## Low-resistance ohmmeters



# **ΠΡΗ**203χ

## Digital micro-ohmmeter

Instrument with optimized filters and protections for measurements in electrical substations





## Features

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

### 💋 MegaLogg2

Software to manage the equipment's memory, adjust date / time and generate test reports.



## 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.

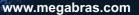
Measurement accuracy is guaranteed by a state-of-the-arts signal amplification system, offset-free and of high long-term stability. Resistances readings are shown in the alphanumeric display with up to  $4\frac{1}{2}$  digits-resolution.

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

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. 11kg) 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 waterresistant 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.



# MEGABRAS

## 🤣 Technical specifications

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

 $\begin{array}{l} \textbf{RESISTANCE RANGES} \\ 0 \text{ up to } 2000 \ \mu\Omega \ (\text{test current: up to } 200 \ A). \\ 0 \text{ up to } 20 \ m\Omega \ (\text{test current: up to } 100 \ A). \end{array}$ 

## $\begin{array}{l} \textbf{READING RESOLUTION} \\ 0.1 \ \mu\Omega \ from \ 0 \ up \ to \ 2000 \ \mu\Omega. \end{array}$

1  $\mu\Omega$  from 2 m $\Omega$  up to 20 m $\Omega$ .

#### OUTPUT VOLTAGE 3.5 Vdc @ 200 A. 4.5 Vdc @ 100 A.

5.8 Vdc (without load).

#### **MAXIMUM LOAD RESISTANCE** 10 mΩ @ 200 A.

30 mΩ @ 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. 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.

#### BASIC ACCURACY

2000 µΩ range:

 $\pm$  0.5 % of reading  $\pm$  2 digits from 200.0  $\mu\Omega$  up to 1999.9  $\mu\Omega$ .

 $\pm$  1 % of reading  $\pm$  2 digits from 0 up to 199.9  $\mu\Omega.$ 

 $\begin{array}{l} 20 \text{ m}\Omega \text{ range:} \\ \pm 0.5 \ \% \text{ of reading } \pm 2 \text{ digits from } 2.000 \ \text{m}\Omega \text{ up to } 20.000 \ \text{m}\Omega. \\ \pm 2 \ \% \text{ of reading } \pm 2 \text{ digits from } 0 \text{ up to } 1999.9 \ \mu\Omega. \end{array}$ 

#### ADVANCED FEATURES

Digital direct reading of very low resistances in the alphanumerical display, with up to 4% digits. Very fast and accurate measurements.

**MPH**203x

**BUILT-IN MEMORY** It allows the storage of 200 tests readings.

SERIAL DATA OUTPUT USB for download the stored values.

ENVIRONMENTAL PROTECTION IP54 (with closed lid).

SAFETY CLASS Meets the requirements of IEC 61010-1.

POWER SUPPLY Mains: 220 - 240 V~.

OPERATING TEMPERATURE RANGE -5 °C to 50 °C.

STORAGE TEMPERATURE RANGE -25 °C to 70 °C.

HUMIDITY RANGE 95 % RH (non condensing).

EQUIPMENT WEIGHT Approx. 11 kg.

DIMENSIONS 502 x 394 x 190 mm.

ACCESSORIES WEIGHT Approx. 20.5 kg.

## Included accessories

- 2 combined current and potential leads up to 15 m
- Power cord
- Ground cable
- USB cable
- Case for the accessories
- User guide
- MegaLogg2 software



MEGABRAS IND. ELETRÔNICA LTDA. Rua Gibraltar, 172 - Santo Amaro CEP 04755-070 - São Paulo - SP Brazil More information

- Phone: +55 (11) 5641-8111
- Fax : +55 (11) 5641-9755
- Email : megabras@megabras.com

Site : www.megabras.com ce. Version I20022601