

# EFT 500N5 SERIES

## ELECTRICAL FAST TRANSIENT GENERATOR



### FOR TESTS ACCORDING TO ...

- > ANSI/IEEE C62.41
- > EN 61000-4-4
- > EN 61000-6-1
- > EN 61000-6-2
- > IEC 60601-1-2
- > IEC 61000-4-4
- > IEC 61326
- > IEC 61850-3

### EFT 500N5 SERIES - EFT/BURST TESTER

The EFT 500N5 series are the state-of-the-art EFT/Burst testers with a built-in coupling/decoupling network for single phase or three-phase mains supply lines and a HV terminal to connect a capacitive coupling clamp.







The spike frequency can be varied from as low as 100Hz up to 1,000kHz. The EFT 500N5 is capable to generate 10,000 spikes per second or up to 1,000 spikes per burst.

Its performance fully complies with IEC 61000-4-4 Ed.2:2004. Pre-programmed Standard Test routines and a number of selected User Test routines make the EFT 500N5 an optimum standalone solution for both testing during development and final testing of products and sub-assemblies.

### HIGHLIGHTS

- > **10,000 pulses/sec.**
- > **4.8kV Burst voltage**
- > **Spike frequency up to 1MHz**
- > **Built-in 1ph or 3ph coupler up to 50A**
- > **Pulse verification acc. to Ed.2 on each coupling path**

### APPLICATION AREAS

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

## TECHNICAL DETAILS

### EFT 500N5 MODELS

EFT 500N5.1	With 3-phase coupler, 3x 440V/32A
EFT 500N5.2	With 3-phase coupler, 3x 440V/50A
EFT 500N5.5	With 1-phase coupler, 250V/32A
EFT 500N5.8	With 3-phase coupler, 3x 690V/32A
	Other couplers on request

### TEST LEVEL

Voltage range	200V - 4,800V
Into 50ohm	100V - 2,400V
Pulse shape	Into 50ohm load
Rise time tr	5ns ± 30%
Pulse width td	50ns ± 30%
Pulse shape	Into 1,000ohm load
Rise time tr	5ns ± 30%
Pulse width td	35ns to 150ns
Source impedance	50 Ohm ± 20%
Polarity	Positive/negative

### TRIGGER

Release of Burst	Automatic, manual, external
Burst duration	Td = 0.1ms - 999.9ms
Burst repetition rate	Tr = 10ms - 9,999ms
Spike frequency	f = 0.1kHz - 1,000kHz
Test duration	T = 0:01 min - 99:59 min T > 99:59 min - endless

### OUTPUT

Direct	Via HV coax connector
Coupler	L, N and PE, all combinations
DUT supply AC	single phase: 250V/32A, 50/60Hz three-phase: 3x440V/32A or 50A, 50/60Hz
DUT supply DC	250V/10A
DUT supply	Other DUT supply voltages on request
CRO Trigger	15V trigger signal for oscilloscope; burst duration and pulse frequency can be checked

### TEST ROUTINES

Quick Start	Immediate start; easy to use and fast
User Test routines	Custom made test routine Change voltage after T Change frequency after T Frequency sweep within a burst Change burst duration after T Random release of bursts Synchronous burst mode Change polarity after T
Standard Test routines	As per IEC 61000-4-4, Automatic test Level X - Y
Service	Service, set-up, self test

### INTERFACES

Serial interface	USB
Parallel interface	IEEE 488, address 1 - 30
CN interface	To control external CNI 503

### GENERAL DATA

Dimensions, weight	EFT 500N5.1: 19"/6HU, 22kg EFT 500N5.2: 19"/6HU, 40kg EFT 500N5.5: 19"/3HU, 20kg EFT 500N5.8: 19"/3HU, 23kg
Supply voltage	115/230V, +10/-15%
Fuses	2 x T 2AT (230V); 2 x T 4AT (115V)

### OPTIONS

HFK	Coupling Clamp as per IEC 61000-4-4
KW 50	50ohm matching resistor for verification
KW 1000	1,000ohm matching resistor for verification
CA EFT kit	Kit for burst pulse verification consisting of KW50, KW1000 and adapter for DUT port with plastic case for storage
A6dB	6dB attenuator
CNI 503	Coupling/decoupling networks, 3x440V/32-63-100A
iec.control	Software to control the test, including standard library, test report facility and data conversion generator

# COMPETENCE WHEREVER YOU ARE



## CONTACT EM TEST DIRECTLY

### Switzerland

EM TEST (Switzerland) GmbH > Sternenhofstraße 15 > 4153 Reinach > Switzerland  
 Phone +41 (0)61/7179191 > Fax +41 (0)61/7179199  
 Internet: www.emtest.ch > E-mail: sales.emtest@ametek.com

### Germany

EM TEST GmbH > Lünener Straße 211 > 59174 Kamen > Deutschland  
 Phone +49 (0)2307/26070-0 > Fax +49 (0)2307/17050  
 Internet: www.emtest.com > E-mail: info.emtest@ametek.de

### France

EM TEST FRANCE > Le Trident - Parc des Collines > Immeuble B1 - Etage 3 > 36, rue Paul Cézanne > 68200 Mulhouse > France  
 Phone +33 (0)389 31 23 50 > Fax +33 (0)389 31 23 55  
 Internet: www.emtest.fr > E-mail: info@emtest.fr

### Poland

EM TEST Polska > ul. Ogrodowa 31/35, 00-893 Warszawa > Polska  
 Phone +48 (0)518 64 35 12  
 Internet: www.emtest.com/pl > E-mail: info\_polska.emtest@ametek.de

### USA / Canada

EM TEST USA > 9250 Brown Deer Road > San Diego > CA 92121  
 Phone +1 (858) 699 1685 > Fax +1 (858) 458 0267  
 Internet: www.emtest.com > E-mail: sales.emtest@ametek.com

### P.R. China

E & S Test Technology Limited > Rm 913, Leftbank > No. 68 Bei Si Huan Xi Lu > Haidian District > Beijing 100080 > P.R. China  
 Phone +86 (0)10 82 67 60 27 > Fax +86 (0)10 82 67 62 38  
 Internet: www.emtest.com > E-mail: info@emtest.com.cn

### Republic of Korea

EM TEST Korea Limited > #405 > WooYeon Plaza > #986-8 > YoungDeok-dong > Giheung-gu > Yongin-si > Gyeonggi-do > Korea  
 Phone +82 (31) 216 8616 > Fax +82 (31) 216 8616  
 Internet: www.emtest.co.kr > E-mail: sales@emtest.co.kr

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.