RCDT300 Series

Residual Current Device Testers



- **Tests standard, Type A, selective, and programmable RCDs.**
- **Ramp testing (RCDT320/330).**
- **Auto (Remote) testing (RCDT320/330).**
- **3 Phase safe Enables testing on 110 V centre tapped supplies (RCDT320/330).**
- **Tough rubber armoured case with built-in cover.**
- **Weatherproof to IP54.**
- **USB interface for downloading test result (RCDT330).**

DESCRIPTION

Standard test ranges

- The RCDT300 series can perform 1/2I, 1xI and 5xI tests on RCDs rated at 30 mA, 100 mA, 300 mA and 500 mA on general and selective (time delayed) RCDs. The RCDT320/ 330 can also test RCDs rated at 10 mA and 1000 mA. All units offer Type A.
- Test times for normal and Selective RCDs are:

	Normal	Selective
1/2I	2s	2s
I	300ms 2	s
5I	40ms	150ms

- 5I tests are available on RCDs rated up to 100 mA.

Polarity

- All RCDs can be tested at 0° or 180°

Selective RCDs (Type S)

- Selective breakers have a time delay in tripping. When selected, trip test times are extended and a 30s delay is allowed between the measurement of the fault voltage and the application of the test current.

Touch voltage

- Touch voltage is measured at the start of the RCD test. If enabled it is displayed on the analogue arc on completion of testing.

Touch voltage inhibit is selectable from 25 V or 50 V.

Tough:-

- Designed to take the bashing that testers receive on site, the Megger RCDT testers are rubber armoured.
- The rigid display cover folds right out of the way during testing and locks down to protect the display when it is finished.

Simple to use:-

- No buried functions mean it is obvious how to use the Megger RCDT.
- Colour coded ranges help test range selection, reducing test times and fault location.
- A user guide in the lid provides all the basic information.

Hands free use:–

- It hangs comfortably around the neck for hands-free use because the instrument is carefully balanced.

Type A (pulsed DC sensitive) RCD's

- Can be tested at 1/2I, 1xI and 5xI

Ramp testing (RCDT320/330)

- To measure the trip current of an RCD. Current level is slowly increased from 1/2I to 1I (+10%). When the RCD trips the trip current is displayed and held on the screen.
- Very useful diagnosing nuisance tripping of RCDs.

Auto testing (RCDT320/330)

- Where the RCD under test and tester need to be in different locations, the user connects the RCDT320/330 to the circuit and goes to standby the RCD under test to reset it. The RCDT320/330 will automatically perform a 1/2I, I and 5I test at both 0° and 180°. The RCD is reset each time it trips by the electrician and the tester proceeds to the next test automatically. All results are displayed at the end of the test, saving you time and energy

The RCDT330 adds the ability to test Programmable RCDs to the test options available, covering the range from 10 mA to 1000 mA, with step increments starting at 1 mA.

The RCDT330 additionally offers the facility to save test results to internal memory. Over 1000 result can be saved on site, and downloaded to a computer when convenient. Data is stored in non-volatile memory, being retained when the instrument is switched off or batteries are exhausted.

A Job reference number can be selected for a range of results, allowing separate locations to be tested with the same tester and easily separated when downloaded.

A memory bar graph acts as a 'Fuel Gauge' showing how much memory has been used.

Test results are downloaded to CSV (Comma Separated Variable) spreadsheets, and can be imported into Microsoft Excel. If certificates or reports are required, the results can be downloaded directly into Megger Powersuite Professional with a range of features for creating professionally finished documentation for NICEIC, ECA BS and other standard formats.

Safety features:- To protect the user and the tester from incorrect use the RCDT series all has an extensive range of features known as Megger Intelligent Safety System including:

- LED connection indicators – show test lead connections and supply status
- Safety Interlock – prevents unsafe connection of test leads
- 3 Phase safe - Even if the RCDT is connected across phases, the instruments will remain safe and not be damaged (RCDT320/330).
- Test inhibit – If supply voltage exceeds 300V testing will be inhibited.

All the Megger RCDT300 series RCD testers meet or exceed the UK and International Wiring Regulations, including requirements of BS7671 and VDE 0413 parts 1 and 4, HD 384, IEC 364, NFC15-100, and NEN3140, ES59009, AS/NZS 3000 and EN 61557.

In addition the range meets the requirements of IEC 61010-1 for safe connection to Category III supply (300 V Phase to Earth).

The new Megger electrician's testers are simple, no fuss electrical testers that are tough, reliable and easy to use. Available in separate instruments, the series consists of the:

- MIT300 range - Insulation and continuity
- LT300 range - Loop testing
- RCDT300 range - RCD testing

Between them they meet all the requirements for modern electrical testing.

