# Megger.

# 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 k $\Omega$ , with a resolution of 0.01  $\Omega$  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			



Operating Range:Soft of - 40°CRangeCorrection:95% R.H. at +40°C max.Range: $25\% \pm 2$ digsSoft of a 0°CAccuracy: $22\% \pm 2$ digsMaximulation:200mFrequency messare50% L or 50% CSoft of a 0°CRange: $25\% \pm 2$ digsIniteSoft of a 0°C $2002307$ $20025 \pm 2.0000$ Environmental Portonico:15%Range: $20025 \pm 2.00000$ Soft of a 0°CSoft of a 0°C $20025 \pm 2.00000000000000000000000000000000000$	SPECIFICATION Voltage measurement		•	Temperature and humidity			
Transmit Production of Produc					$-5^{\circ}$ C to $+40^{\circ}$ C		
Accuracy: (T320330) Range: $\pm 23 \pm 2 \pm 0$ (Maximum altitude:: $400 \pm 0 \pm 0$ 	0		Operating Humi	idity:	93% R.H. at $+40^{\circ}$ C max.		
requency (T22030) Range:20Hz → 50Hz 25Hz to 5HzBankronmantal Protection:200H 25H to 5HZRange:25Hz to 5HZ 20HZ → 1999Hz ±0.1HZ 20HZ → 50HZ 20HZ → 150HZDistribution Board → 20HZ → 15HZ99 locationsPhase rotation10HZ → 450HZ 20HZ → 15HZ21HZ 20HZ → 15HZDistribution Board → 20HZ → 15HZ99 locationsPhase rotation10HZ → 450HZ 20HZ → 15HZ21HZ 20HZ → 15HZDistribution Board → 20HZ → 15HZ99 locationsPhase rotation10HZ → 15HZ 20HZ → 15HZ21HZ 20HZ → 15HZDistribution Board → 20HZ → 15HZ99 locationsPhase rotation10HZ → 15HZ 20HZ → 15HZ21HZ 20HZ → 15HZDistribution Board → 20HZ → 15HZ99 locationsNoting Loop 3+WIF Line DETT10HZ → 15HZ 20HZ → 15HZCircuits: 20HZ → 15HZ12HZ → 15HZ 20HZ → 15HZ12HZ → 15HZ 20HZ → 15HZSupply:10V - 28U ∨ 45HZ to 65HZ 20HZ → 25HZCommunications 20HZ → 15HZSafety 20HZ → 15HZ100 Ω - 999 Q (±5% ±0.5 U5HZ LI 32HZ 20HZ → 15HZSafety 20HZ → 15HZSafety 20HZ → 15HZ100 Ω - 999 Q (±5% ±0.5 U5HZ LI 32HZ 20HZ → 15HZSafety 20HZ → 15HZSafety 20HZ → 15HZ100 Ω - 999 Q (±5% ±0.5 U5HZ LI 32HZ 20HZ → 15HZSafety 20HZ → 15HZSafety 20HZ → 15HZ100 Ω - 999 Q (±5% ±0.5 U5HZ LI 32HZ 20HZ → 15HZSafety 20HZ → 15HZSafety 20HZ → 15HZ100 Ω - 1999 Q (±5% ±0.5 U5HZ LI 32HZ 20HZ → 15HZSafety 20HZ → 15HZSafety 20HZ → 15HZ	, ,			Storage Range:		$-25^{\circ}$ C to $+70^{\circ}$ C	
Informemeter in the formation in the formatio	•		0	Maximum altitu	de:	2000m	
Range:25 Hz u 450 HzCast Result Storger U=00 U=000 (000 Mumber)Set Result Storger U=00 (000 M		suremen	t	Environmental I	Environmental Protection: IP54		
Accuracy: $250 Hz$ to $199 Phz \pm 0.1 Hz$ Distribution Boar I on: $99$ locations $200 Hz$ to $450 Hz$ $\pm 1Hz$ Distribution Boar I on: $99$ locationsPhase rotation: $(1220/300)$ $Groutis:$ $99$ locationsThree wire identification of phase rotation: $Iast recorded result may be recalled to the display.Loop ranges (U \ge 0.55 Hz (U3300)Iast recorded result may be recalled to the display.No Trip Loop 3-wire:Iast recorded result may be recalled to the display.No Trip Loop 