



This all-in-one tester incorporates continuity, insulation resistance, RCD, earth loop impedance, phase loop impedances, earth resistance and phase rotation tests.

This unit is smaller and more compact than other machines on the market, which makes it very comfortable to use in confined and hazardous areas.

The Veritest is supplied complete with test leads, a soft carry case and user guide as standard. A full manual is available for free download at [www.martindale-electric.co.uk](http://www.martindale-electric.co.uk).

### SPECIFICATIONS

SHEET 1 OF 2

Accuracy is indicated as [% of reading + number of digits]. It refers to the atmospheric conditions listed previously.

#### CONTINUITY:

| Test mode    | Range       | Resolution | Accuracy      |
|--------------|-------------|------------|---------------|
| AUTO, R+, R- | 0.01-19.99Ω | 0.01Ω      | ±(2%rdg+2dgt) |
|              | 20.0-99.9Ω  | 0.1Ω       |               |
| Timer Mode   | 0.01-9.99Ω  | 0.01Ω      | ±(2%rdg+2dgt) |

**Test current:** >200mA DC up to 16Ω (include the resistance of the calibration) 40mA DC from 16Ω to 99.9Ω **resolution:** 1mA

**Open circuit Test Voltage:** 9V

**Live Circuit Warning:** Yes

**Timer:** test duration 10-999 seconds

#### INSULATION TESTS

| Rated Test Voltage | Measurable Range MΩ | Resolution | Accuracy      |
|--------------------|---------------------|------------|---------------|
| 250V               | @Rated Test Voltage |            |               |
|                    | 0.23-19.99 MΩ       | 0.01MΩ     | ±(2%rdg+2dgt) |
|                    | 20.0-199.9 MΩ       | 0.1MΩ      | ±(2%rdg+2dgt) |
|                    | 200-249 MΩ          | 1MΩ        | ±(2%rdg+2dgt) |
| 500V               | 250-499 MΩ          | 1MΩ        | ±(5%rdg+2dgt) |
|                    | 0.25-19.99 MΩ       | 0.01MΩ     | ±(2%rdg+2dgt) |
|                    | 20.0-199.9 MΩ       | 0.1MΩ      | ±(2%rdg+2dgt) |
|                    | 200-499 MΩ          | 1MΩ        | ±(2%rdg+2dgt) |
| 1000V              | 500-999 MΩ          | 1MΩ        | ±(5%rdg+2dgt) |
|                    | 0.90-19.99 MΩ       | 0.01MΩ     | ±(2%rdg+2dgt) |
|                    | 20.0-199.9 MΩ       | 0.1MΩ      | ±(2%rdg+2dgt) |
|                    | 200-999 MΩ          | 1MΩ        | ±(2%rdg+2dgt) |
|                    | 1000-1999 MΩ        | 1MΩ        | ±(5%rdg+2dgt) |

Automatic selection of the measuring range

**Open circuit voltage:** Rated test voltage -0% +10%

**Short circuit current:** <3.0mA - 500V  
<2.0mA - 50V, 100V, 250V, 1000V

**Test current on load:** >1mA@V<sub>Test</sub> across R<sub>load</sub>=(1000 x V<sub>Test</sub>)Ω

If the instrument measures a voltage higher than 30V, the instrument does not perform the test.

#### RCD

**Type of RCD:** AC, A

**Range of phase to earth voltage:** (100 - 265) V

**Rated Tripping Current (I<sub>ΔN</sub>):** 10mA, 30mA, 100mA, 300mA, 500mA

**Test frequency:** 50Hz ± 0.5 Hz

### TRIPPING TIMES

| Test                                     | Range             | Resolution | Accuracy           |
|--|-------------------|------------|--------------------|
| $\frac{1}{2} I_{\Delta N}, I_{\Delta N}$ | 0-999ms           | 1ms        | $\pm(2\%rdg+2dgt)$ |
| 2 $I_{\Delta N}$                         | 0-200ms general   | 1ms        | $\pm(2\%rdg+2dgt)$ |
|  | 0-250ms selective | 1ms        | $\pm(2\%rdg+2dgt)$ |
| 5 $I_{\Delta N}$ RCD(*)                  | 0-50ms general    | 1ms        | $\pm(2\%rdg+2dgt)$ |
|  | 0-160ms selective | 1ms        | $\pm(2\%rdg+2dgt)$ |

(\*) For RCD type A 500mA, the MAN x5 and AUTO tests are not available.

