LOW VOLTAGE CATALOGUE 2022

Megger.











### **Content**

### **SINCE 1889**

Megger is a leading global premium manufacturer of measuremer	١t
and testing technology.	

We offer you solutions for the transmission of electrical energy from the power plant to the socket.

Our top priority has always been to make your everyday work easier and safer.

As such, insulation testers, micro-ohmmeters and multimeters are among the long line of Megger inventions, making us one of the pioneers in the electrical industry.

Megger's famous crank inductor has been synonymous with accurate insulation measurement for generations of electrical engineers.

This was invented by our founder Sidney Evershed more than 130 years ago. Over the decades we have continued to develop and expand the breadth and depth of our range. Today, we can proudly claim to have taken a leading role in measuring and testing technology as the manufacturer with by far the longest tradition and the widest range of products.

Our products combine many years of experience, the valued feedback from our global users with the inventiveness and conscientiousness of our product developers. Each generation of our products is a systematic evolution. Each successive series offers more safety, more reliability, more economy. In this way, we have established ourselves as one of the largest suppliers of electrical test technology.

#### People for people:

For more than 130 years, our commitment to providing leading electrical test and diagnostic solutions has been matched only by our appreciation of the technicians, engineers and power professionals who use our products around the world. Our challenge is to ensure that they can do what they do every day successfully and safely.

That's why we specifically seek exchanges with them in order to incorporate the knowledge gained from them into our devices. Since people - customers and colleagues alike - are the most important asset at Megger, we only produce under fair conditions at our company-owned sites. Our values - creativity, consistency, confidence and care - are always in focus for us.

In Germany, we manufacture at three sites, Aachen, Baunach near Bamberg and in Radeburg near Dresden. Other manufacturing locations are based in Sweden, England and America.

Our key technologies and patents form the basis for our current success and pave the way for great inventions in the future from which you will benefit for a long time to come.

Introduction/Content	2 - 3
MFT Multifunction Testers & Accessories	4 - 7
EV Adaptor	8
MIT series Insulation & Continuity Testers	9 - 13
Portable appliance tester	14 -15
Earth Meassurement	16 - 18
Rotating Machine/Motor Tester	19
Micro Ohmmeter	20 - 22
TRMS-Digitalmultimeter	23
Time domain reflectometer & cable length meter	24 - 26
Voltage detector	27
2-Pole tester	28-29
Electrical tester	30-31
Current Clamps	32-34
Megger Link App	35
Photovoltaic Kit	36-37
Power clamp	38-39
Power quality analyser	40-41
Thermal camera	42
Phase Sequence Indicator	43
Webinars	44

## **MFT** Serie



MFT1711 Item no.	1008-121
MFT1721 Item no.	1008-123
MFT1741+ Item no.	1012-611
MFT1815 Item no.	1002-403
MFT1825 Item no.	1002-408
MFT1845+ Item no.	1012-597

**Included accessories:** Printed quick start guide, Full user guide on CD, Calibration certificateSwitched probe SP5, Neck strap - Megger embroidered, 3 Wire lead set with prods and clips, Mains plug test lead (BS1363), AC battery charger, Large soft pouch with extra storage

Get accurate results fast by testing your low voltage electrical installations with the MFT1741+ / MFT1845+ multifunction tester!

Particularly effective in areas that suffer from high electrical noise, this instrument provides all the tests needed to complete the necessary electrical certifications for industrial, commercial and domestic fixed wiring installations.

Save time and get non-trip loop testing down to 8 seconds with the MFT1741+ / MFT1845+'s new Loop Impedance testing technology! This innovative ability also increases the accuracy of results as it prevents the RCD from influencing the total loop impedance value. What's more, you can measure the degree of confidence in the accuracy of the measured loop impedance, thanks to Megger's new Confidence Meter measurement analysis (patent pending). This technology uses the digital ARC to indicate the analytical process, then continually monitors and adjusts the measurement when circuit noise is present, resulting in a dramatically improved and repeatable test result.

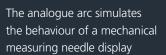
Installation Testers www.megger.com

#### **INSTALLATION TESTERS**



- Voltage TRMS up to 600V
- Rotary field measurement
- Frequency 15Hz to 400Hz
- Continuity 15/200mA with limit alarm
- Insulation 100V, 250V, 500V, 1000V (Model dependent)
- Loop Impedance with True Loop™
- 3-Wire No-Trip test
- 2HI 2-Wire High current
- 2-Wire No Trip (No neutral required)
- Type A, AC and S ( & B MFT1721/41+ & MFT1825/45+)
- 10/30/100/300/500mA/1A/RCD Test
- RCD Manual/Automatic Test
- RCD Ramp Test
- Programmable RCD test current
- 6mA DC RCD test for EV charging stations (MFT1741+& MFT1845+ only)
- CAT IV / IP 54 / ca.1200g / with batteries
- 2 & 3 pole earth testing (MFT1741 + & MFT1845+)
- No-Stake earth testing using optional clamps (MFT1741+ & MFT1845+)
- ART Earth testing without disconnection (MFT1741+& MFT1845+)
- Optional MCC Earth Leakage clamp (MFT1741+ & MFT1845+)
- Rechargeable batteries (NiMH) with charger (MFT1741+ & MFT1845+)
- Measured value memory 1000 results (MFT1741+ & MFT1845+)
- Bluetooth interface (MFT1741+ & MFT1845+)







A sturdy hard shell case offers your device space and protection (the MFT1845+ comes in a bag)



Large buttons left and right for two-handed operation



Robust rotary switches with safe and easy colour coding



MFT1711 MFT1815



MFT1721 MFT1741+
MFT1825 MFT1845+

068

	<b>MFT</b> 1815	<b>MFT</b> 1825	<b>MFT</b> 1845+
Insulation measurement			
100 V			
250 V	•		
500 V			
1000 V	•		
Test voltage display			
Acoustic signal adjustable	•		
Continuity and resistance measurement			
200 mA Test current		•	
15 mA Test			
Measurement line compensation	•		
Audio indication			
Continuity test with automatic polarity reversal			•
Loop impedance measurement			
Fast loop measurement			
3-wire test without FI/RCD tripping (L-N-PE)			
2-wire test without FI/RCD tripping (L-PE)	-	•	-
2-wire test with high current (L-L and L-N)	-	-	-
2-wire test with high current (L-L and L-N)  2-wire test outer conductor-outer conductor (L-L)	-	-	
Display Short circuit current up to 20 kA	-	-	-
FI/RCD audit			
	_		
1/2 x IΔN FI/RCD examination  1 x IΔN FI/RCD examination			
5 x IΔN FI/RCD examination		_	
	_	-	
Auto FI/RCD check	-	•	-
Increasing current (ramp test)		-	
Type AC (standard) FI/RCDs	-	•	-
Type A (DC pulse) FI/RCDs	-	-	•
Type S (selective) FI/RCDs	•	•	
Type B/B+ (sensitive to universal current) FI/RCD		•	•
EV RCD (inludes 6 mA DC test)			
Programmable FI/RCD test current		•	•
Display of the touch voltage			•
Contact voltage limit value sett. 25/50 V	•	•	
FI/RCD tests 2-pole without N or PE	•	•	
Testing with reversed polarity possible	•	•	•
10 mA FI/RCD		•	
30 mA FI/RCD	•	•	
100 mA FI/RCD			
300 mA FI/RCD			•
500 mA FI/RCD			
1000 mA FI/RCD		•	
Earth measurements			
Earth measurements 2-pole or 3-pole			
Earth measurements with 1 current clamp (ART)			
Earthing measurements with 2 current clamp. (ground loop)			
Measuring voltage limit value sett. 25/50 V		•	•
Earth fault voltage test			
Other functions			
Voltage measurement (L-N, L-PE, N-PE)	•	-	
Frequency measurement	•	•	•
Current measurement, with ILCAMP pliers			
Rotary field display			•
Temperature measurement with external sensor, mV input			
Illuminated LC display	•	•	•
Automatic switch-off (Auto-Power-Off)			
Calibration certificate included in delivery	•	•	-
Operation with batteries or rechargeable batteries (NiMH)		-	
Batteries included	-	-	-
Batteries included  Batteries and charger included	-	_	

