

**ELECTRICAL TESTING**  
**Industrial maintenance catalogue**

**Megger**<sup>®</sup>



**EN**  
ENGLISH

# Keeping the Power on

Megger designs and manufactures more than 300 electrical test instruments and related software for testing a wide range of electrical assets. Our products contain many additional safety features to protect the user, the assets being tested, and to fail safely in the event of improper use. We use touch screen, prompts and automated routines to make testing easy and fast. We recognise that equipment can get tough treatment in the field, so all our products have high IP ratings and robust enclosures.

Megger's comprehensive range of electrical test equipment is ideal for solving problems encountered in industrial environments, including:

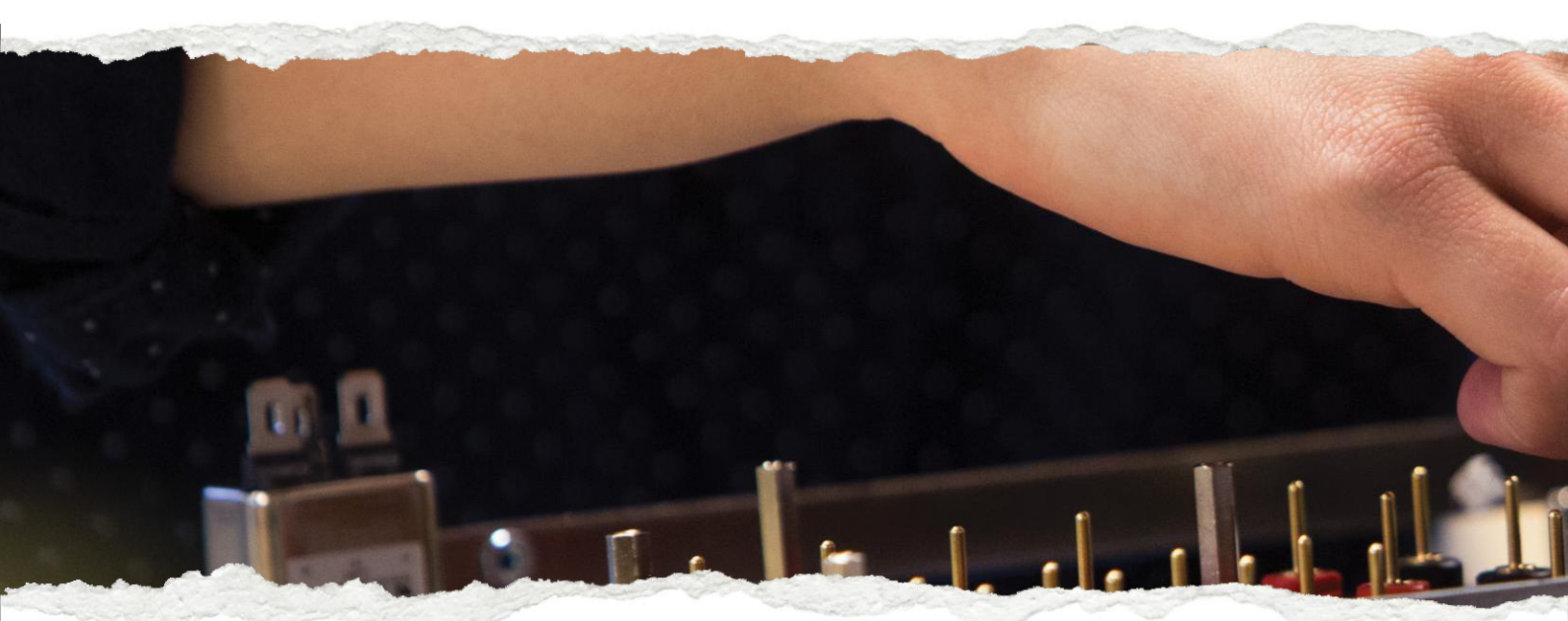
- **Insulation testing from low to high voltage AC and DC**
- **Motor and generator on-line and off-line testing**
- **Cable fault location and diagnostics**
- **Instrument and power transformer testing**
- **Protection, relay and circuit breaker testing**
- **Water leak detection and monitoring**

We have a long history of innovation that comes from working closely with our customers to solve the problems of today and tomorrow. Indeed, Megger was founded in 1889 when the British engineer Sidney Evershed invented the first megohmmeter. Megger continued to pioneer electrical testing inventions and by the early 1900's, had invented the AVO, the first analogue multimeter testing amps, volts and ohms and the origin of the AVO International company name.

Since these early days, Megger has continued to adapt to changing technology and industry demands with many inventions and patents along the way. We have also expanded the range of applications we support through acquisitions. These include:

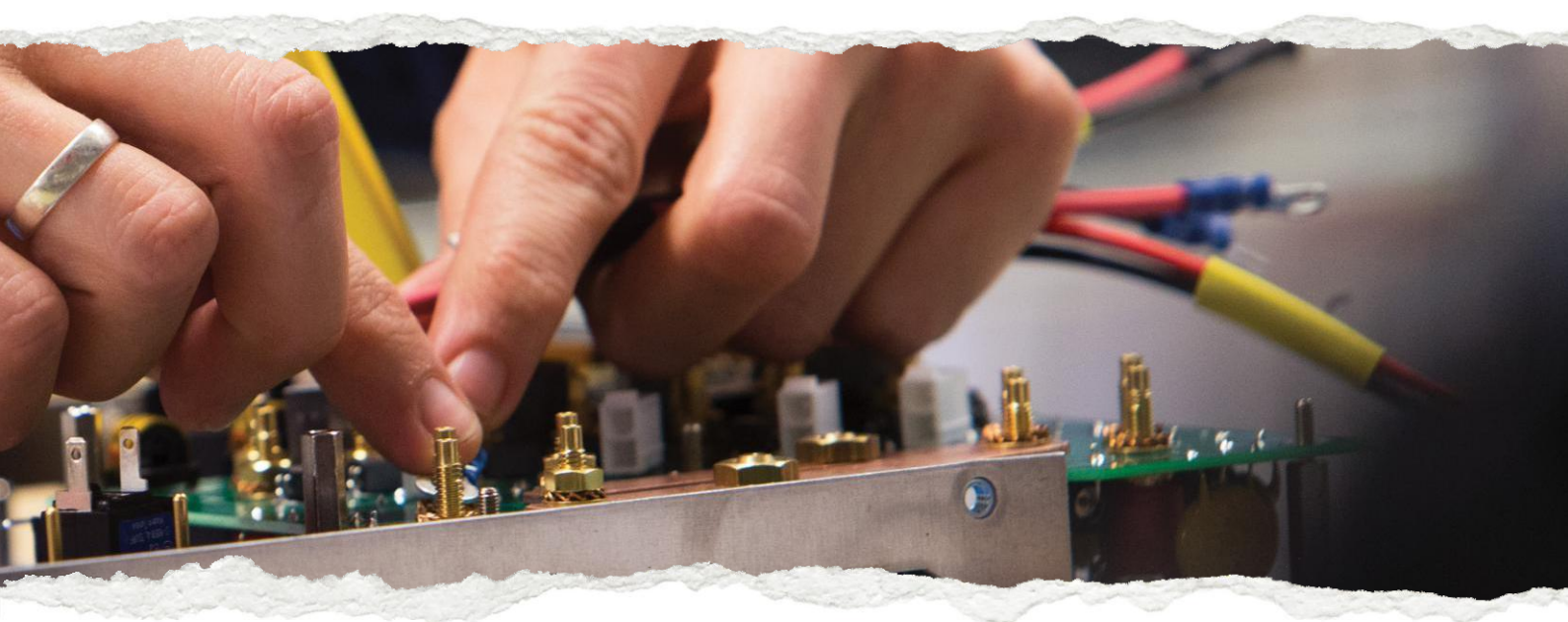
- **Progamma (Sweden) in 2005 for transformer and protection testing**
- **SebaKMT (Germany) in 2012 for cable fault location and diagnostics**
- **Baker Instruments (USA) in 2018 for motor and generator testing**
- **Power Diagnostics (Germany) in 2019 for partial discharge testing**

Megger's highly skilled application engineers, along with our global network of distributors and authorised service and repair centres, are there to help you with your buying decisions and to offer technical support during operation. We also offer a wide range of training opportunities, from introductory to advanced levels (visit [www.megger.com](http://www.megger.com) for more details) to help you keep the Power on.



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## Insulation testing

Insulation testers are Megger's best known products worldwide. In the 19th century, when the first cities became electrified in the course of the industrial revolution, Megger constructed the world's first 'hand dynamo'. This patented product generated enough voltage to measure resistances in the megohm range. Today, you can experience the exceptional accuracy, repeatability and reliability of Megger's insulation testers. Indeed, thanks to Megger's advanced guard terminal technology, you can avoid leakage currents that can distort results, giving you accurate insulation measurements quickly and efficiently.

