SWT 6 **Low Voltage Surge Tester**

Description

LV Surge Tester SWT 6 is powerful equipment to pin-point underground power cable fault by acoustic method with a suitable Surge Wave Receiver.

Occurrence of cable fault cannot be avoided due to many factors. Long outage of a cable from service results in heavy loss of revenue to the power distribution company, production loss to industries as well as unpleasant condition to general. This requires an efficient equipment capable of locating the fault in minimum possible time and restoring the supply.

In power cable fault location most of majority faults pin-points test are carried out using a high voltage and high energy surge wave tester. LV Surge Tester SWT 6 offers 750Joules of energy on 3 and 6 kV selectable ranges, which allows its use on low voltage power cable networks effectively.

It is also used to pin-point the underground cable faults in low voltage power cables with the help of highly selective and sensitive surge wave receiver. It is also used to pre-locate cable fault distance with the help of suitable pre-locator unit in impulse current (ICM) mode.

Application

It is used to pin-point underground cable faults in power transmission, distribution cable networks in acoustic mode with the help of suitable surge wave receiver.

Features

- Optimized surge energy for switchable capacitors values for each range.
- Pin-point location of cable faults in low, voltage cables by acoustic method.
- Output voltage selectable in two ranges 3 & 6 kV.
- High energy of 750 Joules.
- Full energy delivering capacity at each select range.
- Continuously variable output voltage from 0 to 100 % of selected range.
- Single manual Impulse for cable fault pre-location.
- Fully protected operation with safety interlocks.
- Pre-location of cable fault distance with suitable pre-locator unit on ICM mode.
- Automatic discharging facility of cable under test, in case of power failure or after switching off.
- Continues operation for extended period in case of pin-point difficult cable faults.
- Rugged construction and easy to carry on site.

Working Principle

The LV surge tester ignites an arc or spark at the fault, these results in a transient at fault point, i.e. a spreading and repeatedly reflected traveling wave between the fault point and the surge tester. Inductive couplers record this transient wave with the help of a pre-locator unit and convert in to fault distance, this called as pre-location of fault.

Surges of high energy are applied to the fault at the set voltage and time interval for pin-pointing the exact spot on the cable length. These surges create noise and vibrations at the fault site.The intensity of the noise and vibrations get attenuated during their travel to the ground surface. A ground microphone and a sensitive surge wave receiver are carried out on the route of the cable at a pre-located area and pin-point the exact spot of the fault in minimum time.

Function

The Surge tester used for fault pin-point location is basically a variable DC high voltage power supply, connected to a high voltage capacitor bank. The value of capacitance is usually selectable by parallel, series parallel and series combination.

This combination being linked with suitable voltage taping to give the constant energy output on low voltage / high capacitance or high voltage / low capacitance. This high voltage output is supplied to the cable under test through a spark discharge device.

Standard Accessories

- HV Output Cable 6 sq mm single core screen cable 5 meter length with heavy duty clamp.
- Mains supply cord 3 meter length.
- Yellow / Green 10 sq mm earthing cable 5 meter length

Standard Warranty	**One Year**
Other models available	**LV Surge Tester SWT 6D (3kV & 6kV - 1000J)**
Associated receiver use to pin-point cable faults with surge tester	**Surge wave receiver SLE90**

Specifications

Power Supply	230V AC ± 10%, 50 Hz, Single phase
Output Ranges	0 - 3 & 6 kV selectable & continuously variable
Output Energy	750 Joules full energy at each range
Impulse Mode	Single and Auto
Auto Impulse Sequence	2, 4 seconds intervals
Indication	ON / OFF lamp indication Analog moving coil meter for output voltage (kV) Indication Over Heat indication
Over Load Protection	Input current limiter switch in mains input supply Fast blow fuse in controlled supply
Safety Protections	Variac zero inter-lock HV Switch inter-lock Over Heat Protection Input current MCB trip in input supply
Cooling System	Air cooled
Operating Time	1 - 2 hours continuous
Earth Discharge	Soft and automatic discharge
Operating Temperature	0 Deg C ~ 55 Deg C
Storage Temperature	- 5 Deg C ~ 60 Deg C
Dimensions	485 (L) x 350 (W) x 525 (H) mm +Handle 50mm + Wheel 65mm
Weight	60 Kg Approx

Telemetrics Equipments Pvt. Ltd.

www.telemetrics.in

Pune

5, 7 & 8 Electronic Sadan II, MIDC,
Bhosari, Pune - 411026
Maharashtra, INDIA.

+91-20-27122936 / 27123176

sales@telemetrics.in

CIN
U99999MH1976PTC 018745