AMZC-304

HIGHEST ACCURACY & LOWEST COST

Loop Impedance Meter

AMZC-304

220/380V, 230/400V, 240/415V

Low voltage resistance measurement

Measurement of mains voltage and frequency

Power supply from batteries

amperis

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The most important features of AMZC-304 are:

Short circuit loop measurement (EN 61557):

-Short circuit loop impedance measurement in networks with nominal voltage: 220/380V, 230/400V, 240/415V, with frequency 45…65Hz

-Short circuit loop impedance measurement with 15mA current, without triggering RCD.

Detection of the replacement L and N in the socket and automatic swap in the meter.

Low voltage resistance measurement of protective circuits and junctions:

-Measurement of resistance with ±200mA current.

-Calibration of test leads – possibility of using any length of test leads.

Rapid check for the correct connection of PE wire using touch electrode.

Measurement of mains voltage and frequency.

Power supply from LR6 batteries or NiMH accumulators (option).

The device meets the requirements of IEC 61557 standard.

Short circuit loop impedance Z_{L-PE} , RCD measurement

Short circuit loop impedance Z_S

Range	Resolution	Accuracy
0,00...19,99Ω	0,01Ω	±(6% m.v. + 10 digits)
20,0...199,9Ω	0,1Ω	±(6% m.v. + 5 digits)
200...1999Ω	1Ω	

No RCD reaction for $I_{\Delta n}$ ≥30mA.
Nominal work voltage Un: 220V, 230V, 240V.
Voltage range: 180…270V.
Nominal network frequency f_n: 50Hz, 60Hz.
Frequency range: 45…65Hz.
PE terminal connection correctness check with the help of touch electrode.
Short circuit current calculation for nominal voltage.

Low voltage resistance measurement

Measurement of continuity of equipotential bondings and protective conductors with ±200mA current

Range	Resolution	Accuracy
0,00...19,99Ω	0,01Ω	±(2% m.v. + 3 digits)
20,0...199,9Ω	0,1Ω	
200...400Ω	1Ω	

Open terminals voltage: 4...9V DC.
Output current at R<2Ω: min 200mA I_{SC}: 200...250mA).
Test leads resistance compension.
Measurement for both current polarization.

"m.v." - measured value.

Short circuit loop impedance Z_{L-PE} ,Z_{L-N} ,Z_{L-L} , resistance and reactance measurement

IShort circuit loop impedance Z_S

Range	Resolution	Accuracy
0,00...19,99Ω	0,01Ω	±(5% m.v. + 3 digits)
20,0...199,9Ω	0,1Ω	
200...1999Ω	1Ω	

Nominal work voltage U_{nL-N} / U_{nL-L} : 220/380V, 230/400V, 240/415V.
Voltage range 180...270V (for Z_{L-PE}, Z_{L-N}) and 180...460V (dla Z_{L-L}).
Nominal network frequency fn : 50Hz, 60Hz.
Frequency range: 45...65Hz.
Maximum measurement current 7,6A for 230V (3x10ms), 13,3A for 400V (3x 10ms).
PE terminal connection correctness check with the help of touch electrode (Z_{L-PE} , $Z_{L-PE(RCD)}$).
Short circuit current calculation for nominal voltage.

Short circuit loop resistance R_S and reactance X_S

Range	Resolution	Accuracy
0,00...19,99Ω	0,01Ω	±(5% + 5 dígitos) of Z_S value
20,0...199,9Ω	0,1Ω	

Calculated and displayed for Z_S <200Ω.

Low current resistance measurement

Range	Resolution	Accuracy
0,00...199,9Ω	0,1Ω	±(3% m.v. + 3 digits)
200...2000Ω	1Ω	

Open terminals voltage 4...9V DC.
Output current I_{SC} < 8mA.
Accustic signal for measured resistance < 30Ω ± 50%.
Test leads resistance compensation.

AC voltage measurement

Range	Resolution	Accuracy
0...299,9V	0,1V	±(2% m.v.. + 6 digits)
300...500V	1V	±(2% m.v. + 2 digits)

Frequency range 45...65Hz.
Test result refreshing: twice per second.

Frequency measurement

Range	Resolution	Accuracy
45,0...65,0Hz	0,1Hz	±(0,1% m.v. + 1 digit)

Voltage range: 50... 500V.

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AMZC-304 Specifications

Electrical safety:	
Type of insulation	Double, according EN 61010, 61557:2007-01
Measurement category	III 600V (CAT IV 300V)
Protection class acc. to EN 60529	IP67
Other technical data:	
Power supply	Package of batteries (AA, 4 pcs.)
Batteries performance (short-circuit loop)	min.5000 measurements
Rated operational conditions:	
Operating temperature	0...+50°C
Humidity	20-80%
Rated mains voltage	220/380V, 230/400V, 240/415V

Standard accesories

Adapter UNI-SCHUKO (WS-05)
Test lead with banana plug; 1,2m; red
Test lead with banana plug; 1,2m; yellow
Test lead with banana plug; 1,2m; blue
Pin probe with banana connector; red
Pin probe with banana connector; blue
“Crocodile” clip K02; yellow
Carrying case M6
Recevier - interface for radio transmission OR-1 (USB)
Hanging straps
Batteries
Operation manual
Calibration certificate

Optional accesories

Probe with START button with UNI-SCHUKO (WS-01)
Software for creation of documentation from electrical measurements
Triple phase socket adapter AGT-16P
Triple phase socket adapter AGT-32P
Triple phase socket adapter AGT-63P
Test lead with banana plug, 5m, red
Test lead with banana plug, 10m, red
Test lead with banana plug, 20m, red

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