### All devices



Extended test lead XTL30

30 m

Item no. 2007-997

## Extended test lead XTL50

50 m

Item no. 2007-998



## Three-phase current adapter 16A

DE-CEE16-S (plug) Item no. DE-060

## Three-phase current adapter 32 A

DE-CEE32-S (plug) Item no. DE-061



#### **Accessory bag**

Item no. 1007-463



#### Test & carry pouch

(Dimensions: approx. 240 x 160 x 70mm), Item number 1006-408



#### Test lead set CAT IV 600 V

(standard 3 wire lead set with un-fused probes and clips), Item no. 1001-99

#### Test lead set CAT IV 600 V

(with fuses 10A F, 600 V, especially for energy suppliers & public utilities, Item no. 1001-975

#### only MFT1835 & MFT1845+



#### MCC1010 (ICLAMP)

CAT IV 600 V

Item no. 1010-516



#### MVC1010 (VCLAMP)

CAT IV 600 V

Item no. 1010-518



#### **Earth Test Spike Kit**

3 pcs. (4 m, 10 m, 15 m), with two earth spikes, Item no. 1001-810



### 50m Earth Test Cables, Spikes & Clamps Kit

Earth measuring cables (2 x 50M & 2 x 30M) ground spikes and clamps,

Item number 1010-179

## **EVCA**210 (only MFT1741+)





#### EVCA210

Test adapter for charging stations, Item no. 1013-317



# **EVCA210** TEST ADAPTER FOR EV CHARGING POINTS

The Megger EVCA210/EVCA210-UK are compact, simple to use adapters designed to perform all the functions required by the electrical contractor to fully test Mode 3 AC Electric Vehicle Chargepoints. Specially designed to comply with UK, European and other International wiring regulations and standards, the EVCA210 may be used on all single and three phase electric vehicle charge points, with appropriate connectors.

They are designed to test the function and safety of a charging point. The adapters allow you to conduct tests using appropriate single or multifunction test instruments on EV charging points in accordance with IEC/EN 61851-1 and IEC/HD 60364-7-722. Charging points should be tested as part of the initial installation and repeated periodically.



# MIT-Series INSULATION RESISTANCE MEASURING INSTRUMENTS

Regular insulation resistance testing is one of the most cost effective, non-destructive methods of identifying ageing in electrical equipment. With over 60% of equipment failures being ascribed to insulation breakdown, it is a key area to monitor. Diagnostic DC testing is probably the easiest and most convenient method of achieving this due to the small size and weight of the equipment, and with Megger's advanced Guard Terminal technology, you can reliably avoid measurement inaccuracies due to leakage currents.

Electrical insulation testing needs have existed as long as electrical assets themselves. Well-chronicled deficiencies of early insulation systems became apparent almost immediately after the first lighting systems were laid over 125 years ago. Although insulation systems

have evolved significantly since then, the need to test them never goes away. The consequences of failure are too high.

The first DC portable insulation tester was developed in 1889 by our founders, Sydney Evershed and Ernest Vignoles, and by 1903 was being sold as a Megger® insulation tester.

Experience the exceptional accuracy, repeatability and reliability of these test instruments. With Megger's advanced Guard technology you can reliably and quickly avoid inaccurate readings due to leakage currents.



#### INSULATION RESISTANCE MEASURING INSTRUMENTS



### **MIT**420/2

- Insulation testing up to 1000 V and 200 G $\Omega$  range
- Stabilised insulation test voltage
- Single range, faster continuity testing from 0.01  $\boldsymbol{\Omega}$  to
- 600 V TRMS AC and DC voltage measurement
- Live circuit detection and protection
- User variable insulation test voltage from 100 V to 1000 V
- Test result storage and Bluetooth® downloading
- Rechargeable options for mains and car charging
- CAT IV 600 V & IP54

Included accessories: Red/Black Silicone test leads with Probes + Clips, remote switch probe, Owners information CD, Batteries 6 x AA Alkaline, Carry case



## **MIT**515

1001-937

- Insulation measurement up to 5 kV DC
- Measuring range to 10 T $\Omega$  (MIT515)
- Measuring range to 20  $T\Omega$  (MIT525)
- Diagnostic function PI, DAR, DD and ramp test
- Li-ion battery, high capacity, fast charging
- Test category CAT IV / 600 Volt

### **MIT**525

1001-941 Item no.

- Robust impact-resistant outdoor carrying case, protection class IP65
- Operational up to 3,000 m above sea level
- Light and compact only 4.5 kg
- Measurement with discharged battery with simultaneous charging at the mains

Included accessories: Power cord, USB cable, product information CD, lead set 3 m, medium sized insulated test clamps



## **MIT**1025

Item no.

1001-945

## **MIT**1525

1002-908

1004-739

- Insulation measurement 100 V to 10 kV DC (MIT1025)
- Insulation measurement 40 V to 15 kV DC (MIT1525)
- Measuring range to 20  $T\Omega$  (MIT1025)
- Measuring range to 30  $T\Omega$  (MIT1525)
- PI, DAR, DD, SV and ramp test
- Battery and mains operation (while the battery is charging)
- Li-ion battery, high capacity, fast charging
- Quick charge function
- Automatic date function
- CAT IV 600 V
- Internal memory with data logger at 5-second intervals or real-time transmission via USB interface with one measurement per second

Included accessories: Mains cable, USB cable, product information CD, 3 lead sets of 3 m each with large insulated clamps (MIT1025 only), 3 cable sets of 3 m each with large insulated clamps (15 kV, MIT1525 only)



