

Voltage Dip & Swell Simulator

VDS-1007 / VDS-2007

Features

- Enable to enrich EMC preliminary tests with the remote control as an AC stabilizing power source in the stand-alone.
VDS-1007:1kVA
VDS-2007:2kVA
- Enable IEC61000-4-11/13/14/28 precompliant tests
- Usable to be power source for IEC61000-3-2-2 precompliant measurement
- Enable to put out arbitrary waveforms and measure harmonics

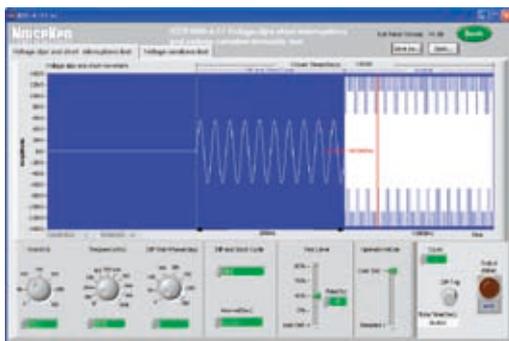


Specification

Parameter	Specification (VDS-1007)				Specification (VDS-2007)			
	150V	300V	150V	300V	150V	300V	150V	300V
Range	150V	300V	150V	300V	150V	300V	150V	300V
Max. output voltage range	AC 0~150 V	AC 0~300 V	DC 0~212 V	DC 0~424V	AC 0~150 V	AC 0~300 V	DC 0~212 V	DC 0~424 V
Load regulated output voltage variation	0.2%							
Voltage set resolution	0.1V							
Output current capability	AC 8Arms	AC 4Arms	DC 4A	DC 2A	AC 16Arms	AC 8Arms	DC 8A	DC 4A
Max. output current capability (Instant)	48Apeak	24Apeak	48Apeak	24Apeak	96Apeak	48Apeak	96Apeak	48Apeak
Frequency range	DC, 15Hz~1kHz, 0.01Hz step±0.15%							
Rise time / Fall time (at interruption)	130µsec(typ)							
Voltage distortion	0.3% (50/60Hz)							
Line / Load regulation	0.1%(Line)/0.2%(Load)							
Output impedance	0.0Ω+0.0mH ~1.0Ω+1.0mH set possible. 0.01Ω step. 0.01mH step.							
Phase angle setting	0~359.9°DEG 0.1°DEG step							
Arbitrary waveform output, waveform library	50/60Hz up to 40th order. External analog input up to 30 kinds.							
Measurement function	11 kinds (Voltage, current, power, harmonics, power-factor, crest factor, apparent power, reactive power)							
IEC Standards precompliant testing function	IEC 61000-4-11, 4-13, 4-14, 4-28. AC source for IEC 61000-3-2, 3-3							
Dip / Swell level	0%, 40%, 70%, 80%(0~32767%, 1% step (arbitrary) within max. output voltage range							
Repetition	1~65535 times. 1 time step							
Dip phase	0~359.9deg. 0.1deg step							
Dip cycle	0~99999999cycle. 0.1cycle step							
Interval cycle	0~99999999sec. 0.0001sec step							
Voltage dip & swell test	Fall set : 0~100000cycle. 1cycle step							
	Voltage variation test : 1~32767cycle. 1cycle step							
	Rise set : 0~32767cycle. 1cycle step							
	Repetition : 1~32767 times							
Others	3-phase output by 3 units parallel connection. Capacity increase by 2 units parallel connection. Silence realizing design along load condition. Over voltage/over current/over power protection.							
Power supply	AC90~250V, 15AMax, 47~63Hz				AC90~250V, 28AMax, 47~63Hz			
Interface	GPIB RS232							
Operating temperature / humidity range	15°C~35°C Without dew, 25%~75%							
Dimension / Mass	(W)438×(H)134×(D)610mm 19.5kg				(W)438×(H)134×(D)610mm 20.5kg			
Accessory	Captive cable 1 pc. Rear-foot. Instruction manual. Control (Down load on web)							

Voltage dip & swell test (IEC 61000-4-11 precompliant test)

There may be power supply voltage interruption or fluctuation due to power failure or multi-connection of electronics equipments in the field. VDS-1007/2007 are the simulators to reproduce these kinds of voltage variation phenomena and dedicated to evaluate the resistibility of electronics equipments.



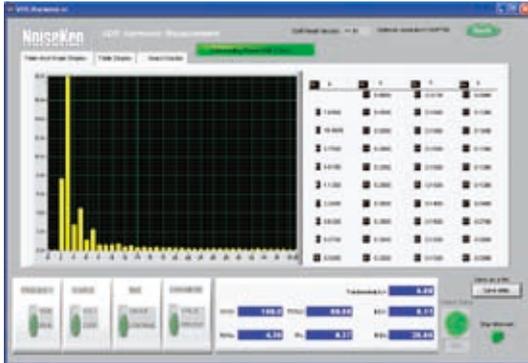
Harmonics generation (IEC 61000-4-13 precompliant test)

Actual power supply may be sometime coupled with harmonics or inter harmonics which are generated from various kinds of electronics equipments. These harmonics may influence the connected equipments. VDS-1007/2007 "can reproduce the harmonics arbitrarily" and put it out.



