Micro OhmMeter RMO300

- Lightweight - only 7,5 kg
- Powerful 5 - 300 A DC
- Measuring range 0 – 999,9 mΩ
- Resolution to 0,1 μΩ
- SINGLE / CONT Mode
- Mechanical protection IP54

High DC current resistance meter

Description

RMO300 is a micro-ohmmeter based on state of the art technology, using the most advanced switch mode technique available today. RMO300 generates true DC current with automatically regulated test ramps. During the test RMO300 ramps with increasing current before measuring and decreasing current after the measurement. This eliminates magnetic transients. After the test current has been set, the automatic test procedure is started by pressing the Ω-button.
There is enough memory in RMO300 to store 100 measurements. All measurements are time and date stamped. They can be printed on an extern thermal printer using the PRINT menu. The results can be also exported to a PC with RMO-Win software. The software connects a PC to RMO300 using a RS232 cable. Using RMO-Win the result can be printed like an Excel table which later can be shown as a diagram and used for a report.
The set is equipped with thermal and overcurrent protection. RMO300 has very high ability to cancel electrostatic and electromagnetic interference in high HV electric fields. It is achieved by very efficient filtration. The filtration is made utilizing appropriate hardware and software.

Output Ratings

The full output is available from the RMO300 at 230V Mains Supply. A reduced output is available from lower supply voltages.

Supply Voltage	Output Current	Full Load Voltage
230 V AC	300 A DC smoothed	5,8 V DC
	200 A DC smoothed	6,0 V DC
115 V AC	300 A DC smoothed	5,0 V DC
	200 A DC smoothed	6,0 V DC

Output current is filtered and has a ripple of less then 1%.

CONT Mode

RMO300 can generate DC current continuously using the CONT menu. In this menu the current can be chosen the same way like in the SINGLE menu, but the duration of the test can be preset. The test is started pressing the Ω-button. During the test, a new result is shown on the display and stored into the PC (RMO-Win) each second. Using RMO-Win the result can be printed like an Excel table which later can be shown as a diagram and used for a report.

Application

Typical application is measuring resistance of:

- ✓ high, middle and low voltage circuit breakers
- ✓ high, middle and low voltage disconnecting switches
- ✓ high-current bus bar joints
- ✓ cable splices
- ✓ welding joints

Standard accessories

- ✓ Current cables 2 x 5m 25mm2 with battery clips
- ✓ Sense cables 2 x 5m 2,5mm2 with alligator clips
- ✓ RMO-Win PC software including RS232 cable
- ✓ Mains power cable
- ✓ Ground (PE) cable
- ✓ Transport bags

		
Voltage sense cables	Current cables	Extension cable

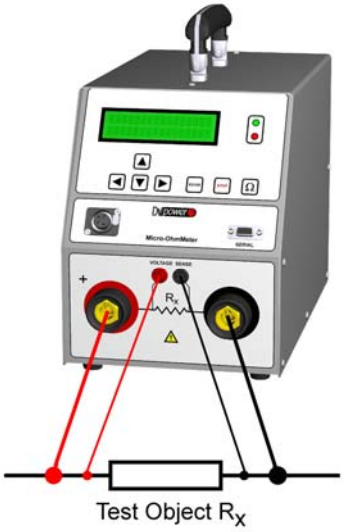
Optional accessories

- ✓ Remote control unit
- ✓ Current clamp meter
- ✓ Transport case
- ✓ Test shunt 100μΩ
- ✓ Current cables 2 x 10m 25mm2
- ✓ Current cables 2 x 15m 35mm2
- ✓ Extension cable 1 x 10m 35mm2
- ✓ Sense cables 2 x 10m 2,5mm2 with alligator clips
- ✓ Sense cables 2 x 15m 2,5mm2 with alligator clips
- ✓ Sense cables, extension 2 x 10 m 2,5 mm2