3-wire:Iast recorded result may be recalled to the display.No Trip Loop 3-wire:Iast recorded result may be recalled to the display.No Trip Loop 3-wire:Iast recorded result may be recalled to the display.No Trip Loop 3-wire:Iast recorded result may be recalled to the display.No Trip Loop 3-wire:Iast recorded result may be recalled to the display.No Dir 0- 999 Q (\pm 5\% \pm 0.05 Hz (I3320/300)SafetyNo \Omega - 999 Q (\pm 5\% \pm 0.5 \nablaSafetyIaot Racy and Racy and$		25Hz to	450Hz		rage (100		
	Accuracy:	25.0Hz 1	to 199.9Hz ±0.1Hz	-			
Phase rotation indicator       Places:       Pl. P2, P3         Intere wire identification of place rotation.       East recorded result may be called to the display.         Loop ranges (to EV 61557)       Al data can be downloaded to a PC using Download Manager (supplied) or Megger Powersuite Professional Windows software         Supply:       100 V - 280 V 45Hz to 65Hz (LT320/300)       Communication:         Nominal test current:       50 V - 480 V 45Hz to 65Hz (LT320/300)       USB interface         Noninal test current:       50 V - 480 V 45Hz to 65Hz (LT320/300)       Safety         Noninal test current:       50 V - 480 V 45Hz to 65Hz (LT320/300)       Safety         Noninal test current:       50 V - 480 V 45Hz to 65Hz (LT320/300)       Safety         No 0.0 0.999.0 ( $\pm$ 5% $\pm$ 0.5 V       Safety       Meets the requirements of IEC61010-1 Cat III 300V phase to earth.         10.0 0.2 0.999.0 ( $\pm$ 5% $\pm$ 0.5 V       Safety       Meets the requirements of IEC61010-1 Cat III 300V phase to earth.         10.0 0.2 0.999.0 ( $\pm$ 5% $\pm$ 0.5 V       Safety       Meets the requirements of IEC61010-1 Cat III 300V phase to earth.         10.0 0.2 0.999.0 ( $\pm$ 5% $\pm$ 0.5 V       Safety       Meets the requirements of IEC61010-1 Cat III 300V phase to earth.         Supply:       50 V - 480 V 45Hz to 65Hz       Complies with the following parts of 61557.Electrical safety in low voltage systems up to 1000 V ac and 1500 V de. Equipment for tests		200Hz t	o 450Hz ±1Hz	Distribution Boa	ard no.:	99 locations	
Three wire identification of phase rotation. Loop ranges (to EN 61557-3) No Trip Loop 3-wire (Line to Earth) Supply: $100 V \cdot 280 V 45Hz$ to $65Hz$ (LT310) 50 V - 480 V 45Hz to $65Hz$ (LT300) 50 V - 480 V 45Hz to $65Hz$ (LT300) 50 V - 480 V 45Hz to $65Hz$ (LT300) 50 V - 480 V 45Hz to $65Hz$ (LT300) $00 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.03 \Omega$ ) $100 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $100 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $100 Q - 9.99 \Omega$ ( $\pm 5\% \pm 30 Q$ ) Lioe/Line(Three phase) (LT2C/330) Supply: $50 V - 480 V 45Hz$ to $65Hz$ Nominal Test Current: $0.25 to 2.4 A$ $0.01 \Omega - 1.99 9 \Omega$ ( $\pm 5\% \pm 0.05 \Omega$ ) Line/Line(Three phase) Line/Line(Three phase) (LT2C/330) Eine/Line(Three phase) (LT3C/330) Eine/Line(Three phase) (LT3C/330) Eine/Line(Three phase) (LT3C/330) Eine/Line(Three phase) (LT3C/330) Eine/Line(Three phase) (LT3C/330) Eine(Three ph	Phase rotation i	indicato	r	Circuits:		99 locations	
