



MEGGER® CM500

- Combines the functions of several Instruments in one package
- Non-tripping Loop Test range for tests on RCD protected circuits
- RCD ramp test features actual tripping current
- Stores approximately 750 different test results in internal memory
- Recall results to the display for manual certificate completion
- Direct printer output for on-site printing of test results

MEGGER® CM500 MULTIFUNCTION INSTALLATION TESTER

The **MEGGER® CM500** Multifunction Installation Tester is a compact product that combines all the functions required to fully test Domestic, Commercial and Industrial fixed wiring, in accordance with International Standards.

The CM500 is the first Installation Tester with a non-tripping Loop Test guaranteed not to trip any RCD rated 30 mA or above. Its memory and storage capability offers all data to display, download to a PC and a unique on-site print facility.

FEATURES

- Storage of test results
- Recall of test results to instrument display
- Direct serial printer output via RS232 port
- Connect to IBM compatible PC for storage of results
- Ramp Test for measuring RCD actual trip currents
- Variable RCD test current for programmable devices
- Designed and manufactured in accordance with International Safety Standards
- Insulation tests at 250 V, 500 V & 1000 V with 1 mA output
- Continuity tests with 200 mA short circuit capability
- Phase-Phase, Phase-Neutral, Phase-Earth Loop Tests
- High current Loop Testing with 0,01 resolution
- Prospective Earth Fault and Short Circuit Current

- Low current Loop Test for non-tripping of RCDs
- Earth Electrode Resistance Test for simple systems
- No-trip, Trip and Fast Trip RCD testing
- Tests d.c. Sensitive, Selective and General Type RCDs
- Supply voltage, polarity and frequency indication
- Phase sequence indication using optional leads
- Complete with Carry Case, Test Leads and Certificate of Test

DESCRIPTION

Tests in accordance with International Standards and National Wiring Regulations including BS7671 (16th edition wiring regulations) and Euro Standard EN61557.

Test lead resistances can be nulled and a continuity buzzer is incorporated for rapid identification of open and short circuits. Settable automatic polarity reversal and result averaging.

Loop tests are performed to a resolution of 0,01 with direct display of PEFC and PSSC.

A unique low current Loop Test with 0,1 resolution for testing circuits protected by an RCD rated at 30 mA or above, without tripping the RCD, including the newer electronic ones.

Auto-ranging earth resistance function enables measurement of earth

electrode resistance on TT systems. Verification of the correct operation of RCDs rated between 10 mA and 1000 mA with trip timing up to 2000 ms. A ramp test indicates actual trip current to aid in fault diagnosis and variable test current function enables the testing of programmable and specialist devices.

Upon connection to the mains supply the polarity and voltage are displayed to show correct wiring of the socket under test and warn of live voltages. Supply frequency is indicated at the touch of a button.

Approximately 750 different results may be saved into internal memory for use later on.

Stored results may be recalled to the CM500 display to enable reviewing and facilitate the manual recording and completion of test reports and certificates.

Test results may be printed directly on site by simply connecting an appropriate serial printer to the RS232 port.

A standard RS232 serial port enables test results to be downloaded to a PC for later use. The ultimate solution is provided with the use of AVO® PowerSuite™ for Windows™.

Meets or exceeds the requirements of EN61010-1 Category III 480 V (max) phase-phase

Supply Voltage measurement25 to 500 V $\pm 2\%$ ± 2 digits**Supply Frequency Measurement**d.c., 16,0 to 460 Hz $\pm 0,1\%$ ± 1 digit**Insulation Test Ranges**

250, 500 & 1kV d.c. into 1 mA load
 1 k to 99,9 M @ 250 V
 1 k to 299 M @ 500 V
 1 k to 499 M @ 1k V
 $\pm 2\%$ ± 2 digits (up to 99 M)

Continuity & Resistance Ranges

0,01 to 99,9 $\pm 2\%$ ± 2 digits
 100 to 99,9 k $\pm 5\%$ ± 2 digits

Open circuit voltage

4-5 V d.c.

