

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 accuracy Guard 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	Megohm Range Multiplier				Dimensions	Weight
			x1	x10	x100	x1000		
210400	5-kV	2.5 kV dc	0.5 to 50	5 to 500	50 to 5000	500 to 50,000	10 H x 10.2 W x 14 D in. 254 H x 260 W x 355 D mm	20.5 lb 9.3 kg
		5 kV dc	1 to 100	10 to 1000	100 to 10,000	1000 to 100,000		
		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. 317 H x 292 W x 514 D mm	35 lb 15.9 kg
		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	
Test report sheet for rotating equipment		210951-1	
Test report sheet for power transformers		210951-2	
Test report sheet for power cables		210951-3	
Bushing guard spring		217003	
“Lowdown on HV DC Testing” manual		AVTM22P-1	
“A Stitch in Time” manual		AVTM21-P8B	

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