$ \begin{array}{c c c c c } \mbox{Line terms between the last recorded result may be recalled to the display.} In the last recorded result may be recalled to the display. In the last recorded result may be recalled to the display. In the last recorded result may be recalled to the display. In the last recorded result may be recalled to the display. In the last recorded result may be recalled to the display. In the last recorded result may be recalled to the display. In the last recorded result may be recalled to the display. In the last recorded result may be recalled to the display. In the last recorded result may be recalled to the display. In the last recorded result may be recalled to the display. In the last recorded result may be recalled to the display. In the last recorded result may be recalled to the display. In the last recorded result may be recalled to the display. In the last recorded result may be recalled to the display. In the last recorded result may be recalled to a PC using Download Manager (supplied) or Megger Powersulte Professional Windows software Communications US is interface. It is not software to the display. In the last recorded result may be recalled to a PC using Download Manager (supplied) or Megger Powersulte Professional Windows software (US is 10, 00 + 999 0, (±5% ±0.5 \square). Using recorder result may be recalled to a PC using Download Manager (supplied) or Megger Powersulte Professional Windows software (US is 10, 00 + 999 0, (±5% ±0.5 \square). Using recorder result may be recalled to a PC using Download Manager (supplied) or Megger Powersulte Professional Windows software (US is 10, 00 + 999 0, (±5% ±0.5 \square). For the observation of the display. In the last recorder result may be recalled to a PC using Download Manager (supplied) or Megger Powersulte Professional Windows software (US is 10, 00 + 999 0, (±5% ±0.5 \square). Complex with the following parts of 61557, Electrical safety in low voltage systems up to 1000 V ac and 1500 V dc Equipment for test ing, measuring or monorecurve measures: P$			1	Phases:		P1, P2, P3	
No Trip Loop 3-wire (Line to Earth)National data can be downloaded to a PC oblig Downloaded manager (supprised of a PC oblig Downloaded manager (supprised Downloade				Last recorded resu	ult may be re	ecalled to the display.	
