

MIT300 Series

Insulation and Continuity Testers



- **Extremely easy to use**
- **Tough rubber armoured case**
- **Self contained protective cover**
- **Live circuit warning**
- **Weatherproof to IP54**
- **Intelligent Safety System for protection.**

DESCRIPTION

The Megger MIT300 series features:

Digital or Analogue: The Megger MIT300, MIT310 and MIT320 all feature the popular Megger digital/Analogue display. Large 20mm high characters provide very clear readout, combined with an analogue arc for the feel of an analogue instrument, with a true analogue response.

The Megger MIT310A has a moving coil display for those who prefer a real moving needle. Black decals on a white background give high contrast, even in poor light conditions.

Tough:-

- Designed to take the bashing that testers receive on site, the Megger MIT insulation 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 MIT.
- Colour coded ranges help test selection, reducing testing time and help with 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.

- Continuity and buzzer testing starts automatically on connection to the circuit.
- Insulation tests being activated from the instrument or the switch probe.

Backlighting:-

- Both the display and the range selected can be read in the dark because the MIT 320 has a backlit display and range selection.

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

- Safety Interlock – prevents unsafe connection of test leads
- Safe contact detectors – Even if the MIT is connected to a live circuit whilst on continuity setting the tester will remain safe and not be damaged.
- Live voltage warning – alerts the operator when a circuit voltage over 25 V exists.
- Safety lockout – Prevents the test from operating when the circuit voltage is >50 V
- Continuity check – prevents a continuity test or buzzer test on a live circuit.

All the MIT instruments 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, NEN3140, ES59009 and EN 61557.

In addition the range meets the requirements of BSEN 61010-1 for safe connection to a 440 V Installation Category

III supply (600 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
- IT300 range - Loop testing
- RCDT300 range - RCD testing

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

APPLICATIONS

The MIT300 series has applications in all aspects of domestic, commercial and industrial electrical contracting, building maintenance, testing, inspection and servicing.

Combining both Insulation testing and continuity testing, each instrument caters for all aspects of fixed wiring installations.

Further applications can be found in panel building, testing of motors, generators, switchgear and power tools, street lighting and low volume manufacturing environments etc.

All the MIT300 range is supplied with a full 3 years warranty.

MIT300 SERIES BENEFITS INCLUDE:

	MIT300	MIT310	MIT320	MIT310A Analogue
Insulation testing				
250V	■	■	■	■
500V	■	■	■	■
1000V		■	■	■
Test range	999 MΩ	999 MΩ	999 MΩ	999 MΩ
Insulation limit alarm (0.01 MΩ to mΩ)			■	
Continuity testing				
Continuity to 100 Ω	■	■	■	■
Continuity buzzer	■	■	■	■
Lead null to 9ohms	■	■	■	2 Ω
Adjustable buzzer 1 to 20 Ω			■	
Audible buzzer disable			■	
Voltage measurement				
Volts AC/DC		600 V	600 V	600 V

	MIT300	MIT310	MIT320	MIT310A Analogue
Resistance measurement				
10 Ω to 1 MΩ range			■	
Features				
Voltage warning	■			
Default voltmeter		■	■	■
Backlit display			■	
Backlight selector ranges			■	
Locking test button	■	■	■	■
Auto power-down	■	■	■	
Switched test probe			■	
IP54 weatherproof	■	■	■	■
Accepts rechargeable batteries	■	■	■	■
Calibration certificate	■	■	■	
3 years warranty	■	■	■	■

SPECIFICATIONS

Insulation ranges

Nominal Test Voltage 1000 V, 500 V, 250 V (d.c.)

