

# AMZC-310S

HIGHEST ACCURACY & LOWEST COST



## High Current Loop Impedance Meter

# AMZC-310S

Resolution 0,1mΩ.

High current measurement.

Unique available meter is also able to measure touch  
voltage and touch shock voltage.

Memory of 999 measurement.

amperis

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## The most important features of AMZC-310S are:

Measurement of very low short circuit loop impedances (with resolution 0,1mΩ) with a current of 150A at 230V; maximum 280A at 440V or measurement with a current of 23A at 230V; maximum 42A at 440V:

-Measurements in installations with rated voltages between: 220/380V and 230/400V and frequencies 45...65Hz.

-Ability to perform measurements in short circuit system: phase-phase, phase-protective, phase-neutral.

-Differentiation between the phase voltage and the inter-phase voltage while calculating the shortcircuit current.

-Ability to change the length of test leads (measurement 23/42A).

-Four-pole method, test leads do not require calibration (measurement 150/280A).

Touch voltage and touch shock voltage measurement with resistor 1kΩ).

AC voltage measurement in range 0...440V.

Memory of 999 measurement results with an ability to transfer the data to a PC.

Meter meets the requirements of the standard EN 61557.

## Measurement of short circuit loop using standard current (2p, I =42A)

### Short circuit loop impedance Z measurement

Measuring range according to IEC61557: 0,13Ω...199,9Ω for 1,2m long test leads.

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

### Short circuit resistance R and reactance X display range

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

### Prospective short circuit loop current

Range	Resolution	Accuracy
1,150...1,999A	0 001A	accuracy of the current indication computed, respectively, with the use of resistance measurement
2,00...19,99A	0,01A	
20,0...199,9A	0,1A	
200...1999A	1A	
2,00...19,99kA	0,01kA	
20,0...40,0kA	0,1kA	

## Short circuit loop parameters measurement using high current (4p, I =280A)

### High-current of measurement of short circuit loop impedance Z:

Rango de medición según la IEC61557: 7,2mΩ...1999mΩ.

Range	Resolution	Accuracy
0...199,9mΩ	0,1mΩ	±(2% m.v. + 2mΩ)
200...1999mΩ	1mΩ	

### Short circuit resistance R and reactance X display range

Range	Resolution	Accuracy
0...199,9mΩ	0,1mΩ	±(2% m.v. + 2mΩ)
200...1999mΩ	1mΩ	

### Prospective short circuit loop current

Measuring range according to IEC 61557: for Un = 230V: 115,0A...32,0kA and for Un = 400V: 200A...55,7kA.

Range	Resolution	Accuracy
115,0...199,9A	0,1A	Accuracy of the current indication computed, respectively, with the use of resistance measurement
200...1999A	1A	
2,00...19,99kA	0,01kA	
20,0...199,9kA	0,1kA	
200kA.*	1kA	

\* 230 kA for U<sub>LN</sub>  
\* 440 kA for U<sub>LL</sub>

### Touch voltage measurement U<sub>ST</sub> and shock voltage U<sub>T</sub>

Range	Resolution	Accuracy
0...100V	1V	±(10% m.v. + 2 digits)

### Voltages measurement (True RMS)

Range	Resolution	Accuracy
0...440V	1V	±(2% m.v. + 2 digits)

Frequency range: DC, 45...65Hz.  
Input impedance of the voltmeter: > 200kΩ.

### Frequency measurement (for voltages within the range 50...440V)

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

"m.v." - measured value.

## AMZC-310S Specifications

### Electrical safety:

<b>Type of insulation</b>	Double, according EN 61010-1 and IEC 61557
<b>Measurement category</b>	IV 300V acc. to EN 61010-1
<b>Protection class acc. to EN 60529</b>	IP20

### Other technical data:

<b>Power supply</b>	alkaline batteries LR14 (C) (5 pcs.)
<b>Resistor limiting the current</b>	for measurement 4p: 1,5Ω
<b>Number of measurements (alkaline batteries)</b>	for measurement 2p: 10Ω
<b>Temperature coefficient</b>	min. 2000 (4/min.)
	±0,1% of measured value/°C

### Rated operational conditions:

<b>Operating temperature</b>	0...+40°C
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### Standard accessories:

- Test lead with banana plug; 1,2m; black
- Test lead with banana plug; 1,2m; yellow
- Pin probe with banana connector - black
- Pin probe with banana connector - yellow
- High-current probe with banana connector (2 pcs.)
- Test lead 3m (2 pcs.)
- Crocodile clip K03; black (4 pcs.)
- Kelvin's clamp (2 pcs.)
- Carrying case L1
- RS-232 serial transmission cable
- Hanging straps
- Calibration certificate
- Operating manual
- Battery pack

### Optional accessories:

- Software for creation of documentation
- Software for creation drawings and diagrams
- Software for creation of calculation
- USB key for software
- USB1.1/RS232 adaptor
- AGT-16P (triple phase socket adapter)
- AGT-32P (triple phase socket adapter)
- AGT-63P (triple phase socket adapter)
- Test lead with banana plug; 5m; yellow
- Test lead with banana plug; 10m; yellow
- Test lead with banana plug; 20m; yellow