

METRALINE Z^{CHECK}

环路电阻测量仪器

3-349-696-03
3/4.13

METRALINE Z^{CHECK} 可用于测量以下项目：

- 故障环路阻抗含有短路电流
- 故障环路阻抗带有短路电流
没有断开RCCB时
- 线路阻抗含有短路电流
- 线电压
- 相位检测

特点

- 可以显示常用保护装置的列表
- 可以在概要和详细信息间切换
- 数字显示，彩色背光OLED显示
- LED用于测量值显示
- 获得专利的固定测试探针的方法
- 紧凑坚固



测量结果



Phase Detection (L)



Table Display



应用

METRALINE Z^{CHECK} 允许用于测量阻抗的类型，标称电流和断路时间的评估。各种保护装置的参数以表格的形式存储在设备里

符合规范和标准

IEC 61010-1/-031 DIN EN 61010-1/-031 VDE 0411-1/-031	Safety requirements for electrical equipment for measurement, control and laboratory use Part 1: General requirements Part 31: Safety requirements for hand-held probe assemblies for electrical measurement and test
IEC 61557-1/-3 DIN EN 61557-1/-3 VDE 0413-1/-3	Electrical safety in low voltage distribution systems up to 1000 V AC and 1500 V DC – Equipment for testing, measuring or monitoring of protective measures Part 1: General requirements Part 3: Loop resistance
IEC 61326-1 DIN EN 61326-1	Electrical equipment for measurement, control and laboratory use – EMC requirements Part 1: General requirements
DIN EN 60529 VDE 0470-1	Degrees of protection provided by enclosures (IP code)

技术参数

故障环路阻抗/线路阻抗

额定量测依据 EN 61557-3: 0.27Ω- 200 Ω

量程 (Ω)	分辨率 (Ω)	固有不确定度	测量不确定度
0.00 - 4.99	0.01	±(3% rdg. + 5 d)	±(4 % rdg. + 7 d)
5.0 - 49.9	0.1	±(3% rdg. + 3 d)	±(4 % rdg. + 4 d)
50 - 200	1	±3% rdg.	±4 % rdg.

电压范围 :190- 260 V / 48- 52 Hz

负载电阻 : 50 Ω (variable number of pulses at 10 ms)

故障环路阻抗没有断开RCCB

用于额定电流在100mA或300mA的RCCB测量

额定量测依据 EN 61557-3: 0.8 Ω-200 Ω

量程 (Ω)	分辨率 (Ω)	固有不确定度	测量不确定度
0.0 to 4.9	0.1 Ω	±(5% rdg. + 2 d)	±(6% rdg. + 2 d)
50 to 200	1 Ω	±7% rdg.	±8 % rdg.

电压范围 :190- 260 V / 48- 52 Hz

负载电阻 : 50 Ω (variable number of pulses and pulse width)

短路电流

量程	分辨率	固有不确定度	测量不确定度
0 to 999 A	1 A	取决于环路阻抗 测量误差 ±1 d	取决于环路阻抗 测量误差 ±1 d
1.0 to 9.9 kA	0.1 kA		
10 to 23 kA	1 kA		

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环路电阻测量仪器

交流电压 (TRMS)

量程	分辨率	固有不确定度	测量不确定度
24 - 260 V	1 V ¹ 0.1 V ²	±(2% rdg. + 2 d)	±(3% rdg. + 3 d)

频率范围 : 48 - 52 Hz

¹ 短时显示

² 细节显示

Key:

- a) The measuring uncertainties specified here for fault loop impedance, line impedance and short-circuit current are only valid if line voltage is stable during measurement and if no other electrical circuits parallel to the measured circuit are in use.
c) rdg. means reading, i.e. measured value, d = digits (i.e. number of the decimal place with the least significance)

参考条件

Temperature	23 ± 2 °C	温度
Relative humidity	40 to 60%	相对湿度
Line voltage	230 V ± 2% / 50 Hz ± 1%	电压
仪器摆放位置	任意	

环境条件

操作条件

操作温度

temperature 0 to 40 °C 相对湿度

Relative humidity max. 85%, no condensation allowed

Line voltage 190 to 260 V / 48 to 52 Hz 电压

仪器摆放位置 任意

存储条件

Temperature -10 to +70 °C 温度

Relative Humidity max. 90% at -10 to +40 °C 相对湿度

max. 80% at +40 to +70 °C

仪器摆放位置 任意

电源

Batteries 电池 4 ea. AAA (LR03), 1.5 V alkaline or 1.2 V NIMH (with at least 750 mAh)

Number of measurements with batteries at 800 mAh:

测量次数 approx. 3,000 measurements
800mAh电池, 大约可测试3000次

电气安全

Measuring category	with safety cap applied to test probe: CAT III 300 V
电气安全等级	without safety cap applied to test probe: CAT II 300 V
Pollution degree	2 污染等级
Protection class	II 保护等级
Fuse	SIBA ceramic fuse
保险	6.3 mm x 32 mm, F1 A/600 V switching capacity 50 kA at 600 V

电磁兼容 (EMC)

Interference emission	EN 61326-1:2006 class B
Interference immunity	EN 61326-1:2006

产品设计

Display	OLED, multicolored, graphic
Protection	Housing: IP 43 per DIN VDE 0470 part 1/EN 60529
Dimensions	approx. 260 x 70 x 40 mm
Weight	approx. 0.36 kg with batteries

清单

- 1 Test instrument with mobile test probe
- 4 Batteries (AAA)
- 1 Pouch
- 1 Condensed operating instructions
- 1 CD ROM with operating instructions in available languages
- 1 Factory calibration certificate

Order Information

Description	Type	Article number
Loop Resistance Measuring Instrument	METRALINE ZCHECK	
Broad-range charger for charging optionally available batteries, e.g. Z507B, inserted in the METRALINE ISO-RCD-Z CHECK	Charger METRALINE CHECK Series	
Input*: 100 to 240 V AC ±10%; Output: 9 V DC, 180 mA		
4 rechargeable batteries (AAA) for METRALINE ISO-RCD-Z/CHECK	Akku-Set METRALINE CHECK Series	

* with plug adapter for the following countries: EU, UK, US, AU

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GMC INSTRUMENTS

