Indeks: WMPLMZC304

MZC-304

LOOP IMPEDANCE METER

NEW

Standard accessories MZC-304:

- Adapter with START button with UNI-SCHUKO (WS-05)	**WAADAWS05**
- Test lead with banana plug; 1,2m; red	**WAPRZ1X2REBB**
- Test lead with banana plug; 1,2m; yellow	**WAPRZ1X2YEBB**
- Test lead with banana plug; 1,2m; blue	**WAPRZ1X2BUBB**
- Pin probe with banana connector; red	**WASONREOGB1**
- Pin probe with banana connector; blue	**WASONBUOGB1**
- "Crocodile" clip K02; yellow	**WAKROYE20K02**
- Carrying case M1	**WAFUTM1**
- USB cable	**WAPRZUSB**
- handle to suspend the meter	
- hanging straps	
- batteries	
- operation manual	
- calibration certificate	

Sonel S.A.
ul. Wokulskiego 11
58-100 Świdnica, PL
tel. +48 74 85 83 860
fax +48 74 85 83 809

export@sonel.pl
www.sonel.pl

MZC-304

- **Measurements of impedance in a short circuit loop.**
- L-PE circuit,
- L-N, L-L circuit,
- L-PE(RCD) circuit - without tripping the circuit breaker ≥ 30mA.

- **Low voltage resistance measurement:**
- continuity measurement - DC current ±200mA with wire resistivity reset
- low current resistance measurement with accoustic signalling,
- the measurements are posible in instalations **220/380V, 230/400V, 240/415V with frequeency range 45…65Hz.**
- memory of 10 banks of 99 cells each **(min.10000 records).**
- Radio wireless interface comunication

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

Short 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	±(5% m.v. + 3 digits)
0...1999Ω	1Ω	±(5% m.v. + 3 digits)

- nominal work voltage U_{nL-N} / U_{nL-L}: 220/380V, 230/400V, 240/415V,
- voltage range 180…270V (for Z_{L-PE} i Z_{L-N}) and 180…460V (dla Z_{L-L}),
- nominal network frequency f_n: 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 elektrode (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 digits) wartości Z_s
20,0...199,9Ω	0,1Ω	±(5% + 5 digits) wartości Z_s

- calculated and displayed for Z_s<200Ω

Short circuit loop impedance Z_{L-PE} RCD measurement
(without tripping the circuit breaker)

Short circuit loop impedance Z_s measurement

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

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

Short circuit resistance R_s and reactance X_s display range (for Z_{L-PE} RCD)

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

- ocalculated and displayed for Z_s<200Ω

Low voltage resistance measurement

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

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 curres polarization

Low current resistance measurement

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

- open terminals voltage4...9V DC
- output current < 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.

Electrical safety:

- type of insulation	double, according to PN-EN 61010, 61557:2007-01
- measurement category	III 600V (CAT IV 300V)
- protectin class acc. to EN 60529	IP40

Other technical data:

- power supply	package of batteries (rozmiar AA, 4 szt.)
- 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