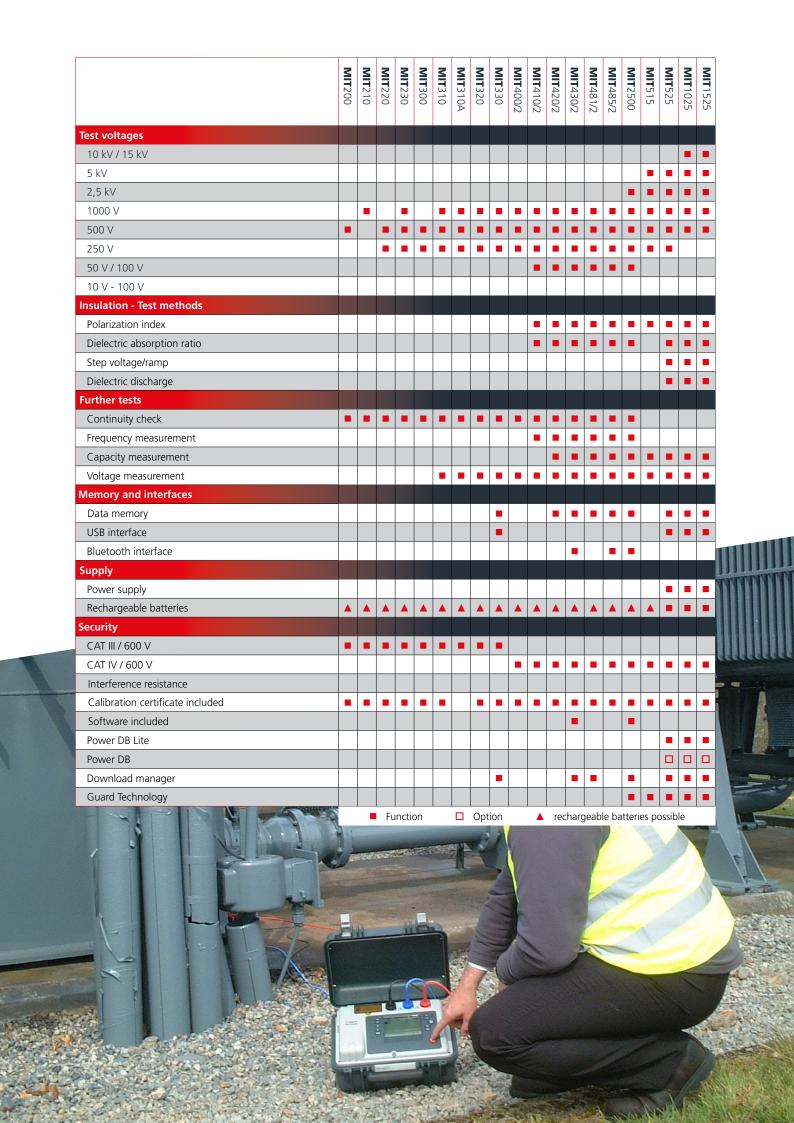
## **MIT**2500

Item no.

1004-745

- Insulation testing up to 2.5 kV and 200  $G\Omega$  range in a hand held instrument
- Guard terminal for high resistance accuracy
- Adjustable insulation test voltage from 50 V to
- Stabilised insulation test voltage
- Rechargeable options for mains and car charging
- Single range, faster continuity testing from 0.01  $\Omega$ to 1 MΩ
- Polarisation Index (PI) and Dielectric Absorption Ratio (DAR)
  - CAT IV 600 V applications

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



## **\$1**-Series

### INSULATION RESISTANCE MEASURING INSTRUMENTS



Item no.	1003-018
<b>\$1-</b> 1068 Item no.	1003-009
<b>\$1</b> -1568	1002-893

Included accessories: Safety Warning Sheet, Product information CD, Power lead, Screened USB cable with filters, Remote control indicator beacon, 5 kV, 3 m x 3, medium insulated clips - S1-568 and S1-1068 only 10 kV, 3 m x 3, large insulated clips - S1-1068 only 15 kV, 3 m x 3, X-large insulated clips - S1-1568 only

Megger's new S1-Series of insulation resistance testers consist of a 5 kV, 10 kV and 15 kV models called S1-568, S1-1068 and S1-1568. These top end instruments are targeted at power utilities and service companies working in generation, transmission and distribution markets. Class leading charge current, noise rejection and software filters make the S1-Series Megger's most advanced DC insulation resistance testers to date.

Instrument productivity is a focus of the new S1-Series which offers rapid charge batteries and operation from an AC source when the battery is flat. An intuitive user interface ensures no lost time remembering how to use the tester. Simplicity of operation is achieved with two rotary switches and a large backlight display which enables multiple results to be displayed simultaneously. A graphical quick start guide is provided inside the lid of each model to assist first time users.

- Resistance measurement: 15 T $\Omega$  5 kV,
- **35** TΩ 10 kV, 35 TΩ 15 kV
- High current 6 mA short circuit current
- High noise immunity 8 mA of noise rejection
- Four software filters: 10 s, 30 s, 100 s, 200 s
- Li-ion battery charges in 2 hours and gives up to 6 hours continuous testing a 100 M $\Omega$  load (S1-568), battery meets IEC 62133
- CAT IV 600 V safety rating up to 3000 m (S1-568, S1-1068)
- CAT IV 1000 V safety rating up to 4000 m (\$1-1568)
- Remote operation via USB cable
- Download of memory via isolated USB cable Bluetooth®
- IR, timed IR, DAR, PI, DD, SV and ramp diagnostic tests
- Large LCD display with backlight
- Dedicated voltmeter function (30 V to 660 V) AC or DC
- Advanced memory, on screen recall and real time clock for date/ time stamped results
- PowerDB Lite asset management compatabilty
- Option to record temperature and/or relative humidity with saved results (measured independently)

Safety of operation is built in, 5 kV and 10 kV models are safety rated to CAT IV 600 V up to 3000 m and the 15 kV S1-1568 is rated at CAT IV 1000 V up to 4000 m. Original equipment manufacturers and repairers will welcome the remote control feature allowing them to automate resistance testing on the factory floor, as will technicians in substations wanting to operate from a more convenient, safe distance.

The S1-Series have a dual case design with a tough outer case to protect the tester from knocks and drops and a fire retardant inner case. The case IP rating prevents moisture and dust ingress when storing or carrying the instrument. The lids have clip-on lead pouches ensuring that leads remain with the instrument at all times. Case lids are removable for improved access to the terminals.

Five preset voltage ranges are provided in insulation test mode, plus a user settable lock voltage range. Preconfigured diagnostic tests include Polarisation Index (PI), Dielectric Absorption Ratio (DAR), Dielectric Discharge (DD), Stepped Voltage (SV) and Ramp test.

Advanced memory storage includes time/date stamping of results, logging of data and recall of results to screen. A fully isolated USB interface or on-board Bluetooth® interface is used for safe transfer of data to Megger's asset management software; PowerDB Pro, Advanced or Lite packages.

Test leads are double insulated t with clamps rated at 3 kV t equivalent to 6 kV single insulation for the medium clip leadset and 5 kV t equivalent to 10 kV single insulation for the large clip. The





# PAT400-Series FULL DATABASE DRIVEN PORTABLE APPLIANCE TESTERS



<b>PAT410</b> +/- 200 mA Item no.	1000-748
PAT420 +/- 200 mA, 10A / 25A Item no.	1005-019
PAT450 +/- 200 mA, 10A / 25A, ISO 1500/3000 ltem no.	1000-751

**Included accessories:** Printed short manual, Detailed operating manual on CD-ROM, calibration certificate, carrying case, measuring cable with test probe and clamp, adapter for extension cable, calibration certificate, measuring cable with test probe and clamp. (Schuko - cold devices), adapter IEC C6-C13 (cloverleaf), measuring cable for high-voltage tests (only PAT450)

The PAT400 range is suitable for performing portable appliance testing in locations where high volume testing requires that accurate records need to be maintained and supported by onboard storage and download to management software.

Our devices offer time saving features: Thanks to the internal USB interfaces, a printer and scanner can be connected to allow for fast asset recall and testing. Furthermore the PAT has a quick start function. A battery allows to change the measurement location and continue testing when the power supply is reconnected - without rebooting the tester.

- 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
- Ex works with approx. 30 preset test groups
- Adjustable limit values and test times
- Login to the test device with a user name and personal PIN, 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: 200mA +10A +25A Protective conductor current
- PAT 450: 200mA +10A +25A protective conductor current and insulation test with 1500V and 3000V
- Barcode scanner/ RFID reader and printer can be connected to the PAT via USB
- Five soft keys for quick access to frequently used functions

Appliance Tester www.megger.com

# PAT100-Series HAND HELD TESTER



Simple tick or cross, pass or fail indication plus measurement

- Tough, rubber armoured with built-in front cover, hardened, scratch-proof display window
- Includes 250 V insulation and leakage testing for safe IT testing and surge protected devices
- Testing portable and fixed electrical equipment
- 10 mA and 30 mA portable RCD lead testing (PAT150)
- Adjustable PASS test limits (PAT150)
- Substitute and mains powered leakage testing (PAT150)
- Battery powered with rechargeable options

PAT120 Item no.

