

METREL Measuring and Regulation Equipment

ELECTRICAL INSTALLATION SAFETY

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- MI 3102 BT EurotestXE
- MI 3100 SE EurotestEASI
- MI 3100 s EurotestEASI

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ADVANCED PORTABLE APPLIANCE TESTING SOFTWARE

- A 1434 aPAT Android



PRODUCT NEWS 2014

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ELECTRICAL INSTALLATION SAFETY

MI 3102H BT EurotestXE 2.5 kV

MI 3102H BT EurotestXE 2,5 kV is a multifunctional measuring instrument which apart from all the necessary functions for complete installation safety testing according to IEC/EN 61557 performs insulation resistance measurement with the test voltage up to 2,5 kV (measuring range is up to 20 GΩ) and enables diagnostic test by PI and DAR indexes calculation. Besides, the MI 3102H BT EurotestXE 2,5 kV enables on-line voltage monitoring, phase sequence testing, earth resistance measurement, illuminance measurement and TRMS current measurement.



MEASURING FUNCTIONS:

- Insulation resistance with DC voltage 50 V to 2,5 kV and PI, DAR calculation;
- Continuity of PE conductors with 200 mA DC test current with polarity change;
- Continuity of PE conductors with 7 mA test current without RCD tripping;
- Continuity RPE with 200 mA AC on outlet;
- Line/Loop impedance;
- Loop impedance with Trip Lock RCD function;
- TRMS voltage and frequency;
- Phase sequence;

- Power and harmonics;
- RCD testing (general and selective, type AC, A, F);
- Earth resistance (3-wire and 2-clamps method);
- Specific earth resistance with Ro-adapter (option);
- TRMS leakage and load currents (option);
- Illumination (option).

KEY FEATURES:

- Predefined mini AUTOSEQUENCES:
 - Auto TT (U, Zln, Zs, Uc);**
 - Auto TN/RCD (U, Zln, Zs, Rpe);**
 - Auto TN (U, Zln, Zlpe, Rpe).**
- Wide range of insulation test voltages from 100 V to 2500 V, readings up to 20 GΩ.
- Insulation diagnostics: Polarisation Index (PI) and Dielectric Absorption Ratio (DAR) calculation.
- Power measurements and harmonics analysis.
- Built-in help screens for referencing on site.
- Built-in fuse tables for automatic evaluation of the line / loop impedance result.
- Monitoring of all 3 voltages in real-time.
- Automatic polarity reversal on continuity test.
- Loop impedance test without tripping the RCD.
- Built-in charger and rechargeable batteries as standard accessory.
- Automated RCD testing procedure.
- Bluetooth communication with PC, Android tablets and smart phones via built-in BT.
- PC SW EuroLink PRO for downloading of test results and report creation.
- EuroLink Android APP, data management tool (option).

ELECTRICAL INSTALLATION SAFETY

MI 3102 BT EurotestXE

MI 3102 BT EurotestXE is a multifunctional measuring instrument which performs a complete set of installation safety tests according to IEC/EN 61557. It supports *AUTO SEQUENCE*® testing of the TN, TT and IT earthing systems. ISFL measurements and the IMD tests can be performed. Besides, the MI 3102 BT EurotestXE enables on-line voltage monitoring, phase sequence testing, earth resistance measurement, illuminance measurement and TRMS current measurement. EurotestXE is equipped with integrated characteristics of fuses and RCDs for PASS / FAIL evaluation of test results. All the results can be quickly saved and referenced on the instrument and then downloaded via the EuroLink PRO software (included in the standard set) to the computer for evaluation and report generation after testing.



MEASURING FUNCTIONS:

- Insulation resistance with DC voltage from 50 V to 1000 V;
- Continuity of PE conductors with 200 mA DC test current with polarity change;
- Continuity of PE conductors with 7 mA test current without RCD tripping;
- Line/Loop impedance;
- Loop impedance with Trip Lock RCD function;
- TRMS voltage and frequency;
- Phase sequence;
- Power and harmonics;
- RCD testing (general and selective, type AC, A, F, B, B+);
- Earth resistance (3-wire and 2-clamps method);
- Specific earth resistance with Ro-adapter (option);
- TRMS leakage and load currents (option);
- First fault leakage current (ISFL);
- Testing of Insulation Monitoring Devices (IMDs);
- Illumination (option).

KEY FEATURES:

- Predefined mini AUTOSEQUENCES:
 - Auto TT (U, Zln, Zs, Uc);**
 - Auto TN/RCD (U, Zln, Zs, Rpe);**
 - Auto TN (U, Zln, Zlpe, Rpe);**
 - Auto IT (U, Zln, Isc, Isfl, IMD).**
- Power measurements and harmonics analysis
- Built-in help screens for referencing on site.
- Built-in fuse tables for automatic evaluation of the line / loop impedance result.
- Monitoring of all 3 voltages in real-time.
- Automatic polarity reversal on continuity test.
- Loop impedance test without tripping the RCD.
- Built-in charger and rechargeable batteries as standard accessory.
- Automated RCD testing procedure.
- BT communication with PC, Android tablets and smart phones via built-in BT.
- PC SW EuroLink PRO for downloading of test results and report creation.
- EuroLink Android APP, data management tool (option).