### CONTACT VOLTAGE

| Measuring range(V)      | Resolution(V) | Accuracy           |
|-------------------------|---------------|--------------------|
| 0 - 2U <sub>t</sub> Lim | 0.1           | -0%,+(10%rdg+2dgt) |

$U_{t\ Lim} (U_L): 25V \text{ or } 50V$

### AC VOLTAGE:

| Electrical Syst | Range(V) | Resolution(V) | Accuracy               |
|-----------------|----------|---------------|------------------------|
| Single-phase    | 0 - 265  | 1             | $\pm(2\% rdg + 2 dgt)$ |
| 2 or 3 - phase  | 0 - 460  | 1             | $\pm(5\% rdg + 2 dgt)$ |

### FREQUENCY:

| Range(V) HZ    | Resolution HZ | Accuracy                 |
|----------------|---------------|--------------------------|
| 15.3 - 99.9 Hz | 0.1 HZ        | $\pm(0.1\% rdg + 1 dgt)$ |

### LINE IMPEDANCE

#### (LOOP Z<sub>S</sub>/I<sub>K</sub> PHASE TO PHASE OR PHASE TO NEUTRAL)

| Test mode   | Range       | Resolution  | Accuracy               |
|-------------|-------------|-------------|------------------------|
| (P-P & P-N) | 0.03-19.99Ω | (0.01Ω Res) | $\pm(5\% rdg + 2 dgt)$ |
|             | 20.0-199.9Ω | (0.1Ω Res)  | $\pm(5\% rdg + 2 dgt)$ |
| PSC         | 1-999A      |             |                        |
|             | 1.0-20.0KA  |             |                        |

**Test voltage:** V<sub>PN</sub> 100V - 265V 50Hz + 0.5 Hz  
V<sub>PP</sub> 100V - 460V 50Hz + 0.5 Hz

**Max peak test current:** 100V 3.17A test duration: 80ms  
230V 6.64A test duration: 40ms  
400V 11.5A test duration: 40ms

**Accuracy current measurement:**  $\pm 10\% I_{max}$  Pk

### PHASE EARTH IMPEDANCE (LOOP Z<sub>S</sub>/I<sub>K</sub>)

| Range       | Resolution         | Accuracy           |
|-------------|--------------------|--------------------|
| 0.03-19.99Ω | (0.01Ω Res)        | $\pm(5\%rdg+2dgt)$ |
| 20.0-199.9Ω | (0.1Ω Res)         | $\pm(5\%rdg+2dgt)$ |
| 200-1999Ω   | (1Ω Res)           | $\pm(5\%rdg+2dgt)$ |
| PFC         | 1-999A, 1.0-20.0KA |                    |

**Max peak test current:** 100V 3.17A Test duration: 80ms  
230V 6.64A Test duration: 40ms

**Accuracy current measurement:**  $\pm 10\% I_{max}$  Pk

**Test voltage:** V<sub>PE</sub> 100V - 265V 50Hz +0.5 Hz

### NON TRIP EARTH LOOP TEST: (R<sub>A15MA</sub>)

| Measuring range            | Resolution | Accuracy           |
|----------------------------|------------|--------------------|
| 1-1999Ω                    | 1Ω Res     | $\pm(5\%rdg+2dgt)$ |
| PFC 1-999 Amps, 1.0-20.0KA |            |                    |
| Test current 15mA          |            |                    |

**Battery type:** 6x1.5V LR6-AA-AM3-MN1500

**Low battery indication:** Yes

**Battery life:** About 40 hrs in stand-by or 500 Continuity tests or 250 Insulation tests 500V/500k or 1000 LOOP/RCD/Phase sequence tests

**Weight:** (batteries included) 1000gm

**Dimensions:** 222mm(L) x 162mm(W) x 57mm(D)

**Phase Rotation Test:** graphic display of phase sequence

**Display Features:** LCD custom

### SAFETY STANDARDS

**The instrument complies with:** EN 61010-1 + A2 (1997), EN61557, EN61326-1 (1997) + A1 (1998).

**Insulation:** Class 2, double insulation

**Pollution degree:** 2

**Inside use:** max altitude - 2000m

**Overvoltage category:** CAT III 460V~ P-N-E / 265V~ to earth

### ENVIRONMENT

**Environmental working conditions**

**Reference temperature:** 23° ± 5°C

**Working temperature:** -10°C – 50 °C

**Relative humidity allowed:** <80%

**Storage temperature:** -20 – 60 °C

**Storage humidity:** <80%