1003-066

1003-068

**PAT**150

Item no.

**Included accessories PAT120:** Test leads with test probe and clamp, adapter for extension cable, hard-shell case

**Included accessories PAT150:** Test leads with test probe and clamp, adapter for extension cable, mains connection lead, hard carry case





# DET2/3 & ETK KIT DIGITAL GROUND IMPEDANCE TESTER



- Schlumberger
- High accuracy for grounding resistances and ground resistance tests
- Rechargeable batteries, operating time up to 10 hours and quick recharge
- Robust device with protection class IP65
- Automatic or manual selection of test current frequencies with filter and noise suppression
- Diagnostic curve display
- Data storage
- Large colour display with numeric and graphic result display

**Included accessories:** Operating manual on USB stick, calibration certificate, charger, calibration checkbox 25Ohm, lid pocket

## ETK50C

Item no. 1010-179

## **ETK**100C

Item no. 1010-180

- Accessory kits to complete earth electrode testing and soil resistivity surveys
- Can be used with any of the DET2/2, DET2/3, DET3 or DET4 Megger earth testers as well as Megger MFT models
- Easy wind and unwind reels
- Easy to use, easy pack away
- Earth test spikes on reels
- Supplied with holdall bag for easy transportation
- Multiple lengths to meet all needs

#### DIGITAL EARTH CLAMPS **DET**14C & **DET**24C



ground clamp-on resistance testers. These instruments induce a test current into earth systems and measure ground resistance

in multi ground installations without needing to disconnect the ground. They offer market leading access, advanced features, simple operation and CAT IV 600 V safety protection.

Designed with flat core ends they prevent dirt build up, ensuring measurement integrity and improved reliability over products with interlocking teeth. Other enhancements over current generation products include improved accuracy and up to 300% increase in battery life. In electrically noisy environments the built-in filter function offers increased noise immunity.

DET14C and DET24C also offer a true RMS AC current measurement facility up to 35 Amps. The instrument's ability to measure current flowing in an earth cable is a useful safety feature, especially if the earth cable has to be disconnected. A high current flow to earth could draw an arc on dis-connection with potentially severe consequences.

The elliptical shaped head design offers improved access to cables and earth straps in space constrained locations. The clamp head accommodates up to 37 mm diameter cable and 50 mm earth tapes making them suitable for use in power stations, substations, towers and many more facilities. Operation in dark and restricted areas is facilitated by a display with backlight and an audible tone associated with the hold key. Optimised jaw opening mechanism ensures proper jaw closure without excessive use of force when opening the jaws.

Included accessories: Detailed manual CD-ROM, carrying strap (arm loop), calibration loop, carrying case

interference.



The DET14C offers storage of results for later on-screen recall and the DET24C supports a download of results via Bluetooth® into PowerDB and PowerDB Lite, Megger's acceptance and maintenance test data management software. Stored data is indexed using a sequential serial number together with a time and date stamp for each record.

# **DET4TD2** EARTH MEASUREMENT DEVICE



## **DET**4TD2

tem no

1000-347

- 2, 3 and 4-wire earth test
- Specific earth resistance test
- Robust housing, protection class IP54
- Complete with test leads and ground spikes
- Robust carrying case

Included accessories: Printed quick start guide, full manual on CD,m calibration certificate, 4-wire earth test kit (3m, 10m, 10m & 15m) with stakes, right angle terminal adapters, hard carry case

		100 To 10	1 to 1	<b>1</b> 18			8		
	<b>DET</b> 3TD	<b>DET</b> 3TC	<b>DET</b> 4TD2	<b>DET</b> 3TR2	<b>DET</b> 4TC2	<b>DET</b> 4TCR2	DET14C	DET24C	<b>DET</b> 2/3
Earth loop measurement							•	•	•
Earth loop measurement with 2 opt. current clamps					•	•			•
Selective grounding measurements "ART		•			•	•			•
Test frequency adjustable					•	•			•
Measurement of earth voltage (0 to 100 V)	•	•	-	•	•	•			-
2-wire earth measurement	•	-	•	•	-	•			-
3-wire earth measurement	•	•	•	•	•	•			•
4-wire earth measurement (spec. earth resistance)			•	•	•	•			•
Battery operation	•	-	•		•		-	-	-
Connection for charger				•		•			•
Accumulator operation				•		•			•
Illuminated display					•	•	•	-	•
Measured value memory							•	•	•
Measured value memory with interface								•	•
Measurement leakage current (0.2 mA - 35 A)							•	•	•
Measurement leakage current (0.5 mA - 19.9 A)		•			•	•			•
Resistance measurement	0,1 to 2 kΩ	0,1 to 2 kΩ	0,1 to 20 kΩ	0,1 to 20 kΩ	0,1 to 200 kΩ	0,1 to 200 kΩ	0,1 to 1500 Ω	0,1 to 1500 Ω	0,1 to 20 kΩ
Software PowerDB Lite			•	•	•	•		•	•
Software PowerDB full version									

# MTR105 TESTER FOR ROTATING MACHINES



MTR105
Item no.

1010-361

- Full color graphic display
- 3-phase insulation resistance
- Temperature correction for insulation resistance
- Guard Terminal
- Continuity testing and diode testing
- Direction of motor rotation
- Capacitance and inductance
- CAT III 600 V up to 3000 m
- Protection class IP54
- DLRO Four-wire measurement

Included accessories: Hook strap assembly, soft bag, temperature probe type T CAT III 600 V; MTR105 calibration certifi cate; USB memory stick; IR test lead set: 3 x clips (red, black and blue) CAT III 1000 V CAT IV 600 V, plus, 3 x 4 mm test leads 2 m, 1 end right angle 1 end straight (red, black and blue) CAT III 1000 V CAT IV 600 V, plus, 3 x test probes (red, black and blue), long reach (100 mm) CAT III 1000 V CAT IV 600 V; Kelvin test lead set with clamp CAT III 600 V: 2 x Kelvin terminal leads, 2 m 4 mm right-angle connectors (4), single (2-core) cable

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 adding DLRO four wire Kelvin low resistance test, inductance and capacitance tests to provide a versatile motor tester, all packaged in a robust hand held instrument, which up to now has simply 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, achieving an IP54 weatherproof rating.



# DLRO10HD & DLRO10HDX MICRO OHMMETER WITH 10 A TEST CURRENT



Augmenting Megger's DLRO10 and 10X range the DLRO10HDX combines ultimate simplicity of operation with a rugged IP65 case designed for stable ground and bench operation and provides memory storage.

These units are powered from either rechargeable battery or mains power making it suitable for continuous testing in production line/repetitive use environments.

Rotary switch controls are simple and easy to operate in all weather conditions and with gloved hands. A large, clear, backlit LCD display is easy to read from a distance.

The DLRO10HDX provides significantly enhanced compliance and is capable of delivering 10 A into measurements up to 250 m $\Omega$  and 1 A into measurements up to 2.5  $\Omega$ . The duration of each test may be up to 60 seconds.

The DLRO10HDX is rated CAT III 300 V provided the optional terminal cover is fitted to the instrument. Details of which can be found in the ordering information panel of this data sheet.

