

# MI20KVe



## HIGH VOLTAGE MEGOHMMETER

- ✓ **INSULATION TEST UP TO 4.000.000M**
- ✓ **4 TEST VOLTAGES: 5kV, 10kV, 15kV AND 20kV**
- ✓ **GUARD TERMINAL**
- ✓ **RECHARGEABLE BATTERY**
- ✓ **MULTIPLE SCALES FOR PRECISION IMPROVEMENT**
- ✓ **PORTABLE, ACCURATE & RUGGED**
- ✓ **IP-54 PROTECTION**
- ✓ **CE MARK**

**m**  
**MEGABRAS**  
[www.megabras.com](http://www.megabras.com)

The MI-20KVe High-Voltage Megohmmeter is a truly portable device that allows the measurement of insulation resistances using test voltages up to 20kV. It employs a state-of-the-art technology for the safe measurements of insulation resistances up to 4.000.000M with four test voltages: 5kV - 10kV - 15kV and 20kV. Readings are performed through an easy-to-read analogue indicator, having a broad scale.

This equipment is specially well suited to test isolation resistances in transmission lines and medium voltage distribution systems, whether aerial or underground, as it allows to perform testing with voltages near to the operational value. Besides, it is an excellent auxiliary when detecting cable failures.

In order to maximize the operator's safety, this equipment was made within a plastic cabinet of high dielectric strength, with no metallic accessible parts. A light indicator warns about dangerous voltages presence, both in the equipment and in the element under testing, and switches off only when the discharge process has finished. This megohmmeter has a GUARD terminal that allows to avoid the effects of parasitic resistances and surface currents on the insulation resistances under test.

Due to its reduced size and weight, its power autonomy and mechanical strength, this megohmmeter is suitable for working out in the field, under severe weather conditions. It is powered with a rechargeable battery, with a charger for 110V/220V. In order to protect the equipment, the cabinet is water and dust resistant. Protection grade is IP54, and the megohmmeter is supplied with a complete kit of high voltage test leads.

# MI 20KVe - TECHNICAL SPECIFICATIONS

## TEST VOLTAGES (T.V.)

5 kV - 10 kV - 15 kV - 20 kV

## MAXIMUM RESISTANCE READING

1T @ 5kV T.V.  
2T @ 10kV T.V.  
3T @ 15kV T.V.  
4T @ 20kV T.V.

## SHORT CIRCUIT CURRENT

500 $\mu$ A  $\pm$ 5%

## TEST VOLTAGES ACCURACY

$\pm$ 2% of nominal test voltages on R 10G

## MEGOHMMETER ACCURACY

Class 2 ( $\pm$ 2 % of full scale deflection)

## INTERNAL CURRENT LIMITING RESISTANCE

10M @ 5kV T.V.  
20M @ 10kV T.V.  
30M @ 15kV T.V.  
40M @ 20kV T.V.

## ANALOGUE INDICATOR

Up to 100 mm scale length, taut band, with mirror

## ENVIRONMENTAL PROTECTION

IP54 with closed lid.

## SAFETY CLASS

In accordance with IEC1010-1

## ELECTROSTATIC IMMUNITY

In accordance with IEC 1000-4-2

## ELECTRO MAGNETIC IRRADIATION IMMUNITY

In accordance with IEC 61000-4-3

## POWER SUPPLY

Internal rechargeable 12V - 7Ah sealed lead acid battery

## BATTERY CHARGER

For 110-127 or 220V.a.c. mains supply

## OPERATING TEMPERATURE RANGE

-5°C to 50°C

## STORAGE TEMPERATURE RANGE

-25°C to 65°C

## HUMIDITY RANGE

95% RH (non condensing)

## ALTITUDE MAXIMUM

2000m

## WEIGHT

Approx. 9,8kg (including battery and accessories)

## DIMENSIONS

378 x 308 x 175mm

## INCLUDED ACCESSORIES

Measuring test leads, 1,80 m. (2)  
GUARD test lead, 1,80 m.  
Charger power cord.  
Operating instructions

 MARK

Technical modifications reserved.



MEGABRAS INDÚSTRIA ELETRÔNICA LTDA.  
Rua Gibraltar, 172 - Santo Amaro - CEP 04755.070 - São Paulo - SP - Brazil  
Tel. +55 11 5641-8111 - Fax +55 11 5641-9755  
e-mail: megabras@megabras.com - Internet: www.megabras.com