### MIT410/2

- Insulation measurement up to 1 kV/200 GΩ
- Stabilised insulation test voltage
- Faster single range continuity check 0.01 Ω to 1 MΩ
- Test voltage continuously adjustable from 10 V to 1000 V
- 600 V TRMS AC and DC voltage measurement
- Optional rechargeable batteries with mains or 12 V charging option
- Test category CAT IV 600 V
- Protection class IP54
- Ideal for energy suppliers

**Included accessories:** Red/black silicone test leads with probes and clamps, SP5 remote probe, information CD, 6 x AA batteries, hard case



### MIT2500

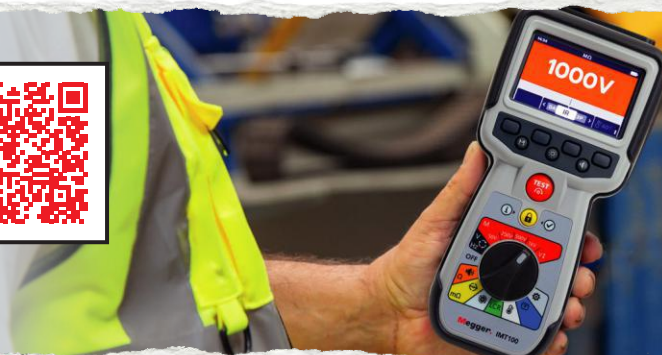
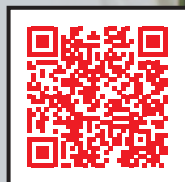
- Insulation testing up to 2.5 kV and 200 GΩ range in a hand held instrument
- Guard terminal for high resistance accuracy
- Adjustable insulation test voltage from 50 V to 2500 V
- Stabilised insulation test voltage
- Rechargeable options for mains and car charging
- Single range, faster continuity testing from 0.01 Ω to 1 MΩ
- Polarisation Index (PI) and Dielectric Absorption Ratio (DAR)
- CAT IV 600 V applications
- Includes new test voltage feedback control, which maintains the output test voltage to within 2% of the selected range, even when under test

**Included accessories:** Red/black/blue silicone test leads with prods and clips, 2.5 kV red/black/blue silicone test leads with clips, owner's information CD, batteries 6 x AA alkaline, carry case



## UNCOVER THE FACTS

Learn more about Industrial multi tester



**NEW**

## BM5200

- 1 T  $\Omega$ , 1.4 mA, 5 kV digital insulation tester with digital and analogue display
- Five test ranges; 250 V, 500 V, 1000 V, 2500 V and 5000 V
- Insulation (InS), Polarization Index (PI) and variable timed test (t) modes
- Selectable DC or AC (including frequency) voltmeter functions
- Guard terminal to shunt surface leakage currents
- CATIII 600 V safety rating

Make in India : 100% sourced and manufactured in India



## BM5500

- 1 T  $\Omega$ , 1.4 mA, 5 kV digital insulation tester with digital and analogue display
- Five test ranges; 250 V, 500 V, 1000 V, 2500 V and 5000 V
- Insulation (InS), Polarization Index (PI) and variable timed test (t) modes
- Selectable DC or AC (including frequency) voltmeter functions
- Guard terminal to shunt surface leakage currents
- CATIII 600 V safety rating

Make in India : 100% sourced and manufactured in India



## IMT100

### Industrial multi tester

- Full colour graphic display
- DC voltage and polarity test
- AC voltage, phase rotation and frequency
- Insulation resistance and surface leakage
- current detection
- 4 wire low resistance bonding test
- 2 wire continuity and diode test
- Data storage and management
- CAT III 600 V up to 3000 m
- Environmental protection to IP54
- Multipurpose industrial carrycase
- Rechargeable batteries and charger



### MIT430/2

- Insulation testing from 50 V to 1000 V
- Bluetooth® connectivity for wireless data transfer
- CAT IV 600 V safety rating
- High insulation resistance measurement up to 200 GΩ
- Stores more than 1,000 test results



### MIT515/2 & MIT525/2

- Insulation measurement up to 5 kV DC
- Measuring range to 10 TΩ
- Diagnostic function PI, DAR (MIT515) plus DD, SV and Ramp (MIT525)
- Li-ion battery, high capacity, fast charging
- PI Indicator
- Test category CAT IV 600 V
- Robust, impact-resistant outdoor carry case, protection class IP65
- Operational up to 3000 m above sea level
- CertSuite
- Light and compact only 4.5 kg
- Measurement with discharged battery - with simultaneous charging at the mains



### MIT1025/2

- 1 TΩ, 1.4 mA, 5 kV digital insulation tester with digital and analogue display
- Five test ranges; 250 V, 500 V, 1000 V, 2500 V and 5000 V
- Insulation (InS), Polarization Index (PI) and variable timed test (t) modes
- Selectable DC or AC (including frequency) voltmeter functions
- Guard terminal to shunt surface leakage currents
- CATIII 600 V safety rating



### MIT1525/2

- 1 TΩ, 1.4 mA, 5 kV digital insulation tester with digital and analogue display
- Five test ranges; 250 V, 500 V, 1000 V, 2500 V and 5000 V
- Insulation (InS), Polarization Index (PI) and variable timed test (t) modes
- Selectable DC or AC (including frequency) voltmeter functions
- Guard terminal to shunt surface leakage currents
- CATIII 600 V safety rating



# Insulation test range

■ Function    □ Option    ▲ rechargeable batteries possible

|                                  | MIT400/2 | MIT410/2 | MIT410/2 | MIT430/2 | MIT481/2 | MIT485/2 | MIT2500 | MIT515 | MIT525 | MIT1025 | MIT1525 |
|----------------------------------|----------|----------|----------|----------|----------|----------|---------|--------|--------|---------|---------|
| <b>Test voltages</b>             |          |          |          |          |          |          |         |        |        |         |         |
| 10 kV/15 kV                      |          |          |          |          |          |          |         |        |        | ■       | ■       |
| 5 kV                             |          |          |          |          |          |          |         | ■      | ■      | ■       | ■       |
| 2.5 kV                           |          |          |          |          |          |          | ■       | ■      | ■      | ■       | ■       |
| 1000 V                           | ■        | ■        | ■        | ■        | ■        | ■        | ■       | ■      | ■      | ■       | ■       |
| 500 V                            | ■        | ■        | ■        | ■        | ■        | ■        | ■       | ■      | ■      | ■       | ■       |
| 250 V                            | ■        | ■        | ■        | ■        | ■        | ■        | ■       | ■      | ■      |         |         |
| 50 V/100 V                       |          | ■        | ■        | ■        | ■        | ■        | ■       |        |        |         |         |
| <b>Insulation - Test methods</b> |          |          |          |          |          |          |         |        |        |         |         |
| Polarisation index               |          | ■        | ■        | ■        | ■        | ■        | ■       | ■      | ■      | ■       | ■       |
| Dielectric absorption ratio      |          | ■        | ■        | ■        | ■        | ■        | ■       |        | ■      | ■       | ■       |
| Step voltage/ramp                |          |          |          |          |          |          |         |        | ■      | ■       | ■       |
| Dielectric discharge             |          |          |          |          |          |          |         |        | ■      | ■       | ■       |
| <b>Further tests</b>             |          |          |          |          |          |          |         |        |        |         |         |
| Continuity check                 | ■        | ■        | ■        | ■        | ■        | ■        | ■       |        |        |         |         |
| Frequency measurement            |          | ■        | ■        | ■        | ■        | ■        | ■       |        |        |         |         |
| Capacitance measurement          |          |          | ■        | ■        | ■        | ■        | ■       | ■      | ■      | ■       | ■       |
| Voltage measurement              | ■        | ■        | ■        | ■        | ■        | ■        | ■       | ■      | ■      | ■       | ■       |
| <b>Memory and interfaces</b>     |          |          |          |          |          |          |         |        |        |         |         |
| Data memory                      |          |          | ■        | ■        | ■        | ■        | ■       |        | ■      | ■       | ■       |
| USB interface                    |          |          |          |          |          |          |         |        | ■      | ■       | ■       |
| Bluetooth interface              |          |          |          | ■        |          | ■        | ■       |        |        |         |         |
| <b>Supply</b>                    |          |          |          |          |          |          |         |        |        |         |         |
| Power supply                     |          |          |          |          |          |          |         |        | ■      | ■       | ■       |
| Rechargeable batteries           | ▲        | ▲        | ▲        | ▲        | ▲        | ▲        | ▲       | ▲      | ■      | ■       | ■       |
| <b>Security</b>                  |          |          |          |          |          |          |         |        |        |         |         |
| CAT IV/600 V                     | ■        | ■        | ■        | ■        | ■        | ■        | ■       | ■      | ■      | ■       | ■       |
| Calibration certificate included | ■        | ■        | ■        | ■        | ■        | ■        | ■       | ■      | ■      | ■       | ■       |
| Software included                |          |          |          | ■        |          |          | ■       |        |        |         |         |
| Power DB Lite                    |          |          |          |          |          |          |         |        | ■      | ■       | ■       |
| Power DB                         |          |          |          |          |          |          |         |        | □      | □       | □       |
| Download manager                 |          |          |          | ■        | ■        |          | ■       |        | ■      | ■       | ■       |
| Guard technology                 |          |          |          |          |          |          | ■       | ■      | ■      | ■       | ■       |

## Low resistance testing

### DLRO10X

## 10 A micro-ohmmeter with test results storage and downloading

The DLRO10X offers a  $0.1\ \mu\Omega$  resolution with a maximum capability of  $2\ \text{k}\Omega$ . Fast testing ability means users can achieve results in less than 3 seconds. At only 2.5 kg, it is the smallest, lightest and most sophisticated 10 A low resistance ohmmeter available, making it convenient for general testing.

