power

CI 60S

Cable Identification System

Reliable and cost effective cable identification system for power cables

The precise identification of a particular cable from a bunch is a common problem faced by technicians and cable jointers in every day practice. The wrong identification of a power cable can result in catastrophic or fatal results if the cable is cut. This requires the most reliable system having no chance for wrong identification.
Cable identification system CI 60S incorporates all the safety features and gives 100% fail safe identification of the wanted cable leaving no chance for an accident.

Working Principle

Saw toothed impulses sent on the wanted cable to the far end are given return path to the sending end through the sheaths armors of all the cables. Current flow direction is monitored on all the cables. Direction of current flow in the wanted cable is in one direction whereas it is indifferent in all other cables. Thus the direction of the current flow identifies the wanted cable.

Scope of Application

CI 60S system can be effectively used to identify any power cable LT/HT/EHT, single or multi core cable of any grade, size and insulation.

System Contents

The system comprises of the following instruments:

- Mains/internal battery operated Pulse Transmitter PG 60S giving 60 A impulse output
- Hand held Pulse Receiver PR 6 with 6 sensitivity ranges and center zero galvanometer
- Robust Directional tongs CT 100 having 105 mm internal diameter.
- Optionally bigger tongs of 150 mm or 200 mm internal diameters can be provided to work successfully with the above system.

System Application

The cable to be identified is isolated and thoroughly discharged. 3 Output terminals of transmitter PG 60S are connected to healthy core of the cable and system earth. The far end of the core is connected to the system earth, thereby making a closed loop of the cable through sheaths and armors of all the cables between two locations. When the transmitter PG 60S is switched ON, the output current is indicated on the meter at every 2.5 seconds interval. If required, modulation code can be switched ON for indifferent time interval sequence of 2.5 seconds and 1 second. Directional tongs CT 100 connected to pulse receiver PR 6 is used to identify the wanted cable. The tongs is clamped around each cable, keeping the direction same.
Tongs, when clamped around the wanted cable gives large deflection in one direction on the center zero galvanometer of the receiver PR 6.
When it is clamped around other cables the deflection is in other direction on the galvanometer. The deflection is feeble and in most case negligible because of sharing of current by the sheaths and armors of all the cables.

Customer Service

All instruments have been designed based on safety, capability, field application, ruggedness and ease of operations. We try to offer the best possible solutions for the job.
We not only offer our after sales services to the customers through our branches / authorized agents, but also give training to the working staff of the customers under specialized training programs.

Application

CI 60S

Function

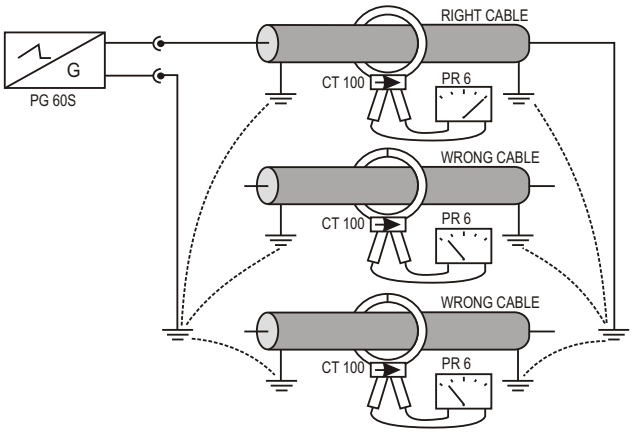
The cable identification system consists of Pulse Transmitter, Directional Tongs and Pulse Receiver. Saw toothed impulses from the transmitter are fed into the cable to be identified. Identification Tongs applied on the cable receive them as DC impulse and are indicated on the receiver unit. Direction of current of these impulses identify the wanted cable.

Operation

The core of the wanted cable is connected to Pulse Transmitter PG 60S. Far end of the core is grounded. Saw toothed pulses from the transmitter travel to the far and on the wanted cable and return through sheaths/armours of all the cables to the sending end.

Identification tongs applied on wanted cable gives high impulse indication in one direction on Pulse receiver. When it is applied on other cables, low impulse indication in other direction is indicated on pulse receiver. The wanted cable is distinctly identified.

Use of modulation impulse sequence can be used for confirmation of the impulses received from transmitter only.



Specifications

CI 60S

Pulse Transmitter PG 60S

Impulse Voltage	:	36 V
Impulse Current	:	60 A
Impulse Sequence I	:	2.5 s
Impulse Sequence II	:	2.5 and 1 s alternating
Current Supply	:	220-240 V AC, 50 Hz / from built-in-accumulator with charging unit
Operating Time	:	10 Hrs. Continuous
Weight	:	5.62 kg
Dimensions	:	242 (L) x 134 (W) x 245 (D) mm

Pulse Receiver PR 6

Sensitivity	:	6 Selectable Stages
Indication	:	Center zero moving coil ± 5mV analog meter
Dimensions	:	197 (H) x 108 (H) x 68 (D) mm
Weight	:	0.41 kg

Directional Tongs CT 100

Internal Diameter	:	105 mm
Dimensions	:	268 (L) x 160 (W) x 35 (D) mm
Weight	:	1.08 kg

Pulse Transmitter up to 100 Amp impulse current can be provided for better results.
It helps to identify the wanted cable under difficult working conditions