

MPK 203x



- Microprocessor controlled
- Alphanumerical display
- Resolution: 0.1 $\mu\Omega$
- Resistance reading: up to 20 m Ω
- Up to 200 A test current
- Kelvin-type (4-Wires) measurement
- Internal memory for up to 200 readings
- Direct reading (up to 4½ digits)
- Overheating protection
- USB interface
- Built-in printer

Description

The **MPK-203x** high-current micro-ohmmeter is a portable, microprocessor-controlled instrument. Has optimized filters and protections for measurements in electrical substations. Can be used to accurately measure very low contact resistances of high voltage circuit-breakers and switches, busbars, etc., with test currents up to 200 A. It employs the 4 terminals-method (U/I measuring principle) to avoid errors caused by test leads and their contact resistances.

Measurement accuracy is guaranteed by a state-of-the-arts signal amplification system, offset-free and of high long-term stability. Resistances readings are shown in the alphanumeric display with up to 4½ digits-resolution. It allows to measure resistances up to 20 m Ω , and the best resolution is 0.1 $\mu\Omega$.

Test current may be adjusted by the operator and his value is measured using an analog indicator (bargraph).

It has an internal memory for up to 200 readings.

The USB interface may be connected to a computer to download the stored values.

The high-current generation system is based on modern technology that allows to significantly decrease both its weight (approx. 24.25 lb) and size.

The cabinet is made of plastic material highly resistant to impacts and to environmental challenges. Internal thermal sensors in all sensitive components avoid any damage caused to the instrument due to overheating.

This is strong but lightweight equipment, and may be easily carried by one person. It is water-resistant and can be used under severe weather conditions (IP54 with closed lid) offering an excellent performance working both in the laboratory and out in the field.

MPH 203x

Technical specifications

TEST CURRENT

100 A, 200 A (True DC).
The current may be continuously adjustable from 0 to 100%.

RESISTANCE RANGES

0-1999 $\mu\Omega$ (test current: up to 200 A).
0-19.99 m Ω (test current: up to 100 A).

READING RESOLUTION

0.1 $\mu\Omega$ for R < 2000 $\mu\Omega$.
1 $\mu\Omega$ for R < 20 m Ω .

OUTPUT VOLTAGE

3.5 Vdc @ 200 A.
4.5 Vdc @ 100 A.
5.8 Vdc (without load).

MAXIMUM LOAD RESISTANCE

10 m Ω @ 200 A.
30 m Ω @ 100 A.

MEASUREMENT PRINCIPLE

Four-terminal, U/I.

THERMAL PROTECTION

Protects all sensitive components, avoiding any damage due to overheating.

CONTINUOUS OPERATION TIME

At 200 A this equipment may be used continuously for approx. 1 minute before the thermal protection activates.
At 100 A this equipment may be used continuously for approx. 15 minutes before the thermal protection activates.

BASIC ACCURACY

± 0.5 % of reading ± 2 digits.

ADVANCED FEATURES

Digital direct reading of very low resistances in the alphanumeric display, with up to 4½ digits.
Very fast and accurate measurements.

BUILT-IN MEMORY

It allows the storage of 200 tests readings.

INTERFACE

USB.

ENVIRONMENTAL PROTECTION

IP54 (with closed lid).

SAFETY CLASS

Meets the requirements of IEC 61010-1.

POWER SUPPLY

Mains: 220-240 V~.

OPERATING TEMPERATURE RANGE

23°F to 122°F (-5°C to 50°C).

STORAGE TEMPERATURE RANGE

-13°F to 149°F (-25°C to 65°C).

HUMIDITY RANGE

95 % RH (non condensing).

EQUIPMENT WEIGHT

Approx. 24.25 lb (11 kg).

DIMENSIONS

19.76" x 15.51" x 7.48" (502 x 394 x 190 mm).

INCLUDED ACCESSORIES

2 Combined current and potential leads - up to 49.21 ft (15 meters).
1 Power cord.
1 Ground cable.
1 USB cable.
1 Built-in thermal printer.
1 Case for the accessories.
1 User guide.