

Damped Oscillatory Wave Simulator

DOS 300 Series



In Compliance with

- > IEC 61000-4-18
- > IEC 61000-4-10
- > IEC 255-22-1
- > GB/T 17626.10
- > GB/T 17626.18
- > GB/T 14598.13
- > ANSI C37.90

Introduction

The DOS 300 Series damped oscillation simulators simulate repeatable transients mounted on high or medium voltage power, control and signal lines, as well as damped oscillating magnetic fields generated by the isolation tool against the high voltage bus. The DOS 300 is capable of testing slow damped oscillating waves as required by the IEC 61000-4-18 standard and the IEC 61000-4-10 damped oscillating magnetic fields (optional).

Features

- > 5.7 inch colorful touch screen;
- > Maximum voltage up to 3.3KV;
- > Output up to 100 A/m continuous magnetic Field intensity (optional);
- > Built-in three-phase coupling/decoupling network, maximum current up to 300 A;
- > LAN Ethernet interface for remote control;

Application Areas

- | | |
|-------------------|-------------------------|
| > Communication | > IT |
| > Telecom | > Military |
| > Medical | > Avionics |
| > TV Broadcasting | > New energy electrical |
| > Railway | > New energy vehicles |

IEC 61000-4-18 Technical Parameters of slow damped oscillation waveform

Test Voltage Range	0.2 KV ~ 3.3 KV, $\pm 10\%$ (Source port)
Polarity	Positive and negative (magnetic field has positive and negative modes)
Source Impedance	200 ohm $\pm 20\%$
Rise Time	75 ns $\pm 20\%$
Repetition Frequency	1 ~ 500 Hz, adjustable 100 kHz(1 ~ 50 Hz); 1 MHz (1 ~ 500 Hz) Note: Check frequency is 400 Hz
Oscillation Frequency	100 kHz, 1 MHz $\pm 10\%$
Attenuation Rate	PK5 > PK1 of 50%, Pk10 < PK1 of 50%
Pulse Duration	1 ~ 99 s
Pulse Separation	1 ~ 99 s
Times of Repetition	1 ~ 999
Trigger mode	Automatic, manual
Synchronization	0° ~ 360°, 1° Step setting or random mode
Coupling Network	Built-in three-intersection, DC automatic coupling/decoupling network

IEC 61000-4-10 Technical Parameters for damping oscillating magnetic fields (optional)

Test Current Range	5 A ~ 120 A $\pm 10\%$
Polarity	Positive, negative, positive/negative
Repetition Frequency	1 ~ 500 Hz adjustable 100 kHz (1 ~ 50 Hz)
Oscillation Frequency	100 kHz, 1 MHz $\pm 10\%$
Attenuation Rate	PK5 > PK1 of 50%, PK10 < PK1 of 50%
Pulse Duration	1 ~ 99 s
Pulse Separation	1 ~ 99 s
Times of Repetition	1 ~ 999

Common Parameter


Display Screen	5.7-inch TFT color touch screen
Operating Power Supply	AC 110V / 220 V $\pm 10\%$, 50/60 Hz $\pm 5\%$ (default AC 220 V 50 Hz in mainland China)
Fuse	6 A
Max Power	200 W
Working Status Indication	Front panel LED indicator, LCD display
Dimension	4U、6U、22U、35U
Weight	Ranging from 30 kg to 550 kg
Ambient Temperature	15 °C ~ 35 °C
Relative Humidity	45 % ~ 75 %
Atmospheric Pressure	86 kPa ~ 106 kPa

IEC 61000-4-18 CDN 418 Series Coupling /Decoupling Network (optional)

CDN 418AFL8(4A)	impulse voltage: 4 kV coupled mode: capacity coupling maximum current: 4 A GDT coupling: CD 418G (Optional) TVS coupling: CD 418T (Optional)
CDN 418TH8	impulse voltage: 4 kV coupled mode: capacity coupling maximum current: 1 A

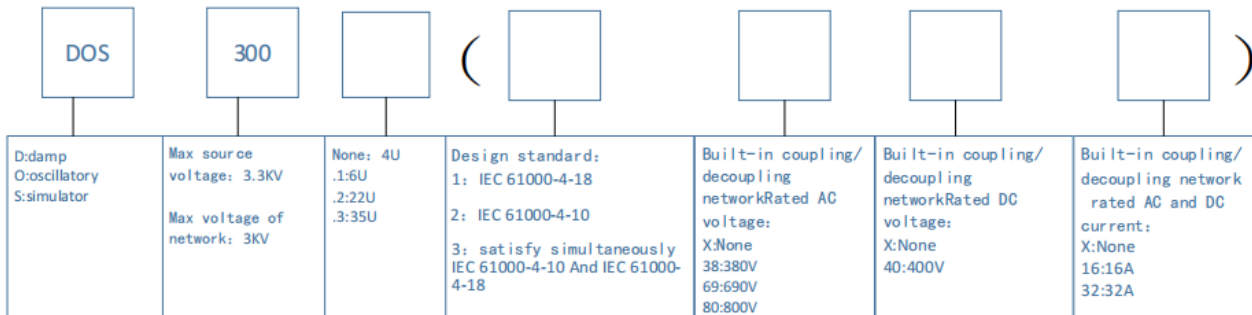
Standard Accessories

Power line, Test line, Ground line, fuse, User manual

Field Coil TCXS 111 (optional)	
Magnetic Field In Tensity	1 A/m~400 A/m
Test Time	≤100 A/m Continuous operation for 5 hours
	More than 100 A/m < 10 s
Overall Coil Size	1400 x 1000 mm length x width Coil height adjustable stroke: 500 mm
Coil Size	1000×1000 mm Length x width, single turn
Coil Picture	

DOS 300 series selection			
Type	Built-in coupling/decoupling network rated AC voltage	Built-in coupling/decoupling network rated DC voltage	Built-in coupling/decoupling network rated current
DOS 300(2XXX)	None	None	None
DOS 300(138X16)	380 V	None	16 A
DOS 300(1384016)	380 V	400 V	16 A
DOS 300(3384016)	380 V	400 V	16 A
DOS 300(122X10)	220 V	None	10 A
DOS 300.2(169100100)	690 V	1000 V	100 A
DOS 300.2(1384032)	380 V	400 V	32 A
DOS 300.2(3384032)	380 V	400 V	32 A
DOS 300.2(3694032)	690 V	400 V	32 A
DOS 300.2(14410032)	440 V	1000 V	32 A
DOS 300.3(170150300)	700 V	1500 V	300 A
Customized according to customer needs			

DOS 300 series naming reference:



Note: Only IEC61000-4-10 pulsed magnetic field, no built-in network

For Example: DOS 300(3384016)

- 3: Meet both IEC 61000-4-18 and IEC 61000-4-10 38: Built-in coupling/decoupling network AC voltage 380V
- 40: Built-in coupling/decoupling network DC voltage 400V
- 16: Built-in coupling/decoupling network AC, DC current 16A



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