The DLRO10X has the capability of measuring inductive loads such as transformers and motor windings. The DLRO10X has on-board memory, RS232 download capability, maximum setting and manual or automatic range control to the features of the DLRO10. Uses easily interchangeable batteries. DLRO10X can download results in real time and has on-board storage for later download to a PC.



### DLRO10HD & DLRO10HDX

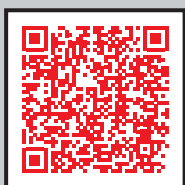
## Dual power 10 A micro-ohmmeter with IP65 rating

DLRO10HD is a tough low resistance ohmmeter designed to withstand the inclement conditions of real world testing. Rated at IP65 when the lid is closed and IP45 when operating under battery power, the DLRO10HD has a resolution of  $0.1\ \mu\Omega$ . There are also 2 power output levels to assist with condition diagnosis. One is limited to avoid heating the test sample, while the other maintains a set high power output. The DLRO10HDX also has the benefit of having results storage and downloading capabilities.



## UNCOVER THE FACTS

Learn more about  
Low resistance testing



# Low resistance testing

## DLRO10

### 10 A Micro-ohmmeter

The DLRO10 series offers a 0.1  $\mu\Omega$  resolution with a maximum capability of 2 k $\Omega$ . Fast testing ability means users can achieve results in less than 3 seconds. At only 2.5 kg, it is the smallest, lightest and simplest-to-use 10 A low resistance ohmmeter available. Uses easily interchangeable batteries.



## DLRO2

### 2 A low resistance ohmmeter

- New Difference Meter for quick data comparisons
- Use long leads at 1 A without compromising test speed
- Safely test the resistance of inductive loads at 1 A, and more...

Get fast, accurate, repeatable measurements - even in noisy environments - with the DLRO2 hand-held 2 A low resistance ohmmeter.



## DLRO100

### 100 A highly portable micro-ohmmeter with dualground safety

- Small and weighs less than 15kg
- Test currents from 10 A to 200 A d.c.
- 0.1  $\mu\Omega$  best resolution
- On board memory for up to 300 test results and notes, and more



## DLRO200

### 200 A MICRO-OHMETER

- Small and weighs less than 15kg
- Test currents from 10 A to 200 A d.c.
- 0.1  $\mu\Omega$  best resolution
- On board memory for up to 300 test results and notes, and more



|                                           |                      | DLRO2       | DLRO10HDX   | DLRO10HD    | DLRO10X     | DLRO10     |
|-------------------------------------------|----------------------|-------------|-------------|-------------|-------------|------------|
| Nominal current                           |                      | Up to 2 A   | Up to 10 A  | Up to 10 A  | Up to 10 A  | Up to 10 A |
| No of ranges with power limited to 0.25 W |                      |             | 6           | 6           | 6           | 6          |
| No of higher power ranges                 |                      |             | 2           | 2           |             |            |
| Display                                   |                      | LCD Backlit | LCD Backlit | LCD Backlit | LCD Backlit |            |
| Results storage and download              |                      | ■           | ■           |             | ■           |            |
| Power supply                              | Mains                | ■           | ■           | ■           | optional    | optional   |
|                                           | Rechargeable battery | ■           | ■           | ■           | ■           | ■          |
| Weight                                    |                      | 0.905 kg    | 6.7 kg      | 6.7 kg      | 2.6 kg      | 2.6 kg     |

## DLR0600

- Small and weighs less than 15 kg
- 0.1  $\mu\Omega$  best resolution
- On board memory for up to 300 test results and notes
- Test currents from 10A to 600 A DC
- RS232 port to download stored results or for real time output to a printer
- Supplied complete with 5m test leads and download software



## MOM Series

- Test current up to 300 A
- Lightweight – 1.15 kg
- Optional wifi communication to EGIL 200\*
- Battery operated
- Auto range: 0.1  $\mu\Omega$  to 3000 m $\Omega$
- Complies with IEEE and IEC standards



## VIDAR

- Tests the integrity of vacuum interrupters quickly, safely and easily
- Extensive voltage range
- Lightweight and portable
- User defined voltage selection
- Easy to operate. Follows ANSI/IEEE standardized DC test methods
- Use without removing from case



Megger has launched a new range of duplex test leads to give you more flexibility. Get one set of tester end leads and attach any of the selection of probes and clips to the tough duplex connector, one of which can house an LED indicator. Used with the DLRO10 series, the indicator will warn you about connections to hazardous live voltages, will indicate continuity and will let you know when the test is completed and if it passed or failed the pre-set test limit.



| FAR END                                          | TESTER END                                | USED WITH                               | TEST CURRENT | SPECIAL FEATURE                                         | LENGTH | PART NO.    |
|--------------------------------------------------|-------------------------------------------|-----------------------------------------|--------------|---------------------------------------------------------|--------|-------------|
| Male duplex connector                            | 2 hooks and plug                          | DLRO10<br>DLRO10X,<br>DLRO10HD          |              |                                                         |        |             |
|                                                  | 10 A                                      |                                         |              |                                                         |        |             |
|                                                  | Indicator LED in connection               | 1.5 m                                   | 1006-456     |                                                         |        |             |
|                                                  |                                           |                                         |              | Indicator LED in connection                             | 3 m    | 1006-458    |
|                                                  |                                           |                                         |              | Indicator LED in connection                             | 6 m    | 1006-459    |
|                                                  | 2 hooks                                   | DLRO10<br>DLRO10X,<br>DLRO10HD          |              |                                                         |        |             |
|                                                  | 10 A                                      |                                         | 1.5 m        | 1006-452                                                |        |             |
|                                                  |                                           |                                         |              |                                                         | 3 m    | 1006-454    |
|                                                  |                                           |                                         |              |                                                         | 6 m    | 1006-455    |
|                                                  |                                           | BT51                                    |              |                                                         | 3 m    | 1007-023    |
|                                                  |                                           |                                         |              |                                                         | 6 m    | 1007-024    |
|                                                  | Female duplex connector with locking ring | DLRO10<br>DLRO10X,<br>DLRO10HD          | 10 A         | Lead extension                                          | 6 m    | 1006-460    |
| Duplex probe                                     | Female duplex connector with locking ring | DLRO10<br>DLRO10X,<br>DLRO10HD,<br>BT51 | 10 A         | P and C probe spacing 6 mm                              | 0.4 m  | 1006-450    |
| Right angle duplex probe                         |                                           |                                         |              | P and C probe spacing 10 mm                             | 0.4 m  | 1006-449    |
| Concentric duplex probe                          |                                           |                                         |              | P and C probe spacing 3.8 mm                            | 0.4 m  | 1006-448    |
| Kelvin clip                                      |                                           |                                         |              | Clip capacity 40 mm                                     | 0.4 m  | 1006-447    |
| Kelvin clip touch proof insulated                |                                           |                                         |              | Clip capacity 52 to 75 mm                               | 0.4 m  | 1006-451    |
| Right angle duplex probe                         | 2 hooks                                   | BT51                                    | 10 A         | In-line duplex locking connectors                       | 3 m    | 1006-442    |
|                                                  |                                           |                                         |              | In-line duplex locking connector                        | 6 m    | 1006-443    |
| Duplex probe                                     | 1 off 2 hooks and plug 1 off 2 hooks      | DLRO10<br>DLRO10X,<br>DLRO10HD          | 10 A         | In-line duplex locking connectors, 1 with indicator LED | 1.5 m  | 1006-444    |
| Kelvin clip                                      |                                           |                                         |              | In-line duplex locking connectors, 1 with indicator LED | 3 m    | 1006-462    |
| Kelvin clip touch proof insulated                |                                           |                                         |              | In-line duplex locking connectors, 1 with indicator LED | 3 m    | 1006-461    |
| Heavy duty Kelvin 10 cm g-clamp                  | 2 spades                                  |                                         | 100 A        |                                                         | 5 m    | 242104-2-16 |
|                                                  |                                           |                                         |              |                                                         | 8 m    | 242104-2-16 |
| HD 60 mm current clips and 22 mm potential clips | 2 hooks                                   | DLRO100,<br>DLRO200,<br>DLRO600         |              |                                                         |        |             |
|                                                  | 600 A                                     | 25 mm 2 csa                             | 5 m          | 1008-029                                                |        |             |
|                                                  |                                           |                                         |              | 50 mm <sup>2</sup> csa                                  | 5 m    | 1008-028    |
|                                                  |                                           |                                         |              | 70 mm <sup>2</sup> csa                                  | 10 m   | 6220-756    |
|                                                  |                                           |                                         |              | 95 mm <sup>2</sup> csa                                  | 15 m   | 6220-757    |

## Handheld transformer solutions

The TTRU1 is the latest handheld transformer turns ratiometer from Megger. In addition to routine polarity validation and turns ratio tests, the TTRU1 can measure short-circuit impedance (leakage reactance) with the same one-time connection.

Perform up to 1000 turns ratio tests on a single NiMH AA battery charge. When it's time to recharge the batteries, connect to any standard USB wall charger, or connect to your PC.

The TTRU1 is designed to test distribution, instrument (CTs and PT/VTs), and power transformers. With minimal input from the user, the TTRU1 delivers the required AC voltage and current to obtain accurate results.

