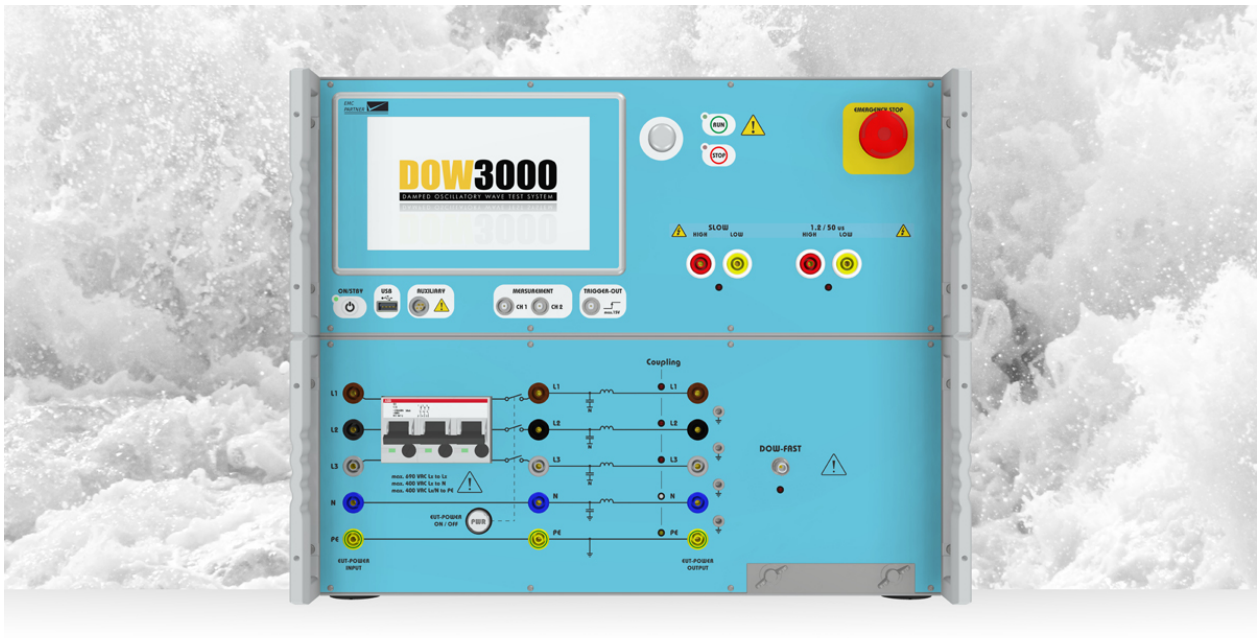

DOW3000

Do not disturb

Electronic measuring equipment in energy distribution networks

Electronic measurement and control equipment in the energy distribution network can be susceptible to environmental disturbances. The latest development from EMC PARTNER AG is a high voltage test system for damped oscillatory wave testing.

DOW3000 is a configurable test system that can be extended for Slow Wave, Fast Wave, Impulse voltage test or any combination of all three. This provides optimum and cost efficient capabilities to a wide spectrum of users. This unique system includes an integrated 32A three phase coupler which enables both Slow and Fast DOW signals to be directly injected into the EUT. Additionally, DOW3000 is the first tester with integrated 0.5J impulse, required together with the DOW, for product standard testing.

A modern user interface provides an easy to follow menu structure. Graphic and contextual help functions make operation simple and efficient.

→ *Find more information and products at **www.emc-partner.com***

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DOW3000 – Ready for IEC 61000-4-18

Features

- ✓ External data line coupler
- ✓ Supports magnetic field testing
- ✓ Phase angle synchronization
- ✓ Programmable test routines and setups
- ✓ Includes 0.5 J / 500 Ohm insulation impulse (1.2/50 us)

Benefits

- ✓ Modular extendable configuration
- ✓ Cost and time effective solution
- ✓ One EUT connection for all configurations
- ✓ Intuitive user interface, low learning curve
- ✓ Test levels higher than standard requires

Basic and product standards

DOW3000 system meets and exceeds the requirements of the basic standards:

- ✓ IEC 61000-4-18:Electromagnetic compatibility (EMC) : Testing and measurement techniques.
- ✓ IEC 61000-4-10: Testing and Measurement Techniques : Damped Oscillatory Magnetic Field.

Additionally many product standards can also be met:

- ✓ IEC 60255-27 Measuring Relays and Protection Equipment
- ✓ IEC 62052-11 Electricity Metering Equipment (AC) General Conditions
- ✓ ANSI C37.90.1 IEEE Standard for Surge Withstand Capability for Relays and Relay System

Data line coupling

Slow & Fast DOW signals can be used to test data lines.

Fast DOW signals (3MHz, 10MHz, 30MHz) are coupled using a capacitive coupling clamp as defined in IEC 61000-4-18 and ANSI C37.90.

Capacitive Coupling Clamp

Oscillation frequency (MHz)	3, 10, 30
Usable Cable diameter	4 - 70mm
Maximum Insulation Voltage	5kV (1.2/50us)

Slow DOW signals (100kHz, 1MHz) can be coupled using a specialist device. Coupling into Ethernet ports and asymetric data ports is possible

Data Line Common Specifications

Maximum EUT Voltage AC	300V
Maximum EUT Voltage DC	200V
Maximum EUT Current	3A per line
Coupling capacitance Slow DOW	0.5uF
Coupling Mode	Common Mode Differential Mode

Technical Specifications

Damped Oscillatory Waves (SLOW)

Oscillation frequency	100kHz & 1MHz
Voltage range	up to 4.4kV
Source impedance	200 ohms
Burst repetition at 100kHz	up to 50Hz
Burst repetition at 1MHz	up to 500Hz

Damped Oscillatory Waves (FAST)

Oscillation frequency (MHz)	3, 10, 30
Voltage range	up to 4.4kV
Source impedance	50 ohms
Burst repetition all frequencies	up to 5kHz

Surge IEC 60255-5 0.5J 500 Ohm

Waveform at no load	1.2 / 50 us
Rise time	1.2µs
Adjustable voltage range	500V - 8000V

Damped Oscillatory Waves Magnetic Field with MF1000-1

Oscillation frequency	100kHz & 1MHz
Antenna dimension	1m x 1m
Current range	1 - 150A (100A/m)

Find more information about DOW3000 at
emc-partner.com/dow

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