



# Sivananda Electronics

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Model Number: **DST-05**

## **DIGITAL SURGE COMPARISON TESTER**



High Throughput



Low Power Consumption



Best After Sales Service

## Application

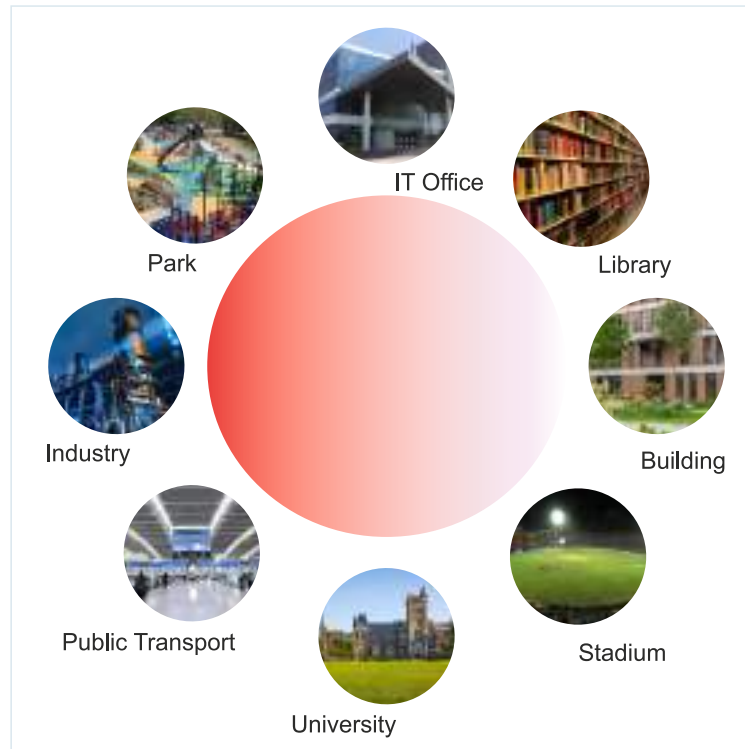
This tester is widely used for testing newly and rewound motors. It helps finding and predicting the faults in motors before it happens.

This tester is extremely portable and can be easily used in the motor shops and in field to test the following:

- 1 $\phi$  & 3 $\phi$  windings
- LT coils
- AC, DC motors
- Stators
- Transformer coils
- Solenoids & Chokes

Surge Test Voltage to be applied =  $\sqrt{2} \times (2 \times E + 1000)$  where E is the operating voltage of the rotating machine

**5 years warranty for Tektronix Digital Storage Oscilloscope (DSO)**



## Features / Benefits

- User friendly front panel controls
- Compact, rugged and solid-state design
- Highly sensitive fault detection capability – It detects even a single turn short in the coil.
- Test leads insulated to 45KV rating
- Leads energized warning indicator
- Bright sharp DSO display to analyse the faults easily
- 1phase/3phase Test Select Switch
- Inductance of the test Object minimum 10 $\mu$ H
- Surge wave form captured by continuous pulse triggering

## Principle of Surge Comparison Tester

The Surge Comparison tester checks the strength of ground insulation that consists of enameled insulation. Detects the insulation failures such as turn-to-turn shorts, layer-to-layer shorts, coil-to-coil shorts, winding-to-winding shorts, and phase-to-phase shorts. Open circuit and ground detection are other benefits of surge testing.

The Surge tester uses the principle of impedance balance to test the quality of electrical windings. The Surge tester works as a capacitive-discharge system. A capacitor is charged with high voltage and then discharged into the winding, through a solid-state assembly. This sequence is repeated thus stressing the insulation of the winding with high voltage pulses. The resulting voltage decay pattern of two winding is then displayed on the DSO.

The waveform pattern will be perfectly superimposed for good windings but in case of a defective winding a double wave pattern will appear on the screen as one wave pattern from the good winding plus the erratic pattern from the faulty winding.

## Specifications

### ❖ Test Position – I: For Testing of Stator Coils only

- Max Surge Voltage | 5000V
- Max Pulse Current | 330A
- Max Pulse Energy | 5 Joules max. two Channel

### ❖ Test Position – II : For Testing of Armatures only

- Max Surge Voltage | 1000V
- Max Pulse Current | 1000A
- Max Pulse Energy | 2.5 Joules max. one Channel

- ❖ Surge Frequency | 50Hz ± 3%
- ❖ Operating Voltage | 230V ± 10%
- ❖ Power Consumption | 130W
- ❖ Weight | 40Kg

## Physical Dimensions

- Width | 550mm
- Depth | 550mm
- Height | 550mm

Surge Test Voltage to be applied =  $\sqrt{2} \times (2 \times E + 1000)$

## Shipment List

- Instrument
- Digital Storage Oscilloscope
- Instruction Manual

## Optional Accessories

- ❖ Armature test jig.
- ❖ Bar-to-Bar armature test probe.
- ❖ 1 KVA servo stabilizer.
- ❖ Foot Switch for hands free operation.
- ❖ Trolley for Instrument.

## Warranty

Sivananda Electronics warrants its products against defects in material and workmanship for a period of one year from the date of installation or 15 months from the date of dispatch, whichever is earlier. This warranty excludes normal wear on finishes or damage that occurs due to abuse or misuse.

## Our Other Products

- ❖ **Instruments:** 200+ types of test equipment's for Power, Wire & Cable, Capacitor, Oil & Petroleum industries are developed by in-house R&D Lab. Surge Testers, Automatic C&Tan Delta Bridges, Transformer Windings Resistance Meters, Oil Insulation Test Kits, Oil Tan Delta, Volume Resistivity & Dielectric constant Meter, Insulation Resistance Tester, Contact Resistance Meter etc.
- ❖ **Security :** Turnstiles, Tripods, Barriers, Metal Detectors, Bollards etc.

**Disclaimer :** To Keep pace with the technology Sivananda Electronics reserves it's right to update the system without prior consent.

## About Us

- 50 years (in 2020) of service to India.
- 1<sup>st</sup> to develop metal detectors for security in India. Made in India.
- 1<sup>st</sup> to develop Turnstiles in India. Made in India.
- Eclina Awards (1995), Elecrama Awards (1996), NIMA Awards (1999)
- Leading manufacturers of Security Systems and Test & Measuring Instruments in India.
- Largest supplier of Turnstiles in India in the last 25 years
- 150 different types of Electronic Test & Measuring instruments are indigenously developed for many industries.
- Exporting to 70+ countries.