



Datasheet



0370 330 6021
www.sunbeltrentals.co.uk



CAT IV

600 V

CAT III

1000 V

IP54

UP TO

max. 750V!

Lightweight and professional fault loop meter

Measured parameters

- Fault loop impedance measurement with 0.01Ω resolution
- Low-current impedance measurement in circuits protected by RCD $\geq 30\text{mA}$ with 0.01 Ω resolution (100...440 V)
- Operates in networks with voltages 110/190 V, 115/200 V, 127/220 V, 220/380 V, 230/400 V, 240/415 V, 290/500 V and 400/690 V (operating range 100...750 V)
- Operating frequency 45...65 Hz
- Calculation of fault current
- Automatic differentiation between phase and phase-to-phase voltage
- Possibility of applying 1.2, 5, 10, 20 m test leads or an adapter terminated by a power network plug
- Measurement with swapped L and N conductors
- Measurement of resistance (R_s) and reactance (X_s) components

Additionally

- Voltage measurement up to 750 V AC (up to 250 V with resolution of 0,1 V)
- Memory storing up to 990 records, data transmission via USB
- Battery or rechargeable battery power supply (4 x LR14)
- Check of correct connection of PE terminal by means of contact electrode

Features

MZC-306 enables measurements in various types of networks due to a wide range of operating voltages. The device will be useful in multiple electrical works (even simple) under low-voltage powered places - including homes, buildings, public facilities and small workshops or factories.



Measurement of fault loop impedance Z_{L-PE} , Z_{L-N} , Z_{L-L}

Measuring range acc. to IEC 61557-3:

0.13...1999 Ω for 1.2 m test leads

0.25...1999 Ω for Uni-Schuko adapter

Range	Resolution	Accuracy
0.00...19.99 Ω	0.01 Ω	$\pm(5\% \text{ m.v.} + 3 \text{ digits})$
20.0...199.9 Ω	0.1 Ω	$\pm(4\% \text{ m.v.} + 3 \text{ digits})$
200...1999 Ω	1 Ω	$\pm(4\% \text{ m.v.} + 3 \text{ digits})$

- Rated operating voltage U_{N-LN}/U_{N-L} : 110/190 V, 115/200 V, 127/220 V, 220/380 V, 230/400 V, 240/415 V, 290/500 V, 400/690 V
- Voltage range: 100...440 V (for Z_{L-PE} and Z_{L-N}) and 100...750 V (for Z_{L-L})
- High current measurement (up to 30 A)
- Operating frequency range: 45...65 Hz
- Measurement is also possible when L and N circuits are swapped,
- Measurement of resistance and reactance components,
- Short circuit current calculation

Voltage measurement

Range	Resolution	Accuracy
0.0...249.9 V	0.1 V	$\pm(2\% \text{ m.v.} + 4 \text{ digits})$
250...750V	1 V	$\pm(2\% \text{ m.v.} + 2 \text{ digits})$

- Measurement available for all settings of short-circuit loop (Z_{L-PE} , $Z_{L-PE[RCD]}$ and Z_{L-N} , Z_{L-L})
- Operating frequency range: 45...65 Hz

Technical data

Electrical safety

Type of insulation according to IEC 61010-1 and IEC 61557	double
Measurement category according to EN 61010-1	IV 600 V / III 1000 V
Protection class acc. to EN 60529	IP54

Other technical data

Power supply	rechargeable / alkaline batteries, LR14 (4 pcs)
Dimensions	288 x 223 x 75 mm
Weight	ca. 2 kg
Operating temperature	0...+45°C
Storage temperature	-20...+60°C
Humidity	20...80%
Reference temperature	+23 \pm 2°C
Reference humidity	40...60%
Altitude	<2000 m
Time to Auto-OFF	300 seconds
Number of Z measurements (for rechargeable / alkaline batteries)	>5000 (2 measurements/minute)
Display	LCD segmented
Quality standard	ISO 9001
The device meets the requirements of	IEC 61557
The product meets EMC requirements of	EN 61326-1 and EN 61326-2-2

m.v. - measured value

Measurement of short circuit loop impedance $Z_{L-PE[RCD]}$ (RCD protected)

Measuring range acc. to IEC 61557:

0.43...1999 Ω for Uni-Schuko adapter

Range	Resolution	Accuracy
0.00...19.99 Ω	0.01 Ω	$\pm(6\% \text{ m.v.} + 10 \text{ digits})$
20.0...199.9 Ω	0.1 Ω	$\pm(6\% \text{ m.v.} + 5 \text{ digits})$
200...1999 Ω	1 Ω	

- Rated operating voltage U_N : 110 V, 115 V, 127 V, 220 V, 230 V, 240 V, 390 V, 400 V
- Voltage range 100...440 V
- Measurement is also possible when L and N circuits are swapped,
- Measurement of resistance and reactance components,
- Short circuit current calculation

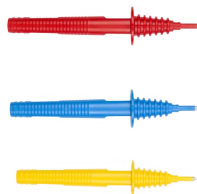


Standard accessories



WS-05 adapter with UNI-SCHUKO angular plug

WAADAWS05



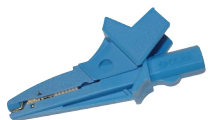
Pin probe 1 kV (banana socket) red / blue / yellow

WASONREOGB1
WASONBUOGB1
WASONYEOGB1



Test lead 1.2 m (banana plugs) red / blue / yellow

WAPRZ1X2REBB
WAPRZ1X2BUBB
WAPRZ1X2YEBB



Crocodile clip, blue, 1 kV 20 A

WAKROBU20K02



Pin probe 5 kV (banana socket) red / black

WASONREOGB2
WASONBLOGB2



Test lead 0.7 m (banana plugs) black

WAPRZ0X7BLBB



M1 hanging straps

WAPOZSZE4



L1 hanging straps

WAPOZSZE2



L4 carrying case

WAFUTL4



NiMH battery 4.8 V 4.2 Ah

WAAKU07



Mains power cable Euro 2-pin plug / IEC C7 plug

WAPRZLAD230



Z7 Power supply adapter

WAZASZ7



USB cable

WAPRZUSB

Optional accessories



Crocodile clip 1 kV 20 A red / yellow

WAKRORE20K02
WAKROYE20K02



Foldable pin probe, 1 kV, 2 m (banana socket)

WASONSP2M



Test lead 5 / 10 / 20 m red 1 kV (banana plugs)

WAPRZ005REBB
WAPRZ010REBB
WAPRZ020REBB



WS-01 adapter with START button with UNI-Schuko plug

WAADAWS01



Pin probe 11 kV (banana socket) red

WASONREOGB11



Industrial socket adapter 16A / 32A

WAADAAGT16T
WAADAAGT32T



Three-phase socket adapter 16A / 32A

WAADAAGT16C
WAADAAGT32C



Three-phase socket adapter 16A / 32A

WAADAAGT16P
WAADAAGT32P



Three-phase socket adapter 63 A

WAADAAGT63P



Cable for battery charging from car cigarette lighter socket (12 V)

WAPRZLAD12SAM



Battery container

WAPOJ1



Sonel Reader software

WAPRREADER

We are supporting you to deliver
a world class service, every day,
in every sector...

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