



Measure HV switches and transformers with one device

Product features

- measurements of resistive objects with current up to 100/200 A
- measurements of induction objects up to 10 A
- measurements of objects earthed on both sides (i.e. main joints of HV switches)
- measurement with one- or both-way current flow
- high immunity to outside interference
- measurements temperature of windings
- automatic compensation temperature of objects measured
- a state of art interface with a touch screen and expanded memory
- cooperation with a printer and a 2D barcode reader
- WiFi, USB and LAN communication
- IP67
- it can work in an environment where electromagnetic interferences of 400 kV occur

Application

MMR-6xxx micrometers series are devices with a state of art design with unprecedented approach to measuring small resistances. The instruments allow to measure resistive objects with a high current and have a unique in his measurement class module for inductive current objects up to 10 A.

Device capabilities

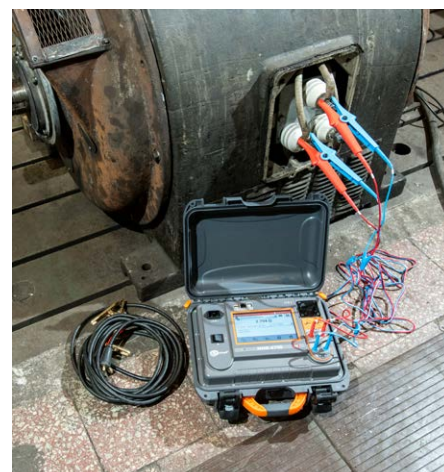
Sonel microhmmeter MMR-6xxx series thanks to the use of special algorithms, measuring functions and a stabilized, non-pulsing measurement current allow user to work in difficult conditions. Possibility of use measurement current up to 200 A and a high power source allows you to measure the contacts of the HV switch with basic uncertainty from 0.25%.

Simplicity of readings

The MMR-6xxx microhmmeter is equipped with readable, touch screen, 5-inch colored display with a resolution of 800x480 pixels for convenience of readings measurement results.

Help system

The use of a large, readable display allowed for use helpful appetent drawings how to use the meter.



Measurements of resistive components

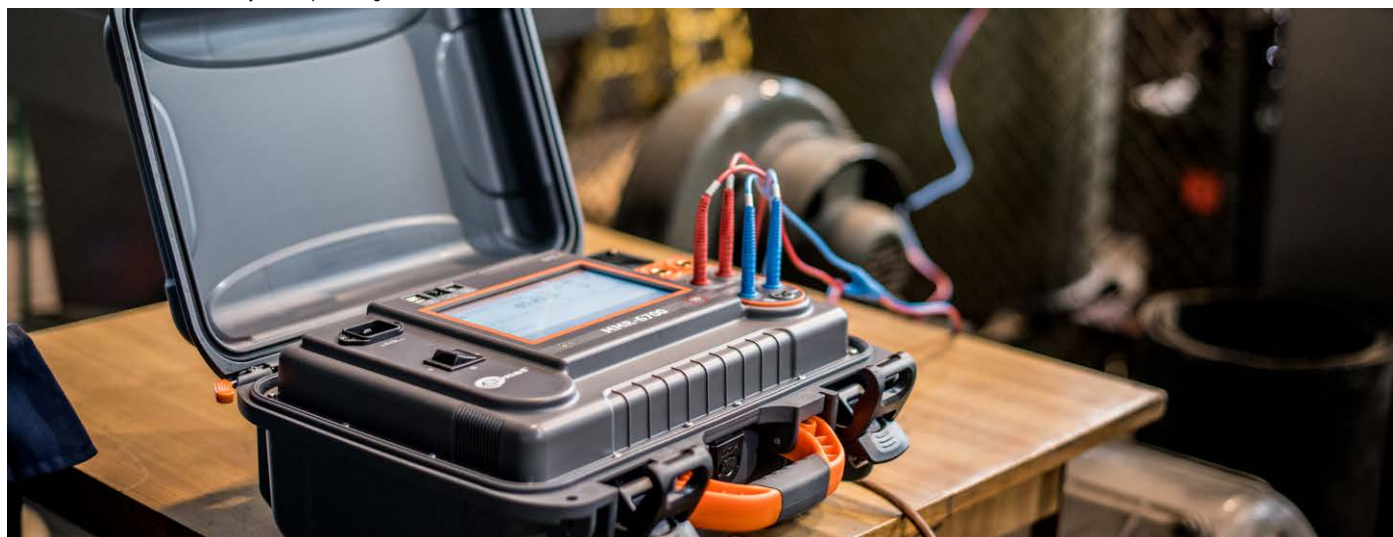
Range [Ω]	Resolution [Ω]	Basic measurement uncertainty	Test current / Voltage
0.0...999.9 μ	0.1 μ	$\pm(0,25\% \text{ m.v.} + 2 \text{ digits})$	100 A < I $\leq$ 200 A/* (200 mV)
0.0...999.9 μ	0.1 μ		50 A < I $\leq$ 100 A (200 mV)
1.0000...1.9999 m	0.0001 m		20 A < I $\leq$ 50 A (200 mV)
0.0...999.9 μ	0.1 μ		10 A < I $\leq$ 20 A (160mV)
1.0000...3.9999 m	0.0001 m		10 A (20 mV)
0.0...999.9 μ	0.1 μ		10 A (200 mV)
1.0000...7.9999 m	0.0001 m		10 A / 1 A (2 V / 200 mV)
0...999.9 μ	0.1 μ		1 A / 0.1 A (2 V / 200 mV)
1.0000...1.9999 m	0.0001 m		0.1 A (2 V)
2.000...19.999 m	0.001 m		10 mA (2 V)
20.00...199.99 m	0.01 m		1 mA (2 V)
200.0...999.9 m	0.1 m		
1.0000...1.9999	0.0001		
2.000...19.999	0.001		
20.00...199.99	0.01		
200.0...1999.9	0.1		