### TTRU1

- Highly accurate in a wide temperature range, ensuring adaptability to diverse working conditions
- Configurable vector lists for testing efficiency
- Powered by a rechargeable battery for maximum portability and flexibility
- Go/No Go open-circuit, short-circuit, and inductance tests for a prompt diagnosis
- Short-circuit impedance measurements conveniently bundled with a ratiometer



## UNCOVER THE FACTS

Learn more about  
Handheld transformer  
turns ratiometer



## MPAC128

- 128 Microphone array
- Detection range up to 120 m
- 8 MP optical camera resolution
- Intelligent Analytics
- Detection frequency up to 48 kHz
- 7" screen
- Ultrasonic monitoring



## MPAC208 & MPAC208-IECEX

- 208 MEMS Microphone array
- Detection range up to 200 m
- 13 MP optical camera resolution
- 10 Hour battery life (2 x 5 hr battery packs)
- 100 kHz bandwidth
- 8" Touchscreen
- Gas Leak, PD and Mechanical modes
- Optional thermal imaging modules



## OTS100AF

- 100 kV maximum test voltage
- Large test chamber
- Precision electrode-gap adjustment & continuous temperature measurement
- Fully automatic testing
- Barcode scanning & 12-key alphanumeric keypad
- Support all IEEE, IEC, and other international standards



## MS Series

### Non-Contact Voltage Detector

- Precision-Designed in Full Compliance with IEC 61243-6
- Non-Contact Detection driven by Capacitive Sensing Technology
- Non-contact solution Ensures Operator Safety across all LV, HV & UHV Systems
- One solution for overhead lines, high voltage bare conductor & terminations
- Reliable detection of live AC high voltages from 415 V up to 1200 kV
- Non-contact solution Ensures Operator Safety across all LV, HV & UHV Systems
- Compact by nature, Rugged by design & Lightweight to use
- Certified for Excellence: IEC61236-1 standard compliance and IP64 Protected



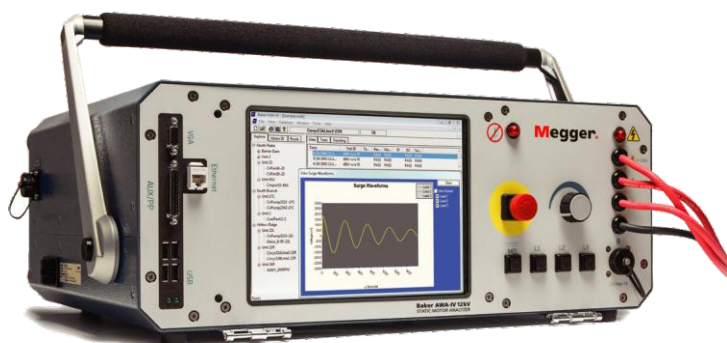
## Motor and generator testing

Megger Baker Instruments are designed and manufactured with the purpose of testing and maintaining rotating machinery. They deliver predictive maintenance results with trending information that enables industrial maintenance teams to monitor plant and predict motor failures ahead of time to avert costly downtime.

### Baker AWA-IV

#### Static motor analyser

- Available models: 2 kV, 4 kV, 6 kV, 12 kV and 12 kV high output
- Test types: resistance, megohm, DA, PI, DC step voltage, DC HiPot
- Surge (IEEE and IEC compliant)



The Baker AWA-IV automatically performs repeatable, user-programmable tests to thoroughly assess the strength of a motor's insulation and circuit. In fact, it is the only high voltage test instrument that a user can program to perform specific sets of insulation tests prior to being in the field, and then use as programmed in the field. The AWA-IV is also used to assure the quality of motor rebuilds or new production motors before they are placed into service.

### Baker DX

- Available models: 4 kV, 6 kV, 6 kV High Output, 12 kV, 12 kV high output, 15 kV and DX15A armature tester
- Test types (some tests require optional upgrades): resistance, capacitance, inductance, megohm, DA, PI, DC step voltage, DC HiPot, surge (IEEE and IEC compliant), partial discharge (PD) on surge



The Baker DX can find early indications of insulation weaknesses and faults in windings, between phases, coil-to-coil and in groundwall insulation. It can identify if contamination is impacting insulation strength and detect motor circuit problems such as feed cable insulation weakness, motor imbalance, open circuits or high resistance.

# Rotating machinery testing

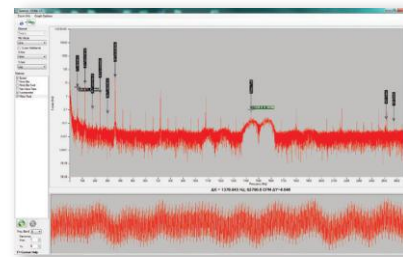
## Baker EXP4000

### Dynamic motor analysis system

The Baker EXP4000 monitors many different parameters calculated from an in-service motor's voltages and currents to separate mechanical and electrical issues that may be present in a motor-machine system. Using advanced software algorithms, the EXP4000 is designed to pinpoint challenges across the system, including those with the power supply, the variable-frequency drive, the motor, and the load placed on the motor.

Test domains: Power quality, machine performance, current, spectrum, torque, variable-frequency drives, continuous monitoring, transient analysis (e.g. startup), motor efficiency.

The Baker EP1000 Dynamic Motor Link can be installed in motor control cabinets (MCC) to provide a permanent, rapid-hookup port for the EXP4000.



## ADX

### Automated static motor analyser

- PowerDB dashboard secure cloud-based analysis software
- Choice of manual, automatic, or sequence testing
- Screen-level context sensitive help
- Adaptable search capability
- Asset management tools

The Megger Baker ADX automated static motor analyser is an innovative and transformational leap forward for motor testing in today's demanding workplaces.



## MTR105

### Hand-held static motor tester

- Full colour graphic display
- 3-phase insulation resistance
- Measurement and correction for insulation resistance
- Protection terminal
- DLRO four-wire (Kelvin measurement)
- Continuity testing and diode testing
- Motor direction of rotation
- Capacitance and inductance
- CAT III 600 V up to 3000 m
- Protection class IP54

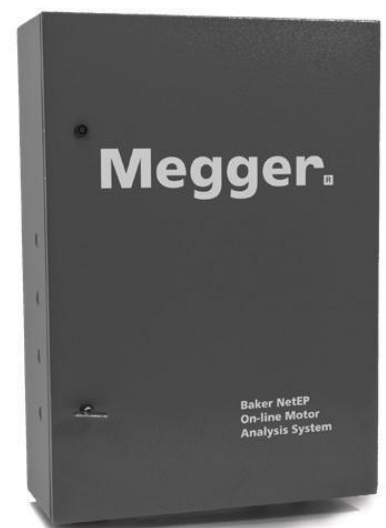
The MTR105 is a dedicated static motor tester with Megger's tried and trusted suite of insulation resistance tests (IR), plus all the great traditional features and reliability of Megger's testers. The MTR105 takes the test abilities of Megger's proven IR test instruments and adds the DLRO four-wire Kelvin low resistance test and inductance and capacitance tests to provide a versatile motor tester packaged into a robust, hand-held instrument, which up to now has not been available. Additionally, the MTR105 incorporates temperature measurement and compensation (for IR tests), motor direction of rotation plus supply phase rotation tests. These new test abilities make the MTR105 a real-world, versatile, hand-held motor test instrument. The MTR105 comes in an over-moulded case, providing increased protection and robustness and achieving an IP54 weatherproof rating.



## Baker NetEP

### Online motor analyser

The Baker NetEP is a permanently installed, fully automated machine system monitoring solution. It continuously acquires health and performance data on up to 32 electric motors and the rotating machine systems they operate. With the Baker NetEP, maintenance professionals can safely gather performance data on critical motors around the clock, 365 days a year, from the convenience and safety of a central office. The system helps reduce costly unplanned downtime by providing information that improves maintenance decision making and planning. The dashboard display of the NetEP's associated software indicates motors that are in an alarm condition.



# Partial Discharge testing

## PD Scan

### Medium voltage switchgear substation surveying system

The PD Scan is a handheld, pre-screening tool suitable for on-line detection of PD activity in MV cables and plant. PD activity is widely regarded as an indication of incipient faults in the insulation and seen as one of the best 'early warning' indicators of the deterioration of medium and high voltage insulation. Faults in MV plant are, in most cases, cost expensive. A breakdown in, say, a termination, can lead to damage of the entire cubicle. In addition, faults in MV plant can lead to long outage times. With help from the PD Scan, such faults can be prevented.

The intuitive operating system and the large touchscreen colour display makes it one of the most user-friendly hand-held online PD units on the market.



## UHF PDD

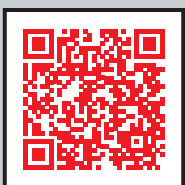
Component failure in a substation has serious repercussions. It has the potential to cause injury, damage and unplanned outages, which result in significant disruption and cost. Predictive condition assessment aims to identify faults developing in electrical equipment so that they can be addressed before failure.

The UHF PD Detector is the ideal tool for quick, non-invasive surveys in MV and HV substations and should be part of the toolkit for all maintenance and service teams. Due to its high measurement bandwidth, the UHF method provides accurate local online partial discharge (PD) measurements on HV components such as cable end-terminations, surge arrestors, voltage transformers and isolators.