Measuring Range

All instruments 10 kΩ - 999 MΩ on all ranges

Short Circuit Current

1 mA nominal

Test Current on Load

1 mA at min. pass values of insulation (as specified in BS 7671, HD 384 and IEC 364)

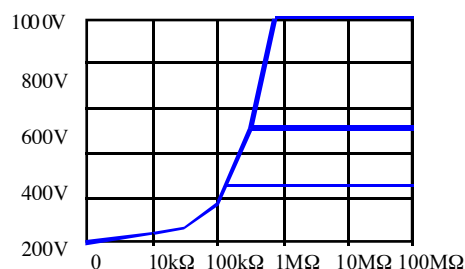
Accuracy (at 20° C)

MIT300, 310, 320, 330 ±3%, ±2 digits

MIT310A

<2.5% of scale length (or 30% of reading 200 kohm to 10 Megohms)

Terminal characteristics



Continuity ranges

Measuring Range:

0,01 Ω - 99,9 Ω (0 -50 Ω on analogue scale)

Open Circuit Voltage: 5 V ±1 V

Short Circuit Current: 205 mA, ±5 mA

Accuracy (at 20° C)

MIT300, 310, 320 ±3% ±2 digits

MIT310A

±2.5% of scale length (or 30% of reading 0.2 ohm to 200 ohms)

Zero Offset Adjust:

MIT300, 310,320 0 - 9 Ω

MIT310A 0 - 2 Ω

Continuity Buzzer

MIT300, 310 Operates at < 5 Ω

MIT320 Adjustable 1Ω to 20 Ω

MIT310A Operates at < 2 Ω

MIT300, 310,320 Response time <20 ms

MIT310A Response time <100 mS

Resistance range MIT 320 only

(can be used for diode testing)

Measuring Range: 10 Ω - 1 MΩ

Open Circuit Voltage: 5 V

Short Circuit Current: 200 μA,

Accuracy (at 20° C): ±5% ±2 digits up to 100 kΩ

Voltage range

Measuring Range: 0 - 600 V a.c. (50/60 Hz) or d.c.

Accuracy (at 20° C)

MIT300, 310, 320 <450 V d.c. or a.c. (50/60 Hz):
±1%, ±2 digits

>450 V d.c. or a.c. (50/60 Hz):
±2%, ±2 digits

MIT310A ±2.5% of scale length for 50/60Hz

Temperature coefficient: <0,1% per °C on all ranges.

Default voltmeter

all modes except off

M310, 320 >25 V a.c. or d.c. is applied display will operate as a voltmeter.

M300

Beeps and flash 'V' on the display

Test inhibit:

If more than 50 volts is detected, testing will be inhibited.

AutoPower Down

Auto power down operates after 30 minutes if left in standby mode.

Temperature and humidity

Operating Range: -10°C to +60°C

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

Storage Range: -25°C to +70°C

Environmental Protection: IP54

Fuses

Terminals 500 mA (F) 600 V, 32 x 6 mm Ceramic HBC 10 kA minimum.

Display shows if fuse is ruptured.

Safety

Meets the requirements of EN61010-1 Cat III 600 V phase to earth.

Automatic discharge

After an insulation test the item under test will be discharged automatically. Any voltage present will be indicated on the display so that the discharge can be monitored.

Power supply

Battery:

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

Rechargeable NiCd or NiMH cells may be used.

Battery condition is constantly shown on the display as a four-section bargraph.

Battery Life

5000 consecutive tests (5 seconds per test) on any test using 2Ah batteries.

Weight

All units: 980 gms

Dimensions

All units: 190 x 140 x 75 mm (203 x 148 x 78 inches)

E.M.C.

In accordance with IEC61326 including amendment No.1

ORDERING INFORMATION

Item (Qty)	Order Code	Item (Qty)	Order Code
MIT300 250 V , 500 V insulation tester	MIT300-EN	Included Accessories	
MIT310 250 V, 500 V, 1000 V insulation tester	MIT310-EN	Test lead set and crocodile clips	6220-779
MIT310A 250 V, 500 V,1000 V analogue insulation tester	MIT310A-EN	Test lead case	6220-785
MIT320 250 V, 500 V, 1000 V insulation tester	MIT320-EN	Optional Accessories	
		Fused test lead set	6220-789
		SP3 Switch probe	6220-781
		PowerSuite Pro-Lite 16th	6111-695

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

UNITED STATES
4271 Bronze Way
Dallas TX75237-1088 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,
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