Test current

200-250 mA up to 2

Loop & Earth Resistance Ranges**Line / Earth & Earth Electrode**

Supply 100 to 280 V 45 to 65 Hz
 0,01 to 9,99 $\pm 5\%$ $\pm 0,03$
 10,0 to 89,9 $\pm 5\%$ $\pm 0,5$
 90 to 899 $\pm 5\%$ ± 5
 900 to 3,00 k $\pm 5\%$ ± 20

Line / Line (Phase / Phase)

Supply 100 to 480 V 45 to 65 Hz
 0,01 to 19,99 $\pm 5\%$ $\pm 0,03$

Low Current Loop Test (15mA)

Supply 100 to 280 V 45 to 65 Hz
 0,1 to 200 k $\pm 3\%$ $\pm 0,3$
 200 to 1,99 k $\pm 5\%$ ± 5

Noise immunity 1 within $\pm 0,3$ **PEFC**

Calculated from nominal supply voltage divided by loop resistance.

RCD Test Ranges

Supply 100 to 280 V 45 to 65 Hz
 I_n – 10, 30, 100, 300, 500, 1000 mA
 & variable test current 10 mA to 1 A
 Current accuracy $\pm 3\%$

No Trip ($1 \frac{1}{2} I_n$), Trip (I_n),
 150 mA Fast Trip, $5I_n$ and Ramp

General, d.c. and Selective RCDs
 Trip timing 0,1 to 1999 ms $\pm 1\%$ ± 1 ms

Contact voltage
 0,1 to 90,0 V $+10\%$ -0% ± 5 digits

Auto Sequence
 150 mA 40 ms test

Power Supply

8 x 1,5V Alkaline cells type LR6 or 1,5V nickel cadmium rechargeable cells.
 A new set of alkaline battery cells will typically give more than 4500 insulation or 3250 continuity tests.

Fuses

Replaceable 500 mA (F) HBC 10 kA 500 V.
 Non-replaceable 7 A (SIBA 70-065-63)

Safety

Double insulated to IEC1010-1(1995), EN61010-1(1995)
 Installation Category III, 230V phase-ground, 440V phase-phase.

E.M.C. Meets EN50081-1 & EN50082-1

Dimensions 245 mm x 200 mm x 95mm

Weight 1.35 kg

The Company reserves the right to change the specification or design without prior notice. AVO and MEGGER are Registered Trade Marks of AVO INTERNATIONAL LIMITED.

ORDERING INFORMATION

Description	Code	Optional Accessories	Code
Multifunction Tester (UK)	CM500UK	3 wire test lead set for phase rotation indication	6231-632
Multifunction Tester (German)	CM500GM	2 wire test lead set	6231-631
Multifunction Tester (French)	CM500FR	2 wire test lead set with test switch in probe	6231-636
Multifunction Tester (Dutch)	CM500NL	2 wire lead set with 5 metre length	6231-637
Multifunction Tester (Czech)	CM500CZ	Test lead with Schuko plug	6231-635
Multifunction Tester (Finnish)	CM500FL	Test lead with UK mains plug	6231-633
Multifunction Tester (Swedish)	CM500SW	Earth bond test lead set	6231-634
Multifunction Tester (Italian)	CM500IT	Printer connection lead	25955-026
Multifunction Tester (Spanish)	CM500SP	Computer connection lead	25955-025
Multifunction Tester (Euro)	CM500EU	Fused prod and clip set	6180-405
Accessories included with the instrument			
	Instruction Book	Test/Carry pouch	
	Mains lead	Carrying Strap	
	2 wire test lead	Crocodile clips (red & black)	

UNITED KINGDOM
 ARCHCLIFFE ROAD, DOVER, KENT CT17 9EN
 ENGLAND
 PHONE: +44 (0)1304-502100
 FAX: +44 (0)1304-502300/207342
 EMAIL: avosales.dover@avointl.com

UNITED STATES
 4651 S. WESTMORELAND ROAD
 DALLAS, TX 75237-1017 USA
 PHONE: (214) 330-3203
 FAX: (214) 333-3533
 EXPORT FAX: (214) 337-3038

AVO INTERNATIONAL