## UNCOVER THE FACTS

Learn more about  
Partial Discharge testing



# Time domain reflectometry

## TDR2050

### Dual channel LV cable fault locator

Offering a CAT IV 600 V safety rating, the TDR2050 is perfect for chasing down faults on power circuits such as street lighting. It is IP54 rated and the step function trace improves the near-end performance of the TDR2050 by preventing the trailing edge of the pulse masking faults. Other features include 'Auto-find', which takes you to the major events on the cable, and the 'Find-end' function, which identifies the end of the cable and measures its length. Distance dependant gain is a major benefit in long cable performance.



## TDR1000/3

### Single channel LV cable fault locator

A very capable TDR for identifying and locating faults on metallic cables. The TDR1000 is suitable for use on both dead and live cables without a blocking filter, up to CAT III 150 V phase-to-earth. Using a 2 ns pulse, the TDR1000/3P's near end performance is exceptional while offering a maximum range of 5 km.



## TDR500/3

- Minimum resolution of only 0.1 m for troubleshooting very close to the cable end
- Maximum measuring range up to 5 km
- Output resistances of 25, 50, 75 and 100  $\Omega$  and a shortening factor between 0.2 and 0.99
- Trace hold function allows you to save a route on the screen
- High-resolution display
- Very easy operation with joystick
- Auto selection of gain and pulse width
- Ultra-fast pulse for near end fault identification
- Ideal for all copper data cables
- IP54 protection class for harsh environments
- CAT IV 600 V input protection
- Auto set-up mode for instant, easy use
- 'Auto-find' and 'Find-end' functions help find the fault fast
- Trace tagging facility that allows a name to be saved with the trace
- Distance dependent gain to counteract signal attenuation
- Step function to improve detection of near end faults



# Cable fault location system

## EZ-Thump12

### Highly portable fault location system

Weighing less than 33 kg, the EZ-Thump12 is the most portable fault location systems on the market. It utilises the 'Easy Go' test system, which is easy to operate, interprets the results and requires minimal training to find faults. On-board is a TDR with a 7.6 km range and arc reflection at 12 kV for pre-locating. For pinpointing, the EZ-Thump offers a surge energy of 500 J, DC testing for breakdown detection and insulation resistance measurement. The unit is operated from line or the internal battery. It can also fit in the boot of a car, making it ideal for a flexible, quick response fault-finding strategy.



## EZ-Thump3

The new dual-stage 3 kV EZ-Thump is the first of its kind in the entire market. It's portable, compact, lightweight and battery and AC line operated. In cable fault location systems, it's specifically designed for fault locating in shielded and unshielded low voltage power cables. Due to its portable, robust and (waterproof) outdoor-capable enclosure, the 3 kV EZ-Thump is ideally suited for all typical fault locating operations on LV cables, whether for industrial applications up to 3 kV, street light fault locating or for fault locating on LV power circuits in the utility industry.

The EZT3DV2 model is the only dual-stage 3 kV unit in the market that addresses LV cables with either 600 V or 1000 V ratings and a max permissible test level of  $3 U_0$  (1.8 kV or 3 kV).



## Smart Thump ST16-20

The SMART THUMP ST16-20 Portable/Vehicle-mounted Cable Fault Locating System provides safe, efficient and extremely easy-to-use solutions for quickly identifying, prelocating and pinpointing various types of cable faults for power cables. The ST16-20 is developed to meet the requirements for typical medium-voltage distribution cable fault location markets from 11 to 35 kV system voltage.

Typical end users include: operations department of power utility companies, electrical departments within municipalities, private network operators, high voltage electrical contractors, service companies, port authorities, mining, airports, military bases, petrochemical and paper companies.



## M-Thump5

### Portable fault location system for low to medium voltage cables

The M-Thump5 portable cable fault locating system provides safe, efficient, and extremely easy-to-use solutions for quickly identifying, pre-locating, and pinpointing various types of cable faults in low and medium voltage power cables up to 6.6kV. This product represents a new generation of advanced underground cable fault locating systems that require less training than a traditional thumper-only system. The unit features a lightweight aluminium enclosure, equipped with handles as a portable unit, or as a permanently installed vehicle-mounted unit.



## digiPHONE+

### Surge wave receiver for acoustic and electromagnetic fault pinpointing

This instrument sets the standard by integrating audio and electro-magnetic functionality in to one simple-to-understand, colour display. Combining two new technologies for efficient noise suppression, it offers exceptional acoustic performance which lets pass only the fault noise. This means it is possible to lower the surge energy and to find faults in noisy environments. The operator's hearing is protected by auto proximity mute, turning off the headset as a hand approaches the sensor handle and turning it on again once mechanical oscillations have ceased, and by limiting the earphone output to 84 dB(A).

Cable tracing is simplified using the left/right indicator, keeping the sensor over the cable while the compass indicates the direction to the fault and the digital readout displays the distance to the fault.



## Cable route tracing and identification

### Easyloc

### Utility services detection and location system

A fast and easy-to-use system for the detection and tracing of underground cable runs and pipe networks. The receiver unit displays the signal level and has a max marker to help with location. The operator is given both aural and visual confirmation of location. EasyLoc also gives an approximate depth measurement.



### Carloc

### Cable and route location system

- Display with high contrast for good readability by day and night
- Current direction indication for clear cable identification
- Transmitter with two output signals to distinguish between cables lying side by side
- IP 65 for wet, dusty, and dirty working environments
- 100 freely adjustable transmitter frequencies (from 50 Hz to 200 kHz)



## CI LCI

### Cable identifier

The system identifies a particular cable by means of a current impulse generator and receiver. The receiver is connected to a flexible CT or a pad style detector to receive the identification signal. The pulse generator transmits single sawtooth pulses with a peak current up to 100 A into the cable being identified.



## CHM Series

### Cable height meters

The CHM Series of Cable Height Meters utilize ultrasonic techniques to determine the height of up to six overhead cables and wires. The instruments are designed to address specific measuring requirements on cables up to 75 feet (23 m). The CHM600 (C/N 659600) and CHM600E (C/N 659600E) are designed primarily for power cable applications, while the CHM2000 is designed for telecommunication applications.



## MCT105

### Cable locator

- Works on both live and dead cables or conductors
- Locate conductor breaks and short circuits
- Identify fuses and circuit breakers
- Built-in torch (receiver)

The kit for the Megger MCT105 cable locator includes a separate transmitter and receiver. The instrument is designed to help detect and trace cables or metallic conductors in walls or buried underground and can locate and identify fuses or breakers on electrical circuits. It can also find breaks or short circuits in cables and electrical underfloor heating systems and can be used for tracing metal water and heating pipes.



## UNCOVER THE FACTS

Learn more about  
Battery testing



# Battery testing

With the increasing dependency of back-up systems on battery strings, and the escalating cost of replacing batteries, instrumentation and software systems that can measure, trend and manage the life-cycle of cells is a cost effective option. There are two methodologies for testing batteries. The first, impedance testing, is an on-line test that can be performed frequently to identify individual weak cells before they fail. The second, battery discharge test, is normally an off-line test and tests the actual output of the whole battery under load conditions. This will show what will actually happen if the battery is required to take the load. Most battery systems are floating and have earth leakage monitors and trips if there is an earth fault. The Battery Ground Fault Tracer allows you to trace a faulty circuit easily in a complex floating system.

## BITE5

### Battery tester

The BITE5 is a battery tester that will test lead acid batteries, NiCD batteries as well as lithium-ion batteries. The BITE5 will measure and record battery voltage, impedance, and temperature.

The recorded data can be trended on the unit's touch screen. View the trended data of each test or trend the data of each cell. Set pass, warning, and fail limits for voltage and impedance. Record the ripple voltage, ripple current, and float current and transfer the recorded data via USB or via an SD card to the Power DB software, then create custom reports and automated analysis.

- Measures impedance on cells up to 200 V
- Supports lead acid, NiCD and lithium-ion
- Supports battery discharge testing
- Measures DC voltages up to 1000 V
- Measures AC voltages up to 600 V
- Touch screen set-up and trending
- Measures AC and DC current
- USB and micro SD card



## BITE5 Advance

### Battery tester

The BITE5 Advanced is a battery tester that will test lead acid batteries, NiCD batteries as well as lithium-ion batteries. It will measure and record battery voltage, impedance, temperature and inter-cell connections. The BITE5 Advanced also supports discharge testing. It will measure the voltage, current, impedance and temperature throughout the discharge cycle.

- Measures impedance on cells up to 500 V
- Supports lead acid, NiCD and lithium-ion
- Monitoring battery recharge
- Touch screen set-up and trending
- Measures inter-cell (strap) resistance
- Supports battery discharge testing
- Test parallel strings without segment
- RFID Tag Reader



## TORKE900

### Battery load unit

The TORKE900 series of battery discharge test systems are Megger's fourth generation of battery discharge analysers. Discharge testing is the only test method that provides a comprehensive insight into battery capacity, and is therefore an essential part of vigorous battery maintenance programmes.



