MEGABRAS

100 A digital micro-ohmmeter

MPK105R

2 YEAR WARRANTY ☐ CE

Remote control by App

Illustrative Image

Features

- Direct reading (up to 4½ digits)
- BSG mode (Both Side Grounded)
- Resolution: 0.1 µΩ
- Resistance reading: up to 300 mΩ
- U/I (4-wires) measurement
- Overheating protection
- Built-in memory
- Built-in thermal printer
- 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

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.

Description

The **MPK105R** 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.

Measurement accuracy is guaranteed by a state-of-the-arts signal amplification system, offset-free and of high long-term stability. 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 (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
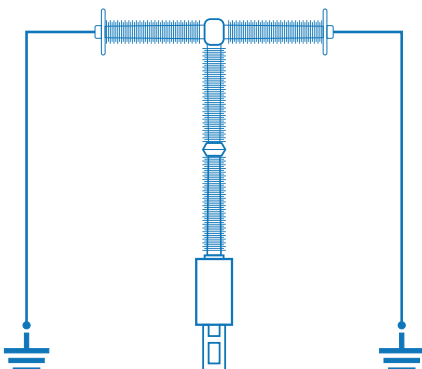
Automatic reports: Generate test reports directly on the App

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

GET IT ON Google Play

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	MPK105R
Test current	From 5 A up to 100 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 100 A
Resistance ranges	0.1 µΩ up to 2 mΩ (0.1 µΩ resolution) 2 mΩ up to 300 mΩ (10 µΩ resolution)
Basic accuracy	± 1 % of reading from 50 µΩ to 300 mΩ

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 current test from 5 A up to 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)
Printer	Built-in thermal printer
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

vl24042301

Smartphone App

BlueLogg

Remote control by App

MEGABRAS equipment that has Bluetooth® interface can be controlled remotely via an Android™ smartphone / tablet running the BlueLogg application. Set the parameters, start / stop a test, save the data and generate reports.
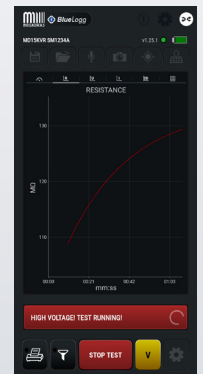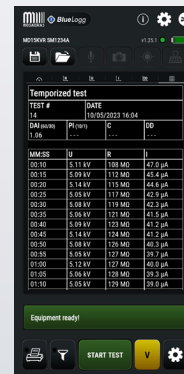
Real-time measurement

Test details

Test Start / Stop

Increased safety

BlueLogg communicates with the equipment through a Bluetooth® connection, allowing remote control of the tests, further increasing user safety in tests with potential risks.

Smartphone features and automatic reporting

Record voice annotation for each measurement, generate automatic test reports directly on the App. Incorporate smartphone / tablet features into the report (photo, GPS coordinates and test location map).
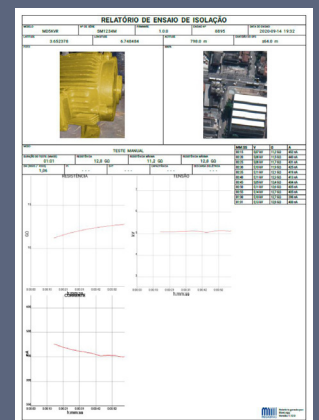
Voice annotation

Pictures

GPS coordinates

Map

Using the remote control does not require Internet connection (the Internet is only necessary if you want to see a map of the test site or send reports by email).

GET IT ON
Google Play

MegaLogg 3

Software for remote control and reporting

MegaLogg 3 communicates with the equipment through a USB connection. Set the parameters, start / stop a test, save the data and generate reports.

Real-time measurement

Remote control

Test results

Available for download at: **www.megabras.com/megalogg**

Test settings

Report settings

Trend analysis (insulation testers and micro-ohmmeters)

Report generation

MEGABRAS

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

MEGABRAS

COMPANY WITH CERTIFICATION
TÜV NORD Brasil
ISO 9001:2015
MEGABRAS
QUALITY MANAGEMENT SYSTEM

MEGABRAS IND. ELETRÔNICA LTDA.

Rua Gibraltar, 172 - Santo Amaro
CEP 04755-070 - São Paulo - SP
Brazil

For more information

Phone : +55 (11) 3254-8111 / 5641-8111
E-mail : megabras@megabras.com
Site : www.megabras.com