		
Transport bags	Shunt	Transport case

Connecting a Test Object to RMO300

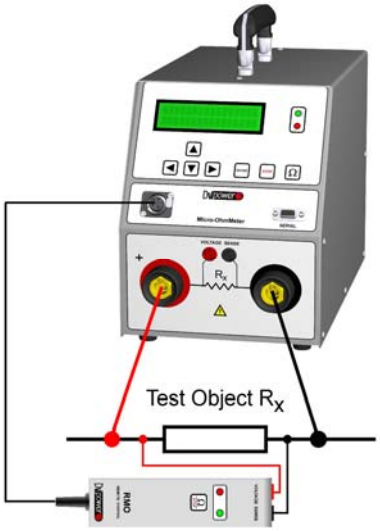
With RMO300 turned off, connect RMO300 to the test object (R_X) in such a way that the measuring cables from the "Voltage Sense" sockets are attached as close as possible to R_X, and in between the current feeding cables. That way, resistance of both cables and clamps is almost completely excluded from the resistance measurement.



Remote Control Unit

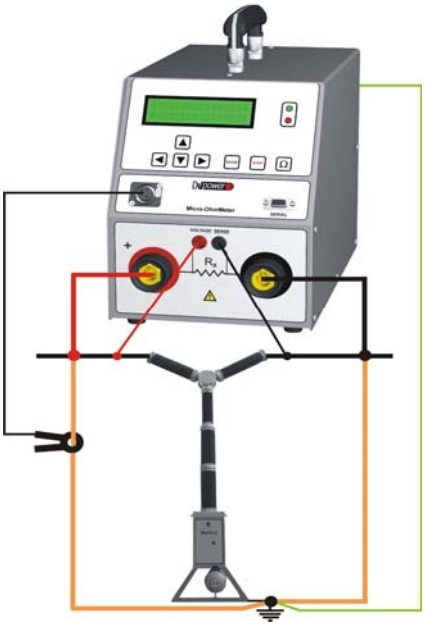
The RMO Remote Control Unit is an optional control unit that is used to start and stop the tests from a remote location, away from the actual RMO.

Provided that, for a series of tests, the same test current is fed through the test object, multiple measurements can be carried out with the RMO Remote Control Unit.



Current clamp meter

Using RMO300 with current clamp meter it is possible to make safer measurement of breakers with both sides of the breaker grounded. Measuring the current through the ground connection and reducing this value from the total current is an additional safety feature.



Technical data

1 - Mains Power Supply

- Connection	according to IEC/EN60320-1; UL498, CSA 22.2
- Mains supply	from 90 to 264 V AC; 50-60 Hz from 100V DC to 350 V DC

2 - Output data

- Test current	5 A - 300A DC
- Measuring range / Resolution	
0,1 μΩ - 999,9μΩ	0,1 μΩ
1 mΩ - 9,999mΩ	1 μΩ
10,00 mΩ - 99,99mΩ	10 μΩ
100,0mΩ - 999,9mΩ	0,1 mΩ
- Typical accuracy	± 0,25% rdg ± 0,25% FS

3 – Environment conditions

- Operating temperature	-10°C - +50°C / 14°F - +122°F
- Storage and transportation	-25 °C - +70°C / -13 °F - +158 °F
- Humidity	5 - 95% relative humidity, non condensing

4 - Dimensions and Weight

- Dimensions	198 x 255 x 380 mm 7,8 x 10 x 15 in (W x H x D) without handle
- Weight	7,5 kg/16,5 lb
- Mechanical protection	IP54

5– Safety Standards

- European standards	EN 61010-1
- International standards	IEC 61010-1 UL 3111-1 CAN/CSA-C22.2 No 1010.1-92

6 – Electromagnetic Compatibility (EMC)

- CE conformity	EMC standard 89/336/EEC
- Emission	EN 50081-2, EN 61000-3-2/3
- Interference Immunity	EN 50082-2

Specifications are subject to change without notice.

DVpower

IBEKO POWER AB