SELECTION GUIDE	RCDT310	RCDT320	RCDT330
RCD testing			
Type AC RCD's 1/2I, I, 5I RCD trip time test	■	■	■
Selective breakers (Type S)	■	■	■
Type AC RCD's 1/2I, I, 5I RCD trip time test	■	■	■
30, 100, 300, 500 mA RCDs	■	■	■
10 mA /1 A RCDs		■	■
RCD trip current test (RAMP)		■	■
Auto sequence test		■	■
0°/180° polarity selection	■	■	■
Touch voltage display inhibit (selectable)	■	■	■
Max Touch voltage (25V/50 V)	■	■	■
Operating range 100 to 280 V	■		
Operating range 50 to 280 V		■	■
Programmable RCDs			■
Frequency measurement		■	■
Features			
3 Phase Safe		■	■
Large clear display	■	■	■
Backlight		■	■
Battery status indication	■	■	■
Auto power down	■	■	■
Fuse blown indication	■	■	■
IP54 weatherproof	■	■	■
Result storage			■
Downloading			■
USB interface			■
IEC61010-1 CATIII 300 V	■	■	■
EN61557	■	■	■
Calibration Certificate	■	■	■
3 year warranty	■	■	■
Accessories			
Plug ended test lead	■	■	■
2 wire ended test lead probe/croc clip ended		■	■

SPECIFICATION

RCD Test Ranges (to EN61557-6)

Supply voltage

Supply: RCDT310 100 V - 280 V 45 Hz to 65 Hz
RCDT320 50 V - 280 V 45 Hz to 65 Hz
RCDT330 50 V - 280 V 45 Hz to 65 Hz
Minimum voltage 71 V for 300 mA RCDs, 100 V for 500 mA RCDs and 205 V for 1000 mA RCDs

Test Current Accuracy:

No Trip Test: (1/2I) –8% to –2%

Trip Test: (I, 5I) +2% to +8%

Trip Time: ±1% ±1ms

Voltage measurement (All Models)

Range ac: 0 V - 300 V 25 Hz to 450 Hz

Accuracy: ±2% ±2 digits

Frequency measurement (RCDT320/330)

Range: 25 Hz to 450 Hz

Accuracy: 25.0 Hz to 199.9 Hz ±0.1 Hz
200 Hz to 450 Hz ±1 Hz

Fault (Touch) Voltage

Displayed range: 0 V to 50 V

Error: +5%/+15% ±0.5 V

Programmable RCD step Increments

10 mA to 50 mA - 1 mA steps
50 mA to 500 mA - 5 mA steps
500 mA to 1000 mA - 10 mA steps

Test result storage (1000 results) (RCDT330)

Job Number 256 locations

Distribution Board no.
99 locations

Circuits 99 locations

Phases P1, P2, P3

Last recorded result may be recalled to the display. All data can be downloaded to a PC using Download Manager (supplied) or Megger Powersuite Professional Windows software

Temperature and humidity

Operating Range: -5°C to +40°C

Operating Humidity: 93% R.H. at +40°C max.

Storage Range: -25°C to +70°C

Maximum altitude: 2000m

Environmental Protection: IP54

Communications USB interface

Safety Meets the requirements of IEC61010-1 Cat III 300 V phase to earth.

IEC61557 Complies with the following parts of EN61557, Electrical safety in low voltage systems up to 1000 V ac and 1500 V dc- Equipment for testing, measuring or monitoring of protective measures:
Part1-General Requirements
Part4-Residual current devices

Power supply

Batteries: 8 x 1,5 V cells IEC LR6 type (AA alkaline).

Rechargeable: 8 x 1.2 V NiCd or NiMH cells.

Battery Life: 2000 consecutive tests

Weight All units 980 gms

Dimensions All units 203 x 148 x 78 mm

E.M.C. In accordance with IEC61326-1

ORDERING INFORMATION

Description	Order Code
UK	
RCDT310 RCD Tester 30, 100, 300, 500 mA	RCDT310-EN-BS
RCDT320 RCD Tester 10, 30, 100, 300, 500,1000 mA	RCDT320-EN-BS
RCDT330 RCD Tester 10, 30, 100, 300, 500,1000 mA	RCDT330-EN-BS
Included Accessories	
Mains plug test lead (BS1363)	6220-740
2-wire test lead with prods and clips (not RCDT310)	1001-976
AUSTRALIA	
RCDT310 RCD Tester 30, 100, 300, 500 mA	RCDT310-EN-AU
RCDT320 RCD Tester 10, 30, 100, 300, 500,1000 mA	RCDT320-EN-AU
RCDT330 RCD Tester 10, 30, 100, 300, 500,1000 mA	RCDT330-EN-AU
Included Accessories	
Mains plug test lead (AS/NZS 3112)	6220-790
2-wire test lead with prods and clips (not RCDT310)	1001-976
EUROPE	
RCDT310 RCD Tester 30, 100, 300,500 mA	RCDT310-EN-SC
RCDT320 RCD Tester 10, 30, 100, 300, 500,1000 mA	RCDT320-EN-SC
RCDT330 RCD Tester 10, 30, 100, 300, 500,1000 mA	RCDT330-EN-SC

Description	Order Code
Included Accessories	
Mains plug test lead (CEE 7/7)	6220-741
2-wire test lead with prods and clips (not RCDT310)	1001-976
Optional Accessories for all RCDT's	
2-wire test lead with prods and clips	1001-976
2-wire test lead with prods and clips	1001-977

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RCDT300_DS_en_V08
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ISO 9001
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