



NSG 3040-SOW

THE SMART 4 KV SOLUTION FOR SLOW DAMPED OSCILLATORY WAVE TESTING



- IEC/EN 61000-4-18 & ANSI C37.90.1 compliant
- 100 kHz and 1 MHz oscillation frequency from 0.2 to 4.4 kV
- Selectable source impedance of 200 Ω and 150 Ω
- Pulse repetition rate exceeds standards requirement
- Quickly launch tests from extensive Standards Library or User Test folders
- Easy-to-operate 7" touchscreen color display

Teseq's new NSG 3040-SOW is an easy-to-use stand alone generator for Slow Damped Oscillatory Wave testing (100 kHz and 1 MHz) in compliance with IEC/EN 61000-4-18 and ANSI C37.90.1, for single phase equipment up to 270 V/16 A. Unique NSG 3040-SOW capabilities enable users not only to perform tests according to exact standard requirements, but also to test at higher levels when over-testing is required, and to test under conditions that are closer to reality, ensuring their product will perform as intended in the real world.

Unique NSG 3040-SOW capabilities include higher voltage levels (up to 4.4 kV) ideal for development and over-testing purposes. Common mode, differential mode, and single/multiple line to ground coupling.

Unique NSG 3040-SOW source impedance values that reflect actual reality conditions. The NSG 3040-SOW features a selectable source impedance of 200 Ω and 150 Ω . According to standard, 200 Ω is the fixed output impedance, while the 150 Ω value represents the actual impedance of cables (twisted pairs).

A 7" touch panel display with superb contrast and colour makes controlling the NSG 3040-SOW easy. For fast and efficient data entry, input devices include an integrated keyboard and a thumbwheel with additional keys for sensitivity adjustment. To achieve quick, reliable results in a development environment a standardized test can be initiated with just a few "clicks" using the integrated Test Assistance (TA) function.

Convenient touch input buttons make each parameter's value highly visible and allow the user to quickly select and modify all settings.

With expert mode users can make manual parameter changes using the thumbwheel while a test is under way, providing an effective and fast method for identifying critical threshold values.

The NSG 3040-SOW has an Ethernet port for external PC control. The Windows-based control software simplifies test programming and compilation of complex test sequences with various types of tests. Test reports can be generated during the test operation, allowing the operator to enter observations as the test progresses and increasing the efficiency of long-term tests.

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The NSG 3040-SOW performs tests according to the following specifications:

Slow Damped Oscillatory Wave pulses 100 kHz and 1 MHz

Pulse conforms to IEC/EN 61000-4-18, ANSI C37.90.1, and IEC/EN 62052-11

Parameter	Value
Voltage Range	0.2 to 4.4 kV
Oscillation frequency	100 kHz and 1 MHz
Pulse repetition	1 MHz pulse: From 1/s to 600/s ¹⁾ , default is 400/s 100 kHz pulse: From 1/s to 120/s ¹⁾ , default is 40/s
Source impedance	150 Ω and 200 Ω
Burst duration	From 1 s to 100 s or 1 pulse to 9999 pulses or continuous – default setting is 2 s
Rise time	75 ns
EUT AC	1 Ph 16 A, up to 270 Vrms ²⁾ , 50/60 Hz (phase - neutral)
EUT DC	16 A, up to 270 VDC
Coupling cap	0.5 μF
Decoupling choke	2 x ≤1.5 mH
Output	Floating

¹⁾ Pulse repetition rate and (Burst duration ÷ Repetition time) are derated for voltage levels above 3.3 kV. Please refer to user manual.

²⁾ Below 24 VAC synchronisation not guaranteed, asynchronous mode only

Dimensions/weight

Dimensions	449 (17.7") x 226 (8.9"; 5 HU) x 565 mm (22.2") (W x H x D)
Weight	approx. 25 kg (55 lbs)

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Options

Type	Description
WIN 3000	Control and reporting software
MD 200	Voltage calibration probe
CDN 3425	Capacitive coupling clamp
MD 310	Current calibration probe
INA 3430	SOW-Adapter for capacitive coupling clamp
INA 166	Rack mounting brackets (4HU)