

OCS 500N6

OSCILLATORY WAVE SIMULATOR



FOR TESTS ACCORDING TO ...

- > ANSI/IEEE C37.90
- > ANSI/IEEE C62.41
- > EN 61000-4-10
- > EN 61000-4-12
- > EN 61000-4-18
- > IEC 60255-22-1
- > IEC 61000-4-10
- > IEC 61000-4-12
- > IEC 61000-4-18
- > IEC 61850-3

OCS 500N6 - COMPACT TESTER FOR RINGWAVE AND DAMPED OSCILLATORY WAVES

The OCS 500N6 includes test capabilities for ringwave up to 6kV (as per EN/IEC 61000-4-12) and the damped oscillatory waves at 100kHz and 1MHz up to 3kV (as per EN/IEC 61000-4-18).

The Ringwave is a non-repetitive damped oscillatory transient occurring in low-voltage power, control and signal lines supplied by public and non-public networks. Damped Oscillatory Waves are repetitive transients mainly occurring in power, control and signal cables installed in high voltage and medium voltage stations.

The OCS 500N6 can also be used to perform magnetic field tests as required in EN/IEC 61000-4-10 using a magnetic field coil such as the MS 100N.

HIGHLIGHTS

- > **Standalone test generator**
- > **Includes Ringwave up to 6kV**
- > **Includes Damped Oscillator Waves up to 3kV**
- > **Built-in CDN, single phase or three-phase up to 32A**
- > **Front panel operation**

APPLICATION AREAS

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|  INDUSTRY |  RESIDENTIAL |
|  COMPONENTS |  RENEWABLE ENERGY |
|  MEDICAL | |
|  BROADCAST | |

TECHNICAL DETAILS

OCS 500N6 MODELS

OCS 500N6.5	With built-in CDN 250V / 16A
OCS 500N6.6	With built-in CDN 250V / 32A
OCS 500N6.7	With built-in CDN 3x440V / 16A
OCS 500N6.8	With built-in CDN 3x440V / 32A

RINGWAVE AS PER EN/IEC 61000-4-12 AND ANSI/IEEE C62.41

Voltage (o.c.)	250V - 6,000V ± 10%
Rise time	0.5us ± 30%
Oscillation frequency	100kHz ± 10%
Decaying	Ratio of peak 2 to peak 1: 0.4 - 1.1 Ratio of peak 3 to peak 2: 0.4 - 0.8 Ratio of peak 4 to peak 3: 0.4 - 0.8
Source impedance	12ohm and 30ohm ± 20% 200ohm for I/O lines (CNV 504M)
Peak current (s.c.)	Max. 500A @ 12ohm or Max. 200A @ 30ohm internally; Max. 30A @ 200ohm, with CNV 504M
Rise time	< 1us
Oscillation frequency	100kHz ± 10%
Polarity	Positive, negative
Repetition rate	1 to 60 transients per minute

SLOW DAMPED OSCILLATORY WAVES AS PER EN/IEC 61000-4-18

Voltage (o.c.) at HV output	250V - 3,000V ± 10%
Voltage (o.c.) at line output	250V - 2,500V ± 10%
Rise time	75ns ± 20%
Oscillation frequency	100kHz and 1MHz ± 10%
Decaying	Peak 5 to be > 50% of peak 1 value Peak 10 to be < 50% of peak 1 value
Source impedance	200ohm ± 20%
Polarity	Positive, negative
Repetition rate	Max. 50/s for 100kHz and Max. 500/s for 1MHz
Burst duration	At least 2s

TRIGGER CIRCUIT

Release of pulses	Automatic, manual, external
Synchronization	0° - 360°, resolution 1°

OUTPUT

Direct	Via HV-safety lab connectors
Coupling mode	Line to line Line(s) to ground (PE)
DUT supply 1ph-16A	AC: 250V/16A; 50/60Hz DC: 250V/10A
DUT supply 1ph-32A	AC: 250V/32A; 50/60Hz DC: 250V/20A
DUT supply 3ph-16A	AC: 3x440V/16A; 50/60Hz DC: 250V/10A
DUT supply 3ph-32A	AC: 3x440V/32A; 50/60Hz DC: 250V/20A
CRO trigger	5V trigger signal for oscilloscope

MEASUREMENTS

Ring wave	Peak voltage and peak current in LCD
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TEST ROUTINES

Quick Start	Immediate start; easy-to-use and fast
Standard Test routines	As per IEC 61000-4-12, Level 1 - 4 Manual Standard Test routine As per ANSI/IEEE C62.41 As per IEC 61000-4-10, Level 1 - 5
User Test routines	Change polarity after n pulses Change coupling after n pulses Change voltage after n pulses Change phase angle after n pulses

INTERFACE

Serial interface	USB
Parallel interface	IEEE 488, addresses 1 - 30

GENERAL DATA

Dimensions, weight	19"/6HU, approx. 28kg (1-phase) 19"/6HU, approx. 33kg (3-phase)
Supply voltage	115/230V +10/-15%
Fuses	2 x T 2AT (230V); 2 x T4AT (115V)

TECHNICAL DETAILS

OPTIONS	
CNV 504N5.1	Coupler for 4 signal/datalines for damped oscillatory waves 100kHz and 1MHz as per IEC 61000-4-18, 50V/4A
CNV 504N5.3	Coupler for 4 signal/datalines for damped oscillatory waves 100kHz and 1MHz as per IEC 61000-4-18, 250V/4A
CNV 508N4	Coupler for 4 pairs (8 wires) as per IEC 60255-22-1, 250V/4A
CNV 508N4.1	Coupler for 4 pairs (8 wires) as per IEC 60255-22-1, 250V/16A
MS 100N	Magnetic Field coil for EN/IEC 61000-4-10 application
iec.control	Remote control and documentation software with library of standards

COMPETENCE WHEREVER YOU ARE



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Information about scope of delivery, visual design and technical data correspond with the state of development at time of release. Technical data subject to change without further notice.