

CWG 2500

Surge / Combined Wave Generator

IEC / EN 61000-4-5, VDE 0847 4-5

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



Simple and intuitive operation

without nested menus via capacitive color touch display

Overview

The test generator CWG 2500 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 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.

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 μ F capacitors (balanced coupling) or 9 μ F / 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.

Key Facts

- Combined surge current / surge voltage generator
- It generates a standard open circuit surge voltage of 1.2 / 50 μ s and a standard short-circuit surge current of 8/20 μ s.
- BNC outputs for current and voltage measurement via oscilloscope
- Extensive range of accessories available
- Remote control via EMV-soft possible
- Long living due to high quality components
- Display of discharge voltage and current



CWG 2500

Surge / Combined Wave Generator

Technical data

| Surge / Combined wave generator | | Coupling network | |
|---------------------------------|---|---|---|
| Charging voltage | 0,2 – 4,4 kV | 1-phase, inside generator for coupling on the power supply lines of the EUT | |
| Charging time | ≤ 10 sec | Nominal voltage AC | max. 230 V / 16 A 50 / 60 Hz |
| Number of pulses | 1 – 999 | Nominal voltage DC | max. 270 V / 16 A |
| Repetition rate | 10 – 990 sec | Phase indication | LED red LED green |
| Phase angle | $\varphi = 0^\circ - 359^\circ$, 1° steps, mains-synchronized for 50 + 60 Hz | Balanced coupling | L – N: 18 μ F |
| Polarity | positive, negative, alternating | Unbalanced coupling | L – PE, N – PE: 9 μ F + 10 Ω |
| Trigger | manually or externally | EUT connection | Schuko (protection earth) outlet + laboratory sockets |
| Interface | USB (virtual COM Port) optional: optical with fiber optics | Ground connection | ground jack at front and rear panel |
| HV output | ungrounded and ground referred | | |
| Memory function | select test levels 1 – 4 (standard), 32 memory positions | | |
| Discharge parameters | display of discharge surge voltage / surge current after discharge | | |
| Operating temperature | 0 - 40 °C | | |
| Dimensions | 19" housing, 3 U | | |
| Weight | approx. 18 kg | | |
| Supply voltage | 100-240 V / 47-63 Hz / 100 VA | | |

Technical data – definition of the parameters IEC / EN 61000-4-5

| | Front time T_f μ s | Duration T_d μ s |
|-----------------------|---------------------------------------|--|
| Open-circuit voltage | $T_f = 1,67 \times T = 1,2 \pm 30 \%$ | $T_d = T_w = 50 \pm 20 \%$ |
| Short-circuit current | $T_f = 1,25 \times T_r = 8 \pm 20 \%$ | $T_d = 1,18 \times T_w = 20 \pm 20 \%$ |



CWG 2500

Surge / Combined Wave Generator

| Options | |
|---------------------|---|
| CWG 520 | 3-phase coupling network 4 x 16 A |
| CWG 523 | 3-phase coupling network 4 x 32 A |
| CWG 524 | 3-phase coupling network 4 x 60 A |
| CWG 52x – 550 | HV option up to 550 VAC L-L |
| CWG 1525 | CDN for 2 unscreened, balanced lines, 1 A |
| CWG 1526-4 | CDN for 2 unscreened, balanced lines, 4 A |
| CWG 1526-10 | CDN for 2 unscreened, unbalanced lines, 10 A |
| CWG 1528 | CDN for 4 unscreened, unbalanced lines, 6 A with RS232 interface |
| CWG 550 | 18 μ F capacitor in a housing |
| CWG 551 | 9 μ F capacitor + 10 Ω resistor in a housing |
| CWG 553 | 0,5 μ F capacitor + 40 Ω resistor in a housing |
| ZUB LWL OPTO-MOD | Optic interface with 2 connectors for optic fiber cables (retrofit) |
| ZUB LWL OPTO-MOD-N | Optic interface with 2 connectors for optic fiber cables (upon ordering a new equipment) |
| ZUB LWL USB-ADAPTER | Optic fiber cable, 5 m, USB to optic interface connector |
| ZUB LWL-100 | Optic fiber cable, 1 m, optic interface connector on both sides |
| ZUB LWL_30 | Optic fiber cable, 30 cm, optic interface connector on both sides |
| EMV-SOFT | Control software for surge, burst and voltage dips generators |

All information regarding appearance and technical data correspond to the current state of development at the time of release of this data sheet. We reserve the right to make technical changes. 212009

