

Common-Mode Conducted Disturbances Simulator **CDS 300**



- IEC/EN 61000-4-16
- IEC/EN 61000-4-19
- IEC/EN 60255-22-7
- GB/T 14598.19
- JJF 1245.4

Features

- > Integrated design
- > Frequency range: DC ~ 165 kHz
- > Test voltage up to 30 V from 10 Hz to 165 kHz; up to 300 V at DC, 16³/₅ Hz, 50 Hz and 60 Hz
- > Frequency step: linear, logarithmic, fixed

Introduction

The CDS 300 is a common-mode conducted disturbance simulator with a frequency range of 0 Hz (DC) to 165 kHz and a max. output voltage of 300 V. The generator is controlled by CoreLab software, enabling quick and convenient functional tests

It complies with IEC/EN 61000-4-16, IEC 61000-4-19, IEC/EN 60255-22-7 and JJF 1245.4-2019..

Application Areas



Technical Parameters

Output Specifications (Continuous Mode)	
Test Frequency	DC, 16 $\frac{2}{3}$ Hz, 50 Hz, 60 Hz
Open-circuit Voltage	1 V ~ 30 V
Signal Level	(0.1-30) V RMS or DC
Test Level 1	1 V, continuous
Test Level 2	3 V, continuous
Test Level 3	10 V, continuous
Test Level 4	30 V, continuous
Output Impedance	50 Ω $\pm$ 10%
Total Harmonic Distortion	< 10% (sine wave)
DC Ripple	< 5%
Output Specifications (Short-term Mode)	
Test Frequency	DC, 16 $\frac{2}{3}$ Hz, 50 Hz, 60 Hz
Open-circuit Voltage	10 V ~ 330 V
Signal Level	(1~330) V RMS or DC
Test Level 1	10 V, duration 1 s
Test Level 2	30 V, duration 1 s
Test Level 3	100 V, duration 1 s
Test Level 4	300 V, duration 1 s
Output Impedance	50 Ω $\pm$ 10%
Phase Sync	0° $\pm$ 5%
DC Ripple	< 5%
Rise/Fall time	1 μ s ~ 5 μ s
Output Specifications (15 Hz - 165 kHz)	
Frequency Range	10 Hz~165 kHz
Signal Level	(0.1~30) V RMS
Test Level 1	1 V - 0.1 V - 1 V
Test Level 2	3 V-0.3 V-3 V
Test Level 3	10 V-1 V-10 V
Test Level 4	30 V-3 V-30 V
Output Impedance	50 Ω $\pm$ 10%
Total Harmonic Distortion	< 1% (sine wave)
Differential-mode Voltage Disturbance Test	
Frequency Range	2 kHz ~ 150 kHz
Waveform	Sine wave, total harmonic distortion < 5%
Open-circuit Voltage	0.1 V ~ 20 V
Load Impedance	10 Ω $\pm$ 30%
Differential-mode Current Disturbance Test	
Frequency Range	2 kHz ~ 150 kHz
Max. Current	5 A
BNC Output	10:1 (0.1 V/A)
Load Impedance	10 Ω $\pm$ 0.3 Ω

General Parameters

Working Power	AC 110/220 V, $\pm 10\%$, 45~65 Hz
Weight	Approx. 100 kg
Dimension	22 U rack
Ambient Temperature	15°C ~ 35°C

Standard Accessories

User Manual, Test Cable, Fuse, Grounding Cable, RF Cable, Network Cable, Power Cord

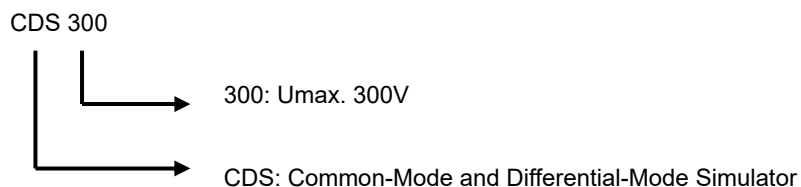
Optional Accessories

1	Coupling Network	Model: CN416M2/M3-32 EUT voltage rating: Single-phase 2-wire or 3-wire, 32 A, 250 V AC/DC Test voltage range: DC ~ 300 V Frequency: DC ($16^{2/3}$ Hz, 50 Hz, 60 Hz) 2 kHz~150 kHz	
2	Coupling Network	Model: CN416M4N-32 EUT voltage rating: Three-phase 4-wire, L-G, 250 V AC/DC Test voltage range: DC ~ 300 V Frequency: DC ($16^{2/3}$ Hz, 50 Hz, 60 Hz) 2 kHz ~ 150 kHz	
3	Coupling Network	Model: CN416M5-32 EUT voltage rating: Three-phase 5-wire, L-G, 250 V AC/DC Test voltage range: DC ~ 300 V Frequency: DC ($16^{2/3}$ Hz, 50 Hz, 60 Hz) 2 kHz ~ 150 kHz	
4	Coupling/Decoupling Network	Model: CDN416T2 Frequency: 2 kHz ~ 150 kHz Number of lines: 2 Max. current: 0.5 A Max. voltage: AC 150 V, DC 200 V Connector type: Terminal block	
5	Coupling/Decoupling Network	Model: CDN416T4 Frequency: 2 kHz ~ 150 kHz Number of lines: 4 Max. current: 0.5 A Max. voltage: AC 150 V, DC 200 V Connector type: Terminal block	
6	Coupling Network	Model: CDN416T8 Frequency: 2 kHz ~ 150 kHz Number of lines: 8 Max. current: 0.5 A Max. voltage: AC 150 V, DC 200 V Connector type: Terminal block	
7	Coupling/Decoupling Network	Model: CDN419M3-32 EUT voltage rating: Single-phase 3-wire, 32 A, 250 V AC/DC Frequency: 2 kHz ~ 150 kHz	

Optional Accessories

8	Coupling/Decoupling Network	Model: CN419M4N-32 EUT voltage rating: Three-phase 4-wire, 32 A, L-G, 250 V AC/DC Frequency: 2 kHz ~ 150 kHz	
9	Coupling Network	Model: CN14598-19 Max. EUT voltage: 250 V AC Max. EUT current: 32 A	
10	Isolation Transformer	Configuration can be selected according to the power rating of single-phase or three-phase power supply chosen by customers. It is applied to coupling and decoupling waveform tests.	
11	CoreLab Immunity Test Software	Support Windows 7/8/10 /11; Support Ethernet Interface; Support sequence test, easy to operate, generate and export test report.	
12	Differential Mode Current Test Module	Model: WCT 20 Frequency: 2 kHz ~ 150 kHz Max. current: 5 A Max. voltage: less than 22 V Impedance: 1 Ω ±0.3 Ω	
13	Differential Mode Current Test Module	Model: R419-10 Resistance: 10 Ω	
14	Differential Mode Current Test Module	Model: RJJF-100 Resistance: 100 Ω	
15	Balanced-Unbalanced Impedance Converter	Model: Balun 50/10 Characteristic impedance: 50 Ω / 10 Ω Frequency: 2 kHz ~ 150 kHz Max. input voltage (Vpp): 400 V	

Naming Rules



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