

## TDR 4000 Power Cable Fault Locator



The TDR 4000 is a light-weight, portable fault locator for low, medium and high-voltage power cables, which can be applied for the pre-location of all kinds of faults, including open circuit, short circuit, low resistance, high-resistance and flashovers. The system utilises a separate, wireless display on a tablet computer, enhancing both the quality and safety of the system, while adding features such as communication of data and photography of site conditions.

The TDR 4000 can operate in four modes: Time Domain Reflectometry (TDR), Secondary/IMultiple Impulse Method, (SIM/MIM), Impulse Current Method (ICM) and the Decay Method. Most power cable faults exhibit a high resistance, which requires the application of a high voltage surge to break it down for the purpose of pre-location. Of the operating modes available, ICM is the most cost-effective method of producing a flashover at the fault point using a standard surge generator. For flashover faults requiring a high break-down voltage, the Decay Method can be applied in conjunction with a HV DC source. The cable is charged by the DC source until it breaks down, creating a transient voltage signal which is captured through a capacitive voltage divider and used for fault location analysis.



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\*Specification subject to change without notice

\*Pictures are for illustration purposes only

## Features

- Independent wirelessly connected tablet PC display
- Full isolation of user from HV equipment
- Availability of communication and photography in the tablet
- Measuring range up to 128 km
- 200MHz sampling rate

## Specifications

- Voltage of transmitting pulse: 30V
- Width of transmitting pulse: 40 ns - 7  $\mu$ s
- Velocity of propagation 90 – 300m/ $\mu$ s
- Output impedance: 5 - 87 Ohm
- Measuring range: 250m - 128 km
- Sampling rate: 200MHz
- Charging voltage:
  - Input: 110 - 265V 50/60Hz AC
  - Output: 8.4V, 3A DC
- Operating pressure 86 – 106 kPa
- Operating temperature: -20 to + 50°C
- Storage temperature: -25 to + 70 °C
- Ingress protection IP54: Splash proof and dust protected
- Dimensions: 270mm × 250mm ×120mm
- Weight: 2.8 kg (not including tablet)
- Relative humidity: 20%-90% RH at 50°C

## Delivery includes:

- Power Cable Fault Locator TDR 4000
- Q16 10" Tablet loaded with fault locator application
- Carrying Bag
- Current Coupler
- Coupler Cable
- Testing Cable
- Charger
- Manual



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