

# 200 A digital micro-ohmmeter

## MPK215R



Remote control  
by App



Illustrative image

### Features

- Direct reading (up to 4½ digits)
- BSG mode (Both Side Grounded)
- Resolution: 0.1  $\mu\Omega$
- Resistance reading: up to 1  $\Omega$
- U/I (4-wires) measurement
- Overheating protection
- Built-in memory
- Bluetooth and USB communication interfaces
- Open Modbus protocol: Can be remote controlled through an Android app or through USB by customized software, Labview and PLC

### Description

The **MPK215R** high-current micro-ohmmeter is a portable digital 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. It employs the 4 terminals-method (U/I measuring principle) to avoid errors caused by test leads and their contact resistances.

The **MPK215R** has a cooling system that allows making a large number of consecutive tests without activation of thermal protection. Under normal ambient conditions (25 °C) it can perform up to 30 consecutive tests with duration of 1 minute and 1 minute interval, time usually spent for repositioning the cables in another test point.

Measurement accuracy is guaranteed by a state-of-the-arts signal amplification system, offset-free and of high long-term stability. This is a strong but lightweight equipment and may be easily carried by one person. It is water-resistant (IP65 with closed lid) offering an excellent performance working both in the laboratory and out in the field.

### Remote control by Android™ App



**Increased safety and comfort:** Set up, start and stop tests in an even safer and more comfortable way

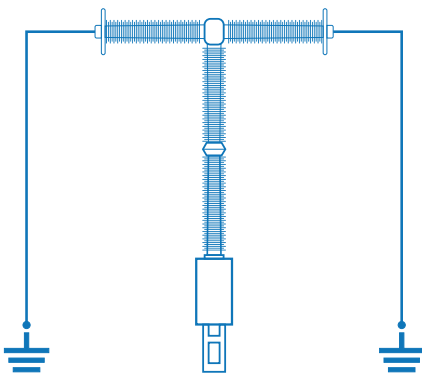
**Automatic reports:** Generate test reports directly on the App

**Smartphone / tablet features:** Incorporate smartphone features into your reports (photo, GPS coordinates and test location map)

• Android, Google Play and the Google Play logo are trademarks of Google LLC

### BSG mode

The BSG (Both Side Grounded) test mode provides to the user and to the equipment a safer way to test objects in a substation since the both sides of a switch, contact or circuit breaker is maintained connected to the ground during the whole test.



### Modbus® Protocol

This equipment implements the Modbus® open protocol. All configuration, real-time control, monitoring of measurements, and retrieval of test information can be performed using commercial tools such as LabVIEW® and PLCs, or even through dedicated software and own development. In this way, the entire measurement and analysis process can be automated according to the application's needs. Complete documentation with accessible and controllable parameters is provided, as well as clarification of doubts about the use through technical support.

- Modbus is a registered trademark of Schneider Electric USA, Inc.
- LabVIEW is a registered trademark of National Instruments Corporation

# Technical specifications

ELECTRICAL	
<b>MPK215R</b>	
Test current	From 5 A up to 200 A (True DC) The test current can be adjusted in: • Steps of 0.2 A from 5 A to 20 A • Steps of 1 A from 20 A to 200 A
Resistance ranges	0.1 $\mu\Omega$ up to 2 m $\Omega$ (0.1 $\mu\Omega$ resolution) 2 m $\Omega$ up to 200 m $\Omega$ (10 $\mu\Omega$ resolution) 200 m $\Omega$ up to 1 $\Omega$ (1 m $\Omega$ resolution)
Basic accuracy	$\pm 1\%$ of reading from 50 $\mu\Omega$ to 1 $\Omega$
AUXILIARY CLAMP (BSG)	
Measurement range	0.1 Adc to 60 Adc
Accuracy	1% + 3 digits
FEATURES	
Measuring modes	Manual and automatic
BSG function	Allows to test an object with both sides grounded, providing more safety when performing measurements at substations
Timer function	Allows to setup the test duration from 15 seconds up to 120 seconds for test currents from 5 A up to 200 A.  Allows unlimited test duration for currents equal or lower than 100 A.
Measurement principle	Four-terminal, U/I
Protections	Against overheating, over-current and short-circuit
Display	Alphanumerical LCD display, 4 lines / 20 characters (Big Number)
Built-in memory	Memory for storing up to 4000 readings organized by records
STANDARDS	
Safety	IEC 61010-1
COMMUNICATION	
Protocol	Modbus
USB	For configuration, control and download the stored values
Bluetooth	For configuration, control and download the stored values

SOFTWARE	
Desktop (PC/Notebook)	MegaLogg 3 software: for remote control, allowing to configure, run tests and generate reports
Android (Smartphone/ Tablet)	BlueLogg app: for remote control, allowing to configure, run tests and generate reports
ENVIRONMENTAL	
IP rating	IP65 (with closed lid)
Operating temperature	0 °C to 50 °C
Storage temperature	-10 °C to 70 °C
Humidity	95 % RH (non condensing)
POWER SUPPLY	
Mains	100 - 240 V~
MECHANICAL (OF THE INSTRUMENT)	
Weight	Approx. 11 kg
Dimensions	502 x 394 x 190 mm

## Included accessories

- 2 combined current and potential leads
- Auxiliary current clamp
- Ground cable
- Power cord
- USB cable
- User manual
- MegaLogg 3 software (download)
- BlueLogg app (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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