

TSS 500 N4B

TELECOM SURGE GENERATOR



FOR TESTS ACCORDING TO ...

› Bellcore GR-1089-Core

TSS 500N4B - TELECOM SURGE SIMULATOR AS PER TELCORDIA/BELLCORE GR-1089, 10/250US

The surge simulator type TSS 500N4B generates high voltage transients with a waveform of 10/250us up to 4,000V as required by Telcordia/Bellcore GR-1089 such as

- para 4.7 Equipment in high exposure premises
- para 4.9.8 Lightning Surge Test
- para 4.10.3 Broadband Communication Equipment

The test pulses are coupled to the four Telecom lines via a built-in resistor network or direct via the source impedance.

HIGHLIGHTS

- › **Standalone Tester for Bellcore**
- › **Test pulse 10/250us up to 4,000V**
- › **Covers First Level Lightning and Second Level Lightning**
- › **Voltage and current monitors**
- › **Pre-programmed Test routines**
- › **Manual operation**

APPLICATION AREAS

-  COMPONENTS
-  TELECOM

TECHNICAL DETAILS

FIRST & SECOND LEVEL LIGHTNING, PULSE 10/250US	
Output Voltage (open circuit)	100V to 2,000V -0%/+10%
Rise time tr	10us -50%/-0%
Pulse duration td	250us -0%/+50%
Output Current (short circuit)	50A to 1,000A -0%/+10%
Rise time tr	10us -50%/+0%
Pulse duration tr	250us -0%/+20%
Source impedance	2ohm
Polarity	Positive, negative or alternating
Counter select	1 to 30,000 or endless

FIRST LEVEL LIGHTNING SURGE, PULSE 10/250US	
Output Voltage (open circuit)	100V to 3,000V -0%/+10%
Rise time tr	10us -50%/+0%
Pulse duration td	250us -0%/+50%
Output Current (short circuit)	66.5A to 2,000A -0%/+10%
Rise time tr	10us -30%/+0%
Pulse duration td	250us -0%/+20%
Source impedance	1.5ohm
Polarity	Positive, negative or alternating
Counter select	1 to 30,000 or endless

SECOND LEVEL LIGHTNING, PULSE 10/250US	
Output Voltage (open circuit)	100V to -4,000V -0%/+10%
Rise time tr	10us -50%/+0%
Pulse duration td	250us -0%/+50%
Output Current (short circuit)	50A to 2,000A -0%/+10%
Rise time tr	10us -30%/+0%
Pulse duration td	250us -0%/+20%
Source impedance	2ohm
Polarity	Positive, negative or alternating
Counter select	1 to 30,000 or endless

MEASUREMENTS	
Peak voltmeter	4,000V +10%/-10%
Peak current meter	2,000A +10%/-10%
CRO U	10V at 4,000V
CRO I	10V at 2,000A

TRIGGER	
Automatic	Automatic pulse release
Manual	Single pulse release
External	External pulse release
CRO trigger	5V trigger signal for oscilloscope

HIGH EXPOSURE PREMISES, PULSE 10/250US	
Output Voltage (open circuit)	100V to 4,000V -0%/+10%
Rise time tr	10us -50%/+0%
Pulse duration td	250us -0%/+50%
Output Current (short circuit)	12.5A to 500A per wire T1, T2, T3, T4
Rise time tr	10us -30%/+0%
Pulse duration td	250us -0%/+20%
Source impedance	8ohm
Polarity	Positive, negative or alternating
Counter select	1 to 30,000 or endless

TEST ROUTINES	
Quick Start	Immediate start; easy to use and fast
Standard Test routines	Bellcore, First Level-Lightning Bellcore, Second Level Lightning
User Test routines	Manual Standard Test Routine Change Polarity after n pulses Change voltage after n pulses
Service	Service, setup, self test

TECHNICAL DETAILS

GENERAL DATA

INTERFACE

Serial interface	USB
Parallel interface	IEEE 488, addresses 1 to 30
CN interface	To control external coupling matrix

SAFETY

Safety circuit	Control input (24Vdc)
Warning lamp	Floating output contact

GENERAL DATA

Dimensions, weight	19"/16HU, approx. 110kg
Supply voltage	115V/230V +10/-15%
Fuses	2 x T 2AT (230V) or 2 x T 4AT (115V)

COMPETENCE WHEREVER YOU ARE



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Information about scope of delivery, visual design and technical data correspond with the state of development at time of release. Subject to change without further notice.