- Batteries can be tested in service
- Real-time monitoring during test
- Easy report function and calibration
- A complete standalone discharge test system
- Can be used with lead-acid, Ni-Cd, and other battery types
- Battery cell monitor control integrated in the system
- Dynamic discharge technology – full power at all voltages
- Easily expandable for larger battery banks using TXL extra load units
- Enhanced safety features including spark free connection, detection of blocked airflow, and emergency safety fuse

### Earth or ground testers

**Earth or ground resistance testing** - One of the most important considerations in an electrical system is the resistance of the earth for reliable operation and safety. Whether you are doing a ground resistivity survey to plan the location of a substation or testing an earth electrode, Megger has an earth tester suitable for the job. Megger has more than 50 years' experience in designing and building earth resistance testers. The latest generation are CAT IV rated, and have tough molded cases. Variable test frequency keeps noise down, reliability up.

## DET2/3

### Advanced earth tester

The DET2/3 is a robust and compact automatic earth (ground) test instrument designed to measure earth electrode resistance and soil resistivity. For use on large or more complex earth systems, which include communications earth systems and difficult test environments, it can be used to test in accordance with BS 7430 (earthing/grounding), BS-EN-62305 (lightning protection), BS-EN-50122-1 (railway applications), and IEEE Standard 81.

The DET2/3 can provide a live trace of its measurements, which graphically shows the amount of noise from the system under test - a powerful diagnostic tool for the expert earth (ground) test engineer. Test frequency, test current and filtering can be quickly and easily adjusted so that adverse conditions, which can influence the test, can be overcome, and a wide band of test current frequencies, with a resolution of 0.5 Hz, can be used to eliminate errors caused by noise in the earth.



The DET2/3 also includes an automatic frequency selection feature that scans for frequencies with the lowest noise level and then runs a test at that frequency. The selected test current frequency, test current level and the increased filtering option are stored in memory for use in subsequent tests. Use of the latest processors and a large internal memory allows for immediate calculations of resistivity (Wenner or Schlumberger method) and the ability to save a complete days' worth of test results. Test result data can be downloaded directly through a USB flash drive or straight to a Windows PC running PowerDB™ software.

## ETK

### Earth test kit

The Megger Earth Test Kit (ETK models) are designed to be as practical as possible. Housed in a holdall, the kits are stored neatly, well protected and easy to transport. Much care has been taken to produce a variety of kits to meet needs. In use, the test leads are fitted and retained on reels with smooth action.



## DET3 & 4 Series

### Earth ground testers

All models include these features :

- Extra large selector switch
- Extra large, clear display for easier operation in outdoor conditions
- Simple one-button operation
- Battery powered with a bar graph that updates battery strength
- Noise reduction up to 40 V peak to peak
- Safety rating of CAT IV 100 V
- IP54 rated (water/dust ingress) for extra protection in harsh conditions



**DET3TD** - offers a complete kit for customers wishing to conduct earth electrode testing using the two- and three-pole techniques.

**DET3TC** - when used with the optional ICLAMP, it allows fall of potential testing using the ART technique without needing to disconnect the electrode under test.

**DET4TD2** - is a complete earth testing kit for users needing the flexibility to use either the two- and three-pole electrode techniques or the four-pole soil resistivity test.

**DET4TR2** - is similar to DET4TD2, with the added advantage of using rechargeable batteries. You can also get an adaptor to charge your tester from your vehicle.

**DET4TC2** - is a four-pole tester with extended resistance range and variable test frequency. Use it for ART testing, two- or three-pole testing, four-pole resistivity testing and stake-less testing.

**DET4TCR2** - is similar to DET4TC2, with the added advantage of using rechargeable batteries. You can also get an adaptor to charge your tester from your vehicle.

**Each instrument includes everything you need to test:** Comes complete with test leads, stakes, batteries, calibration certificate and rugged polypropylene carry case.

## DET14C & DET24C

### Earth resistance clamp testers

Earth resistance clamp testers are suitable for measuring the earth resistance of installations such as buildings, pylons and RF transmitter sites and for inspection of lightning protection systems.

- Elliptical clamp shape improves access to earth cables and straps up to 50 mm
- Low maintenance flat jaw interface
- Measures ground resistance from 0.05  $\Omega$  to 1500  $\Omega$
- Measures true RMS ground leakage current from 0.5 mA RMS to 35 A RMS
- Automatically self calibrates
- High and low alarms
- Memory and Bluetooth downloading
- CAT IV 600 V safety rating



### Earth or ground testers

|                                      |                                 | DET4TCR2                                        | DET4TC2                                         | DET4TR2                                        | DET4TD2                                        | DET3TC                                          | DET3TD                                          | DET14C                                          | DET24C                                          | DET2/3                              |
|--------------------------------------|---------------------------------|-------------------------------------------------|-------------------------------------------------|------------------------------------------------|------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------|
| Test techniques available            | 4 pole resistivity test         | ■                                               | ■                                               | ■                                              | ■                                              |                                                 |                                                 |                                                 |                                                 | Calculated                          |
|                                      | 3 pole electrode                | ■                                               | ■                                               | ■                                              | ■                                              | ■                                               | ■                                               |                                                 |                                                 | ■                                   |
|                                      | 4 pole electrode test with ART  | ■                                               | ■                                               |                                                |                                                | ■                                               |                                                 |                                                 |                                                 | ■                                   |
|                                      | 2 pole bond test                | ■                                               | ■                                               | ■                                              | ■                                              | ■                                               | ■                                               |                                                 |                                                 | ■                                   |
|                                      | Stakeless test                  | ■                                               | ■                                               |                                                |                                                |                                                 |                                                 | ■                                               | ■                                               | ■                                   |
| Power                                | Rechargeable                    | ■                                               |                                                 | ■                                              |                                                |                                                 |                                                 |                                                 |                                                 | ■                                   |
|                                      | Dry cells                       |                                                 | ■                                               |                                                | ■                                              | ■                                               | ■                                               |                                                 |                                                 |                                     |
| Warnings                             | Excessive noise                 | ■                                               | ■                                               | ■                                              | ■                                              | ■                                               | ■                                               |                                                 |                                                 | ■                                   |
|                                      | Potential spike resistance high | ■                                               | ■                                               | ■                                              | ■                                              | ■                                               | ■                                               |                                                 |                                                 | ■                                   |
|                                      | Current spike resistance high   | ■                                               | ■                                               | ■                                              | ■                                              | ■                                               | ■                                               |                                                 |                                                 | ■                                   |
| Resistance range                     | Resolution                      | 0.01 $\Omega$ - 200 k $\Omega$<br>0.01 $\Omega$ | 0.01 $\Omega$ - 200 k $\Omega$<br>0.01 $\Omega$ | 0.01 $\Omega$ - 20 k $\Omega$<br>0.01 $\Omega$ | 0.01 $\Omega$ - 20 k $\Omega$<br>0.01 $\Omega$ | 0.01 $\Omega$ - 2.0 k $\Omega$<br>0.01 $\Omega$ | 0.01 $\Omega$ - 2.0 k $\Omega$<br>0.01 $\Omega$ | 0.05 $\Omega$ - 1.5 k $\Omega$<br>0.01 $\Omega$ | 0.05 $\Omega$ - 1.5 k $\Omega$<br>0.01 $\Omega$ | 0.01 $\Omega$ - to 20.00 k $\Omega$ |
| Earth current range                  | 0.5 mA to 35 A                  |                                                 |                                                 |                                                |                                                |                                                 |                                                 | ■                                               | ■                                               | 0.00 to 2.00 A                      |
|                                      | 0.5 mA to 19.9 A                | ■                                               | ■                                               |                                                |                                                | ■                                               |                                                 |                                                 |                                                 |                                     |
| Test frequency                       |                                 | 94, 105, 111 and 128 Hz                         | 94, 105, 111 and 128 Hz                         | 128 Hz<br>128 Hz                               | 128 Hz<br>128 Hz                               | 128 Hz<br>128 Hz                                | 128 Hz<br>128 Hz                                | 1390 Hz<br>1390 Hz                              | 1390 Hz<br>1390 Hz                              | 10 to 200 Hz<br>0.5 steps           |
| Noise rejection 40 V peak to peak    |                                 | ■                                               | ■                                               | ■                                              | ■                                              | ■                                               | ■                                               |                                                 |                                                 | 50 V p p                            |
| Test results storage                 |                                 |                                                 |                                                 |                                                |                                                |                                                 |                                                 | ■                                               | ■                                               | ■                                   |
| Downloadable test results            |                                 |                                                 |                                                 |                                                |                                                |                                                 |                                                 |                                                 | ■                                               | ■                                   |
| IEC61010-1 safety rating             |                                 | CAT IV 100 V                                    | CAT IV 100 V                                    | CAT IV 100 V                                   | CAT IV 100 V                                   | CAT IV 100 V                                    | CAT IV 100 V                                    | CAT IV 600 V                                    | CAT IV 600 V                                    | CAT IV 300 V                        |
| Weather- and dust-proof to IP54      |                                 | IP54                                            | IP54                                            | IP54                                           | IP54                                           | IP54                                            | IP54                                            | IP54                                            | IP54                                            | IP54                                |
| Warranty upgradeable to 3 years FREE |                                 | ■                                               | ■                                               | ■                                              | ■                                              | ■                                               | ■                                               | ■                                               | ■                                               | ■                                   |
| Power DB earth testing forms         |                                 | ■                                               | ■                                               | ■                                              | ■                                              |                                                 |                                                 |                                                 |                                                 | ■                                   |

## LT300

# High current earth loop impedance tester

The LT300 offers high current loop testing over a wide range of frequencies and supply voltages with a simple, fast, two-wire operation.