The DLRO10HDX provides five test modes each of which is selected through a simple rotary control on the Mode selection rotary switch. All memory functions, delete, download to PowerDB and recalling test results are also accessible via the Range Selection rotary switch.

A simple control panel enables easy navigation for configuration settings.

# Resolution and Accuracy

Test current accuracy  $\pm 10\%$ Voltmeter input impedance >200 k $\Omega$ 

Maximum lead resistance at 10 A <100 m $\Omega$ 

Test current	Resistance range	Resolution (as displayed)	Basic accuracy*	Full scale voltage	Max. power output	
100 μΑ	0 - 2,5 kΩ	0,1 Ω	±0,2% ±200 mΩ 25 mV		25 μW	
100 μΑ	0 - 250 Ω	0,01 Ω	±0,2% ±20 mΩ 25 mV		2,5 μW	
1 mA	0 - 25 Ω	1 mΩ	±0,2% ±2 mΩ 25 mV		25 μW	
10 mA	0 - 2,5 Ω	0,1 mΩ	±0,2% ±200 μΩ	25 mV	250 μW	
100 mA	0 - 250 mΩ	0,01 mΩ	±0,2% ±20 μΩ 25 mV		2,5 μW	
1 A	0 - 25 mΩ	1 μΩ	±0,2% ±2 μΩ	25 mV	25 mW	
10 A	0 - 2,5 mΩ	0,1 μΩ	±0,2% ±0,2 μΩ 25 mV		0,25 W	
1 A**	0 - 2,5 Ω	0,1 mΩ	±0,2% ±200 μΩ 2,5 V		2,5 W	
10 A**	0 - 250 mΩ	0,01 mΩ	±0,2% ±50 μΩ	2,5 V	25 W	

<sup>\*</sup> Basic accuracy stated assumes forward and reverse measurements.

Digital Low Resistance Ohmmeter

<sup>\*\*</sup> Higher 2.5 W (1 A) and 25 W (10 A) power outputs.

# DLRO10HD No lead set Item no. 1006-603





- Simple rotary switch selection of five test modes, including auto start on connection, a high resolution of up to 0.1 micro-ohms, a basic accuracy of up to 0.2 percent and a special mode for measurements on inductive test objects.
- Automatic start function
- Resolution up to 0.1  $\mu\Omega$ , measuring range up to 2,500  $\Omega$
- Test current 0.1 mA up to 10 A
- High or low output power selection for condition diagnosis
- Protected to 600 V, test lead live voltage warning light
- Operates from battery or AC mains supply
- Heavy duty case: IP 65 lid closed, IP54 operational
- Onboard memory storage for test results up to 200 records (HDX only) Download to PowerDB
- Interchangeable test lead terminations

Included accessories: Printed short manual, Detailed operating instructions on CD-ROM, Schuko power supply cable



Robust rotary switches with safe and understandable colour coding



A sturdy hard shell case offers your device space and protection



Easy to use navigation buttons



USB connection

# KC SERIES TEST LEADS WIND TURBINE LIGHTNING PROTECTION TEST LEAD SETS



The KC-series of test leads provide a complete and convenient solution to the problem of finding reliable test leads that are long enough for testing the continuity of lightning protection conductors in wind turbines.

KC-series wind turbine test leads are available in 330 ft, 200 ft and 100 ft (100 m, 60 m and 30 m) versions that are equally suitable for use on site or in the manufacturing plant. All lead set versions are 10 A rated.

	Kelvin lead kit (900 mΩ) 1x 100 m / 1x 6 m	1000-809
KC60 Item no.	Kelvin lead kit (500 mΩ) 1x 60 m / 1x 6 m	1001-248
KC30 Item no.	Kelvin lead kit (250 mΩ) 1x 30 m / 1x 6 m	1001-249

- Developed in conjunction with a leading manufacturer of wind turbines
- Allows easy and reliable measurement of lightning protection circuit resistance of wind turbines
- Available in three lengths, 30 m, 60 m and 100 m to suit both manufacturing and maintenance applications
- Long cable fitted on strong metal framed cable reel
- Cable reel fitted with friction brake to avoid tangles when paying out cable emfs
- Uses duplex connect test lead system

Included accessories:

# DLRO2 2A MICRO-OHMMETER FOR MEASURING THE SMALLEST RESISTANCES BETWEEN ELECTRICAL CONNECTIONS



The DLRO2 is a tough, hand-held 2 A low resistance ohmmeter. It's designed to provide fast, accurate, repeatable measurements, even in electrically noisy locations. The DLRO2 is the latest in a long line of instruments to proudly display the Ducter™ brand, the Ducter™ testers being as well-known and relied upon as Megger insulation resistance testers.

For the utility or industrial user, a high level of safety is provided with a CATIII 600 V/CATIV 300 V rating to IEC61010. In addition, the instrument can protect itself from inadvertent connections to up to 600 V without blowing a fuse, thereby avoiding essential time lost due to repairs or finding a replacement fuse. When working outside, the IP54 rating ensures that neither rain nor dust will prevent testing.

The DLRO2 measures low resistance values across a wide range of applications, from railways and aircraft to the resistance of industry components.

Applications requiring long test leads are not a problem for the DLRO2 as it has a dedicated long lead test to optimise the output. The long test lead function is able to provide up to 1 A of test current into 4 ohms resistance. This makes the DLRO2, with its



optional cable reel test leads, ideal for testing wind turbine and avionic lightning protection applications.

To allow testing of smaller inductive loads, the DLRO2 can apply 2 A for at least 15 seconds, made possible by the high-capacity built-in rechargeable batteries, together with a separate inductive load function. The batteries can be fully recharged in 2.5 hours, minimising down time.

Note: The DLRO2 is not ATEX/intrinsically safe rated and must not be used in explosive gas environments.

22 Mikroohmmeter www.megger.com

# AVO830 TRMS-DIGITALMULTIMETER



# TDR500/3 TIME DOMAIN REFLECTOMETER & CABLE LENGTH METER



The TDR500/3 is a hand held, compact time domain reflectometer for locating faults on metallic cables. It has a minimum resolution of 0.1 m and a 5 km maximum range depending on velocity factor selected and cable type.

Four output impedances are available (25, 50, 75, and 100  $\Omega$ ) and a velocity factor between 0.2 and 0.99 will meet any cable test requirements

The TDR500/3 has a simple selection option which together with a 4 way control switch offers an intuitive operation for the user.

An AUTO selection option ensures that the most effective parameters are selected depending on the range required, aiding rapid diagnosis of the TDR trace. A clear operator controlled cursor allows instant measurement of the distance to the fault.

A trace HOLD feature also allows the operator to hold a trace on the screen, something not seen on most other handheld TDRs. Extra high resolution together with whitelight backlight and grey scale tones give the graphical display a vibrancy, aiding the user in identifying key events on the trace.



# TDR2050 TIME DOMAIN REFLECTOMETER & CABLE LENGTH METER





The Megger® TDR2000/3, TDR2010 and TDR2050 are state of the art, dual channel, high resolution, compact Time Domain Reflectometers with a colour screen for locating faults on paired metallic cables.

All TDRs in this series have a minimum resolution of 0.1 m / 0.3 ft and a 20 km / 65 kft maximum range depending on the velocity factor selected and the cable type.Various output impedances are available (TDR2000/3 and 2010: 25, 50, 75, 100, 125 ohm + AUTO. TDR2050: 25, 50, 75, 100, 140 ohm + AUTO) and an auto impedance matching feature. The velocity factor can be set between 0.2 and 0.99 to meet any cable test requirements.

