

RMO-H

Microhmeters



Regulated current from 1 to 300 A in only 0.95 kg

RMO-H

Battery-operated handheld micro-ohmmeter

amperis

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Contact resistance with a single click, in the field and in the factory.

Product overview



Front panel: display, one-hand keyboard and measuring connectors

0.95 kg and one click to measure

The device is held with one hand and measures by Kelvin's four-point principle: select the current, attach the clamps and the test starts with one click, even from a bucket lift. The user-replaceable Li-Po battery generates a stable, ripple-free DC current, with no rest time between tests.

Two sub-series, six models

The RMO-H1, RMO-H2 and RMO-H3 (up to 4.2 V output) work with short 1.3 to 3 m leads; the RMO-H21, RMO-H22 and RMO-H23 raise the output to 8.4 V for leads of 5 m or longer. Within each sub-series the maximum currents are 100, 220 and 300 A.

Main features

- Regulated, selectable current from 1 to 300 A DC.
- Range from 0.1 $\mu\Omega$ to 3000 m Ω with 0.1 $\mu\Omega$ resolution.
- Up to 3000 tests at 50 A on a single charge.
- Both Sides Grounded (BSG) measurement.
- Pass/fail criterion with Rmax limit.
- 10000 time- and date-stamped readings on the internal SD card.
- Bluetooth to download results to the PC.

Applications and software



Contact resistance measurement on a breaker at the substation

Applications

- Medium- and high-voltage breakers and switchgear per IEC 62271-100.
- Disconnectors, busbars and terminals of HV power lines.
- Welded joints, splices and cable resistance in the factory.
- Railway joints and conductor rails; aircraft industry bonds.
- Off-line tap changer contacts and lightning conductor bonding.

PC software for control and analysis

The included PC software communicates over Bluetooth, downloads the stored measurements, analyses them and saves the results in several formats, with fully customisable test reports.

A battery for the whole day

A full charge delivers up to 3000 tests at 50 A, 1900 at 100 A or 600 at 300 A; recharging takes two hours with the mains adapter or the car charger, and the battery is user-replaceable.



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RMO-H – MEASUREMENT DATA

Resistance range	0.1 $\mu\Omega$ – 3000 m Ω
Resolution	0.1 $\mu\Omega$ (up to 999.9 $\mu\Omega$); 1 $\mu\Omega$ (up to 9.999 m Ω); 10 $\mu\Omega$ (up to 99.99 m Ω); 0.1 m Ω (up to 999.9 m Ω); 1 m Ω (1000 – 3000 m Ω)
Typical accuracy	$\pm(0.1\% \text{ rdg} + 0.1\% \text{ FS})$ up to 1 Ω ; $\pm(0.25\% \text{ rdg} + 0.25\% \text{ FS})$ from 1 to 3 Ω
Test current	Regulated and selectable, 1 to 300 A DC depending on model
Tests per battery charge	3000 at 50 A; 1900 at 100 A; 600 at 300 A
Memory	10000 time- and date-stamped measurements (internal SD card)
Communication	Bluetooth to the PC
Trigger input	For Kelvin probes with button; 3.3 V DC threshold

Accuracy valid at the maximum test current of each range, at rated battery voltage and +25 °C.
The manufacturer reserves the right to change the specifications without prior notice.



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RMO-H – TECHNICAL SPECIFICATIONS

	RMO-H1	RMO-H2	RMO-H3	RMO-H21	RMO-H22	RMO-H23
Maximum current	100 A	220 A	300 A	100 A	220 A	300 A
Li-Po battery	1 cell, 8800 mAh	1 cell, 8800 mAh	1 cell, 8800 mAh	2 cells, 4600 mAh	2 cells, 4600 mAh	2 cells, 4600 mAh
Maximum output voltage	4.2 V	4.2 V	4.2 V	8.4 V	8.4 V	8.4 V
Test leads	Short (1.3 – 3 m)	Short (1.3 – 3 m)	Short (1.3 – 3 m)	Long (5 m or more)	Long (5 m or more)	Long (5 m or more)
Weight	0.95 kg	0.95 kg	0.95 kg	0.95 kg	0.95 kg	0.95 kg

Common: dimensions 226 × 116 × 50 mm; IP54; 2 h recharge; adapter 90 – 264 V AC → 12 V DC / 3 A; operation -10 to +55 °C; storage -40 to +70 °C; humidity 5 – 95% non-condensing. Lead sets are not interchangeable between sub-series.

Standards: safety EN 61010-1; EMC EN 61326-1; shock IEC 60068-2-27; vibration IEC 60068-2-6. Specifications valid at +25 °C.



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