### Frequency range

Supply frequency is indicated upon connection and the LT300 will automatically set to one of these supply frequencies: 16 Hz, 33 Hz, 50/60 Hz, 125 Hz or 400 Hz. Testing will commence automatically.

### Loop measurement

Two loop impedance ranges are provided.

20  $\Omega$  - Resolution to 0.01  $\Omega$

200  $\Omega$  - Resolution to 0.1  $\Omega$

### Supply voltage

Operational supply range extends from 50 V to 550 V

(400 V @ 16 Hz), with a warning for voltages over 330 V, highlighting accidental phase-to-phase connections on a nominal 230 V system.



## UNCOVER THE FACTS

Learn more about  
Earth or ground testers



# Battery ground fault locator

The MGFL100 battery ground fault locator locates ground faults on ungrounded DC and AC systems, DC battery systems, and protected IT networks. It also alarms when the real fault is found, while automatically distinguishing between real fault current and reactive current drawn by stray system capacitance.

The MGFL100 measures the earth/ground fault resistance, the system capacitance, the real fault current, and the reactive leakage current. It also locates high impedance ground faults due to water ingress, as well as ground faults on systems with high leakage current. The MGFL100 makes locating the ground fault fast and easy by alarming when the circuit with a real ground fault is located. No complicated tuning out of noise or capacitance is required. Easily trace the fault with the lightweight transmitter and receiver. Set both password protected voltage and current limits to ensure you never put too much current in your system.

The MGFL100 also enables you trace short-to-ground faults, or earth faults, by directly coupling to the line. This can be done either off-line or on-line using a coupling filter.

## MGFL100

- Locates faults up to 400 k $\Omega$
- Operates on systems up to 600 V
- Locate faults on AC or DC systems
- Powered off AC or internal battery
- Adjustable current and voltage limits
- Alarms when the real fault is identified
- Direct measurement of resistance and stray capacitance
- Direct measurement of fault current and leakage current



# Multifunction installation tester

## MFT-X1

### Multifunction tester

- TrueLoop™ measurement using patented confidence meter.
- Designed for the electrical testing of single and 3-phase installations.
- Fully compatible with CertSuite Installation for easy certificate generation and reporting.
- Brand new features including full colour screen, RCD configurator and EV charge point testing.
- Never be without power with our quick-remove battery pack and rechargeable battery option.

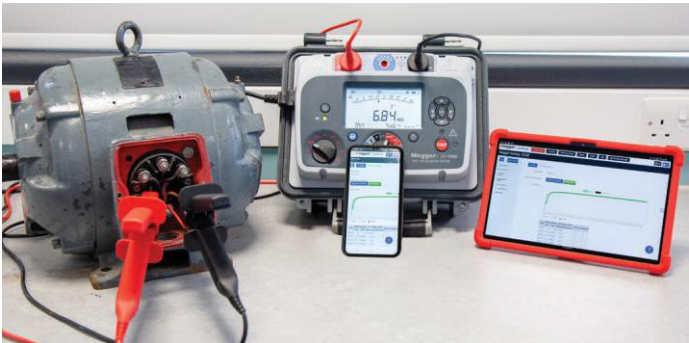


The MFT-X1 introduces our first generation of platform based, user upgradeable MFTs, to add to the existing Megger MFT1700 range of multifunction testers. It has been designed and manufactured at our Dover factory in the UK, incorporating a host of new features based on years of customer input. With the MFT-X1, we now offer True Loop™, our industry leading loop impedance test with patented Confidence Meter™ technology, full CertSuite Installation compatibility - to make certificate generation a breeze - high resolution loop testing, stabilised insulation voltage output, full colour screen and new operator interface are now standard. The user upgradeable operating software ensures the MFT-X1 has the ability to adapt to regulation changes and make it the perfect instrument for fast, reliable, accurate and adaptable testing.

## CertSuite Asset

### Asset testing and reporting software

- Full asset testing management
- Mobile app/PC browser based asset testing software
- Secure cloud-based asset test result storage on the Microsoft Azure platform
- Simultaneous job access for multiple users (licence required per user)



CertSuite Asset is cloud-based software that can be used on both Android or iOS smartphones and tablets. Which operating system you use will depend on the instrument being used. The system is also accessible using most browsers, such as Microsoft Edge, Google Chrome, Apple Safari, or Mozilla Firefox. It will also work offline when using the mobile app

The cloud-based system uploads all of your valuable test results immediately to securely store them as they are recorded. So, no more concerns about losing data; missing information because it wasn't written down; missing important details, such as recording environmental conditions, the test setup, and connections tested, or even visual inspection issues found.

CertSuite Asset supports the models outlined in the Connection Guide, however, support for more instruments will be quickly added, to make it the one stop place to manage all of your mobile asset testing needs.

#### Connection Guide :

| Products | Android   | Windows |
|----------|-----------|---------|
| S1-568   | Bluetooth | USB     |
| S1-1068  | Bluetooth | USB     |
| S1-1568  | Bluetooth | USB     |
| MIT525   |           | USB     |
| MIT1025  |           | USB     |
| MIT1525  | Bluetooth | USB     |
| MIT2500  | Bluetooth |         |
| MIT430/2 | Bluetooth |         |

# Multimeters

## AVO®415

### TRMS Digital multimeter with VFD

- Safety rated CAT III 1000 V, CAT IV 600 V
- True RMS AC current and voltage
- True RMS reading on a.c. mode
- High resolution 6000 count display
- Frequency up to 10 MHz
- Resistance, continuity and diode measurements
- Current measurement to 10 A
- Variable Frequency Drive (VFD) voltage measurement

The AVO®415 is a heavy duty industrial True-RMS meter for demanding environments. It measures True RMS voltage up to 1000 V and current to 10 A with 6000 count resolution. As well as resistance, continuity, frequency, and capacitance for quick verifications. It meets CAT IV 600V/CAT III 1000V AC/DC safety and features. Its Variable frequency drive (VFD) measurement making it ideal for wide range of applications.

The continuity function features a buzzer to provide audio and visual results. Diode function allows forward reverse bias testing of diode and semiconductor junctions.

Auto ranging or manual range selection allows precision and speed to do the job. Also comes with MAX, MIN and hold function allowing ease of readability in daily use.



## AVO215

### CAT III TRMS multimeter

- 4000 count display
- AC / DC Voltage to 600 V
- Resistance, capacitance, frequency ranges
- Duty cycle
- Auto ranging
- Auto power off
- Data hold
- Built in flashlight
- CAT III 600 V Rating

The AVO215 true RMS multimeter is a rugged compact instrument for demanding environments. It measures true RMS voltage up to 600 V and current to 10 A with 4000 count resolution. As well as resistance, continuity, frequency, and capacitance for quick verifications, it meets CAT III 600 V AC/DC safety and contains a built-in flashlight, making it ideal for wide range of applications.

The AVO215 comes with a range of useful features, such as the continuity function, which provides audio and visual results through the use of a buzzer, and the diode function, which allows forward reverse bias testing of diode and semiconductor junctions. Additionally, the unit has an auto range or manual range selection, enabling you to do the job with precision and speed, and it's MIN/MAX and hold functions allow you to read the results easily in daily use.



# Clamp meters

## DCM320

### 200 A AC open jaw clamp multimeter

- 200 A AC open jaw current measurement
- 0.1 V to 1000 V auto-ranging AC and DC voltage measurement
- 0.1  $\Omega$  to 20.00 M $\Omega$  resistance range
- Continuity buzzer and diode check
- Non-contact detection of AC voltage
- CAT IV 600 V

The DCM310 and DCM320 digital clamp meters are ideal for use during the installation, maintenance, and inspection of electrical systems and equipment.



## DCM330

### 400 A AC clamp multimeter

- 20 M $\Omega$  resistance range
- Continuity buzzer
- Auto-ranging
- Auto off to conserve batteries

The DCM310 and DCM320 digital clamp meters are ideal for use during the installation, maintenance, and inspection of electrical systems and equipment. Indeed, the large clamp jaw enables cables up to 27 mm in diameter to be measured, which covers the majority of applications within the electrical system installation industry.



## DCM340

### 600 A AC/DC 600 V AC/DC clamp multimeter

- DC current range
- Frequency counter
- Analogue bar graph
- Back light
- Large jaws
- Auto off to conserve batteries

The DCM340 digital clamp meter is a highly versatile instrument ideal for use in the installation, maintenance, monitoring, or checking of AC and DC electrical systems and equipment. Indeed, it has been designed for use on electrical systems and equipment where there is a need to measure current, volts, resistance, and frequency. It is therefore intended for use while installing, maintaining, fault finding, or monitoring those systems.



## DCM1500S

### Solar clamp meter

- 2000 V DC
- TRMS 1500 V AC
- 1500 A AC/DC Smart Hold
- Auto ranging
- MIN/MAX Hold
- Inrush Current

The DCM1500S solar clamp meter has been designed to be used on electrical systems and equipment, including solar/photovoltaic installations where, there is a need to measure current, volts, resistance, and frequency.