ELECTRICAL INSTALLATION SAFETY

MI 3100 SE EurotestEASI

MI 3100 SE EurotestEASI is a fast, accurate and easy to use multifunctional measuring instrument which performs a complete set of installation safety tests according to IEC/EN 61557. Besides, the EurotestEASI enables on-line voltage monitoring, phase sequence testing and earth resistance measurement. EurotestEASI is equipped with integrated characteristics of fuses and RCDs for PASS / FAIL evaluation of test results. All the results can be quickly saved and referenced on the instrument and then downloaded via the EuroLink PRO software to the computer for evaluation and report generation after testing.



MEASURING FUNCTIONS:

- Insulation resistance with DC voltage from 50 V to 1000 V;
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- Line impedance;
- Loop impedance;
- Loop impedance with Trip Lock RCD function;
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- Phase sequence;
- RCD testing (general and selective, type AC, A, F);
- Earth resistance (3-wire method).

KEY FEATURES:

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- Built-in fuse tables for automatic evaluation of the line / loop impedance result.
- Monitoring of all 3 voltages in real-time.
- Automatic polarity reversal on continuity test.
- Loop impedance test without tripping the RCD.
- Built-in charger and rechargeable batteries as standard accessory.
- Automated RCD testing procedure.
- BT communication with PC, Android tablets and smart phones via BT dongle.
- PC SW EuroLink PRO for downloading of test results and report creation.
- EuroLink Android APP, data management tool (option).

ELECTRICAL INSTALLATION SAFETY

MI 3100 s EurotestEASI

MI 3100 s EurotestEASI is a fast, accurate and easy to use multifunctional measuring instrument which performs a basic set of installation safety tests according to IEC/EN 61557. Besides, the MI 3100 s EurotestEASI enables on-line voltage monitoring, phase sequence testing and earth resistance measurement. EurotestEASI is equipped with integrated characteristics of fuses and RCDs for PASS / FAIL evaluation of test results.



MEASURING FUNCTIONS:

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- Built-in fuse tables for automatic evaluation of the line / loop impedance result.
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- Automatic polarity reversal on continuity test.
- Loop impedance test without tripping the RCD.
- Built-in charger and rechargeable batteries as standard accessory.
- Automated RCD testing procedure.

HIGH VOLTAGE INSULATION / CONTINUITY / EARTH

MI 3210 TeraOhmXA 10kV

MI 3210 TeraOhmXA 10kV is a portable, battery or mains powered test instrument with excellent IP protection (IP65), intended for diagnosing of Insulation Resistance by using high DC test voltages of up to 10 kV. Because of its robustness (CAT IV protection) and high immunity to radiated RF fields it is best suited for industrial environment.



MEASURING FUNCTIONS:

- Insulation Measurement;
- Diagnostic Test (PI, DAR, DD) ;
- Step Voltage Test;
- Withstanding Voltage Test (DC) up to 10 kV;
- Voltage and frequency measurement up to 550 V TRMS.

KEY FEATURES:

- Insulation resistance up to 20 TΩ;
- Adjustable test voltage (50 V...10 kV) 50 V and 100 V step;
- Programmable timer;
- Capacitance measurement;
- Charging rate for capacitive load < 3 s / μF at 10 kV;
- Automatic discharge of test object after completion of measurement;
- Guard terminal
- High voltage breakdown detection;
- Custom defined tests
- Auto adjustment function
- Measurement results in numerical and graphical form;
- PC software HVLink PRO for downloading and analyzing of the test results and test report printing;
- Isolated RS232 and USB communication ports, BT interface;
- High quality accessories including shielded test leads in standard set;
- High EM interferences protection: Input AC current noise rejection (1 mA@600 V) and additional averaging of the result (5, 10, 30, 60);
- CAT IV / 600 V;
- Mains and rechargeable battery power supply.

POWER QUALITY ANALYSIS

MI 2892 PowerMaster

The NEW MI 2892 PowerMaster is a hand-held three phase power quality analyser with a large easy-to-read graphical colour display enabling the user to detect harmonics, phasors and waveforms anomalies in the installation simply by connecting the device. The instrument is designed for a long term recording as well as for troubleshooting power quality problems in three-phase and single-phase power distribution systems. The handy Quick Set buttons makes the instrument more user friendly and are allowing faster data overview for troubleshooting. Advanced PC SW package PowerView3 enables detailed analysis of recorded data, direct reading from the microSD memory card, analysis of long term records and automatic creation of professional test report.



MEASURING FUNCTIONS:

- Voltage and Current: TRMS, peak, crest factor (4-channel);
- Power (active, reactive, apparent);
- Power measurements fully compliant with IEEE 1459 (active, non active, fundamental, harmonic, load unbalance);
- Unbalance, flicker measurement;
- Harmonic and interharmonic analysis up to 50th harmonics, THD measurement;
- Energy (active, reactive, generated, consumed);
- Capturing and recording of power supply events (shutdowns, interruptions, swells, dips);
- Inrush currents monitoring and recording;
- Waveform/inrush displaying, snapshot and recording;
- Transients recording;
- Power quality analysis according to EN 50160;
- Recording up to 7 adjustable alarms;
- Temperature measurement;
- Power factor cos φ.