SolutionCommunications $50 V - 480 V$ 45Hz to 65Hz (II320/330)USB interfaceNominal test current: 15 mJSafety $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ )Meets the requirements of IEC61010-1 Cat III 300V phase to earth. $1.00 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ )EN61557 $100 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ )Complies with the following parts of 61557, Electrical safety in low volage systems up to 1000 V ac and 1500 V dc- Equipment for test- ing, measuring or monitoring of protective measures: $1.00 k\Omega - 2.00 k\Omega (\pm 5\% \pm 30 \Omega)$ So V - 480 V 45Hz to 65HzNominal Test Current:0.25 to 2.4 A 0.01 $\Omega - 19.99 \Omega$ ( $\pm 5\% \pm 0.03 \Omega$ ) $2.1me/Eleft (Single phase)$ So V - 280 V (IT310) $50 V - 280 V$ (IT320/330) $1.me/Earth (Single phase)$ Ion V - 280 V (IT320/330)Frequency: $45Hz$ to 65HzNominal Test Current: $100 V - 280 V$ (IT320/330)Frequency: $5m Ato 1.4 A$ Loop accuracy: $5m Ato 1.4 A$ $1.00 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega - 9.99 \Omega$ ( $\pm 5\% \pm 0.5 \Omega$ ) $0.01 \Omega $							
South Control (and densities)Nominal test current: $15 \text{ mJ}$ Safety $0.01 \Omega - 9.99 \Omega (\pm 5\% \pm 0.03 \Omega)$ Meets the requirements of IEC61010-1 Cat III 300V phase to earth. $10.0 \Omega - 9.99 \Omega (\pm 5\% \pm 0.5 \Omega)$ EN61557 $100 \Omega - 999 \Omega (\pm 5\% \pm 5 \Omega)$ Complies with the following parts of 61557, Electrical safety in low voltage systems up to 1000 V ac and 1500 V dc Equipment for test- ing, measuring or monitoring of protective measures: $100 k\Omega - 2.00 k\Omega (\pm 5\% \pm 30 R)$ Part1-General Requirements $100 k\Omega - 2.00 k\Omega (\pm 5\% \pm 0.5 \Omega)$ $0.01 \Omega - 19.99 \Omega (\pm 5\% \pm 0.03 \Omega)$ $100 V - 280 V (IT310)$ $0 V - 280 V (IT310)$ $0 V - 280 V (IT320)30)$ Part2 - Consecutive tests $100 V - 280 V (IT310)$ $0 V - 280 V (IT320)30)$ Sattery: $8 \times 1.2V$ NiCd or NiMH cells. $100 V - 280 V (IT320)30)$ Sattery Life: $2000$ consecutive tests $100 \Omega - 290 \Omega (\pm 5\% \pm 0.5 \Omega)$ Dimensions $All units 980gms$ $0.01 \Omega - 9.99 \Omega (\pm 5\% \pm 0.5 \Omega)$ Dimensions $All units 203 x 148 x 78 mm$ $0.01 \Omega - 9.99 \Omega (\pm 5\% \pm 5 \Omega) (NOT specified @ 50 V a.c.)$ EM.C. In accordance with IEC61326-1	Supply:	100 V - 2	280 V 45Hz to 65Hz (LT310)	Communicatio	ns		
Safey RestanceSafey Restance $0.0 \Omega - 9.9.0 (\pm 5\%) = 0.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5$	50 V -		80 V 45Hz to 65Hz (LT320/330)	USB interface	USB interface		
0.01 Ω - 9.99 Ω (±5% ±0.03 Ω)Meets the requirements of IEC61010-1 Cat III 300V phase to earth.100 Ω - 999 Ω (±5% ±0.5 Ω)EN61557100 Ω - 999 Ω (±5% ±5 Ω)Complies with the Gluving parts of 61557, Electrical safety in low voltage systems up to 1000 V ac and 1500 V dc. Equipment for test- ing, measuring or measuring of protective measures:Line/Line/Line(Three phase) (JT20/330)Part1-General RequirementsSupply:50 V - 480 V 45Hz to 65HzNominal Test Current:0.25 to 2.4 A 0.01 Ω - 19.99 Ω (±5% ±0.03 Ω)0.10 