The TDR2000 series have a large, high resolution, colour, WVGA display with easy set up features. Directional control buttons, together with soft keys, provide intuitive and easy operation for the user.

An AUTO selection option ensures that the most effective parameters are selected depending on the range required, aiding rapid diagnosis of the TDR trace. The ability to manually override the auto function allows fine tuning to enable identification of hard to determine faults.

Dual trace and dual cursor capabilities allow full flexibility, giving the operator full control and instant indication of distance between two points.

A trace comparison feature also allows close examination between trace conditions. Extra high resolution together with a white-light backlight, user definable colour schemes give the graphical display a vibrance, aiding the user in identifying key events on the trace.

## **TDR**2050

Item no.

1005-022

- Two measuring channels and measured value memory for 100 traces
- Graphical color display (800 x 400) for better comparison of the measured curves
- AUTO set up mode for instant, easy use
- Length measurement and fault localization on copper cables
- Ultra-fast pulses for searching at the very near end of the cable
- Measurement category up to CAT IV / 600 V
- Protection class IP54 for harsh environments
- Minimum resolution of 0.1 m with 20 km maximum range
- Output impedances from 25, 50, 75, 100, 125 up to 140 Ohm
- Velocity factor between 0.2 and 0.99
- CAT IV 600 V input protection
- Step and pulse TDR selection
- Trace tagging facility that allows a name to be saved with the trace pulse width of two nanoseconds for use on all twisted-pair metal cables

**Included accessories:** Carrying case, AC-DC charger, instruction manual CD



# TDR-Series TIME DOMAIN REFLECTOMETER & CABLE LENGTH METER



The Megger® TDR2000/3, TDR2010 and TDR2050 are state of the art, dual channel, high resolution, compact Time Domain Reflectometers with a colour screen for locating faults on paired metallic cables. All TDRs in this series have a minimum resolution of 0.1 m / 0.3 ft and a 20 km / 65 kft maximum range depending on the velocity factor selected and the cable type.

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A trace comparison feature also allows close examination between trace conditions. Extra high resolution together with a white-light backlight, user definable colour schemes give the graphical display a vibrance, aiding the user in identifying key events on the trace.

	TDR500/3	TDR1000/3	TDR1000/3P	TDR2000/3	TDR2000/3P	TDR2010	TDR2050
Range	0,2m to 5km	0,2 m to 5 km	0,2 m to 5 km	0,2 m to 20 km	0,2 m to 20 km	0,2 m to 20 km	0,2 m to 20 km
Shortest pulse width	2 ns	2 ns	2 ns	2 ns	2 ns	2 ns	2 ns
Number of Channels	1	1	1	1	1	1	1
Built-in Blocking Filter	•	•	•	•		•	•
Memory Function	Trace-Hold	Trace hold with Live Trace overlay					
Automatic Section	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable
Auto-error detection				•	•	•	•
Trace Tagging						•	•
Step Function							•
Distance dependant gain							•
Auto end find							•
Rechargeable Battery				•		•	•
Test Lead type	Minature Clip	Minature Clip	Minature Clip	Minature Clip	10A Fused standard clip	Minature Clip	10A Fused standard clip
Safety rating	CAT III 300 V	CAT III 300 V	CAT III 300 V	CAT III 300 V	CAT III 300 V	CAT III 300 V	CAT III 600 V
Dust and weatherproof rating	IP54	IP54	IP54	IP54	IP54	IP54	IP54



VF6 EX Item no.

1013-097

## **VF**5

Item no.

1013-098

- **Ex** Hazardous area rated (only VF6 EX)
- AC non-contact voltage detector
- 12 V 1000 V voltage range
- Visual, audible and vibration warning of low and medium voltages
- Screw-on battery cover
- Built-in bright-white LED torch
- **CAT IV 1000 V**
- IP67

Included accessories: Batteries 2 x AAA





Included accessories: Pouch, GS38 shrouds, Batteries 2 x AAA

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.

With both LCD and LED displays, the TPT420 provides both AC and DC voltage measurement - from 12 to 1000 V AC and up to 1500 V DC. In addition, a continuity function within the range 0 to 500 k $\Omega$ , is included and for added safety, continuity and voltage measurements are also accompanied by an acoustic sounder.

A bright, integrated LED torch aids the operator when working in poorly lit environments. When testing between phase and earth on any circuit protected by an RCD, RCBO and Safety Breaker, the TPT420 is designed to work below the tripping threshold of these devices to help avoid unintentional disconnection.

The phase rotation indication test has been simplified, which now avoids the crossing of the test probes, adopted by some 2 pole testers. The TPT420 can also perform a single pole voltage indication test.

With safety in mind, the TPT420 is rated at CAT IV 1000 V with an IP64 housing and conforms to the latest IEC/EN 61243-3 and DIN VDE 0682-401 standards.



# MPU690 PROVING UNIT FOR 2-POLE TESTERS COMPATIBLE WITH ALL COMMON VOLTAGE TESTERS



**MPU**690

Item no.

1001-561

- Tests 2-pole testers and voltage indicators
- Step LED indicate test voltages 50 V, 100 V, 230 V, 400 V,690 V
- Simulates AC voltage with 50 Hz

- The compact housing contains a magnetic holder
- Automatic switch-on and switch-off for energy-saving operation
- Battery level warning





### **MET**1000

Item no.

1013-099

- LED & LCD Display with self-test
- Detachable test probes
- AC/DC Voltage to 1000 V
- 200 A AC measurement
- True RMS on ACV/ACA
- IP65
- Phase rotation
- Single pole test
- Data Hold
- Measures voltage without batteries
- Complies with IEC/EN 61243-3:2014
- IP65

Included accessories: Red and black probe lead set, carry holster with belt loop

The Megger MET1000 is a multifunctional voltage and current tester providing electricians and electrical engineers a versatile and robust hand - held all-in-one meter, with detachable test leads. Featuring both LED and LCD displays, it gives the user a 200 A AC and 1000 V AC/DC tester designed for everyday use. CATIV 600 V/ CATIII 1000 V rated, with an IP65 housing for added protection, it reduces the number of testers required in the professional's tool bag.

In addition to the versatile auto-ranging voltage and continuity tests the Megger MET1000 has a built-in current clamp for AC current measurement to 200 A.

With TRMS AC measurements, a phase rotation test and both inrush current and single pole voltage test built in, the MET1000 is a truly versatile electrical tester, ideal for use in commercial, industrial and domestic environments. GS38 shrouds are provided as standard to ensure compliance with the latest standards.

A bright LED torch aids safe working in poorly lit conditions and with the added benefit of an IP65 casing - incorporating a protective finger guard - ergonomic design, instrument carrying holster and a simple to use probe mounting on the rear of tester all help to keep the user safe and the instrument protected.

Incorporating a comprehensive self-test feature, acoustic continuity and voltage indication, a maximum current draw of >3.5m A to avoid unwanted tripping of RCD's/RCBO's and the ability to warn the operator of dangerous voltages, even when the batteries are exhausted, ensure the Megger MET1000 meets the practical demands of today's busy test technicians.







# DCM1500 INRUSH & DCM320 AC CURRENT CLAMP

## **DCM**1500

Item no.

1005-572

- Current measurement up to 1500 A AC/DC
- Voltage measurement 750 V AC and 1000 V DC
- Measurement category CAT IV and True RMS
- Fast sampling rate of 10ms
- True RMS measurements for higher accuracy
- Large clamp opening for safe measurements on noninsulated conductors
- Resistance, continuity and frequency measurements
- Peak, min/max display and data hold function



## **DCM**320

Item no.

