

# Winding Ohmmeter RMO50M

- Test currents 5 mA - 50 A DC
- Lightweight – only 8 kg
- Measuring range 0,1  $\mu\Omega$  - 1000  $\Omega$
- IP43 mechanical protection
- Extremely quick measurement



## Description

The Winding Ohmmeter RMO50M is designed for the winding resistance measurement of electrical motors and generators. The RMO50M generates a true DC ripple-free current. The test result is displayed as  $R = U / I$ .

There is enough memory within the RMO50M instrument to store 500 measurements. All measurements are time- and date-stamped.

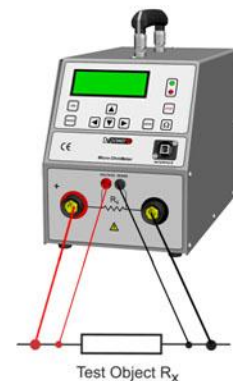
The instrument is equipped with a thermal and overcurrent protection. The RMO50M has a very high ability to cancel electrostatic and electromagnetic interferences that exist in HV electric fields. It is achieved by proprietary filtration solution applied to the instruments hardware and software design.

## 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 RMO50M to a Test Object

The RMO50M 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 RMO50M 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 10 mm<sup>2</sup> 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 – 50 A DC
- Measurement range: 0,1  $\mu\Omega$  - 1 k $\Omega$
- 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  $^{\circ}$ C - + 55  $^{\circ}$ C / 14 F - +131 F
- Storage & transportation: -40  $^{\circ}$ C - + 70 $^{\circ}$ 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 $\Omega$  – 9,999 m $\Omega$ : 1  $\mu\Omega$
- 10,00 m $\Omega$  – 99,99 m $\Omega$ : 10  $\mu\Omega$
- 100,0 m $\Omega$  – 999,9 m $\Omega$ : 0,1 m $\Omega$
- 1,000  $\Omega$  – 99,99  $\Omega$ : 10 m $\Omega$
- 100,0  $\Omega$  – 999,9  $\Omega$ : 0,1  $\Omega$
- 1000  $\Omega$  – 1 k $\Omega$ : 1  $\Omega$

### 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  $^{\circ}$ C and recommended accessories.  
Specifications are subject to change without notice.*