Ω - 19.99 Ω (±5% ±0.03 Ω)Power supply:100 V - 280 V (IT310) 50 V - 280 V (IT320/330)8x 1,5 V cells IEC LR6 type (AA alkaline).Erequency:100 V - 280 V (IT320/330)Frequency:45Hz to 65HzNominal Test Current:15 m A to 1.4 ALoop accuracy:15 m A to 1.4 ALine/Line(Line)S0 Ω (±5% ±0.03 Ω)0.01 Ω - 9.99 Ω(±5% ±0.0) (NOT specified @ 50 V a.c.)0.01 Ω - 9.99 Ω(±5% ±0.0) (NOT specified @ 50 V a.c.)0.01 Ω - 9.99 Ω(±5% ±0.0) (NOT specified @ 50 V a.c.)0.01 Ω - 9.99 Ω(±5% ±0.0) (NOT specified @ 50 V a.c.)0.01 Ω - 9.99 Ω(±5% ±0.0) (NOT specified @ 50 V a.c.)0.01 Ω - 9.99 Ω(±5% ±0.0) (NOT specified @ 50 V a.c.)0.01 Ω - 9.9	Nominal test cur	rent: 15 n	nA	Calata			
10.0 $\Box$ - 999 $\Omega$ ( $\pm$ 5% $\pm$ 0.0 $\Box$ - 500 $\Box$ - 500 $\Box$ - 500 $\Box$ EN615710.0 $\Box$ - 999 $\Omega$ ( $\pm$ 5% $\pm$ 0.0 $\Box$ - 500 $\Box$ -	0.01 Ω - 9.99 Ω (±	5% ±0.03	Ω)	•	-		
Note (a) (1 = 0.1)1.00 kΩ - 2.00 kΩ ( $\pm 5\% \pm 30$ Ω)voltage systems up to 1000 V ac and 1500 V dc- Equipment for testing, measuring or monitoring of protective measures:1.00 kΩ - 2.00 kΩ ( $\pm 5\% \pm 30$ Q)50 V - 480 V 45Hz to 65HzPart1-General RequirementsNominal Test Current:0.25 to 2.4 APower supply0.01 Ω - 19.99 Ω ( $\pm 5\% \pm 0.03$ Ω)00 V - 280 V (LT310)8 x 1,5 V cells IEC LR6 type (AA alkaline).Supply:100 V - 280 V (LT310)8 x 1.2V NiCd or NiMH cells.Supply:00 V - 280 V (LT320)30)8 tetry Life:2000 consecutive testsFrequency:45Hz to 65HzWeightAll units 980gmsNominal Test Current:15 mA to 1.4 ADimensionsAll units 203 x 148 x 78 mmLoop accuracy:( $\pm 5\% \pm 0.3$ Ω)(NOT specified @ 50 V a.c.)In accordance with U-50 (326-1)100 Ω - 999 Ω( $\pm 5\% \pm 5$ Ω) (NOT specified @ 50 V a.c.)In accordance with U-50 (326-1)100 Ω - 999 Ω( $\pm 5\% \pm 5$ Ω) (NOT specified @ 50 V a.c.)In accordance with U-50 (326-1)	10.0 Ω - 99.9 Ω (±	5% ±0.5 Ω	2)				
1.00 k $\Omega$ - 2.00 k $\Omega$ ( $\pm$ 5% $\pm$ 30 $\Omega$ )ing, measuring or monitoring of protective measures:Line/Line(Three phase) (LTZ0/330)ing, measuring or monitoring of protective measures:Supply:50 V - 480 V 45Hz to 65HzNominal Test Current:0.25 to 2.4 A0.01 $\Omega$ -19.99 $\Omega$ ( $\pm$ 5% $\pm$ 0.03 $\Omega$ )Line/Earth (Single phase)0.01 $\Omega$ -19.99 $\Omega$ ( $\pm$ 5% $\pm$ 0.03 $\Omega$ )Supply:100 V - 280 V (LT310)50 V - 280 V (LT320/330)8x 1.2V NiCd or NiMH cells.Battery Life:2000 consecutive testsSupply:100 V - 280 V (LT320/330)Frequency:45Hz to 65HzNominal Test Current:15 m A to 1.4 ALoop accuracy:15 m A to 1.4 AOl $\Omega$ - 9.99 $\Omega$ ( $\pm$ 5% $\pm$ 0.03 $\Omega$ )10.0 $\Omega$ - 9.99 $\Omega$ ( $\pm$ 5% $\pm$ 0.5 $\Omega$ )100 $\Omega$ - 9.99 $\Omega$ ( $\pm$ 5% $\pm$ 0.5 $\Omega$ )100 $\Omega$ - 9.99 $\Omega$ ( $\pm$ 5% $\pm$ 0.5 $\Omega$ )100 $\Omega$ - 9.99 $\Omega$ ( $\pm$ 5% $\pm$ 5 $\Omega$ ) (NOT specified @ 50 V a.c.)100 $\Omega$ - 9.99 $\Omega$ ( $\pm$ 5% $\pm$ 5 $\Omega$ ) (NOT specified @ 50 V a.c.)100 $\Omega$ - 9.99 $\Omega$ ( $\pm$ 5% $\pm$ 5 $\Omega$ ) (NOT specified @ 50 V a.c.)100 $\Omega$ - 9.99 $\Omega$ ( $\pm$ 5% $\pm$ 5 $\Omega$ ) (NOT specified @ 50 V a.c.)100 $\Omega$ - 9.99 $\Omega$ ( $\pm$ 5% $\pm$ 5 $\Omega$ ) (NOT specified @ 50 V a.c.)	100 Ω - 999 Ω (±59	% ±5 Ω)					
