SCHLÖDER
EMV-Systeme & Komponenten

CWG 2500

Surge / Combined Wave Generator

- **Operation via capacitive color touch display**
- **Combined wave surge voltage 1,2 / 50 µs and current 8 / 20 µs**
- **Amplitude 0,2 – 4,4 kV and 0,1 – 2,2 kA**
- **USB, optional optic interface with fiber optic cable**

The test generator CWG 1500 simulates high-energy interference pulses and is suitable for performing EMC tests on systems in accordance with the standards IEC / EN 61000-4-5, 2014 and VDE 0847 4-5.
The CWG 1500 is a combined surge current / surge voltage generator that generates a standard open circuit surge voltage of 1.2 / 50 µs and a standard short-circuit surge current of 8/20 µs. The values for current and voltage are shown on the display, for evaluations with an oscilloscope BNC outputs for current and voltage are available on the rear.

With the built-in single-phase coupling network, the interference pulses of the hybrid generator can be coupled to the supply lines of the devices to be tested. The coupling takes place by means of discrete coupling capacitors. According to IEC 61000-4-5, 18 µF capacitors (balanced coupling) or 9 µF / 10 Ω (unbalanced coupling) are installed with sufficient dielectric strength. External coupling networks can also be operated via the HV socket or used for component testing.

The simple operation takes place via a capacitive color touch display. All parameters are clearly displayed without nested menus and can be changed quickly by tapping and using a digital rotary encoder. The normative test levels 1, 2, 3 and 4 are preprogrammed, additional test sequences can be stored via the memory function.

Definition der Parameter – IEC/ EN 61000-4-5

	Front time T_r µs	Duration T_d µs
Open-circuit voltage	T_f = 1,67 x T = 1,2 ± 30 %	$T_d = T_w$ = 50 ± 20 %
Short-circuit current	T_f = 1,25 x T_r = 8 ± 20 %	T_d = 1,18 x T_w = 20 ± 20 %

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Technische Daten

Generator

Charging voltage	0,2 – 4,4 kV
Charging timet	≤ 10 sec
Number of pulses	1 – 999
Repetition rate	10 – 990 sec
Phase angle	φ = 0° - 359°, 1° steps, mains-synchronized
Polarity	positive, negative, alternating
Trigger	manually or externally
HV output	ungrounded and ground referred
Interface	USB (virtual COM Port) Optional: optical with fiber optics
Memory function	Select test levels 1 – 4 (Standard), 32 memory positions
Discharge parameters	Display of discharge Surge Voltage / Surge Current after discharge

Coupling network

1-Phase, inside generator for coupling on the power supply lines of the EUT

Nominal voltage AC	max. 230V / 16A, 50 / 60 Hz
Nominal voltage DC	max. 270V / 16A
Balanced coupling	L – N: 18 µF
Unbalanced coupling	L – PE, N – PE: 9 µF + 10Ω
Phase indication	LED red / green
EUT connection	Schuko (protection earth) outlet + laboratory sockets
Ground connection	Ground jack at front and rear panel

General

Operating temperature	0 - 40 ° C
Dimensions 19″ housing,	3 U
Weight	approx. 18 kg
Supply voltage	100-240V / 47-63 Hz / 100 VA

Accessories

• CWG 520	3-phase coupling network, 4x 16 A
• CWG 523	3-phase coupling network, 4x 32 A
• CWG 524	3-phase coupling network, 4x 60 A
• CWG 1525	CDN for 2 unscreened, balanced lines, 1A
• CWG 1526-4	CDN for 2 unscreened, unbalanced lines, 4 A
• CWG 1526-10	CDN for 2 unscreened, unbalanced lines, 10A
• CWG 1528	CDN for 4 unscreened, unbalanced lines, 6A with RS232 interface
• CWG 550	18 µF capacitor in a housing
• CWG 551	9 µF capacitor + 10 Ω resistor in a housing
• CWG 553	0,5 µF capacitor + 40 Ω resistor in a housing
• ZUB LWL OPTO-MOD	Optic interface with 2 connectors for optic fiber cables
• ZUB LWL USB-ADAPTER	Optic fiber cable, 5m, USB to optic interface connector
• ZUB LWL-BRÜCKE_100	Optic fiber cable, 1m, optic interface connector on both sides
• ZUB LWL-BRÜCKE_30	Optic fiber cable, 30cm, optic interface connector on both sides
• EMV-SOFT	Control Software for Surge, Burst and Voltage Dips Generators

Distributed by: Reliant EMC LLC, 3311 Lewis Ave, Signal Hill CA 90755, 408-916-5750, www.reliantemc.com