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Data Sheet

August 14, 2026

AMETEK

Ametek NSG 3040A-IEC

The Ametek NSG 3040A-IEC is a network surge generator designed to simulate disturbances on signal and telecommunication lines. It complies with IEC standards, providing accurate and repeatable surge testing for network equipment.



MODEL

**Ametek NSG
3040A-IEC**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

NSG 3040A-IEC

LISTING

<https://aumictechlabs.com/products/nsg-3040a-iec-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The AMETEK NSG 3040A-IEC is a versatile, multifunction generator designed to simulate electromagnetic interference effects for immunity testing. It is engineered to meet conducted EMC test requirements for CE mark testing, which commonly include Combination Wave Surge, Electrical Fast Transient (EFT) pulses, and Power Quality Testing (PQT). The NSG 3040A-IEC features a modular design, allowing for basic test needs and expansion for more sophisticated laboratory requirements, and is built with components for enhanced accuracy and reliability.

Technical Specifications General: Product Type: Multifunction Generator for Immunity Testing Standards Compliance: IEC/EN standards, including IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-8, IEC 61000-4-9, IEC 61000-4-11, IEC 61000-4-29, and IEC 61000-4-12 User Interface: 7-inch color touch screen display with high contrast and color for easy control Data Entry: Integrated keyboard and a thumbwheel with sensitivity adjustment keys Test Assistance (TA) Function: Integrated for initiating standardized tests with minimal clicks Parameter Adjustment: Settings can

be modified during an active test in expert mode Connectivity: Ethernet port for external PC control Software: Windows-based control software for simplified test programming and complex sequence compilation Test Reporting: Test reports can be generated during test operation, allowing for real-time observations Modular Design: Allows for configuration of basic test needs and expansion to meet advanced laboratory requirements Power Quality Testing (PQT): Up to 16 A / 300 VAC & DC Instrument Supply: 85 to 265 VAC, 50/60 Hz Surge Testing: Type: Combined Wave Surge, Telecom Surge Immunity Standard: Conforms to IEC/EN 61000-4-5 Pulse Voltage (Open Circuit): ± 200 V to 4.8 kV (in 1 V steps) Pulse Voltage (50 Ω Matching System): ± 100 V to 2.4 kV Pulse Waveform: 1.2/50 μ s - 8/20 μ s (Hybrid-Surge pulse) Coupling Modes: Standard coupling as per IEC 61000-4-5, including line-to-line and lines-to-ground configurations Electrical Fast Transient (EFT) / Burst Testing: Type: EFT/Burst, EFT/Pulse Group Standard: Conforms to IEC/EN 61000-4-4 Pulse Amplitude: Up to 4.8 kV Pulse Duration: 5/50 ns Burst Frequency: 100 Hz to 1000 kHz Voltage Interruptions and Variations Testing: Type: Voltage Dips, Interruptions & Variations, Deviation Test Standards: Conforms to IEC/EN 61000-4-11, IEC/EN 61000-4-29 Dips & Interrupts: From EUT voltage input to 0 V, 0% EUT Supply: Up to 270 V rms (Phase Neutral), 50/60 Hz; Up to 270 VDC EUT Current: 1 $\times$ 16 A rms continuous (overheat protected); 1 $\times$ 25 A rms for 30 min Inrush Current Capability: 500 A (at 230 V) Switching Times: 1 to 5 μ s (100 Ω load) Magnetic Field Testing: Type: Pulsed Magnetic Field, Power Frequency Magnetic Field Standards: Conforms to IEC/EN 61000-4-9 (Pulsed Magnetic Field) and IEC/EN 61000-4-8 (Power Frequency Magnetic Field) Required Accessories: In conjunction with accessories such as 702A, MFT 30, MFO 6501, MFC 30, and MFC 300 Interfaces * EUT Connection: 4mm banana plug terminals Control: Ethernet port for external PC control Output: HV impulse output on the front side for connection to additional CDNs for signal and data lines Physical * Display: 7-inch color touch panel display Ergonomics: Integrated keyboard and thumbwheel for efficient data entry and parameter adjustment Compatibility * Standards: Broad compliance with international, national, and manufacturer's standards, including the latest IEC/EN standards Expansion: Extensive expansion capabilities allow configuration for a broader range of applications with various optional test accessories and modules Coupling Networks: Compatible with coupling/decoupling networks (CDNs) such as the CDN 3000A series for enhanced testing capabilities Accessories: Compatible with a wide range of optional test accessories and modules for specialized testing needs Why Choose Aumictech for Ametek NSG 3040A-IEC? At Aumictech, we specialize in supplying high-end E

NSG3040AIEC Characteristics / Specifications

PARAMETER	VALUE
Model	NSG 3040A
Function	multifunction conducted immunity generator
Surge Pulse Shape	combination wave 1.2/50 us 8/20 us hybrid IEC/EN 61000-4-5
Surge Voltage Open Circuit	plus or minus 200 V to 4.8 kV in 1 V steps
Surge Current Short Circuit	plus or minus 100 A to 2.4 kA
Surge Impedance	2/12 ohm
Surge Polarity	positive negative alternate
Surge Pulse Repetition	10 s to 9999 s in 1 s steps
Surge Test Duration	1 to 99999 pulses or continuous
Phase Synchronization	asynchronous or synchronous 0 to 359 deg in 1 deg steps
Burst Pulse Shape	5/50 ns IEC/EN 61000-4-4
Burst Amplitude Open Circuit	plus or minus 200 V to 4.8 kV in 1 V steps
Burst Amplitude 50 ohm Matching	plus or minus 100 V to 2.4 kV
Burst Frequency	100 Hz to 1000 kHz
Burst Repetition Time	10 ms to 9999 ms
Burst Duration	0.01 ms to 9999 ms or single pulse
Dips Standard	IEC/EN 61000-4-11 and IEC/EN 61000-4-29
Peak Inrush Current Capability	greater than 500 A at 230 V
Switching Times 100 ohm Load	1 to 5 us
EUT VAC	up to 300 Vrms 50/60 Hz phase to neutral
EUT VDC	up to 300 VDC
EUT Current	1 × 16 Arms continuous overheat protected
Instrument Supply	85 to 265 VAC 50/60 Hz
Dimensions	19 inch 3 HU 448 × 154 × 500 mmWxHxDMass: approx 22 kg
Display	7 inch color touch panel

PARAMETER	VALUE
Remote Interface	Ethernet
Pulsed Magnetic Field With MFC	100 to 1200 A/m IEC/EN 61000-4-9
Power Magnetic Field With MFC	1 to 40 A/m 50/60 Hz IEC/EN 61000-4-8

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Surge Test Duration	1 to 99999 pulses or continuous
Phase Synchronization	asynchronous or synchronous 0 to 359 deg in 1 deg steps
Burst Pulse Shape	5/50 ns IEC/EN 61000-4-4
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Burst Amplitude 50 ohm Matching	plus or minus 100 V to 2.4 kV
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PARAMETER	VALUE
Pulsed Magnetic Field With MFC 30	100 to 1200 A/m IEC/EN 61000-4-9
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Notes

From AMETEK CTS Teseq NSG 3040A datasheet 691-387 A. Queue listing NSG 3040A-IEC is the IEC configured generator. Optional VAR 3005A and CDN accessories change dip/variation and coupling limits.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.