Single-phase Voltage Dip Simulator

VDS-1103B【Introduction】

The Lioncel VDS-1103B Single-Phase AC Voltage Dip Simulator is a highly reliable and precise testing device specifically designed to cater to the characteristics and requirements of voltage transient and short interruption immunity tests for single- phase electrical equipment. The performance of this device meets the standards of IEC 61000-4-11 and GB/T 17626.11.

The VDS-1103B series features a compact size and lightweight design. It can achieve a maximum voltage of 690V and a maximum current of 32A.

Compliance Standards

IEC 61000-4-11、EN 61000-4-11、GB/T 17626.11

Application Fields

Industrial equipment, electrical instrumentation, medical devices, lighting appliances, communication transmission equipment, audio and video equipment, low-voltage electrical appliances, electronic components, electric tools, information technology equipment, and instruments and meters.

Technical Features

- Meets the testing requirements of IEC 61000-4-11 and GB/T 17626.11；
- Features a full-color touchscreen for interface programming control, IEC level setting, and real-time display of test waveforms, voltage, and current parameters；
- Designed with an expandable modular structure, allowing the main unit to operate independently or be expanded for universal power grid simulation；
- Fully compatible with 50 Hz and 60 Hz, with automatic frequency and voltage detection, calculation, and adjustment；
- Comes standard with an RS485 control interface for upper computer control；
- Offers excellent voltage switching characteristics (switching time less than 5 microseconds) to meet standard requirements.；

Parameter List

Specification Model	VDS-1103B
Type of Interference	Single-Phase Voltage Dip Simulator
EUT Capacity	Single-phase, maximum voltage AC 690 V/32 A

Power Grid Frequency	50 Hz/60 Hz
Voltage Dip Test Voltage	Single-phase: Settable from 0-220 V in 2.5% steps
Overshoot Variation of Generator Output Voltage Under Rated Load Conditions	Accuracy within 5% of UT (set voltage)
Phase Relationship between Voltage Dip/ Interruption and Power Supply Frequency	< ±10°
Inrush Current	≥ 500 A
Starting Phase of Voltage Dip (Rise)	0 ～ 359° (1° step)
Ending Phase of Voltage Dip (Rise)	0 ～ 359° (1° step)
IEC Standard Test Voltage	0%，40%，70%，80%，120% EUT
Number of Continuous Cycles of Voltage Dip (Rise)	0.1 ～ 9999 cycles (50 Hz and 60 Hz)
Number of Interval Cycles of Voltage Dip (Rise)	5 ～ 9999 cycles (50 Hz and 60 Hz)