KEY FEATURES:

- 4-voltage channels with wide measurement range: 0 ... 1000 Vrms (CAT III/1000 V);
- 4-current channels with support for automatic clamp recognition and "on instrument" range selection;
- Automatic Smart Clamp detection and Smart Clamp range selection;
- Sampling frequency on transients recording > 50 kHz;
- Compliance with power quality standard IEC 61000-4-30 Class A;
- Complete power quality analysis according to EN 50160 including signalling and interharmonics;
- Support for microSD memory card (8-GB supplied with the instrument) up to 32GB;
- Color-coded input terminals and terminal labels to suit your application region;
- Intuitive main menu and large icons that makes the equipment very easy to navigate and configure;
- Powerful PC SW PowerView3 enables downloading, view, analysis of recorded data and professional report creation;
- Flexible clamps (without additional power supply) are included in the standard set;
- Remote communication via Ethernet (GPS clock synchronization - optional).

DIGITAL MULTIMETERS/ CURRENT CLAMPS/ VOLTAGE TESTERS

MD 1155 LED Voltage / Continuity Tester

MD 1055 LED Voltage / Continuity Tester



The MD 1155 is a high-quality voltage / continuity tester designed for the most demanding duties. With a broad spectrum of measurement functions and CAT IV / 1000 V overvoltage category, the device is suitable for both the industrial sector and for everyday maintenance and repair practice.

KEY FEATURES:

- 3 V ... 1000 V AC TRMS voltage range.
- 4 V ... 1400 V DC voltage range.
- Data hold function.
- LCD display with backlight.
- Phase rotation measurement.
- RCD trip-out test (max. nominal differential current - 30 mA).
- Optical and acoustic continuity test.
- LED torch lamp.
- Automatic switch off.
- CAT IV / 1000 V overvoltage protection.

The MD 1055 is a multifunction voltage / continuity tester. Because of its broad spectrum of measurement functions, it is suitable for use both in the home and in trade and industrial sectors.

KEY FEATURES:

- 6 V ... 1000 V AC voltage range.
- 6 V ... 1400 V DC voltage range.
- Phase rotation measurement.
- RCD trip-out test (max. nominal differential current - 30 mA).
- Optical and acoustic continuity test.
- LED torch lamp.
- CAT IV / 1000 V overvoltage protection.

ADVANCED PORTABLE APPLIANCE TESTING SOFTWARE

A 1434 aPAT Android



The aPATLink Android is Advanced Portable Appliance Testing tool. It enables fast and simple data management of tested appliances, as well as a quick overview of already performed tests by simply scanning a QR code. The Application enables the user to send results to the main office before leaving test site, enter and save data to the test instrument by using a Smart phones' keyboard. Also it enables a creation of the custom made database for portable appliances' ID's, the appliances's names and the appliances' locations. All these features enable the user a faster and easier data handling.

KEY FEATURES:

- Complete database of tested appliances on one location.
- Upcoming retest warning on your smart phone or tablet.
- Simple, custom auto-test creation.
- Use of smartphones barcode or QR code scanner for quicker data entry.
- Remote control of PAT tester.
- Easy data entering.
- Projects can be stored to your drop box account.
- Sending data to main office, before leaving test site.
- Built in risk assessment calculator.
- User can perform test simply by scanning the QR code containing all needed information for specific appliance.
- Overview of testing parameters by simple scanning QR code.

ADDITIONAL FEATURES:

- In Built Risk Assessment tool to provide correct Re-Test periods in accordance with COP version 4;
- Protect your business by applying QR codes instead of Bar Codes.

aPATLink Android is compatible with:

- MI 3310 25A SigmaPAT (HW3)
- MI 3309 BT DeltaPAT
- MI 3311 GammaPAT (supported by BT dongle)



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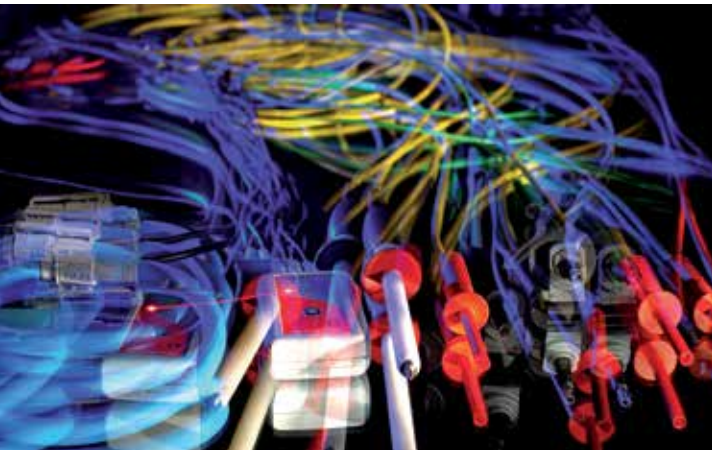
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