

Damped Oscillatory Wave Simulator

DOS 300

Datasheet



In Compliance with

- > IEC 61000-4-18
- > IEC 61000-4-10
- > IEC 255-22-1
- > ANSI C37.90
- > GB/T 17626.10
- > GB/T 17626.12
- > GB/T 14598.13

Introduction

The DOS 300 is capable of simulating the repetitive transient phenomenon generating on power, control and signal cables installed in high voltage and medium voltage stations and damped oscillatory magnetic fields generated by switching of HV bus-bars by isolators or disconnectors. It can perform tests compliant with IEC 61000-4-18 and IEC 61000-4-10 (optional).

Features

- > 5.7" color touch screen;
- > Test voltage up to 3.3 kV;
- > Magnetic field strength up to 100 A/m (option);
- > Built-in 3-phase CDN, current up to 100 A;
- > LAN Ethernet interface is used for remote control;

Application Areas

- | | |
|-----------------|--------------------|
| > Communication | > IT |
| > Telecom | > Military |
| > Medical | > Avionics |
| > Broadcasting | > New energy power |
| > Railway | |

Technical Parameters for Slow Damped Oscillatory Waveform as per IEC 61000-4-18	
Test Voltage	0.2 kV ~ 3.3 kV, ± 10% (source port)
Polarity	Positive, negative
Source Impedance	200 ohm ± 20%
Rise Time	75 ns ± 20%
Repetition Frequency	1~500 Hz, adjustable 100 kHz (1 Hz ~ 50 Hz); 1 MHz (1 Hz ~500 Hz, note: calibration frequency is 400 Hz)
Oscillation Frequency	100 kHz, 1 MHz; ±10%
Decay Rate	PK5 > 50% of PK1 value, PK10 < 50% of PK1 value
Burst Duration	1~99 s
Burst Interval	1~99 s
Number of Repetition	1~999
Trigger Mode	Auto, manual, external trigger
Sync	0°- 360°, 1° step or random mode
CDN	Built-in 3-phase a.c./d.c automatic CDN; AC 380 V 16 A/440 V 32 A / 690 V 100 A DC 400 V 16 A/1000 V 32 A/ 1000 V 100 A

Technical Parameters for Damped Oscillatory Magnetic Field as per IEC 61000-4-10 (option)	
Test Current	5 A ~ 120 A, ± 10%
Polarity	Positive, negative, first positive then negative
Repetition Frequency	1~500 Hz adjustable 100 kHz (1~50 Hz)
Oscillation Frequency	100 kHz, 1 MHz ±10%
Decay Rate	PK5 > 50% of PK1 value, PK10 < 50% of PK1 value
Burst Duration	1~99 s
Burst Interval	1~99 s
Number of Repetition	1~999

Magnetic Field Coil TCXS 111(Option)	
Magnetic Field Strength	1 A/m~400 A/m
Test Duration	5 h (magnetic field strength is not more than 100A/m) < 10 s (magnetic field strength is more than 100A/m)
Dimension of Coil and Bracket	1400 mm (L)×1000 mm (W), Height can be adjusted for 500 mm
Coil Dimension	1000 mm(L)×1000 mm(W), Single-turn

General Parameters	
Display Screen	5.7" TFT touch screen
Working Power	AC 110 V/220 V, ±10%, 50 Hz/ 60 Hz (AC 220V 50 Hz in mainland China)
Fuse	6 A
Max. Power Consumption	200 W
Working Status Indication	LED indication and LCD display on front panel
Dimension	19"4U
Weight	Approx. 30 kg
Ambient Temperature	15°C ~ 35°C
Relative Humidity	45% ~ 75%
Atmospheric Pressure	86 kPa ~ 106 kPa
Accessories	
Power line, testing line, earth line, fuse and user manual	

**Coupling/decoupling Networks CDN 418 series
as per IEC 61000-4-18 (Option)**

CDN 418AF8(41)	Pulse voltage: 4 kV Coupling mode: capacitive coupling Max. current: 1 A GDT coupling: CD 418G (option) TVS coupling: CD 418T (option)
CDN 418T8(41)	Pulse voltage: 4 kV Coupling mode: capacitive coupling Max. current: 1 A
CDN 418T8G(41)	Pulse voltage: 4 kV Coupling mode: GDT coupling Max. current: 1 A
CDN 418T8T(41)	Pulse voltage: 4 kV Coupling mode: TVS coupling Max. current: 1 A

Image of magnetic field coil:

