COMPAC 32D Cable Fault Locating System





Description

Cable Fault Locating System COMPAC 32D is useful equipment to pin-point underground power cable fault by acoustic method with a suitable surge receiver.

In power cable fault location most of majority faults pin-points test are carried out using a high voltage and high energy HV surge tester.

It offers 2000 Joules of energy on 8, 16 and 32 kV selectable ranges, which is use on Low, Medium & High voltage cable networks effectively.

It is also used to pre-locate cable fault distance with the help of suitable pre-locator unit in impulse current (ICM) mode.

It has an advance feature to connect arc reflection filter additionally to pre-locate fault distance on secondary impulse SIM / ARM mode with the help of suitable pre-locator unit.

Application

It is used to pin-point underground cable faults in acoustic mode with the help of suitable surge wave receiver and to perform DC high voltage di-electric test up to 32 kV in power transmission and distribution cable networks.

Features

- Two working mode Surge and DC high voltage (High-Pot) test.
- Pin-point location of cable faults in Low, Medium and High voltage cables by acoustic method.
- Output voltage selectable in three ranges 8, 16, 32 kV.
- High energy of 2000 Joules
- LT Range 0-4kV 2000 Joules
- Full energy delivering capacity at each select range.
- Perform Surge and DC high voltage test up to 32 kV.
- Fully protected operation with safety interlocks.
- In-built Arc Reflection Filter

- Pre-location of cable faults with TDR, ICM & SIM
- Pre-location range up to 64 Km.
- Big LCD touchscreen color display.
- Pre-location of cable fault distance with suitable pre-locator unit in ICM mode.
- Pre-location of cable fault distance with suitable pre-locator and ARC reflection unit in SIM 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

In surge mode ignites an arc or spark at the fault. This results in a transient, i.e. a spreading and repeatedly reflected traveling wave between the fault point and the connected end of HV Surge Tester. Inductive couplers record this transient wave with the help of a pre-locator unit and convert it into the fault distance.

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 point. The intensity of the noise and vibrations get attenuated during their travel to the ground surface. A sensitive surge wave receiver with ground microphone carried out on the cable route at the pre-located area and pin-point the exact spot of the fault in minimum time.

The HV DC test up to 32 kV is carried out to check the dielectric strength or insulation of cable on DC test mode. The respective voltage and leakage current is indicated on the meters.

Function

The HV 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 high

voltage taping to give the constant energy output on low voltage / high capacitance or high voltage / low capacitance in surge mode. In DC test mode the internal capacitor bank is isolated through a mode switch and DC high voltage is applied to the cable under test through a spark discharge device.

Standard Accessories

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

Standard Warranty	One Year
Associated receiver use to pin-point cable faults with surge tester	Surge wave receiver SLE90 or SLE 200Z

Specifications Surge Mode		Operating Time Surge Test 2 - 3 hours continuous DC Test 3 minutes	
Output Ranges	0-8, 16, 32 kV selectable & continuously variable	Sheath Fault 8kV - 100mA (Optional)	
Output Energy	2000 Joules full energy at each range	Power Supply	230V AC <u>+</u> 10%, 50 Hz, Single phase
LTRange	0 - 4kV - 2000 Joules max.	Cable Fault Pre-locator TFL 9 Voltage of 30V transmitting pulse Width of transmitting pulse 40 ns-3.56 µs	
Impulse Mode	Single and Auto		
Auto Impulse Sequence	1.5, 3 and 6 seconds intervals		
DC Test Mode Output Voltage	32 kV	Measuring range 0 – 64Km	
Output Current	10 mA	Sampling rate	200MHz
Burn Current	60 mA	VOP Range	190-300m/µs
Indication	ON/OFF lamp indication Analog moving coil meter for output voltage (kV) Indication Over Heat indication	Display	8.4 inches, Color LCD, Touch screen
		Refer separate catalogues for TFL 9	
Over Load Protection	Input current limiter switch in mains input supply	Temperature	Working 0 Deg C ~ 55 Deg C Storage - 5 Deg C ~ 60 Deg C
Safety	Fast blow fuse in controlled supply Variac zero inter-lock	Dimensions	550 (L) x 700 (W) x 750(H) mm +Top cover 200mm + Wheel 100mm

Telemetrics Equipments Pvt. Ltd.

Pune

Output cable plug inter-lock

Input current Limiter in input supply

HV Switch inter-lock Over Heat Protection

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

Weight

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210 Kg Approx

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Protections



