



## Features

- ✓ 100A True DC Test Current
- ✓ Resistance Range :  $0.1\mu\Omega$  to  $2m\Omega$
- ✓ Direct mV Drop Reading
- ✓ Internal Memory of 100 test
- ✓ Dual Grounding Facility
- ✓ Light weight & Portable
- ✓ Rust Removing C Clamp

# PCRM 100SM

## Contact Resistance Meter



Motwane's PCRM-100SM is True DC Contact resistance meter designed for accurate and reliable result at a very reasonable cost. The instrument is based on Kelvin 4- wire connection method for measurement of low resistance. PCRM 100SM has true 100A DC test current suitable for testing Circuit Breaker, Bus Bar, Isolator and Cable etc. PCRM 100SM has dual ground feature considering safety of operator and equipment. PCRM100SM is very light weight and portable with heavy duty test leads with C clamp and crocodile clips to suit different applications.

## Applications

Stationary and moving contacts are built from alloys that are formulated to endure the stresses of electrical arcing. However, if contacts are not maintained on a regular basis, their electrical resistance due to repeated arcing builds up, resulting in a significant decrease in the contact's ability to carry current and increase in resistance. Excessive corrosion of contacts is detrimental to the breaker performance. Hence to check contacts is to apply DC and measure the contact resistance or voltage drop across the closed contacts. The use of a higher current value gives more reliable results than using lower current values. The resistance value is usually measured in micro ohms ( $\mu\Omega$ ).

PCRM-100SM is specially used to measure static contact resistance of LV, HV, EHV circuit breaker contacts installed in energised switchyards. High accuracy and repeatability makes it a reliable tool for Quality Assurance and easy operation makes it a very handy tool for quick maintenance checks in various industries.

### Typical resistance measurement applications are

- Circuit Breaker contact resistance
- Bus Bar joints
- Isolator contacts
- Weld joints
- Bond resistance

## Technical Details

## PCRM 100SM

### Technical Specification

|                               |   |
|-------------------------------|---|
| <b>Test Current Injection</b> | 100A DC   |
| <b>Range &amp; Resolution</b> | 200 $\mu\Omega$ with 0.1 $\mu\Omega$<br>2000 $\mu\Omega$ with 1 $\mu\Omega$ |
| <b>Basic Accuracy</b>         | $\pm 2\%$ of reading, $\pm 1$ digits<br>(From 10% of the range)             |
| <b>Measurement Principle</b>  | Four wire measurement   |
| <b>Display</b>                | 3 1/2 LCD with Backlit  |
| <b>Memory Storage</b>         | 100 Test  |

### Physical Specifications

|                   |                                   |
|-------------------|-----------------------------------|
| <b>Dimensions</b> | 320 mm(D) x 435 mm(W) x 188 mm(L) |
| <b>Weight</b>     | 7 Kg Approx                       |

### Power Supply

|                          |   |
|--------------------------|---|
| <b>Mains</b>             | 115V-230V, 50Hz / 60Hz Single phase AC supply |
| <b>Power Consumption</b> | 35VA  |

### Environmental

|                              |                                  |
|------------------------------|----------------------------------|
| <b>Operating Temperature</b> | 0°C to 50°C.                     |
| <b>Storage Temperature</b>   | 0°C to 55°C.                     |
| <b>Humidity</b>              | less than 95% RH, Non condensing |

## Accessories

### Standard

- 15 meter lead set with C Clamp 75mm opening
- Master Earthing Cable (5 meter)
- Mains power cord
- User Manual
- Calibration Certificate
- Spare Fuse (250mA/250V slow blow)
- Carry Case

### Optional

- 22 meter lead set with
- C Clamp 50mm jaw size
- C Clamp 100mm jaw size
- C Clamp 150mm jaw size
- Heavy duty crocodile clip 32mm Jaw Size.
- 15 meter Cable (heavy crocodile clip 32mm Jaw opening)