

UCS 500N5E

EFT/BURST GENERATOR UP TO 5.5KV, IEC/EN 61000-4-4



FOR TESTS ACCORDING TO ...

- › EN 300329
- › EN 300340
- › EN 300342-1
- › EN 300386 V1.3.2
- › EN 301489-1
- › EN 301489-17
- › EN 301489-24
- › EN 301489-7
- › EN 50121
- › EN 55024
- › EN 61000-4-4
- › EN 61000-6-1
- › EN 61000-6-2
- › IEC 60255-22-5
- › IEC 61000-4-4
- › IEC 61326

UCS 500N5E - EFT/BURST GENERATOR THAT GOES BEYOND STANDARD REQUIREMENTS








The UCS 500N5E is a new dedicated EFT/Burst generator based on the successful UCS 500N series of ultra-compact simulators. Offering all the benefits of the well-known UCS 500N5 it is designed as a Burst generator only. This makes it the full performing Burst tester as per IEC/EN 61000-4-4 with the best benefit-to-cost ratio yet upgradeable to include other test abilities such as Combination Wave Surge and PowerFail.

Apart from its built-in single phase test capability it is extendable for testing three-phase DUTs by means of automatically controlled external coupling networks up to 100A. EM TEST supplies a large range of accessories for various applications.

HIGHLIGHTS

- › Fully compliant to IEC 61000-4-4 Am1 Ed.2
- › Test voltage up to 5.5kV
- › Up to 10,000 pulses per second
- › Up to 1,000 pulses per burst
- › Built-in single phase coupler 300V/16A
- › Manual operation from front panel
- › USB and GPIB-Bus for remote control

APPLICATION AREAS

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

TECHNICAL DETAILS

EFT/BURST GENERATOR

UCS 500N5E	
	As per EN/IEC 61000-4-4 and EN 61000-6-1, -6-2
Test voltage	200V - 5,500V \pm 10%; 100V - 2,750V \pm 10% into 50ohm
Pulse shape	5/50ns into 50ohm and 1,000ohm
Rise time tr	5ns \pm 30% into 50ohm; 5ns \pm 30% into 1,000ohm
Pulse width td	50ns \pm 30% into 50ohm; 50ns -15/+100ns into 1,000ohm
Source impedance	50ohm
Polarity	Positive/negative

TRIGGER CIRCUIT

Trigger of bursts	Automatic, manual, external
Synchronization	0° - 360°, resolution 1° (16 - 500Hz)
Burst duration	td = 0.10ms - 999ms
Repetition rate	tr = 10ms - 9,999ms
Spike frequency	f = 0.1kHz - 1,000kHz
Test duration	T = 0:01min - 99:59min T > 99:59min --> endless

OUTPUTS

Direct	Via 50ohm coaxial connector
Coupling mode	L, N, PE; all combinations
DUT supply	AC: 300V/16A; 50/60Hz DC: 300V/16A
CRO trigger	5V trigger signal for oscilloscope

EFT/BURST GENERATOR

TEST ROUTINES

Quick Start	On-line adjustable parameters, easy-to-use
Standard Test routines	As per IEC 61000-4-4, Levels 1 - 4 As per EN 61000-6-1, -6-2 Manual Standard Test routine
User Test routines	Synchronous burst release Random burst release Change voltage after T Frequency sweep within one burst Frequency sweep with constant number of pulses Frequency sweep with constant burst duration Change polarity after T

TECHNICAL DETAILS

GENERAL DATA

INTERFACES

Serial interface	USB
Parallel interface	IEEE 488, addresses 1 - 30
Analog output	0 - 10VDC to control an external transformer
CN interface	15pin SubD connector to control an external coupling network
Fail inputs	DUT monitoring via Fail1 and Fail2 input (one each)

DIMENSIONS

Dimensions	19", 3HU
Weight	approx. 14kg

MAINS

Supply voltage	115V/230VAC +10%/-15%
Power	approx. 75W
Frequency	50/60Hz
Fuses	2 x T 2AT (230V) or 2 x T 4AT (115V)

ACCESSORIES INCLUDED

Mains supply	Plug depends on the country of use
DUT supply	Plug depends on the country of use
DUT adapter	Socket depends on the country of use
	Operation manual, Calibration certificate, iec.control remote control software

OPTIONS

OPTIONAL ACCESSORIES

HFK	Capacitive coupling clamp as per IEC 61000-4-4
KW50	100:1 divider, 50ohm
KW1000	500:1 divider, 1,000ohm
CA EFT kit	Kit for burst pulse verification consisting of KW50, KW1000 and adapter for DUT port in a plastic case for storage
A6dB	6dB attenuator, 50ohm
ITP	Immunity test probes (electrical field generation)
ITP/H	Immunity test probe (magnetic field generation)
iec.control 1	Remote control and documentation software, including standard test routines and reporting capabilities.

OPTIONAL EQUIPMENT

CNI 503Ax	3-phase coupling/decoupling networks as per IEC 61000-4-4 and -4-5 up to 100A per phase
CNE 503x	Coupling/decoupling networks for special EFT/Burst test applications, e.g. for energy meters, as per IEC 60255-22-5

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.