

Earth resistance

Earth resistance 4-wire method and Earth resistance one clamp method

Measuring range according to EN61557 is $0.67 \Omega \div 9999 \Omega$

Measuring range R (Ω)	Resolution (Ω)	Accuracy
0.00 \div 19.99	0.01	$\pm(3 \%$ of reading + 3 digits)
20.0 \div 199.9	0.1	$\pm(3 \%$ of reading + 3 digits)
200 \div 1999	1	$\pm 5 \%$ of reading
2000 \div 9999	1	$\pm 10 \%$ of reading

Automatic test of probe resistance	yes
Automatic test of voltage noise	yes
Open-terminal test voltage	40 VAC
Test voltage frequency	125 Hz
Short-circuit test current	< 20 mA
Low clamp current indication	yes
Noise current indication	yes

Earth resistance two clamps method

Measuring range (Ω)	Resolution (Ω)	Accuracy
0.00 \div 19.9	0.01	$\pm (10 \%$ of reading + 10 digits)
20.0 \div 30.0	0.1	$\pm (20 \%$ of reading)
30.1 \div 39.9	0.1	$\pm (30 \%$ of reading)

Test voltage frequency	125 Hz
Noise current indication	yes
Low clamp current indication	yes

Specific earth resistance

Measuring range (Ωm)	Resolution (Ωm)	Accuracy
0.0 \div 99.9	0.1	Calculated value, consider earth resistance 4-wire method
100 \div 999	1	
1.00k \div 9.99k	0.01k	
10.0k \div 99.9k	0.1k	
>100k	1k	

Wenner method principle with equal distances between test probes:

$\rho = 2 \cdot \pi \cdot \text{distance} \cdot R$, with R as measured resistance in 4-wire method.

TRMS Clamp current

Measuring range (I)	Resolution (mA)	Accuracy
0.0 mA \div 99.9 mA	0.1mA	$\pm(3 \%$ of reading + 3 digits)
100 mA \div 999 mA	1 mA	$\pm(3 \%$ of reading + 3 digits)
1.00 A \div 19.99 A	0.01 A	$\pm(3 \%$ of reading + 3 digits)

Input resistance	100 Ω
Maximum input current	30 mA (=30 A @ current clamp with ratio 1000:1)
Measurement principle	current clamp, ratio 1000:1
Nominal frequency	40 Hz \div 500 Hz

General data

Power supply voltage	6 x 1.5 V battery or rechargeable battery, size AA
Operation	typical 20 h
Oversvoltage category	50 V CAT IV
Protection classification	double insulation
Pollution degree	2
Protection degree	IP 40
Display	128 x 64 dots matrix display with backlight
Communication transfer speed	115200 baud (RS 232) / 256000 baud (USB)
Memory	1900 measurements
Dimensions (w x h x d)	14 cm x 8 cm x 23 cm
Weight without battery cells	0,85 kg