

RMO-TW

Transformer winding resistance meters



RMO50TW, RMO30TW

Three measuring channels and demagnetization in an 8 kg device

RMO-TW

Transformer winding ohmmeter

amperis

www.amperis.com

 C/ María Barbeito, 14
27003, Lugo, Spain

 **Contact**

T [+34] 982 20 99 20
info@amperis.com | www.amperis.com

Winding resistance measurement, solved with the essentials.

Product overview



RMO50TW, RMO30TW

RMO50TW: the 50 A model of the series

Three windings in a single measurement

The four models of the series — RMO10TW, RMO20TW, RMO30TW and RMO50TW — measure the winding resistance of inductive objects with ripple-free DC current and up to 55 V output, in a light metal housing of 8 to 8.5 kg. The three independent channels test primary, secondary and tertiary windings connected in series at once, and saturating the core through the winding with the most turns shortens stabilisation.

Tap changer verified, core demagnetized

Resistance is measured at every tap position — on-load or de-energized (DETC) — without discharging between taps, with interruption detection and a warning to the operator; when finished, the automatic demagnetization removes remanent magnetism.

Main features

- Range from 0.1 $\mu\Omega$ to 100 k Ω with $\pm(0.1\% + 0.1\%)$ accuracy.
- Best resolution of 0.1 $\mu\Omega$.
- Tap changer verification with 4 ms sampling.
- Pt100 temperature channel for the Heat Run test.
- Automatic discharge circuit for the stored energy.
- Memory for 1000 measurements (5000 optional).
- Thermal and overcurrent protection; interference filtering.



C/ María Barbeito, 14
27003, Lugo, Spain



Contact

+T [+34] 982 20 99 20
info@amperis.com | www.amperis.com

Applications and software



RMO20TW, front view of the device

Applications

- Windings of power and distribution transformers and autotransformers.
- Verification of on-load and de-energized tap changers.
- Motor and generator stators through the three channels.
- Non-inductive resistive objects: busbars, splices and joints.
- Heat Run test with resistance and temperature extrapolation.

PC software for control and analysis

The included PC software controls and observes the process over USB, saves and analyses the results, records the test current during tap changer transitions and assembles reports in Excel, PDF or Word, with the Heat Run calculations built in.

Light and to the point

At 8 kg for the 10 and 20 A models and 8.5 kg for the 30 and 50 A ones, the series travels with the maintenance crew without giving up power: the RMO50TW delivers 1000 W of output to stabilise large windings quickly.



C/ María Barbeito, 14
27003, Lugo, Spain

Contact

+T [+34] 982 20 99 20
info@amperis.com | www.amperis.com

RMO-TW — MEASUREMENT DATA

Measuring range	0.1 $\mu\Omega$ – 100 k Ω
Typical accuracy	$\pm(0.1\% \text{ rdg} + 0.1\% \text{ FS})$ up to 1.999 k Ω ; $\pm(0.2\% + 0.1\%)$ up to 9.999 k Ω ; $\pm(1\% + 1\%)$ up to 100 k Ω
Resolution	From 0.1 $\mu\Omega$ (up to 999.9 $\mu\Omega$) to 10 Ω (up to 99.99 k Ω), depending on the scale
Test current	5 mA – 50 A DC depending on model; output voltage up to 55 V DC
Tap changer verification	4 ms sampling; interruption detection
Temperature	1 Pt100 class B channel; -50 to +180 °C; 0.1 °C resolution
Memory	1000 positions (5000 optional)
Communication	USB; optional RS232 and Bluetooth

Specifications valid at +25 °C with the standard accessories.

The manufacturer reserves the right to change the specifications without prior notice.



C/ María Barbeito, 14
27003, Lugo, Spain



Contact

+T [+34] 982 20 99 20
info@amperis.com | www.amperis.com

RMO-TW – TECHNICAL SPECIFICATIONS

	RMO10TW	RMO20TW	RMO30TW	RMO50TW
Test current	5 mA – 10 A	5 mA – 20 A	5 mA – 30 A	5 mA – 50 A
Output power	500 W	750 W	850 W	1000 W
Output voltage	Up to 55 V DC	Up to 55 V DC	Up to 55 V DC	Up to 55 V DC
Dimensions	198 × 250 × 350 mm	198 × 250 × 350 mm	198 × 250 × 350 mm	198 × 250 × 350 mm
Weight	8 kg	8 kg	8.5 kg	8.5 kg

Common: consumption 2250 VA; supply 90 – 264 V AC, 50/60 Hz; backlit 4 × 20 character LCD; optional 58 mm thermal printer; IP40; operation -20 to +60 °C; storage -40 to +70 °C; humidity 0 – 95% non-condensing.

Standards: safety EN 61010-1; EMC EN 61326-1; overvoltage category II; pollution degree 2. Specifications valid at +25 °C.



C/ María Barbeito, 14
27003, Lugo, Spain



Contact

+T [+34] 982 20 99 20
info@amperis.com | www.amperis.com