



## Winding OhmMeter RMO50T

- Lightweight - only 8,5 kg
- Test current 5 mA – 50 A DC
- Measuring range 0,1  $\mu\Omega$  - 2 k $\Omega$
- Two voltage sense channels
- Extremely quick measurement
- Automatic discharge circuit



### High DC current resistance meter for transformers/motors

#### Description

The ohmmeter RMO50T is designed for resistance measurement of inductive test objects. RMO50T generates true, filtered DC current. Both injection of current and discharge of energy from the inductance are automatically regulated.

RMO50T injects current with a voltage as high as 60 V. This ensures that the duration of test is as short as possible, and that the desired test current is reached as soon as possible. Two independent channels enable testing of two series windings, or primary and secondary windings. There is enough memory within RMO50T instrument to store 100 measurements. All measurements are time and date stamped.

The set is equipped with thermal and overcurrent protection. The RMO50T has very high ability to cancel electrostatic and electromagnetic interference in HV electric fields. It is achieved by very efficient filtration. The filtration is made utilizing appropriate hardware and software.

#### On Load Tap Changers

The RMO50T can be used to measure winding resistance of individual taps of a power transformer's tap changer. It can also check whether the on-load tap changer (OLTC) switches without an interruption. The moment a tap position is changed from one tap to another, the device detects a sudden, very short drop of the current. A properly working tap changer differs from a malfunctioning one. This is obvious from an interruption during the change, and by the magnitude of the ripple. An interruption will result in much higher ripple value than a properly functioning tap changer that operates without interruption.

#### RMOWin-T

Using RMOWin-T software, tests could be performed from a PC, and results can be obtained directly at a PC. Utilizing RMOWin-T software, results can be arranged in an Excel spreadsheet, which can be shown later as a diagram and printed for a report.




## Typical application

Typical application of RMO50T is measuring the resistance of:

- ✓ Power transformers
- ✓ On-Load Tap Changers
- ✓ Generators and electrical motors
- ✓ High-current busbar joints
- ✓ Cable splices




## Standard accessories

- ✓ RMOWin-T PC software
- ✓ Current cables 2x10m 10mm<sup>2</sup>
- ✓ Sense cables 2x2x10m 2,5mm<sup>2</sup>
- ✓ Current connection cable 1x5m 10mm<sup>2</sup>
- ✓ Mains power cable
- ✓ Ground (PE) cable
- ✓ Transport case

		
Voltage sense cables	Current cables	Current connection cable

## Optional accessories

- ✓ Test shunt 75A/150 mV
- ✓ Current cables 2x15m 10mm<sup>2</sup>
- ✓ Sense cables 2x2x15m 2,5mm<sup>2</sup>
- ✓ Cable bag

		
Transport case	Shunt	Cable bag



## Technical data

### 1 - Mains Power Supply

- Connection according to IEC/EN60320-1; UL498, CSA 22.2
- Voltage single phase 110 V – 240 V AC, + 10 % - -15 %
- Frequency 50/60 Hz

### 2 - Output data

- Test current 5 mA DC – 50 A DC
- Measuring range / Resolution
  - 0,1  $\mu\Omega$  - 999,9  $\mu\Omega$  0,1  $\mu\Omega$
  - 1,000 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  $\Omega$  - 2000  $\Omega$  1  $\Omega$
- Typical accuracy  $\pm(0,2\% \text{ rdg} + 0,2\% \text{ FS})$

### 3 – Environmental conditions

- Operating temperature  $-10^{\circ}\text{C} - +50^{\circ}\text{C} / 14^{\circ}\text{F} - +122^{\circ}\text{F}$
- Storage and transportation  $-25^{\circ}\text{C} - +70^{\circ}\text{C} / -13^{\circ}\text{F} - +158^{\circ}\text{F}$
- Humidity 5 % - 95 % relative humidity, non condensing

### 4 - Dimensions and Weight

- Dimensions 198 mm x 255 mm x 380 mm  
7,8 in x 10 in x 15 in  
(W x H x D) without handle
- Weight 8,5 kg/18,7 lb

### 5– Safety Standards

- European standards EN 61010-1
- International standards IEC 61010-1

### 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.



**IBEKO POWER AB**