



Features

- ✓ Fully automatic testing – Micro processor controlled
- ✓ Safe test – Dual Ground and Remote control
- ✓ Remote Control via PC application
- ✓ True DC – ripple free current
- ✓ Lightweight suitcase – withstands the impact of water, dust or sand
- ✓ Built in thermal printer
- ✓ Bluetooth enabled for Motware mobile application
- ✓ Pulsating DC Current
- ✓ Direct mV Drop Reading
- ✓ Dual Grounding Facility
- ✓ Calibration Due Indicator
- ✓ LED Indication for Mains/Battery/LOBAT
- ✓ Mains and Battery Operated

PCRM 100S & PCRM 200S

Contact Resistance Meter

CAT II	IP	CE	USB	Bluetooth
300	67			

The Motwane's Digital Contact Resistance Meter, model PCRM 100S & 200S is specially designed to measure extremely low resistances in micro ohm with high accuracy. The Instrument is based on Kelvin 4-wire connection method for measurement of low resistance. It conducts true DC ripple free current testing of bus bars, circuit breakers, User selectable current injection is 100A/200A. It has large LCD with backlight and display real time test information like injected current with measured resistance value & voltage drop. User friendly instrument and it comes with heavy duty cable with clamps for accurate measurement and accessories are housed in easy transportation. This product is designed with safety, ease of use and versatility in mind. The lightweight and rugged suitcase design makes Motwane PCRM an excellent choice when you need a portable solution in the field. When the case is closed, the product can withstand the impact of water, dust or sand – it even floats.

PCRM has Bluetooth connectivity module with Motware mobile app for remote access of testing data & storage in the cloud for further analysis & record purpose.

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 100S and 200S 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 100S & 200S

Technical Specification

Test Current(DC)	PCRM 100S: 100A
	PCRM 200S: 100/200A Selectable
Resistance Range	PCRM 100S: 0.1μΩ – 2000μΩ
	PCRM 200S: 0.1μΩ to 20mΩ
Resolution	0.1μΩ
Accuracy	±2% of the reading ±5digit (For 20 μΩ)
	±2% of the reading ±1 digit (200μΩ,2000μΩ & 2mΩ)
mV drop measurement	Yes
Open Circuit Voltage	15V
Remote Control	Control the instrument remotely over USB via a
	PC or laptop for added safety
Bluetooth	For effective wireless communication.
	For download and asset tagging
Asset tagging	Running a Motware app on Windows tablet or
	smart phone to populate unique asset IDs for
	efficient asset management
Internal memory storage with USB download capability	
For effective results management, up to 500 time and date stamped records.	
IP Rating	IP 67
Dual Ground	Using the optional DC clamp enables circuit
	breaker testing with ground protection in
	place for safety* with optional Clamp

Power Supply

Mains/Battery Operated	
Mains Input Voltage	115/230V, 50/60 Hz
Battery Type	Li-Ion Rechargeable Battery (14.8 V, 5.2 AH)
Battery charge time	≤ 5 hrs
Battery backup	8 to 10 hrs on a single charge
Operating Temperature	PCRM100S: -10°C to 55°C
	PCRM200S: 0°C to 50°C
Storage Temperature	0°C to 50°C
Humidity	<95% R.H. non-condensing
EMC	IEC61326-1
Safety	EN61010-1, EN 61326

Printer	Thermal Printer
Dimension	PCRM100S: 365L mm x 465W mm x 185H mm
	PCRM200S : 188L mm X 395W mm X 504H mm
Gross Weight	PCRM 100S : 24 kg
	PCRM 200S : 28 kg
Large, Clear LCD	Custom Built 3½ LCD Display with Backlit

Ultra tough outer case construction

Designed for use in demanding environments instrument case

Pelican 1520 (NF)

Keys to control the menu functions Keypad membrane

Battery indication with status LED

Low Battery, Mains operation and battery charging & Battery

level indication

Start/Stop key with status LED Yes

Available languages English

Protection Fuses Mains protected fuse 3A/250V

Software Details

Type	Windows based software
Interface	USB
Data Transfer	Real Time Data
Internal Data Storage	500 Test results
Features	Remote Operation
	Data downloading
	Analysis and report generation

Accessories

Standard

■ 15-meter strong cable with C Clamp 75mm opening	: 1 Set.
■ Master Earthing Cable with battery clip (5 meter)	: 1 No.
■ Mains power cord	: 1 No.
■ Mains Protected Fuse	: 2 Nos.
■ User Manual	: 1 No.
■ Carrying Case	: 1 No.
■ Thermal Paper Role	: 1 No.
■ USB Cable	: 1 No.
■ Pen Drive	: 1 No.
■ Test & Calibration Certificate	: 1 No.

Technical Details

PCRM 100S & 200S

Optional

■ 22-meter strong cable with C Clamp 50mm opening	: 1 Set
■ 22-meter strong cable with C Clamp 100mm opening	: 1 Set
■ 22-meter strong cable with C Clamp 150mm opening	: 1 Set
■ 22-meter cable with Heavy Crocodile clip 25mm opening	: 1 Set
■ 03-meter cable with Heavy Crocodile clip 25mm opening	: 1 Set

Note

- Bluetooth Software (Optional)
- Motware Desktop Application (Optional)

ORDERING INFORMATION

Product	Order Code
PCRM 100S	109209310
PCRM 200S	109211310
with Standard Accessories	

Note: Image & weight are subjected to change.