



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 stores test results in its internal memory and downloads to a P.C. via optional software and accessories.

The Veritest is supplied complete with test leads, a protective carry case and user guide as standard. A full manual is available for free download at www.martindale-electric.co.uk.

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%

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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 |
|--------------------|---------------------|------------|---------------|
| 50V | @Rated Test Voltage | | |
| | 0.05-19.99 MΩ | 0.01MΩ | ±(2%rdg+2dgt) |
| | 20.0-49.9 MΩ | 0.1MΩ | ±(2%rdg+2dgt) |
| 100V | 50.0-99.9 MΩ | 0.1MΩ | ±(5%rdg+2dgt) |
| | 0.10-19.99 MΩ | 0.01MΩ | ±(2%rdg+2dgt) |
| | 20.0-99.9 MΩ | 0.1MΩ | ±(2%rdg+2dgt) |
| 250V | 100.0-199.9 MΩ | 0.1MΩ | ±(5%rdg+2dgt) |
| | 0.23-19.99 MΩ | 0.01MΩ | ±(2%rdg+2dgt) |
| | 20.0-199.9 MΩ | 0.1MΩ | ±(2%rdg+2dgt) |
| 500V | 200-249 MΩ | 1MΩ | ±(2%rdg+2dgt) |
| | 250-499 MΩ | 1MΩ | ±(5%rdg+2dgt) |
| | 0.25-19.99 MΩ | 0.01MΩ | ±(2%rdg+2dgt) |
| 1000V | 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_{Test} across R_{load}=(1000 x V_{Test})Ω

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

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RCD

Type of RCD: AC, A

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

Rated Tripping Current ($I_{\Delta N}$): 10mA, 30mA, 100mA, 300mA, 500mA

Test frequency: 50Hz \pm 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. The Ramp test measures tripping current

CONTACT VOLTAGE

Measuring range(V) Resolution(V) Accuracy

| | | |
|--|-----|--------------------|
| 0 - 2U _t Lim | 0.1 | -0%,+(10%rdg+2dgt) |
| U _t Lim (U _L): 25V or 50V | | |

TRIPPING CURRENT FOR RCD TYPE A AND AC

RCD with $I_{\Delta N} \leq 10mA$

| Type RCD | Range $I_{\Delta N}$ (mA) | Resolution(mA) | Accuracy $I_{\Delta N}$ |
|----------|----------------------------|--------------------|--------------------------|
| AC | (0.5 - 1.4) $I_{\Delta N}$ | 0.1 $I_{\Delta N}$ | -0%, +10% $I_{\Delta N}$ |
| A | (0.5 - 2.4) $I_{\Delta N}$ | | |

RCD with $I_{\Delta N} \geq 10mA$

| Type RCD | Range $I_{\Delta N}$ (mA) | Resolution(mA) | Accuracy $I_{\Delta N}$ |
|----------|----------------------------|--------------------|--------------------------|
| AC | (0.5 - 1.4) $I_{\Delta N}$ | 0.1 $I_{\Delta N}$ | -0%, +10% $I_{\Delta N}$ |
| A | (0.5 - 2) $I_{\Delta N}$ | | |

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_S/I_K PHASE TO PHASE OR PHASE TO NEUTRAL)

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

Test voltage: V_{PN} 100V - 265V 50Hz + 0.5 Hz
V_{PP} 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_S/I_K)

| Range | Resolution | Accuracy |
|---------------------|---------------------|--------------------|
| 0.03-19.99 Ω | (0.01 Ω Res) | $\pm(5\%rdg+2dgt)$ |
| 20.0-199.9 Ω | (0.1 Ω Res) | $\pm(5\%rdg+2dgt)$ |
| 200-1999 Ω | (1 Ω 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_{PE} 100V - 265V 50Hz +0.5 Hz

NON TRIP EARTH LOOP TEST: (R_{A15MA})

| Measuring range | Resolution | Accuracy |
|-----------------|------------------------|--------------------|
| 1-1999 Ω | 1 Ω 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

Memory Slots For Saved Tests: 350

Display Features: LCD custom

Interface optical: RS232 to print or to download the tests

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