



### 1. ELECTRICAL SPECIFICATIONS

#### RCDs tripping time

Range (ms)		Resolution (ms)	Accuracy	Category of measure
$\frac{1}{2} I_{\Delta N}, I_{\Delta N}$	1 ÷ 999	1	$\pm(2.0\%rdg + 2\ dgt)$	CAT III 240V to Ground CAT III 415V between inputs
2 $I_{\Delta N}$	1÷200 general			
	1÷250 selective			
5 $I_{\Delta N}$	1÷ 50 general			
	1÷160 selective			

Nominal trip-out current: 10mA, 30mA, 100mA, 300mA, 500mA, 650mA, 1000mA  
 RCD type: AC, A, general and selective  
 Phase-ground voltage: (110V ÷ 240V) ±10%  
 Frequency: 50Hz ± 0.5Hz, 60Hz ± 0.5Hz  
 Voltage contact limits: 25V or 50V

#### RCDs tripping current (general, AC and A types)

RCD's type	$I_{\Delta N}$	Range $I_{\Delta N}$ (mA)	Resolution (mA)	Accuracy	Category of measure
AC	$I_{\Delta N} \leq 10mA$	$(0.5 \div 1.1) I_{\Delta N}$	0.1 $I_{\Delta N}$	0%,+10%rdg	CAT III 240V to Ground CAT III 415V between inputs
A		$(0.3 \div 1.1) I_{\Delta N}$			
AC	$I_{\Delta N} > 10mA$	$(0.5 \div 1.1) I_{\Delta N}$			
A		$(0.3 \div 1.1) I_{\Delta N}$			

#### Global Earth Resistance $R_A$ without RCD's tripping

Range ( $\Omega$ )	Resolution (V)	Accuracy	Category of measure
1 ÷ 1999	1	$\pm (5.0\%rdg + 3dgt)$	CAT III 240V to Ground CAT III 415V between inputs

RCD type: AC, A, general and selective  
 Range contact voltage  $U_t$ : 0 ÷ 2 $U_{lim}$ , resolution: 0.1V, accuracy: -0%, +(5%rdg + 3dgt)  
 Test current: <  $\frac{1}{2} I_{dn}$ , accuracy: -10%, +0%  $I_{dn}$

#### Loop impedance P-P, P-N, P-PE TT/TN systems

Range ( $\Omega$ )	Resolution ( $\Omega$ ) (*)	Accuracy	Category of measure
0.01 ÷ 9.99	0.01	$\pm(5.0\%rdg + 3dgt)$	CAT III 240V to Ground CAT III 415V between inputs
10.0 ÷ 199.9	0.1		
200 ÷ 1999 (only P-PE)	1		

(\*) 0.1m $\Omega$  in 0.0 ÷ 199.9 m $\Omega$  range (with option accessory IMP57)  
 Maximum peak current: 3A @ 127V, 6A @ 230V, 10A @ 400V  
 Test voltage: (110÷240V) ±10% (P-N, P-PE); 50Hz ± 0.5Hz, 60Hz ± 0.5Hz  
 (110÷415V) ±10% (P-P); 50Hz ± 0.5Hz, 60Hz ± 0.5Hz

#### Loop impedance P-P, P-N, P-PE - First fault current IT systems

Range (mA)	Resolution (mA)	Accuracy	Category of measure
5 ÷ 999	1	$\pm(5.0\%rdg + 3dgt)$	CAT III 240V to Ground CAT III 415V between inputs

$U_{lim}$  (UI): 25V , 50V

#### Global Earth Resistance $R_A$

Range ( $\Omega$ )	Resolution ( $\Omega$ )	Accuracy	Category of measure
0.01 ÷ 9.99	0.01	$\pm(5.0\%rdg + 1.0\Omega)$	CAT III 240V to Ground CAT III 415V between inputs
10.0 ÷ 199.9	0.1		
200 ÷ 1999 (solo F-PE)	1		

Test current @ 265V: <15 mA  
 Test voltage: (110÷240V) ±10% (phase-neutral/PE); 50Hz ± 0.5Hz, 60Hz ± 0.5Hz  
 $U_{lim}$  (UI): 25V , 50V

#### Phase sequence with 1 or 2 wires

Range (V)	Results displayed	Category of measure
$(100 \div 240) \pm 10\%$	"123" → correct phase sequence "132" → wrong phase sequence "11-" → phase coincidence	CAT III 240V to Ground CAT III 415V between inputs

The instrument detects the phase sequence by touching the hot wire. The detection is not performed on insulated cables.  
 Frequency: 50Hz ± 0.5Hz, 60Hz ± 0.5Hz



## 2. GENERAL SPECIFICATIONS

### MECHANICAL FEATURES

Dimensions (L x W x H):	235 x 165 x 75mm
Weight (batteries included):	1.2kg

### MEMORY AND SERIAL INTERFACE

Each measurement can be stored	
Memory:	500 locations
PC communication port:	optical / USB

### DISPLAY:

Features:	graphic LCD with backlight
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### POWER SUPPLY:

Batteries:	6x 1.5V type LR6, AA, AM3, MN 1500
Battery life:	> 600 measurements (without using the timer)

### ENVIRONMENTAL CONDITIONS:

Reference temperature of calibration:	23°C ± 5°C
Working temperature:	0° ÷ 40°C
Working humidity:	< 80%HR
Storage temperature (batteries not included):	-10 ÷ 60°C
Storage humidity:	< 80%HR

### GENERAL REFERENCE STANDARDS:

Safety:	IEC/EN61010-1, IEC/EN61557-1, -2, -3, -4, -6, -7
Technical literature:	IEC/EN61187
Safety of accessories:	IEC/EN61010-031, IEC/EN61010-2-032
RCD:	IEC/EN61557-6
LOOP P-P, P-N, P-PE:	IEC/EN61557-3
Ra 15 <sub>mA</sub>	IEC/EN61557-3
123:	IEC/EN61557-7
Insulation:	double insulation
Pollution degree:	2
Max altitude:	2000m
Overvoltage category:	CAT III 240V to ground, max 415V among inputs

**This instrument complies with the requirements of the European Low Voltage Directives 2006/95/EEC (LVD) and EMC 2004/108/EEC**