



MZC-20E

Indeks: WMENMZC20E

Short-circuit Loop Impedance Meter

 IP 67

CAT III
300V

Description

The meter has been designed for fitters and measurement technicians performing services in residential buildings, office blocks, manufacturing plants and any facilities possessing a low-voltage electrical system. The instrument is also recommended for electrical maintenance personnel.

Technical Specification

Measurements of impedance in a short-circuit loop Z within the range S

of 0.24...200 Ω

Short-circuit current IK: 1,15 - 958,3 A ($U_n = 230$ V)

AC voltage measurement: 0 - 440 V

Display range Resolution

Accuracy

0,00...19,99 Ω	0,01 Ω	$\pm(2,5\% \text{ m.v} + 5 \text{ digits})$
20,0...199,9 Ω	0,1 Ω	$\pm(2,5\% \text{ m.v} + 3 \text{ digits})$
100...200 Ω	1 Ω	$\pm(3\% \text{ m.v} + 3 \text{ digits})$

- Rated operating voltage U_{nL-N} / U_{nL-L} : 220/380V, 230/400V, 240/415V
- Operating voltage range: 180...270V (for Z_{L-PE} i Z_{L-N}) and 180...440V (for Z_{L-L})
- Rated network frequency f_n : 50Hz, 60Hz
- Frequency operating range: 45...65Hz
- Maximum measurement current: 15,3 A for 230 V (10ms) and 26,7 A for 400 V (10ms)

Short-circuit resistance R_S and reactance X_S display range:

Display range	Resolution	Accuracy
0,00...9,99 Ω	0,01 Ω	$\pm(5\% \text{ m.v.} + 5 \text{ digits})$ of Z_S value

Calculated and displayed for $Z_S < 10 \Omega$.

Short-circuit current I_K display

Measuring range according to IEC 61557 can be calculated based on Z_S measuring range and rated voltage values.

Display range	Resolution	Accuracy

1,15...9,99 A	0,01 A	Calculated based on the accuracy for the short-circuit loop accuracy
10,0...99,9 A	0,1 A	
100...999 A	1 A	
1,00...9,99 kA	0,01 kA	
10,0...40,0 kA	0,1 kA	

Short-circuit loop impedance Z_S measurement

Measuring cable	Z_S measuring range
1,2m	0,24...200 Ω
5m	0,26...200 Ω
10m	0,28...200 Ω
20m	0,35...200 Ω

Voltage measurement

Display range	Resolution	Accuracy
0...440 V	1 V	$\pm(2,5\% \text{ m.v} + 3 \text{ digits})$

Electrical safety:

- type of insulation double, according to EN 61010-1 and IEC 61557

- measurement category III 300 V according EN 61010-1
- protection class acc. to EN 60529 IP67

Other technical data:

- power supply LR6 alkaline batteries or NiMH rechargeable AA batteries (4 pcs.)
- dimensions 220x98x58 mm
- instrument weight incl. batteries 509g
- storage temperature -20...+70 C^o - working temperature -10...+50 C^o
- humidity 20...80%
- reference temperature +23 ± 2 C^o
- reference humidity 40...60%
- altitude < 2000m
- Auto-OFF time max. 900 sec.
- number of Z measurement (for rechargeable batteries) >5000 (2 measurement/minute)
- display LCD segment
- quality standard developed, designed and manufactured acc. to ISO 9001
- the instrument is compliant with the requirements of IEC 61557
- the instrument complies with PN-EN 61326-1:2006 and EN 61326-2-2:2006