

# TSS 500N2F

## TELECOM SURGE GENERATOR



### FOR TESTS ACCORDING TO ...

› FCC 97-270 (part 68)

### TSS 500N2F - TELECOM SURGE GENERATOR FOR SURGE A PULSES AS PER FCC PART 68

Telecommunication networks are exposed to lightning events. Therefore telecommunication equipment being connected to the outside world need to have appropriate protection to show an acceptable immunity to surge transients in order not to fail in case of lightning events. Telecom Surge Simulators of the TSS 500N series are used to proof the immunity of telecommunications equipment.

The TSS 500N2F is used for Surge A pulse testing and AC power line surge testing as per FCC 97-270 (part 68).

### HIGHLIGHTS

- › FCC part 68 Surge A and Power line surge
- › Includes pulses 2/10us, 10/560us and 10/160us
- › Auto-setting of source impedance for each pulse
- › Built-in CDN for Telecom ports
- › Built-in CDN for AC power ports
- › Standard Test routines
- › Manual operation
- › USB and GPIB interface

### APPLICATION AREAS

-  COMPONENTS
-  TELECOM

## TECHNICAL DETAILS

### POWER LINE SURGE, PULSE 2/10US

|                |                                   |
|----------------|-----------------------------------|
| Voltage (o.c.) | 160V - 2,500V ± 10%               |
| Rise time      | < 2us                             |
| Pulse duration | > 10us                            |
| Current (s.c.) | 64A - 1,000A                      |
| Rise time      | < 2us                             |
| Pulse duration | > 10us                            |
| Polarity       | Positive, negative or alternating |
| Counter        | 1 - 30,000 or endless             |

### SURGE A LONGITUDINAL, PULSE 10/160US

|                |                                   |
|----------------|-----------------------------------|
| Voltage (o.c.) | 160V - 1,500V ± 10%               |
| Rise time      | < 10us                            |
| Pulse duration | > 160us                           |
| Current (s.c.) | 20A - 200A per wire               |
| Rise time      | < 10us                            |
| Pulse duration | > 160us                           |
| Polarity       | Positive, negative or alternating |
| Counter        | 1 - 30,000 or endless             |

### SURGE A METALLIC, PULSE 10/560US

|                             |                                  |
|-----------------------------|----------------------------------|
| Output voltage open circuit | 160V - 800V ± 10%                |
| Rise time                   | < 10us                           |
| Pulse duration              | > 560us                          |
| Current (s.c.)              | 10A - 100A per wire              |
| Rise time                   | < 10us                           |
| Pulse duration              | > 560us                          |
| Polarity                    | Positive, negativ or alternating |
| Counter                     | 1 - 30,000 or endless            |

### COUPLING

|                      |   |
|----------------------|---|
| Telecom ports        | Tip to Ground, Ring to Ground, Tip and Ring to Ground |
| Power ports 250V/16A | L-N, L-PE, N-PE, L+N-PE                               |

### MEASUREMENTS

|                    |              |
|--------------------|--------------|
| Peak voltmeter     | 2,500V ± 10% |
| Peak current meter | 1,000A ± 10% |

### TRIGGER

|                 |                                    |
|-----------------|------------------------------------|
| Automatic       | Automatic pulse release            |
| Manual          | Single pulse release               |
| External        | External pulse release             |
| CRO trigger     | 5V trigger signal for oscilloscope |
| Synchronisation | 0° - 360° (for ac power ports)     |

### TEST ROUTINES

|                        |  |
|------------------------|--|
| Quick Start            | Immediate start; easy-to-use and fast  |
| User Test routines     | Manual Standard Test Routines<br>Change Polarity after n pulses<br>Change voltage after n pulses |
| Standard Test routines | Test pulses/levels as per FCC part 68  |
| Service                | Service, setup, self test  |

### INTERFACE

|                    |                                      |
|--------------------|--------------------------------------|
| Serial interface   | USB                                  |
| Parallel interface | IEEE 488, addresses 1 - 30           |
| CN interface       | To control external coupling network |

### SAFETY

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

### GENERAL DATA

|                    |                                |
|--------------------|--------------------------------|
| Dimensions, weight | 19"/6HU, approx. 35kg          |
| Supply voltage     | 115/230V +10/-15%              |
| Fuses              | 2xT2AT (230V) or 2xT4AT (115V) |

### OPTIONS

|             |  |
|-------------|--|
| iec.control | Software to control the test, including standard library, test report facility and data conversion generator |
|-------------|--|

# 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. Technical data subject to change without further notice.