

200 A digital micro-ohmmeter

MPK 203x



Illustrative image

Features

- Alphanumerical display
- Direct reading (up to 4½ digits)
- Resolution: 0.1 $\mu\Omega$
- Resistance reading: up to 20 m Ω
- U/I (4-wires) measurement
- Overheating protection
- Internal memory for up to 200 readings
- USB interface
- Software for data management
- Built-in printer

Description

The MEGABRAS **MPK203x** is a smart and portable digital ohmmeter. 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.

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

It has an internal memory for up to 200 readings. The serial data output (USB) 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. 11 kg) 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 a strong but lightweight equipment, and may be easily carried by one person. It is water resistant and can be used under severe weather conditions (IP65 with closed lid) offering an excellent performance working both in the laboratory and out in the field.

Technical specifications

ELECTRICAL	
MPK203x	
Test current	100 A, 200 A (True DC) The current may be continuously adjustable from 0 to 100 %.
Resistance ranges	0 up to 2000 $\mu\Omega$ (test current: up to 200 A) 0 up to 20 m Ω (test current: up to 100 A)
Reading resolution	0.1 $\mu\Omega$ from 0 up to 2000 $\mu\Omega$ 1 $\mu\Omega$ from 2 m Ω up to 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
Basic accuracy	2000 $\mu\Omega$ range: <ul style="list-style-type: none"> • $\pm 0.5\%$ of reading ± 2 digits from 200.0 $\mu\Omega$ up to 1999.9 $\mu\Omega$ • $\pm 1\%$ of reading ± 2 digits from 0 up to 199.9 $\mu\Omega$ 20 m Ω range: <ul style="list-style-type: none"> • $\pm 0.5\%$ of reading ± 2 digits from 2.000 mΩ up to 20.000 mΩ • $\pm 2\%$ of reading ± 2 digits from 0 up to 1999.9 $\mu\Omega$
FEATURES	
Measurement principle	Four-terminal, U/I
Thermal protection	Protects all sensitive components, avoiding any damage due to overheating.
Continuous operation time	<ul style="list-style-type: none"> • At 200 A this equipment may be used continuously for approx. 3 minutes before the thermal protection activates • At 100 A this equipment may be used continuously for approx. 15 minutes before the thermal protection activates
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
Serial data output	USB for download the stored values

STANDARDS	
Safety	IEC 61010-1
ENVIRONMENTAL	
IP rating	IP65 (with closed lid)
Operating temperature	-5 °C to 50 °C
Storage temperature	-25 °C to 70 °C
Humidity	95 % RH (non condensing)
POWER SUPPLY	
Mains	220 - 240 V~
MECHANICAL (OF THE INSTRUMENT)	
Weight	Approx. 11 kg
Dimensions	502 x 394 x 190 mm
MECHANICAL (OF THE ACCESSORIES)	
Weight	Approx. 20.5 kg

Included accessories

- 2 Combined current and potential leads - up to 15 m
- Ground cable
- USB cable
- Power cord
- User manual
- MegaLogg 3 software (download)
- Case for the accessories

Global Presence

MEGABRAS equipment are used in more than 40 countries around the world



Test & Measurement equipment

- Digital transformer ratiometer
- Earth ground testers
- Hipots
- Insulating glove tester
- Insulation testers
- Kilovoltmeters
- Micro-ohmmeters
- Power quality analyzers
- Vibration meter



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