

Winding Ohmmeter RMO100M

- Test currents 5 mA - 100 A DC
- Lightweight – only 8 kg
- Measuring range 0,1 $\mu\Omega$ - 1000 Ω
- IP43 mechanical protection
- Extremely quick measurement



Description

The Winding Ohmmeter RMO100M is designed for the winding resistance measurement of electrical motors and generators. The RMO100M generates a true DC ripple-free current. The test result is displayed as $R = U / I$.

There is enough memory within the RMO100M instrument to store 500 measurements. All measurements are time- and date-stamped.

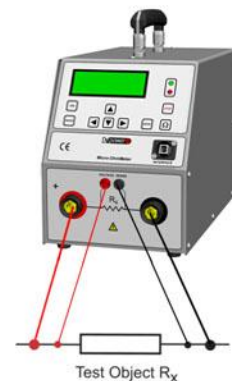
The instrument is equipped with a thermal and overcurrent protection. The RMO100M has a very high ability to cancel electrostatic and electromagnetic interferences that exist in HV electric fields. It is achieved by proprietary filtration solution applied to the instruments hardware and software design.

DV-Win Software

The DV-Win software enables control and observation of the test process, as well as saving and analyzing the results on a PC. It provides a test report, arranged in a selectable form as an Excel spreadsheet, PDF, Word, or ASCII format. The standard interface is USB. RS232 is optional.

Connecting the RMO100M to a Test Object

The RMO100M has separate voltage and sense cables, providing for highly accurate measurement due to the Kelvin four-point method. The current and sense cables are connected as shown in the figure to the right. At the start of the test a cable continuity check is performed. In case of disconnection, an alarm is activated, and the error message is shown on the display.



Typical Application

Typical application of the RMO100M includes the measurements of:

- Generators and electrical motors
- High-current electrical motors
- Cable splices

Accessories

Included

- DV-Win PC software
- Mains power cable
- Ground (PE) cable
- USB cable

Recommended

- Current cables 2 x 5 m 16 mm² with battery clamps
- Sense cables 2 x 5 m with alligator clamps
- Cable bag
- Device bag

Optional

- Built-in thermal printer 80 mm
- Test shunt 150 A / 150 mV
- Cable plastic case
- Transport case



Current cables with battery clamps



Sense cables with alligator clamps



Test shunt



Cable plastic case



Transport case



Cable bag and device bag

**The above cables are also available in several lengths and terminations. Please contact DV Power for more information.*

Technical Data

Static Resistance Measurement

- Test currents: 5 mA – 100 A DC
- Measurement range: 0,1 $\mu\Omega$ - 1 k Ω
- Typical accuracy: \pm (0,1 % rdg + 0,1 % F.S.)

Data Storage

500 internal memory positions

Warranty

- Three years

Printer (optional)

- Thermal printer
- Graphic and numeric printout
- Paper width 80 mm

Mains Power Supply

- Connection according to IEC/EN60320-1; UL498, CSA 22.2
- Mains supply: 90 V - 264 V AC
- Frequency: 50/60 Hz
- Mains supply voltage fluctuations up to \pm 10 % of the nominal voltage
- Input power: 2250 VA
- Fuse 15 A / 250 V, type F, not user replaceable

Environmental conditions

- Operating temperature: -10 °C - + 55 °C / 14 F - +131 F
- Storage & transportation: -40 °C - + 70°C / -40 F - +158 F
- Humidity 5 % - 95 % relative humidity, non condensing

Resolution

- 0,1 $\mu\Omega$ – 999,9 $\mu\Omega$: 0,1 $\mu\Omega$
- 1000 m Ω – 9,999 m Ω : 1 $\mu\Omega$
- 10,00 m Ω – 99,99 m Ω : 10 $\mu\Omega$
- 100,0 m Ω – 999,9 m Ω : 0,1 m Ω
- 1,000 Ω – 99,99 Ω : 10 m Ω
- 100,0 Ω – 999,9 Ω : 0,1 Ω
- 1000 Ω – 1 k Ω : 1 Ω

Computer Interface

- USB
- Optional: RS232

Dimensions and Weight

- Dimensions: 198 mm x 255 mm x 380 mm
7,8 in x 10 in x 15 in
- Weight: 8 kg / 17,6 lbs

Applicable Standards

- Installation/overvoltage: category II
- Pollution: degree 2
- Safety: LVD 2006/95/EC (CE Conform)
EN 61010-1
- EMC: Directive 2004/108/EC (CE Conform)
Standard EN 61326-1:2006
- CAN/CSA-C22.2 No. 61010-1, 2nd edition, including Amendment 1

All specifications herein are valid at ambient temperature of + 25 °C and recommended accessories. Specifications are subject to change without notice.