, output, control, and data lines of the tested<br>equipment by superimposing interference.<br>Model: CCC 100(SHV) |  |

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