Line/Line(Three phase) (LT20/330)Part1-General RequirementsSupply: $50 V - 480 V 45Hz to 65Hz$ Part1-General RequirementsNominal Test Current: $0.25 to 2.4 A$ Power supply $0.01 \Omega - 19.99 \Omega (\pm 5\% \pm 0.03 \Omega)$ Power supplyBattery: $8 \times 1.5 V$ cells IEC LR6 type (AA alkaline).Line/Earth (Single phase) $100 V - 280 V (LT310)$ Rechargeable: $8 \times 1.2V$ NiCd or NiMH cells.Supply: $100 V - 280 V (LT320/330)$ Battery Life: $2000$ consecutive testsFrequency: $45Hz$ to 65HzWeightAll units 980gmsNominal Test Current: $5 mA to 1.4 A$ DimensionsAll units 203 x 148 x 78 mmLoop accuracy: $(\pm 5\% \pm 0.03 \Omega)$ $(\pm 5\% \pm 0.5 \Omega)$ In accordance with EC61326-1 $0.01 \Omega - 9.99 \Omega$ $(\pm 5\% \pm 0.5 \Omega)$ In accordance with EC61326-1 $0.01 \Omega - 9.99 \Omega$ $(\pm 5\% \pm 5 \Omega)$ (NOT specified @ 50 V a.c.)In accordance with EC61326-1 $0.01 \Omega - 9.99 \Omega$ $(\pm 5\% \pm 5 \Omega)$ (NOT specified @ 50 V a.c.)In accordance with EC61326-1 $0.01 \Omega - 9.99 \Omega$ $(\pm 5\% \pm 5 \Omega)$ (NOT specified @ 50 V a.c.)In accordance with EC61326-1 $0.01 \Omega - 9.99 \Omega$ $(\pm 5\% \pm 5 \Omega)$ (NOT specified @ 50 V a.c.)In accordance with EC61326-1 $0.01 \Omega - 9.99 \Omega$ $(\pm 5\% \pm 5 \Omega)$ (NOT specified @ 50 V a.c.)In accordance with EC61326-1 $0.01 \Omega - 9.99 \Omega$ $(\pm 5\% \pm 5 \Omega)$ (NOT specified @ 50 V a.c.)In accordance with EC61326-1 $0.01 \Omega - 9.99 \Omega$ $(\pm 5\% \pm 5) \Omega$ (NOT specified @ 50 V a.c.)In accordance with EC61326-1 $0.01 \Omega - 9.99 \Omega$ $(\pm 5\% \pm 5) \Omega$ (NOT specified	1.00 kΩ - 2.00 kΩ (±5% ±30 Ω)						
Supply: $50 \vee 480 \vee 45Hz$ to $65Hz$ $Part3-Loop resistanceNominal Test Current:0.25 to 2.4 APart3-Loop resistance0.10 \Omega - 19.99 \Omega (\pm 5\% \pm 0.03 \Omega)Power supplyBattery:8 \times 1.5 \vee cells IEC LR6 type (AA alkaline).Line/Earth (Single phase)100 \vee 280 \vee (LT310)Rechargeable:8 \times 1.2 \vee NiCd or NiMH cells.Supply:100 \vee -280 \vee (LT320)330Battery:2000 consecutive testsFrequency:45Hz to 65HzWeightAll units 980gmsNominal Test Currer:15 \text{ mA to } 1.4 \text{ A}DimensionsAll units 203 x 148 x 78 mmLoop accuracy:(\pm 5\% \pm 0.5 \Omega)(\pm 5\% \pm 0.5 \Omega)naccordance with Euclestance with Eucles$			0. 0				