# Clamp meters

## DCM1500

### 1500 A TRMS clamp multimeter

- DC and AC current measurement up to 1500 A
- True RMS measurement for greater accuracy
- Large jaw size improves safety when working with uninsulated conductors
- 750 V AC and 1000 V DC
- Resistance, continuity and frequency measurement
- Peak, minimum, maximum and data-hold functions



## DCM305E

### Leakage current clamp

- Measuring ranges: 6 mA, 60 mA, 600 mA, 6 A, 60 A, 100 A
- Automatic or manual measuring range
- 0.001 mA Resolution
- Up to 100 A range for standard AC current measurements
- TRMS value reading
- Low pass filter to aid stability of readings
- Auto-hold, data-hold and peak-hold
- 40 mm clamping jaw



## DPM1000

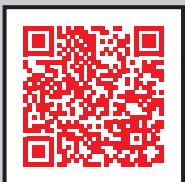
### Power clamp meter

- AC/DC voltage to 1000 V
- AC/DC current to 1000 A
- True RMS
- Resistance 100 k $\Omega$
- Bluetooth link to the Megger Link app
- Phase rotation indication



## UNCOVER THE FACTS

Learn more about  
Clamp meters



# Thermal camera and isolation test kits

## TPT420

### Voltage tester

- CAT IV/1000 V
- IP64 Rated
- 12 - 1500 V DC
- Continuity test function with visual and acoustic indication
- Voltage indication with no batteries

The Megger TPT420 voltage tester is designed to provide electricians and electrical engineers with an easy to use voltage indicating instrument. The meter will continue to warn the operator of dangerous test voltages even when the batteries are exhausted.



## MPU690

### Test unit for two-pole tester

- Tests two-pole testers
- Battery level warning
- Simulates AC voltage with 50 Hz
- The compact housing contains a magnetic holder
- Step LED indicate test voltages 50 V, 100 V, 230 V, 400 V, 690 V
- Automatic switch-on and switch-off for energy-saving operation



## DETEX®

### Voltage detectors and phasing testers

- Voltage detectors
- Seven models
- Continuous monitoring
- IEC conformance
- Phasing testers
- Grounded or ungrounded ac system check
- Five models



## UNCOVER THE FACTS

Learn more about  
Battery testing



### TC120

## Thermal camera

- High-sensitivity infrared detector
- 120x90 resolution
- 2.4" LCD colour screen
- Rechargeable battery
- -20°C~550°C temperature measurement
- Video Storage in IRGD format, with ThermoLink PC application



### TC256

## Thermal camera

- High-sensitivity infrared detector
- 256x192 resolution
- 2.4" LCD colour screen
- Rechargeable battery
- -20°C~550°C temperature measurement
- Real-time video streaming and video storage in IRGD format, with ThermoLink PC application and Thermography mobile APP



### TC256P

## Pocket size thermal camera

- 256x192 resolution
- 3.5" LCD colour touchscreen
- IR, VIS, PIP, MIF temperature details
- 5 MP photo and video recording
- Laser ranging
- Area calculation tool
- -20°C~550°C temperature measurement
- Real-time video streaming and video storage in IRGD format, with ThermoLink PC application and Thermography mobile APP



### TC640

## Thermal camera

- 640x480 resolution
- 4.3" LCD colour touchscreen
- IR, VIS, PIP, MIF temperature details
- 13 MP visible light photo and video recording
- Laser ranging
- -20°C~550°C temperature measurement
- Share files via mobile app
- Video streaming, real-time data transmission with PC analysis software



# Electric vehicle charge-point adaptor, irradiance meter, socket tester & laser distance meter

## EVCC300

### Electric Vehicle Charger Checker

- Performs four EV charger safety checks
- Performs four EV charger operation checks
- Checks to see if nuisance tripping or RCD/GFCI is likely to occur
- Reads control pilot state response from EV Charger to IEC61852-1



## EVCA210

### Electric vehicle charge-point adaptor

- Accessory for the MFT1700 and MFT1800 series to enable electrical vehicle charge point testing
- Type 1 Charging Plug for charging points with fixed cable and vehicle connector
- Type 2 Charging Plug for charging points with panel mounted socket outlet or fixed cable with vehicle connector
- (Example Mitsubishi PHEV) – option for the EVCA210/standard on the EVCA21

The Megger PVM210 provides the solar / photovoltaic engineer a compact, pocket size instrument that is easy to use.



## PVM210

### Irradiance meter

- Single handed use
- Mini pocket size
- Optimal incident angle and positioning of solar panels
- Measurement of solar power for panel short circuit calculation
- 33/4 digit LCD display with 1999 W/m<sup>2</sup> range
- Standard camera mount fixing for accurate placement



## MST220

### Audible socket tester

- Simple and effective identification of faulty wiring at sockets
- Easy to use
- Tri-coloured LEDs for instant error reporting and fault diagnosis
- Identifies 17 missing wire and wrong connection combinations
- Rugged and reliable
- Audible indication of correct and incorrect connections



## MLM50

### Laser distance meter

- 50 M range Laser Distance Meter
- Automatic Max/Min measurements
- Area calculation
- Volume calculation
- 20 measurement memory
- Supplied with protective carry pouch

The Megger MLM50 Laser Distance Meter is a compact, simple to use, laser distance measuring device.



# Voltage detector

## VF5

### Voltage detector

- AC non-contact voltage detector
- 12 V to 1000 V voltage range
- Visual, audible and vibration warning of low and medium voltages
- Durable rubber over-moulded body
- Built-in bright-white LED torch

The Megger VF5 Voltage Detector is intended to be used to check for the presence of AC voltage, indicated by a bright red LED situated within the white nylon tip, an audible sounder, plus vibration alert. The detector has both low voltage (12 V to 1000 V) and medium voltage (100 V to 1000 V) ranges. The VF5 has the added advantage of a bright-white LED torch for use in poor light.



## VF6 EX

### Hazardous area AC voltage detector

- Hazardous area EX rated
- AC non-contact voltage detector
- 12 V – 1000 V voltage range
- Visual, audible and vibration warning of low and medium voltages
- Built-in bright-white LED torch

The Megger VF6 EX Voltage Detector is intended to be used to check for the presence of AC voltage, indicated by a bright red LED situated within the white nylon tip, an audible sounder plus vibration alert. The detector has both low voltage (12 - 1000 V) and medium voltage (100 - 1000 V) ranges. The VF6 EX has the added advantage of a bright-white LED torch for use in poor light.



## UNCOVER THE FACTS

Learn more about Voltage detector



# Portable appliance testers

**PAT320**

**PAT350**

## Portable appliance testers

- Full colour display
- 230 V and 110 V operation
- Tests to DIN VDE 0701-0702
- Flash testing at 1.5 kV and 3 kV
- Simple manual or automatic testing
- Bond testing at 25 A, 10 A, and 200 mA
- Tests portable RCDs and extension leads
- Differential, touch, and substitute leakage testing
- Pre-set test sequences for Class I, Class II, and extension leads



The PAT300 series of portable appliance testers carry out all test requirements automatically with one button press and provides outstanding productivity, giving you the ability to test record numbers of appliances per hour. The PAT300 series are easily portable desktop appliance testers for testing the safety of portable electrical equipment to meet health and safety regulations.

**The series is comprised of two products:**

**PAT320:** This is the PAT tester you need if you want high productivity within a tough and easy-to-use instrument. It is a fully featured tester with dedicated test buttons for direct access to tests and is ideal for those who don't require the complexity of a fully configurable database of clients and results within the tester, but do need a complete range of functions to allow automatic or manual testing of the widest range of electrical assets. If you are moving into PAT testing for the first time, or you don't want the complexity of database management, the PAT320 is ideal for you.

**PAT350:** This instrument is identical to the PAT320, with the addition of flash-test capability for use in environments such as manufacturing, production, or tool-hire shops.

## UNCOVER THE FACTS

Learn more about  
Portable appliance testers



PAT410

PAT420

PAT450

## Database driven portable appliance testers

- Large, illuminated, coloured display with pass/fail indication
- Customer database - up to 100 customers with 2000 locations possible for each customer
- Test item database - up to 10 000 tests results
- Bidirectional database exchange with PC software Megger dokuSTORE 4.0
- Adjustable limit values and test times
- Login to the test device with a user name and personal PIN and for legally compliant documentation, a distinction is made here between 'Supervisor' (all rights) or 'User' (restricted rights)
- Complete database backup and, if necessary, restoration via USB memory stick
- PAT420: 200 mA+10 A+25 A Protective conductor current
- PAT450: 200 mA+10 A+25 A protective conductor current and insulation test with 1500 V and 3000 V
- Barcode scanner/RFID reader and printer can be connected to the PAT via USB
- Five soft keys for quick access to frequently used functions



# NEW PRODUCT LAUNCH!!

**EVT100X**

**MTR105X**

**IMT100X**

New models feature Bluetooth connectivity and CertSuite Asset integration



The EVT100X/MTR105X/IMT100X transforms traditional reactive approaches into a proactive asset strategy. By adding Bluetooth connectivity, it allows you to stream test results directly to CertSuite Asset without changing field workflows.

- Live streaming of test results during measurement
- Synchronisation of data into one report
- Repeatable testing for comparable results and trend analysis
- Potential to extend testing capabilities beyond the instrument

CertSuite Asset Lite comes standard with the instrument series at no additional cost. Users who require comprehensive cloud storage and multi-user account capabilities have the option to upgrade to the full version of CertSuite Asset.

## MEGGER PAN-INDIA SERVICE NETWORK



Need service support? Get in touch with our service team today  
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