CRM100
Contact Resistance Meter

MAKE IN INDIA

REAL TIME SYSTEMS

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Introduction

Contact resistance measurement is very important for substation equipments which are generally carrying large currents. Even small change in contact resistance value can cause heavy power loss and overheating of contacts or components which can lead to premature damage. Hence regular measurement of contact resistance of such equipments is essential as part of preventive maintenance.

CRM100 Contact Resistance Meter is suitable for automatic offline measurement of contact resistance of the switchyard equipments i.e. Circuit Breakers, Isolators, clamp/connectors, joints, in live switchyard. The strengths of the instruments are the easy handling, rugged design and low weight.

Continuous Duty cycle for 20 minutes at 100A current to check / verify the healthiness of the contact. A back-lit LCD screen that is viewable in both bright sunlight and low-light levels. An internal thermal printer is enable logging of test results. Built-in Real Time Clock and memory as standard feature.

CRM100 is suitable for use in the charged switchyard up to 765 kV. The built-in data storage, interfacing to PC, thermal printer & discharge circuit features makes it suitable for a wide range of factory, on-site measurement and performance testing applications including:

- Circuit breakers
- Disconnecting switches
- High current busbar joints
- Cable splices
- Welding joints
- Ground connections

Features and Benefits

- Highly accurate systems suitable for on-site and laboratory use.
- Pure, filtered DC power source for the highest accuracy readings
- Single or continuous measurements with automatic data storage
- Automatic, high efficiency cooling system to dissipate internal heat

Technical Specification

The CRM100 is microprocessor based with menu driven options selected via front panel controls. With electronic calibration, the instrument can be easily recalibrated against known external standards. User controlled internal software allows data logging and storage of measurements in the instruments internal memory. The RS232 interface enables stored data to be downloaded to a computer.

Range : 10 µΩ up to 1999 mΩ (Auto range)

Resolution : 4 digit (Best Resolution: 0.1µΩ)

mV Drop: Across Contact

Test Current : 100A, 50A, 20A & 10A

Open Ckt. Voltage : 5 VDC (Min.)

Accuracy : Up to ± 0.1% of rdg

Input Supply : 230 ± 10%, 50Hz ± 5%,

PC Interface : RS232

Memory : Non-volatile memory to store 200 measurements

Display : Graphic LCD display with backlit

Printer (Optional): In-built Thermal Printer

Temp. Range : -10 to 50^{o}C

Storage Temp. : -20 to 70^{o}C

Humidity : 0 to 95% RH non condensing

Dimensions : 419 x 336 x 196 (mm) approx.

Weight : 10 kg. approx.

Protection : Short Circuit, Overload, Transient Surges, Over temperature, Induction.

Accessories

- Current and potential lead set
- Earthing Cable & Power Cord
- RS232/USB Communication Cable
- PC software for data exchange and analysis
- Operational manual,
- Test certificate

Optional Accessories

- Thermal Printer.