Nominal Test Current: $0.25 \text{ to } 2.4 \text{ A}$ Power supply: $0.01 \Omega - 19.99 \Omega (\pm 5\% \pm 0.03 \Omega)$ $Power supply:$ $8 \times 1,5 \vee \text{cells IEC LR6 type (AA alkaline).}$ Line/Earth (Single phase) $100 \vee -280 \vee (LT310)$ $Rechargeable:$ $8 \times 1.2 \vee \text{NiCd or NiMH cells.}$ Supply: $100 \vee -280 \vee (LT320/330)$ $Battery Life:$ $2000 \text{ consecutive tests}$ Frequency: $45Hz \text{ to } 65Hz$ $Weight$ $All \text{ units 980gms}$ Nominal Test Current: $15 \text{ mA to } 1.4 \text{ A}$ $Dimensions$ $All \text{ units } 203 \times 148 \times 78 \text{ mm}$ Loop accuracy: $(\pm 5\% \pm 0.5 \Omega)$ $(\pm 5\% \pm 5 \Omega) (NOT specified @ 50 \vee a.c.)$ $In accordance with UEC61326-1$ $0.01 \Omega - 9.99 \Omega$ $(\pm 5\% \pm 5 \Omega) (NOT specified @ 50 \vee a.c.)$ $In accordance with UEC61326-1$ $0.01 \Omega - 2.00 \log \Omega$ $(\pm 5\% \pm 5 \Omega) (NOT specified @ 50 \vee a.c.)$ $In accordance with UEC61326-1$			50 V - 480 V 45Hz to 65Hz		Å		
$ \begin{array}{c} \text{line} \left[ \text{Sing} \right]_{\text{Sing}} & \text{Sing} \right]_{\text{Sing}} & \text{Sing} \\ \text{Supply:} & 100 \ V - 280 \ V \ (1T310) \\ & 50 \ V - 280 \ V \ (1T320/330) \\ \end{array} \\ \begin{array}{c} \text{Frequency:} & 50 \ V - 280 \ V \ (1T320/330) \\ \text{Sing} \\ Sin$	Nominal Test Cur	rrent:	0.25 to 2.4 A	*	*		
Supply: $100 V - 280 V (LT310)$ $50 V - 280 V (LT320/330)$ Battery Life: $3 \times 1.2 V N (CO O N MIT CERS.)$ Frequency: $50 V - 280 V (LT320/330)$ Battery Life: $2000$ consecutive testsFrequency: $45Hz$ to $65Hz$ WeightAll units 980gmsNominal Test Current: $15 m A$ to $1.4 A$ DimensionsAll units $203 \times 148 \times 78 mm$ Loop accuracy: $15 m A$ to $1.4 A$ E.M.C. In accordance with $E C = 1326 - 1$ $0.01 \Omega - 9.99 \Omega$ $(\pm 5\% \pm 0.5 \Omega)$ In accordance with $E C = 1326 - 1$ $100 \Omega - 999 \Omega$ $(\pm 5\% \pm 5 \Omega) (NOT specified @ 50 V a.c.)$ In accordance with $E = 120 M C = 120 M$			$0.01 \ \Omega$ -19.99 $\Omega \ (\pm 5\% \ \pm 0.03 \ \Omega)$		8 x 1,5 V	cells IEC LR6 type (AA alkaline).	
InterventionBattery Life: $2000$ consecutive tests $50 V - 280 V (LT320/330)$ Battery Life: $2000$ consecutive testsFrequency: $45Hz$ to $65Hz$ WeightAll units 980gmsNominal Test Current: $15$ mA to $1.4$ ADimensionsAll units $203 \times 148 \times 78$ mmLoop accuracy: $50 V - 280 V (LT320/330)$ In accordance with $L50 \times 150 V$ In accordance with $L50 \times 150 V = 100 V = 200 V = 100 V = $	-	le phase		Rechargeable:	8 x 1.2V	NiCd or NiMH cells.	
Frequency: $45Hz$ to $65Hz$ WeightAll units $980gms$ Nominal Test Currer: $15 mA$ to $1.4 A$ DimensionsAll units $203 \times 148 \times 78 mm$ Loop accuracy:E.M.C. In accordance with $EC61326-1$ E.M.C. In accordance with $EC61326-1$ $0.01 \Omega - 9.99 \Omega$ $(\pm 5\% \pm 0.03 \Omega)$ Image: Second test of the second test of test o	Suppry:			Battery Life:	2000 con	secutive tests	
