

SFT 2400

Burst Generator

IEC / EN 61000-4-4

- Burst frequency up to 125 kHz
- Single pulse to continuous burst
- Pulse amplitude up to 5.0 kV
- Capacitive color touch display



Time-accurate triggering
With a variety of special functions!

Overview

The SFT 2400 simulates fast transient interference pulses as defined in the standards IEC 61000-4-4 and DIN EN 61000-4-4. Due to the very short rise time of 5 ns, the individual impulses generate a broadband RF spectrum up to 300 MHz. RF interference is the result.

The simple operation is carried out via a capacitive colour touch display. All parameters are clearly shown on the display and can be quickly changed by touching and using a digital rotary encoder. The standard test levels 1, 2, 3 and 4 are pre-programmed, additional test sequences can be stored via the memory function.

Special functions: The generator also offers various special functions such as **"Real Burst"**, which simulates the natural appearance of the burst pulse, or **"Noise"**. The functions **"IFM"** and **"DFM"** (increasing or decreasing frequency within a burst packet) are important tools for investigating resonance or saturation effects in the EUT.

Key facts

- Clearly arranged control elements allow time-saving and optimized tests
- All parameters can be changed during the test
- With the memory function, the normative test levels 1, 2, 3 and 4 are stored
- Additionally, own test sequences can be stored
- Special functions, like real burst or noise
- Extensive range of accessories available
- USB, optional optical interface with fiber optic cable



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Technical data I

Burst Generator	
Burst frequency	Single pulse up to 125 kHz
Pulse voltage	100 V - 5000 V
Polarity burst packet	pos., neg., alternating
Pulse shape acc. to IEC 61000-4-4	5 ns / 50 ns
Max. pulses / sec	5000 (up to 2 kV) 3000 (up to 3 kV) 1500 (up to 5 kV)
Step size spike frequency	0.1 - 10 kHz -> 0,1 kHz steps 10.5 - 50 kHz -> 0,5 kHz steps 51.0 - 100 kHz -> 1 kHz steps 105.0 - 125 kHz -> 5 kHz steps
Max. pulse / packet	500
Trigger	manual or external
HV output	coaxial connector
Monitor output	BNC, TTL level
Interface	USB (virtual COM port) optional: optical (Toshiba LWL)
Fan (temp.-controlled)	activate by 40 °C (deactivate by 32 °C off)

Internal single-phase coupling network

Coupling network integrated in the generator, coupling of the test pulses to supply lines of the EUT.

Nominal voltage AC	max. 230 V / 16 A 50 Hz
Nominal voltage DC	max. 110 V / 8 A
Phase display	LED red / green
Coupling capacity	33 nF
Coupling switch	1, 2 or 3 lines at the same time
Different coupling modes adjustable via buttons	L, N, PE -> E; L -> E; N -> E; PE -> E L, N -> E; L, PE -> E; N, PE -> E
Test object connection	wall outlet DIN - protection earth additional laboratory sockets

General

Operating temperature	0 - 40 °C
Dimensions (L x D x H)	19" housing (3 RU) 450 x 430 x 150 mm
Weight	9 kg
Power supply	100-240 V / 47-63 Hz / 160 VA

Technical data - Burstdefinition

	Normdefinition	Variable settings on the SFT 2400
Burst duration	15 ms 20 % at 5 kHz 0.75 ms 20 % at 100 kHz (corresponds to 75 pulses each)	0.01 - 100 ms ⁽¹⁾
Burst period	300 ms ± 20 %	10 - 1000 ms ⁽¹⁾
Burst frequency	5 kHz or 100 kHz to 4 kV	100 Hz - 125 kHz to 5 kV
Pulse amplitude	0.5 / 1 / 2 / 4 kV	100 V - 5000 V (in 10 V steps)
Rise time	5 ns ± 30 %	
Pulse duration (50 Ohm)	50 ns ± 30 %	
Pulse duration (1 kOhm)	50 ns, -15 ns/+100 ns	
Impedance	50 Ω ± 2 %	

1) The SFT 2400 automatically considers the limit parameters.



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Options	
CWG 520	3-ph. coupling network 4 x 16 A, burst and surge
SFT 470	Probe set for magnetic field
SFT 415	Coupling clamp
SFT 415-CS	Calibration set coupling clamp
SFT 430	HV cable for coupling clamp 1 m
SFT 450-1	50 Ω attenuator, divider 500:1
SFT 450-2	1000 Ω attenuator, divider 1000:1
SFT 450-Set	50 + 1000 Ω attenuators, necessary for independent verification of the burst impulse at the generator or coupling clamp SFT 415
SESD 270	HCP – Horizontal coupling plane, reference ground plane
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 burst etc.

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. 152408

