LT300 Series
Loop Impedance Testers

- **Non-tripping loop tester**
- **3 Phase safe**
- **Single or phase-phase loop testing**
- **Testing on 50 V to 480 V a.c. supplies**
- **Easy Intuitive operation**
- **Tough rubber armoured case with built-in cover**
- **Weatherproof to IP54**
- **Result storage and downloading**
- **Download software included**
- **USB interface**

DESCRIPTION

Megger LT300 series features:
Non-tripping loop test

- RCDs rated 30 mA or greater are not tripped by LT300 loop testers, even electronic RCDs .
- 3 wire low current non-tripping loop test provides measurements from 0.01 ohms to 2 kΩ, with a resolution of 0.01 Ω up to 10 ≈ .
- Two wire high current test is provided where RCD connection is not an issue.
- All tests are auto-ranging, with no range changing required over the entire 2 kΩ measurement range.

Single and 3 phase testing

- Three phase safe – Megger LT300 testers will not be damaged if connected across phases.
- The LT310 operates over a voltage range of 100 to 280 V, for single phase testing.
- The LT300 series operate over a voltage range from 50 V to 480 V which allows single and three phase testing.
- Frequency and phase rotation can be measured with the LT300 series.
- Supply voltage can be measured with all testers.

PFC display

- Saves the operator time as Prospective Fault Current is displayed, - no need to calculate it from voltage and impedance measurements.

L-N-E polarity indicators

- Three bright LEDs indicate correct supply and test lead connection.

Tough:-

- Designed to take the bashing that testers receive on site, the Megger LT loop 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 LT.
- Colour coded ranges help test range selection, reducing errors and test times.
- 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.

Max Zs display

- No need to make a note of the maximum value of Zs the LT320/330 displays the loop test reading, returning to the highest reading taken.

R1+R2 display

- R1+R2 result is calculated for the user by the LT320/330.

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

- Safety Interlock – prevents unsafe connection of test leads
- 3 Phase safe - Even if the LT is connected across phases, the instruments will remain safe and not be damaged.
- Test inhibit – If the supply voltage exceeds 280V (LT310) or 480 V (LT320/330) testing will be inhibited.

All the Megger LT300 series Loop 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 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 LT330 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.

APPLICATIONS

Designed for testing live installations, the LT300 series has applications in all aspects of domestic, commercial and industrial electrical contracting, building maintenance, testing and inspection.

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.

LT300 series benefits include:

	LT310	LT320	LT330
Loop testing			
3 wire non-tripping loop testing	■	■	■
2 wire test (high current)	■	■	■
Single phase loop testing	■	■	■
Phase-Phase loop testing		■	■
L-N-E polarity indicators	■	■	■
PFC display	■	■	■
Phase rotation indicator		■	■
Voltage measurement	■	■	■
Frequency measurement		■	■
Max Zs display		■	■
R1+R2 display		■	■
Features			
3 Phase Safe	■	■	■
Large clear display	■	■	■
Backlight		■	■
Battery status indication	■	■	■
Auto power down	■	■	■
Fuse blown indication	■	■	■
Locking test button	■	■	■
IP54 Weatherproof	■	■	■
Accepts rechargeable batteries	■	■	■
1000 TEST result storage			■
Downloading			■
USB Interface			■
Included Accessories			
Plug ended test lead	■	■	■
3 wire ended test lead probe/croc clip ended		■	■
Full Calibration Certificate	■	■	■
IEC61010-1 300V CATIII	■	■	■
EN61557	■	■	■

SPECIFICATION

Voltage measurement

Range
LT310, LT320, LT330: 0 V - 500 V

Accuracy: ±2% ±2 digits

Frequency measurement (LT320/330)

Range: 25Hz to 450Hz

Accuracy: 25.0Hz to 199.9Hz ±0.1Hz

200Hz to 450Hz ±1Hz

Phase rotation indicator (LT320/330)

Three wire identification of phase rotation.

Loop ranges (to EN 61557-3)

No Trip Loop 3-wire (Line to Earth)

Supply: 100 V - 280 V 45Hz to 65Hz (LT310)

50 V – 480 V 45Hz to 65Hz (LT320/330)

Nominal test current: 15 mA

0.01 Ω - 9.99 Ω (±5% ±0.03 Ω)

10.0 Ω - 99.9 Ω (±5% ±0.5 Ω)

100 Ω - 999 Ω (±5% ±5 Ω)

1.00 kΩ - 2.00 kΩ (±5% ±30 Ω)

Line/Line(Three phase) (LT320/330)

Supply: 50 V - 480 V 45Hz to 65Hz

Nominal Test Current: 0.25 to 2.4 A

0.01 Ω -19.99 Ω (±5% ±0.03 Ω)

Line/Earth (Single phase)

Supply: 100 V - 280 V (LT310)

50 V – 280 V (LT320/330)

Frequency: 45Hz to 65Hz

Nominal Test Current: 15 mA to 1.4 A

Loop accuracy:

0.01 Ω - 9.99 Ω	(±5% ±0.03 Ω)
10.0 Ω - 99.9 Ω	(±5% ±0.5 Ω)
100 Ω - 999 Ω	(±5% ±5 Ω) (NOT specified @ 50 V a.c.)
1.00 kΩ - 2.00 kΩ	(±5% ±30 Ω) (NOT specified @ 50 V a.c.)

Prospective Fault Current (PSCC)

Prospective fault current = Nominal Voltage / Loop resistance
Accuracy is derived from loop test

1 A - 199 A	1 A resolution
0.20 kA - 1.99 kA	10 A resolution
2.0 kA - 19.9 kA	1 kA resolution

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

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.

Al data can be downloaded to a PC using Download Manager (supplied) or Megger Powersuite Professional Windows software

Communications

USB interface

Safety

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

EN61557

Complies with the following parts of 61557,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

Part3-Loop resistance

Power supply

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

Rechargeable: 8 x 1.2V 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

ORDERING INFORMATION

Item (Qty)	Order Code
LT310 Single phase loop tester	LT310-EN-BS
LT320 Single & 3 phase loop tester	LT320-EN-BS
LT330 Single & 3 phase loop tester	LT330-EN-BS
Included Accessories	
3 wire test lead set and crocodile clips	6220-782
Mains plug test lead (BS 1363)	6220-740
10 A fused lead set	6220-827
LT310 Single phase loop tester	LT310-EN-AU
LT320 Single & 3 phase loop tester	LT320-EN-AU
LT330 Single & 3 phase loop tester	LT330-EN-AU
Included Accessories	
3 wire test lead set and crocodile clips	6220-782
Mains plug test lead (AS/NZS 3112)	6220-790

Item (Qty)	Order Code
LT310 Single phase loop tester	LT310-EN-SC
LT320 Single & 3 phase loop tester	LT320-EN-SC
LT330 Single & 3 phase loop tester	LT330-EN-SC
Included Accessories	
3 wire test lead set and crocodile clips	6220-782
Mains plug test lead CEE 7/7	6220-741
Optional Accessories for all LT's	
PowerSuite Pro-Lite 16th	
Fused leads	6220-789
Bonded leads	6231-586
USB lead 1.8 m	25970-041
BS = BS1363 plug	
AU = AS/NZ253112 plug	
SC = CEE7/7 plug	

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