Nominal Test Current: $15 \text{ mA to } 1.4 \text{ A}$ DimensionsAll units $203 \times 148 \times 78 \text{ mm}$ Loop accuracy:E.M.C. $0.01 \Omega - 9.99 \Omega$ $(\pm 5\% \pm 0.03 \Omega)$ In accordance with IEC61326-1 $10.0 \Omega - 99.9 \Omega$ $(\pm 5\% \pm 0.5 \Omega)$ In accordance with IEC61326-1 $100 \Omega - 999 \Omega$ $(\pm 5\% \pm 5 \Omega)$ (NOT specified @ 50 V a.c.)In accordance with IEC61326-1 $1.00 k\Omega - 2.00 k\Omega$ $(\pm 5\% \pm 30 \Omega)$ (NOT specified @ 50 V a.c.)	-			Weight	All units	980gms	
Loop accuracy:       E.M.C. $0.01 \Omega - 9.99 \Omega$ $(\pm 5\% \pm 0.03 \Omega)$ In accordance with IEC61326-1 $10.0 \Omega - 999 \Omega$ $(\pm 5\% \pm 0.5 \Omega)$ In accordance with IEC61326-1 $100 \Omega - 999 \Omega$ $(\pm 5\% \pm 5 \Omega)$ (NOT specified @ 50 V a.c.)       In accordance with IEC61326-1 $1.00 k\Omega - 2.00 k\Omega$ $(\pm 5\% \pm 30 \Omega)$ (NOT specified @ 50 V a.c.)       In accordance with IEC61326-1	· ·	mont.		Dimensions	All units	203 x 148 x 78 mm	
$0.01 \ \Omega - 9.99 \ \Omega$ $(\pm 5\% \pm 0.03 \ \Omega)$ In accordance with IEC61326-1 $10.0 \ \Omega - 99.9 \ \Omega$ $(\pm 5\% \pm 0.5 \ \Omega)$ $(\pm 5\% \pm 5 \ \Omega)$ (NOT specified @ 50 V a.c.) $1.00 \ k\Omega - 2.00 \ k\Omega$ $(\pm 5\% \pm 30 \ \Omega)$ (NOT specified @ 50 V a.c.)		irent:	1) IIIA (0 1.4 A	FMC			
$10.0 \ \Omega - 99.9 \ \Omega$ $(\pm 5\% \pm 0.5 \ \Omega)$ $100 \ \Omega - 999 \ \Omega$ $(\pm 5\% \pm 5 \ \Omega)$ (NOT specified @ 50 V a.c.) $1.00 \ k\Omega - 2.00 \ k\Omega$ $(\pm 5\% \pm 30 \ \Omega)$ (NOT specified @ 50 V a.c.)	- ·	( . <b></b>	0.02.0				
$100 \ \Omega - 999 \ \Omega$ $(\pm 5\% \pm 5 \ \Omega)$ (NOT specified @ 50 V a.c.) $1.00 \ k\Omega - 2.00 \ k\Omega$ $(\pm 5\% \pm 30 \ \Omega)$ (NOT specified @ 50 V a.c.)		·	· · · · · · · · · · · · · · · · · · ·				
Prospective Fault Current (PSCC)	100 Ω - 999 Ω	(±5% ±	(NOT specified @ 50 V a.c.) (NOT specified @ 50 V a.c.)				
	Prospective Fau	lt Curre	nt (PSCC)				

Prospective fault current = Nominal Voltage / Loop resistance

1 A resolution

10 A resolution

1 kA resolution

Accuracy is derived from loop test

1 A - 199 A

0.20 kA - 1.99 kA

2.0 kA - 19.9 kA

## Megger.

## ORDERING INFORMATION

ltem (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

ltem (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	

UK

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

#### UNITED STATES 4271 Bronze Way

T 2112 TX75237-1019 USA T 800 723 2861 (USA only) T +1 214 333 3201 F +1 214 331 7399

#### **OTHER TECHNICAL SALES OFFICES**

Sydney AUSTRALIA, Kingdom of BAHRAIN, Toronto CANADA, Trappes FRANCE, Mumbai INDIA, Madrid SPAIN, Täby SWEDEN, Johannesburg SOUTH AFRICA, Chonburi THAILAND and Norristown USA Registered to ISO 9001:2000 Cert. no. Q 09290 Registered to ISO 14001-1996 Cert. no. EMS 61597 LT300\_DS\_en\_V07

\_\_\_\_\_\_

www.megger.com Megger is a registered trademark