

HICOMP 16A TROLLEY MOUNTED HT CABLE FAULT LOCATING SYSTEM



Description

Telemetrics make trolley mounting cable fault locating HICOMP 16A system is a basic requirement of any power company. It is a very useful system to localize the underground power cable fault of any nature in short time in low and medium voltage power cable networks. The system is designed for stand-alone operation. It is provide surge tester of full surge energy of 1000 Joules with

4, 8 & 16 kV selectable output voltage for continuous operation for pin-point of cable faults. It is flexible systems are equipped with mounted cable fault pre-locator with the TDR (Time Doman Reflectometer) and ICM (Impulse current) modes for pre-location fault distance and highly sensitive surge wave receiver are use for pin-point cable faults.

Application

The cable fault locating system HICOMP 16A is used to pre-location of fault distance with the help of pre-locator unit and pin-point cable fault using surge tester and highly sensitive surge wave receiver by acoustic method in power cable networks.

Features

- Optimized surge energy for switchable capacitors values for each range.
- Pin-point location of cable faults in Low and Medium voltage cables by acoustic method.
- Output voltage selectable in three ranges 4, 8 & 16 kV.
- High energy of 1000 Joules.
- Full energy delivering capacity at each select range.
- Continuously variable output voltage from 0 to 100 % of selected range.
- Fully protected operation with safety interlocks.
- Cyclical pulse repetition for precise pin-pointing of cable faults in Acoustic Method.
- Pre-location of cable fault distance with TDR & ICM method.
- Maximum range of 100 km for pre-location of cable faults.
- In-built current coupler for pre-location of cable faults distance on ICM mode.
- Memory up to 50 echo-grams available to store pre-located fault results.
- 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 trolley mounting system for easy to carry on site.



Working Principle

The surge wave tester SWT ignites an arc/spark at the fault point. This results in a transient wave i.e. a spreading and repeatedly reflected traveling wave between the fault and the surge wave tester. Inductive couplers record this transient wave with the help of a pre-locator unit and convert it into fault distance.

Surges of high energy are applied across the fault at the set

voltage and suitable time interval for pin-pointing the exact spot of cable fault. These surges create noise and vibrations at the fault point. 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 carried on the route of the cable at the pre-located area and pin-point the exact spot of the fault in minimum time.

Function

The system is used to pin-point of cable faults location. It 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 in surge mode. This high voltage output is applied to the cable under test through a spark discharge device. The cable fault pre-locator is a microprocessor based equipment and can be used to pre-locate fault distance of faults in TDR and ICM mode.

Standard Accessories

- HV Output Cable 10 sq mm single core screen 15 meter length with heavy duty clamp.
- Mains supply cable 6 sq. mm 15 meter length.
- Yellow / Green 10 sq mm earthing cable 15 meter length
- BNC to crocodile for TDR measurements 15 meter length

Standard Warranty	One Year
Other models available	HT Cable Fault Locating System HICOMP 16A High Voltage Surge Tester SWT 16 Surge Wave Receiver SLE 90 Cable Fault Pre-locator TFL6 Cable Drums HV, Mains & Earthing 15mtr. each

Specifications

High Voltage Surge Tester SWT 16D

Output Ranges	0 - 4, 8 & 16 kV
Output Energy	1000 Joules full energy at each range
Impulse Mode	Single and Auto
Auto Impulse Sequence	1.5, 3 and 6 seconds intervals
Indication	ON / OFF lamp indication Analog moving coil meter for output voltage (kV) Indication Over Heat indication
Protection	Variac zero inter-lock Output cable plug inter-lock HV Switch inter-lock Over Heat Protection Input current Limiter in input supply

General Specifications

Power Supply	230V AC \pm 10%, 50Hz single phase
Operating Temp.	0 deg C to 55 deg C
Storage Temp.	- 5 deg C to 60 deg C
Dimensions	800 (L) x 750 (W) x 950 (H) mm with Rubber wheels.
Weight	120 Kg Approx.

Cable Fault Pre-locator TFL 8

Fault Distance	100 km
Measurement Mode	TDR (Time Domain Reflectometer) ICM (Impulse Current Mode)
Pulse Width	5ns
Low Voltage of Transmitting Pulse	30 V
VOP Range	100 ~ 300 meter/sec
Sampling Rate	200 MHZ

Surge Wave Receiver SLE 90

Power Supply	1.5 V X 8 AA size batteries
Working Channels	Acoustic and Magnetic
Acoustic Channels	Broad band Filter 70 - 3000 Hz
Magnetic Channels	9820 Hz \pm 10 Hz Bandwidth Filter
Gain	More than 96 dB for both magnetic and acoustic channels
Standard Accessories	Ground Microphone MIC S Headphone & Connecting cables

Note : Please refer separate catalogue of SWT16D, TFL8 & SLE 90 for details specifications

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