



## **MI**20KV<sub>e</sub>

- Insulation test up to 4 TΩ
- 4 test voltages:
  - 5 kV - 10 kV - 15 kV - 20 kV
- Guard terminal
- Rechargeable battery
- Multiple scales for accuracy improvement
- Taut-band analog meter
- Battery check
- IP54 protection

### **Description**

The MI-20KV<sub>e</sub> high voltage insulation tester is a truly portable device that allows the measurement of insulation resistances using test voltages up to 20 kV. It employs a state-of-the-art technology for the safe measurements of insulation resistances up to 4,000,000 MΩ with four test voltages: 5 kV - 10 kV - 15 kV and 20 kV. Readings are performed through an easy-to-read analog indicator, having a broad scale.

This equipment is especially well suited to test isolation resistances in transmission lines and medium voltage distribution systems, whether aerial or underground, as it allows performing 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. 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 equipment has a GUARD terminal that allows avoiding 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 110 V / 220 V. In order to protect the equipment, the cabinet is water and dust resistant. Protection grade is IP54, and the equipment is supplied with a complete kit of high voltage test leads

# Mi20KV<sub>e</sub>

## Technical specifications

**TEST VOLTAGES**

5 kV, 10 kV, 15 kV, 20 kV.

**MAXIMUM RESISTANCE READING**

1 TΩ @ 5 kV.  
2 TΩ @ 10 kV.  
3 TΩ @ 15 kV.  
4 TΩ @ 20 kV.

**SHORT CIRCUIT CURRENT**

500 μA ± 5%.

**TEST VOLTAGES ACCURACY**

± 2% of nominal test voltages on R ≥ 10 GΩ.

**EQUIPMENT ACCURACY**

Class 2 (±2 % of full scale deflection).

**INTERNAL CURRENT LIMITING RESISTANCE**

10 MΩ @ 5 kV.  
20 MΩ @ 10 kV.  
30 MΩ @ 15 kV.  
40 MΩ @ 20 kV.

**ANALOGUE INDICATOR**

Up to 3.86" (98 mm) scale length, taut band, with mirror.

**ENVIRONMENTAL PROTECTION**

IP54 with closed lid.

**SAFETY CLASS**

Meets the requirements of IEC 61010-1.

**ELECTROSTATIC IMMUNITY**

In accordance with IEC 1000-4-2.

**ELECTROMAGNETIC IRRADIATION IMMUNITY**

In accordance with IEC 61000-4-3.

**POWER SUPPLY**

Internal rechargeable 12 V - 7 Ah sealed lead acid battery.

**BATTERY CHARGER**

For 100 - 240 V~ mains supply.

**OPERATING TEMPERATURE RANGE**

23°F to 122°F (-5°C to 50°C).

**STORAGE TEMPERATURE RANGE**

-13°F to 149°F (-25°C to 65°C).

**HUMIDITY RANGE**

95% RH (non condensing).

**WEIGHT**

Approx. 21.60 lb (9.8 kg).

**DIMENSIONS**

14.88" x 12.13" x 6.89" (378 x 308 x 175 mm).

**INCLUDED ACCESSORIES**

2 Measuring test leads 5.90 ft (1.8 meters).  
1 GUARD test lead 5.90 ft (1.8 meters).  
1 Charger power cord.  
1 User guide.  
1 Carrying bag.