/* MMR-6700 only

Measurements of inductive components

Range [Ω]	Resolution [Ω]	Basic measurement uncertainty	Test current
0 $\mu\Omega$...999.9 μ	0.1 μ	$\pm(0.25\% \text{ m.v.} + 2 \text{ digits})$	10 A
1.0000 m Ω ...1.9999 m	0.0001 m		10 A
2.000 m Ω ...19.999 m	0.001 m		10 A / 1 A
20.00 m Ω ...199.99 m	0.01 m		1 A / 0.1 A
200.0 m Ω ...999.9 m	0.1 m		0.1 A
1.0000 Ω ...1.9999	0.0001		10 m
2.000 Ω ...19.999	0.001		1 mA
20.00 Ω ...199.99	0.01		
200.0 Ω ...1999.9	0.1		

for measurements on inductive objects output voltage $\leq$ 5 V



"m.v" - measured value

Technical specification

housing protection level acc. to EN 60529	closed cover	IP67
	open cover	IP40
power supply for $I \leq 10$ A measurements	Li-Ion battery 7.2 V 8.8 Ah	
mains supply	MMR-6500	100 V...265 V / 50 ...60 Hz, 10 A
	MMR-6700	100 V...265 V / 50 ...60 Hz, 16 A
battery charging time	ca. 3.5 h	
maximum resistance for current of 10A	200 mΩ	
current pre-setting accuracy	±10%	
measurement time	resistance mode, with bidirectional current flow	7-15 s
	inductive mode (depends on object resistance and inductance)	10 s or more
dimensions	401 x 307 x 175 mm 15.8" x 12.1" x 6.9"	
meter weight	MMR-6500	ca. 8.2 kg ca. 18.1 lbs
	MMR-6700	ca. 8.7 kg ca. 19.2 lbs
operating temperature	-10°C...+50°C 14°F...122°	
humidity	20%...90%	
display	800 x 480 pixels	
communication	USB, LAN, Wi-Fi	



Standard accessories



current carrying test lead 3 m black I1 (200 A, 25 mm2)

WAPRZ003BLI1



doble-wire test lead 3 m (10 A / 25 A) U1/I1

WAPRZ003DZBBU111



test lead 3 m blue 1 kV U1 (banana plug)

WAPRZ003BUBBU1



current carrying test lead 3 m black I2 (200 A, 25 mm2)

WAPRZ003BLI2



doble-wire test lead 3 m (10 A / 25 A) U2/I2

WAPRZ003DZBBU2I2



test lead 3 m blue 1 kV U2 (banana plug)

WAPRZ003BUBBU2



ST-3 temperature probe

WASONT3



2x Kelvin clamp, 1 kV, 25 A

WAKROKELK06



2x crocodile clip, black, 1 kV, 32 A

WAKROBL30K03



USB transmission cable

WAPRZUSB



mains cable with IEC C19 plug

WAPRZZAS1



case L12

WAFUTL12



factory calibration certificate

Optional accessories



Kelvin vice with cables

WAZACKEL1



double pin Kelvin probe with banana connector

WASONKEL20GB



C-5A current clamps (Φ=39 mm)

WACEGC5AOKR



D2 portable USB report / barcode printer (Sato)

WAADAD2



label roll – black on white for D2 printer (SATO)

WANAKD2



ribbon for D2 printer (SATO)

WANAKD2BAR



barcode scanner 2D (USB)

WAADACK2D



calibration certificate with accreditation