

EMC TEST SOLUTIONS

IEC 61000-4-5, IEC 61000-4-9, IEEE C62.41.2, EN 50121-3-2 /-4

surge NX8

Combination Wave Generator

NEW



Key Features

- Surge voltage up to 8,000 V
- Built-in single or three-phase CDN
- Supports up to 3 × 690 V AC and 1000 V DC (optional)
- Internal coupling network up to 32 A
- Integrated AC and DC supply contactor
- IEC, ANSI A, ANSI B, and railway coupling (EN 50121)
- Intuitive 7" color touchscreen for easy operation
- Remote control via Opto-Link and Ethernet

The new surge NX8 is the latest combination wave generator designed for high-voltage transient testing up to 8 kV in compliance with IEC 61000-4-5, IEC 61000-4-9, IEEE C62.41.2, EN 50121-3-2 /-4 and many more.

Surge pulses occur due to direct or indirect lightning strokes to an external (outdoor) circuit. This leads to currents or electromagnetic fields causing high voltage or current transients. Another source for surge pulses are switching transients originating from switching disturbances and systems faults. Due to the characteristic of the phenomenon nearly every electrical and electronic device may suffer from such lightning events which justifies the necessity of surge tests being widely performed.

The surge NX8 offers a user-friendly, high-performance solution for laboratories and manufacturers conducting rigorous transient immunity tests.

MODELS AND SPECIFICATION

| | AC | DC |
|----------------------|-------------------|--------------|
| surge NX8 1-400-16 | 400 V (L-N), 16 A | |
| surge NX8 1-400-32 | 400 V (L-N), 32 A | |
| surge NX8 3-690-16 | 690 V (L-L), 16 A | |
| surge NX8 3-690-32 | 690 V (L-L), 32 A | |
| surge NX8 1-400-16.1 | 400 V (L-N), 16 A | 1000 V, 16 A |
| surge NX8 1-400-32.1 | 400 V (L-N), 32 A | 1000 V, 32 A |
| surge NX8 3-690-16.1 | 690 V (L-L), 16 A | 1000 V, 16 A |
| surge NX8 3-690-32.1 | 690 V (L-L), 32 A | 1000 V, 32 A |

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surge NX8

Combination Wave Generator

The new standard for
PERFORMANCE, FLEXIBILITY AND POSSIBILITIES

The **surge NX** has the answers to all **the important questions**

Which test standards are supported by the surge NX8?

The surge NX8 includes a comprehensive library of predefined standards, such as IEC 61000-4-5, IEC 61000-4-9, EN 50121, EN 61000-6-1, EN 61000-6-2, EN 50121-3-2, IEEE C62.41.2, and more.

>> Benefit: Faster setup for compliance testing, reducing preparation time.

Does the surge NX8 support both IEC and ANSI coupling methods?

Yes, the surge NX8 supports coupling according to IEC standards as well as ANSI A and ANSI B, ensuring compatibility with a wide range of testing requirements.

| | Line to Line | Line to PE (IEC) Line to GND (ANSI) |
|--------|--------------|----------------------------------------|
| IEC | 2 Ω; 18 μF | 12 Ω; 9 μF |
| ANSI A | 12 Ω; 9 μF | 12 Ω; 9 μF |
| ANSI B | 2 Ω; 18 μF | 2 Ω; 18 μF |

>> Benefit: Greater flexibility, allowing seamless testing across different industry standards.

How does the surge NX8 handle pulsed magnetic field testing?

The generator includes a switchable 18 μF capacitor in the pulse output, which is essential for pulsed magnetic field testing according to IEC 61000-4-9.

>> Benefit: Built-in components eliminate the need for external add-ons, improving convenience.

Can the surge NX8 be used for railway equipment testing?

Yes, it includes the required 0.5 μF coupling capacitor and 42 Ohm impedance, making it fully compliant with EN 50121 railway testing standards.

>> Benefit: Ensures reliable and high-performance testing for railway applications.

What options are available for testing currents higher than 32 A?

For applications requiring higher currents, the PCD series coupling networks can be used as an extension to the surge NX8.

>> Benefit: Expands testing capability, ensuring optimal performance for high-current applications.



Is the surge NX8 suitable for high-voltage DC applications?

Yes, an optional 1000 V DC mode is available. Additionally, the built-in contactor allows safe switching of power supply to the test object.

>> Benefit: Enhanced safety and control, improving test efficiency.

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