

5- and 15-kV Megohmmeters



- **Continuously variable test voltage**
- **Rugged field construction**
- **Circuit-breaker protection**

DESCRIPTION

The 5- and 15-kV Megohm-meters are high-voltage, line-operated instruments. They provide a continuously variable test voltage for highly sensitive insulation-resistance measurements of all types of electrical equipment and power cable.

The instruments are designed to withstand harsh field conditions, and feature tough, impact-resistance casing, removable lids and adjustable carrying straps. For complete portability, there is ample room in each case to store cables and the instruction manual.

APPLICATIONS

The units are suitable for dielectric absorption and step-voltage testing. Two models are available:

The 5-kV Megohmmeter measures up to 100,000 M Ω ; provides output from 250 volts to 5 kV, with direct reading up to 50,000 M Ω at 2.5 kV.

The 15-kV Megohmmeter provides direct reading measurements up to 100,000 M Ω at 5 kV and up to 200,000 M Ω at 10 kV, with a multiplying factor for all other voltages up to 15 kV.

The 15-kV model also features an internal voltage stabilizer that may be activated for improved measurement under extreme field conditions. Separate on/off controls are provided for power and high voltage, and a red light indicates when high voltage is on.

FEATURES AND BENEFITS

- Provides 2% kV and M Ω accuracyGuard terminal to eliminate surface leakage current from the measurement
- Zero-start, high-voltage interlock
- Shielded, high-voltage output cable permanently connected to the instrument
- Circuit-breaker protection
- Redundant grounding connections
- Easy-to-follow, color-coded meter scales
- Analog metering for monitoring of variable measurements
- Rugged field construction

SPECIFICATIONS

| Cat. No. | Model | DC Test Voltage 2.5 kV dc | Megohm Range Multiplier | | | | Dimensions 10 H x 10.2 W x 14 D in. | Weight 20.5 lb |
|----------|-------|------------------------------|--|-----------------|--------------------|------------------------|--|-------------------|
| | | | x1 0.5 to 50 | x10 5 to 500 | x100 50 to 5000 | x1000 500 to 50,000 | | |
| 210400 | 5-kV | 5 kV dc | 1 to 100 | 10 to 1000 | 100 to 10,000 | 1000 to 100,000 | 254 H x 260 W x 355 D mm | 9.3 kg |
| | | 250 V to 5 kV | Multiply MΩ by factor indicated in green | | | | | |
| 210415 | 15-kV | 7.5 kV dc | 1.5 to 150 | 15 to 1500 | 150 to 15,000 | 1500 to 150,000 | 12.5 H x 11.5 W x 20.2 D in. | 35 lb |
| | | 15 kV dc | 3 to 300 | 30 to 3000 | 300 to 30,000 | 3000 to 300,000 | | |
| | | 500 V to 15 kV | $\frac{\text{Actual kV}}{10} \times \text{Range at 10 kV}$ | | | | | |

5-kV Model, Cat. No. 210400

Input Voltage

120 Vac, 60 Hz

Test Voltage

0 to 5 kVdc, negative with respect to ground

Output Current

5 mA continuous

Short-Circuit Current

12 mA max.

Instrumentation

Kilovoltmeter: 4.5-in. (114-mm) taut band

Three Color-Coded Scales

Red: 0 to 2.5 kV

Black: 0 to 5 kV

Green: 0 to 1 reference

Accuracy: ±2% full scale

Megohmmeter

4.5-in. (114-mm) taut band

Two Color-Coded Scales

Red: 0.5 to 50 MΩ

Black: 1 to 100 MΩ

Accuracy: ±0.031 in. (0.08 cm) at any marking

Operating Temperature Range

0 to 122° F (–17.7 to +50° C)

15-kV Model, Cat. No. 210415

Input Voltage

120 Vac, 60 Hz

Test Voltage

0 to 15 kVdc, negative with respect to ground

Output Current

2 mA continuous (stabilizer out)

50 μA continuous (at 15 kV, stabilizer in)

Short-Circuit Current

12 mA max.

Instrumentation

Kilovoltmeter: 4.5-in. (114-mm) taut band

Three Color-Coded Scales

Red: 0 to 7.5 kV

Black: 0 to 15 kV

Green: 0 to 1.5 reference

Accuracy: ±2% full scale

Megohmmeter

4.5-in. (114-mm) taut band

Two Color-Coded Scales

Red: 1 to 100 MΩ

Black: 2 to 200 MΩ

Accuracy: ±0.031 in. (0.08 cm) at any marking

Operating Temperature Range

0 to 122° F (–17.7 to +50° C)

ORDERING INFORMATION

| Item (Qty) | Cat No. | Item (Qty) | Cat. No. |
|--------------------------------------|--------------|------------|----------|
| 5 kV Megohmmeter | 210400 | | |
| 15 kV Megohmmeter | 210415 | | |
| Included Accessories | | | |
| Ground connection cable, 10 ft [3 m] | 4702 | | |
| Test record card, universal | 210954 | | |
| Power cord, for Cat. No. 210415 | 17032 | | |
| Instruction manual for 5-kV model | AVTM21-40JA | | |
| Instruction manual for 15-kV model | AVTM21-415JA | | |
| Optional Accessories | | | |
| Test record card, 0 to 1000 GΩ | | 210959 | |
| "A Stitch in Time" manual | | AVTM21-P8B | |

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