1000-304

- Voltage measurement up to 600 V AC/DC
- Measuring range 0.1 to 400A AC
- Resistance measurement (DCM320)
- Acoustic continuity test
- Data hold function
- Jaw opening 27 mm
- Measurement category CAT III / 600 V



# DCM305E LEAKAGE CURRENT CLAMP



## **DCM**305E

tem no.

2009-574

- Measuring ranges: 6 mA, 60 mA,600 mA, 6 A, 60 A,100A
- 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 & Peak Hold
- 40 mm clamping jaw



# DCM1500S SOLAR CLAMP METER UP TO 2000 V DC



## **DCM**1500S

Item no

1013-357

- 2000 V DC
- TRMS 1500 V AC
- 1500 A AC/DC
- Smart Hold
- Auto ranging
- MIN/MAX Hold
- Inrush Current
- Megger Link app compatible
- CAT IV 600V / CAT III 1000V
- Data logger

34

PV test leads with MC4PV plug

**Included accessories:** DCM 4mm Lead Set (Inc. Probes and Crocodile Clips), TP-90 Thermocouple Probe, PVHV1 Lead (4mm Plugs), PVHV2 Lead (MC4PV Plugs), Hard Carry Case

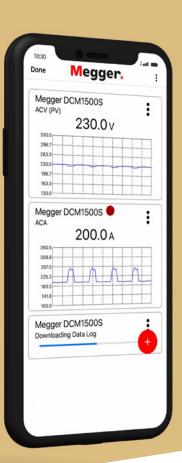
Measuring up to 2000 V DC and 1500 V AC (using the PVHV Leads), as well as 1500 A AC or DC, the DCM1500S solar clamp meter is ideal for use in the installation, maintenance, monitoring and testing of photovoltaic systems as well standard AC or DC electrical equipment. It has a large clear backlit display and an automatic torch in the jaw to assist use in poorly lit areas. Using the free Megger Link App, the measurement value can be remotely monitored on a smart device using the built-in Bluetooth®. This will give a live trend graph and offer the ability to sample and log the values for later analysis.

Solar clamp meter www.megger.com

## **MEGGER LINK APP**







## **MEGGER LINK APP**

Free of charge in the App Store





The Megger Link App makes it easier for you to work with a range of Megger instruments. It allows you to connect the test Instrument to the app via Bluetooth. This connection is the prerequisite for displaying all previously downloaded test results. Of course, you can also view ,live' values measured by the tester and a graphical representation of the results on the display. The graph is updated at intervals specified in the app settings. The measuring range of the tester can be changed at any time and displayed on your Smart Phone or Tablet. It is possible to display up to 4 test instruments with the corresponding measurements and line graphs at the same time. Furthermore, the Megger Link App allows you to record the measurement value directly on your Smart Phone or Tablet, download stored log data, rename the test instrument used and share an image section. The latter can be sent as a CSV file directly via email, text message, WhatsApp, etc. This file can be opened in Excel or other spreadsheet software to create charts and tables for reports or presentations.





## **PVK**330



installation additional instrumentation is required to accompany the usual electrician's test equipment such as the Megger MFT1835 multifunction tester.

The Megger PVK330 photovoltaic kit offers this additional instrumentation in the form of a PVM210 irradiance meter, DCM340 600 A ac / dc clampmeter and a kit of specialist solar test leads. To provide easy storage of the PV kit a zipped pouch is also included.

The PVK330 kit offers the solar / photovoltaic engineer a clampmeter option of verifying, with the PVM210 irradiance meter, the stated short circuit current as provided by the manufacturer of the solar panel as required by published standards. In addition, this clampmeter offers the option of testing the current within each 'string' on a larger solar array without disconnection of cables.



- Optimal incident angle and positioning of solar panels
- Measurement of solar power for panel short circuit calculation
- 3¾ digit LCD display with 1999 W/m2 range
- Single handed use
- Mini pocket size
- Standard camera mount fixing for accurate placement

Included accessories: Batteries, Pouch, Calibration certificate



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

Single handed operation is possible because the solar detector and meter being housed in one neat unit. This feature is ideal when using the instrument on a sloping roof or at the top of a ladder.

With the easy to read display and measurement hold feature the meter gives fast, accurate readings of solar power for initially choosing optimum position for the photovoltaic panel. In addition the meter can provide the vital measurement for the calculation of short circuit current in conjunction with a suitable ammeter to verify the stated short circuit current provided by the manufacturer of the panel.

In addition to W/m² measurements, a selectable BTU (British Thermal Unit) measurement range is also featured.

To prolong battery life the PVM210 has an auto power off.

On the rear of the meter is a universal camera thread that allows mounting for precise readings if required. A protective pouch is included with each instrument.

**DPM1000** POWER CLAMP WITH MEGGER LINK APP



### **DPM**1000

Item no.

1013-356

- AC/DC Voltage to 1000 V
- AC/DC Current to 1000 A
- True RMS
- Resistance 100 kΩ
- LCD Display
- Phase rotation indication
- Auto backlight display
- Frequency measurement
- Capacitance measurement
- Power Factor Measurement
- Watt measurement to 1MW

- Harmonic measurement
- Harmonic distortion
- Diode test
- Non-contact volt alert
- Continuity Beeper
- Data Hold/Min-Max/Peak Hold
- Bright LED torch
- Temperature to 1000° C
- Hard carry case
- CAT IV 600V Rating
- Supplied with carry case

Included accessories: DCM 4mm Spare Lead Set, TP-90 Thermocouple Probe, Hard Carry Case

The new Megger DPM1000 power clamp meter combines the functionality of a power meter, harmonics meter and data logger in one easy-to-use package. The design meets the requirements of BSEN 61010-1 CAT IV 600 V for supply side applications. A large, backlit LCD clearly displays all measurements that can be selected at the touch of a button or when rotating the selection dial. It can also automatically switches off to save battery consumption.

The DPM1000 can measure DC, AC, pulsed and mixed currents up to 1000 A simply by clamping the jaws around the appropriate conductor, whilst voltages up to 1000 V AC or DC may be measured by the supplied test leads. Where power measurements are to be made, both techniques above are performed simultaneously.





# MPQ1000 HANDHELD POWER QUALITY ANALYSER



## **BASIC-KIT MPQ**1000

tem no.

MPQ1000-BASIC

**Included:** MPQ1000 analyzer, voltage leads, SD card, USB cable, ethernet cable, universal power adapter, soft-sided carry bag plus fuse adapters and hanging strap. Does not include current clamps.

## Silver-Plus-Kit MPQ1000

tem no.

MPQ1000-S-KIT-PLUS

**Included:** Includes MPQ1000 analyzer, voltage leads, SD card, USB cable, ethernet cable, universal power adapter, soft-sided carry bag, plus hanging strap, voltage lead plunger clips, and 4 MCCV6000-18 (four range flex 18 cm ID) CTs

- Auto CT identifies the current clamp that is connected to the analyzer as well as the range to which the CT is set.
- Configuration verification which identifies and notifies you if the product has been connected incorrectly.
- On-board data analysis which can compare results against canned or custom standards. Create your own templates for internal your company standards.
- SD Card Support, USB Card Support, USB Communications as well as Ethernet connections, making it versatile.



The MPQ1000 handheld power quality analyzer has features which make it ideal for troubleshooting, compliance testing and energy audits. Auto CT identification eliminates potential errors due to wrong CT range settings. The analyzer will automatically identify the CT and verify it is connected correctly. This means you can be confident you will have the correct data.