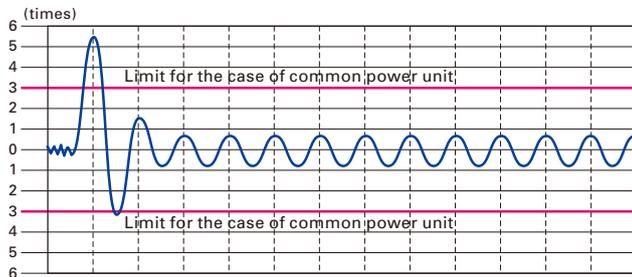
Harmonics measurement

Electronics equipments which are connected to power supplies generate harmonics from themselves due to resonance, etc. The harmonics may influence the other connected equipments badly. VDS-1007/2007 equip the "measurement function" to do the pre-check of the harmonics.



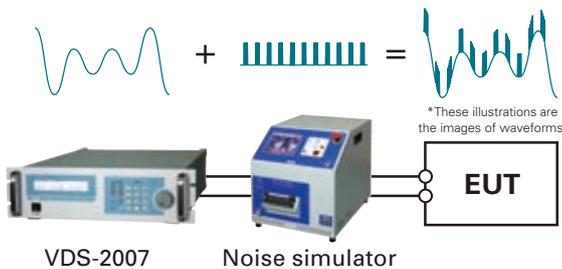
6 times more rush current

VDS-1007/2007 can flow rush current 6 times more than the rating. Usable for the equipments or devices like motors, invertors, etc. which require the rush current or when high inrush current is required in the development stage.



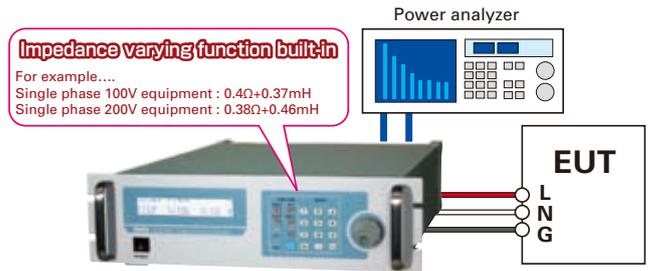
Further severe noise test

In the real field, electronics equipments must be operated in bad power supply environment noise is coupled as well. Since VDS-1007/2007 are strong resistible simulator against the noise, usable for the simulation in combination with the other simulators.



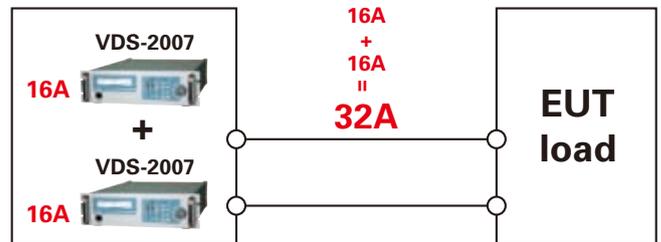
Output impedance variation

"Flicker measurement" according to IEC Standard specifies that reference impedance built-in power source should operate EUT (Not applied to "Harmonics measurement"). VDS-1007/2007 equip the function to set the reference impedance.



Power supply capacity increase

Voltage dip and swell test can be realized for equipments which need big electric current with 2 units parallel connection of VDS-2007.



Other various functions

- Sensing function
In case distance is there to load, correct voltage dip in wirings for the supply.
- IEC 61000-4-14 precompliant voltage fluctuation immunity test.
- IEC 61000-4-28 precompliant variation of power frequency, immunity test.

■ Software to ease the operation

Remote control software for VDS-1007/2007 can be downloaded on NoiseKen web site (<http://www.noiseken.com>).

Complicated waveforms can be programmed and one-touch tests according to IEC Standards can be realized with the software and PC on-hand.



Option

05-00100A	RS232C cable 2M
05-00101A	Synchronizing cable 0.2m

07-00024A	RS232C-USB conversion adaptor kit
07-00025A	GPIB-USB conversion adaptor

NoiseKen NOISE LABORATORY CO.,LTD

URL <http://www.noiseken.com>

1-4-4 Chiyoda, Chuo-ku, Sagamihara City, Kanagawa Pref. 252-0237 Japan

International Sales & Marketing Section

TEL : +81-(0)42-712-2051 / FAX : +81-(0)42-712-2050

E-mail : sales@noiseken.com