RCDT300 Series
Residual Current Device Testers

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 DC testing of RCD's.
- Test times for normal and Selective RCDs are:
  
<table>
<thead>
<tr>
<th>Normal</th>
<th>Selective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2I</td>
<td>2s</td>
</tr>
<tr>
<td>I</td>
<td>300ms</td>
</tr>
<tr>
<td>5I</td>
<td>40ms</td>
</tr>
</tbody>
</table>
- 5I tests are available on RCDs rated up to 100 mA.

Polarity
- All RCDs can be tested at 0º or 180º

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

DC sensitive RCDs
- DC sensitive RCDs 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.

Tests standard, DC, selective, and programmable RCDs
- Ramp testing
- Auto (Remote) testing
- 3 Phase safe
- Enables testing on 110 V centre tapped supplies.
- Tough rubber armoured case with built-in cover
- Weatherproof to IP54
- USB interface for downloading test result
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 0º and 180º. 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 results 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.
- 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.
### SPECIFICATIONS

<table>
<thead>
<tr>
<th>RCD Test Ranges (to EN61557-6)</th>
<th>RCD Testers</th>
</tr>
</thead>
</table>
| **Supply voltage** | RCDT310: 100 V - 280 V 45Hz to 65 Hz  
RCDT320: 50 V - 280 V 45Hz to 65 Hz  
RCDT330: 50 V - 280 V 45Hz 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** | Range ac: 0V - 300V 25Hz to 450Hz  
Accuracy: ±2% ±2 digits |
| **Frequency measurement** | Range: 25Hz to 450Hz  
Accuracy: 25.0Hz to 199.9Hz ±0.1Hz  
200Hz to 450Hz ±1Hz |
| **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)** | 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 |
### RCDT300 Series
Residual Current Device Testers

#### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Item (Qty)</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCDT310 RCD Tester 30, 100, 300, 500 mA</td>
<td>RCDT310-EN-BS</td>
</tr>
<tr>
<td>Included Accessories</td>
<td></td>
</tr>
<tr>
<td>Mains plug test lead (BS1363)</td>
<td>6220-740</td>
</tr>
<tr>
<td>RCDT320 RCD Tester 10, 30, 100, 300, 500,1000 mA</td>
<td>RCDT320-EN-BS</td>
</tr>
<tr>
<td>Included Accessories</td>
<td></td>
</tr>
<tr>
<td>Mains plug test lead (BS 1363)</td>
<td>6220-740</td>
</tr>
<tr>
<td>Test lead set and crocodile clips</td>
<td>6220-784</td>
</tr>
<tr>
<td>RCDT330 RCD Tester 10, 30, 100, 300, 500,1000 mA</td>
<td>RCDT330-EN-BS</td>
</tr>
<tr>
<td>Included Accessories</td>
<td></td>
</tr>
<tr>
<td>Mains plug test lead (BS1363)</td>
<td>6220-740</td>
</tr>
<tr>
<td>Test lead set and crocodile clips</td>
<td>6220-784</td>
</tr>
</tbody>
</table>

**Included Accessories**

- Mains plug test lead (CEE 7/7) 6220-741
- Test lead set and crocodile clips (2 wire) 6220-784

**Optional Accessories for all RCDT’s**

- Test lead set and crocodile clips (2 wire) 6220-784

**BS = BS1363 plug**

**AU = AS/NZS3112 plug**

**SC = CEE7/7 plug**

---

**Safety**

Meets the requirements of IEC61010-1 Cat III 300V 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:
  - Part 1-General Requirements
  - Part 4-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 980gms

**Dimensions**

All units 203 x 148 x 78 mm

**E.M.C.**

In accordance with IEC61326-1

---

**BS = BS1363 plug**

**AU = AS/NZS3112 plug**

**SC = CEE7/7 plug**

---

**UK**

Archcliffe Road
Dover
CT17 9EN
England
T +44 (0) 1304 502101
F +44 (0) 1304 207342

---

**UNITED STATES**

4271 Bronze Way
Dallas T X75237-1019
USA
T 800 723 2861 (USA only)
T +1 214 333 3201
F +1 214 331 7399

---

**OTHER TECHNICAL SALES OFFICES**

Norristown USA, Toronto CANADA,
Mumbai INDIA, Trappes FRANCE,
Sydney AUSTRALIA, Madrid SPAIN
and the Kingdom of BAHRAIN.

---

Registered to ISO 9001:2000 Reg no. Q 09290
Registered to ISO 14001 Reg no. EMS 61597

RCDT300_DS_en_V04
www.megger.com
Megger is a registered trademark