But the hardware is not all it's about – behind the sturdy exterior is an intelligence that is focused on smart testing, with industry-leading software that enables you to minimize errors while testing, and quickly and easily analyze your results. For example, you can create your own company standard templates that can be stored and compared, as well as check your results against compliance standards. This saves time, effort and costs, making your entire testing process more efficient.

The software automatically creates custom configurations based on the issue you are troubleshooting, whether it be equipment tripping out, transformer or motor issues, EN50160 analysis or general PQ analysis. This ensures the analyzer will capture the power quality phenomenon that causes those problems. You do not have to be a PQ expert to carry out a comprehensive analysis.

# MPQ2000 PORTABLE POWER QUALITY ANALYZER



## BASIC-KIT MPQ2000

Item no.

MPQ2000-BASIC

**Included:** MPQ2000 analyzer, voltage leads, SD card, USB cable, ethernet cable, universal power cords, soft-sided carry bag plus fused adapters. Does not include current clamps.

### Silver-Plus-Kit MPQ2000

Item no.

MPQ2000-S-KIT-PLUS

Included: MPQ2000 analyzer, voltage leads, SD card, USB cable, ethernet cable, universal power cords, soft-sided carry bag, plus fused adapters and 4 MCCV6000-18 (four range flex 18 cm ID) CTs

- Power off Phase A or auxiliary, allowing it to be used anywhere
- Weather proof to NEMA 4 standard for use in any environment
- Auto CT identifies the current that the instrument is connected to and the range that it is in
- Configuration verification which highlights if the product has been connected incorrectly
- On-board data analysis which can compare results against compliance standards, including setting templates for internal company standards

The MPQ2000 is identical to the MPQ1000 in terms of functions, but the MPQ2000 has 9 channels, 4 voltage channels, 5 current channels IP54 and is supplied in a robust, weatherproof carrying case.

## BASIC-KIT MPQ1000



#### Silver-Plus-KIT MPQ1000



### BASIC-KIT MPQ2000



#### Silver-Plus-KIT MPQ2000



# TC3231 THERMAL CAMERA FOR FAST LOCALATION OF HOTSPOTS

**TC**3231

Item no.

1012-514

Full thermal image for IR temperature measurement

- Measurement range -20 ° to 300 °C
- Adjustable emissivity
- Micro SD memory for storing up to 6000 images
- Max/Min Measurements on screen
- Hot & Cold Spot tracking on screen
- Full image blending and selectable measurement distance of 0,5 m, 1 m, 2 m or 3m for greater accuracy

ncluded accessories: USB mains charger, USB lead, Micro SD card, SD card adapter





The Megger TC3231 offers a professional infrared 32 x 31 pixels image thermometer with a 2.2 inch (55.88 mm) colour TFT LCD display. Quick, accurate readings are possible; covering a wide range of surface temperature measurements.

TC3231 Thermal Camera .2010300°C/410572°F

The product combines the convenience of an infrared thermometer with the visual advantage of a thermal imager providing a troubleshooting camera with infrared heat map.

The TC3231 features a range of selectable thermal image colour palette display options along with high / low user preset temperature alarms. For convenience, background temperature is also user selectable.

An easy to use image blending function is also featured; the camera takes an aligned visible, non-infrared, image, together with a full infrared image. The 2 pictures are then blended and can be adjusted between 0 to 100%. This makes identifying problems and pinpointing their location far easier.

As well as centre spot temperature measurement, the camera also offers simultaneous hot and cold spot tracking, with resultant values and location updated continuously on the display.

Up to 6000 images can be saved on the included micro SD memory card which can be downloaded to a PC via the USB interface in BMP file format. An SD card adapter is also provided for file transfer directly to a computer if required.

42 Thermal camera www.megger.com

# PSI410 PHASE SEQUENCE INDICATOR



### PSI410 Item no.

1001-612

- LED clockwise and counter clockwise phase rotation indication
- Audible indication of direction
- Phase condition LEDs
- Fused test leads
- Croc clips and prods provided
- Dual phase colour identification

Included accessories: Croc clips and Prods

Electrical work on commercial and industrial installations often requires working on motorised machinery with three phase supplies. Correct sequence of the phases is important with certain motors and pumps as damage to brakes and valves will occur in minutes with incorrect phasing.

The Megger PSI410 phase rotation indicator provides rapid indication of correct phase sequence utilising a three bi-coloured LED display and a specific audible tone. Clockwise rotation is indicated by clockwise rotating green LEDs with a continuous tone and counter clockwise rotation has counter clockwise rotating red LEDs and a warbling tone.

To avoid the display rotating at the supply frequency the unit has been designed to provide a slow rotational speed of the display to allow easy indication of rotation.

Dual phase colour coding has been adopted for the PSI410 to allow ease of use on both Brown / Black / Grey and Red / Yellow / Blue colour coded supplies.

The PSI410 also features a triple bi-coloured LED display that indicates that all three phases are present. A green LED indicates the phase is present while a red LED shows a missing phase connection.

The unit has a tough rugged case designed for an industrial environment and is supplied with long fused test leads with crocclips and prods. The prods have insulated tips that provide less than 4 mm exposed tip.

The PSI410 is self powered from the supply and requires no batteries.

The PSI410 is an ideal addition to an electrician's tool kit where currently owned test instruments do not feature phase rotation. The unit provides a quick and simple means of checking phase sequence on motor, pump and air conditioning three phase supplies.

# **WEBINARS**



# Visit our free webinars at:



https://www.megger.com/webinars

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EURO-INDEX verleent service op alle meetinstrumenten uit haar leveringspakket en biedt de faciliteiten, kennis en hoog gekwalificeerd personeel voor (preventief) onderhoud, reparatie en kalibratie van uw meetinstrumenten.

#### Geautoriseerd Service Centrum .....

EURO-INDEX is van alle vertegenwoordigde merken een Geautoriseerd Service Centrum.

Dit betekent dat uw instrumenten worden behandeld door goed opgeleid en kundig personeel, dat beschikt over de juiste gereedschappen en software. Er worden uitsluitend originele onderdelen gebruikt en de garantie van uw instrument, evenals de certificering (ATEX, EN50379, etc.) blijven intact.

#### Service- en kalibratielaboratorium .....

EURO-INDEX beschikt over een bijzonder modern service- en kalibratielaboratorium met RvA accreditatie naar NEN-EN-ISO/IEC 17025. Deze accreditatie geldt voor verschillende grootheden, zoals gespecificeerd in de scope bij accreditatienummer K105.



#### KWS

KWS is een een uniek servicesysteem voor uw meetinstrumenten met periodiek onderhoud en kalibratie. Veel zaken worden voor u geregeld, zodat u zonder zorgen gebruik kunt maken van uw meetinstrumenten. De kosten zijn laag en voorspelbaar.

#### Digitale toegang tot uw kalibratiecertificaten met Mijn KWS .....

Via het Mijn KWS webportal heeft u altijd en overal toegang tot uw kalibratiecertificaten en gerelateerde documenten.

#### Verhuur van meetinstrumenten .....

- Uitgebreid assortiment
- Deskundig advies
- Instrumenten worden geleverd met accessoirepakket en herleidbaar kalibratiecertificaat

### EURO-INDEX Academy .....

- Producttrainingen (individueel en klassikaal)
- Seminars
- Demonstratie- en instructievideo's

## Bekijk de video op ons YouTube kanaal en ontdek alles over KWS



Servicebalie



Kalibratie rookgasanalyse



Seminars en workshops



Kalibratie thermografie

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