

# Demonstration boards

## MI 3399 Electrical Safety & Quality Application Trainer



The MI 3399 Electrical Safety & Quality Application Trainer is a 3D simulator of real-life safety and quality situation's with many adjustable risks and errors. The model is designed as a stand-alone unit for demonstrations, trainings and educational purposes. The MI 3399 is ideally suited for training and education of larger groups of people as well as for independent practice. Due to various integrated electrical elements the model enables complete testing and troubleshooting of power quality analysis as well as LV electrical installations, lightning systems, earthing systems, PV systems, appliances, equipment, machines or switchboards by using modern methods, testing procedures and instruments.

### KEY FEATURES

- Insulation resistance;
- Continuity of PE conductors;
- Line impedance;
- Loop impedance;
- RCD testing (Contact voltage, trip-out time, trip-out current, Autotest);
- IMD, ELM, RCM leakage and insulation monitors adjustment and test;
- Earth resistance (4-wire, 3-wire, 2-wire, two current clamps);
- Specific earth resistance;
- Lightning protection loops and legs resistance;
- Surge protector test;
- Leakage current;
- Phase rotation;
- Voltage;
- Frequency;
- AUTO SEQUENCE<sup>®</sup> procedure for TN, TT or IT earthing system;
- Power quality.

More than 65 different measurements and testing methods could be demonstrated all in accordance to IEC 61557 and IEC 60364-6. The most significant elements are integrated: RCDs of different types, Fuses, PE equalization

bars, 1-phase and 3-phase sockets, various grounding systems (TT, TN, IT), Surge protector, IMD insulation monitor and more.

### APPLICATION

- Trainings and seminars for gaining theoretical knowledge and for performing practical exercises;
- For conducting exams when upgrading the professional's competence level;
- Educational and practical training of electrical contractors about safety procedures, measuring methods and knowledge;
- Demonstration on how to use different measurement instruments and testers.

### MODULES AND COURSES

- LV Electrical Installation Safety Trainer Module;
- TN / TT / IT Earthing Systems Trainer Module;
- Lightning Protection Trainer, Surge Protection Trainer Module;
- Special Installations and Locations Safety Trainer Module;
- Vehicles and Mobile Units Safety Trainer Module.

### Additionally there are several optional modules available:

- Power and Voltage Quality Trainer Module;
- Appliances and Machines Safety Trainer Module;
- Photovoltaic Systems Trainer Module.

All modules are supported with Handbooks, Posters, Charts, Presentations, Exercises, Catalogue of Knowledge and Catalogue of Exams. Approved certificates may be issued when localizing modules to meet the required country's regulation.

More than 30 different errors can be simulated all of which enable the trainee to practice analysis and troubleshooting procedures.

### STANDARDS

#### Functionality

- IEC 61557

#### Safety

- IEC 60364-6

## MI 3399 APPLICATION TRAINER SET MODULES

### AD1 MI 3399 – EIS ELECTRICAL INSTALLATION SAFETY TRAINER

Module includes the following equipment:

- MI 3155 ST Eurotest XD - Multifunctional Installation Tester
- MI 3110 EurotestIM - Special Installation Tester
- MI 3242 MicroOhm 2A-Earth Bonding 4-wire
- MI 3121H 2,5 kV HV Insulation Analyser
- MI 3123 Smartec - Earth/Clamp Tester
- MD 9272 Leakage Clamp TRMS with Power & Harmonics
- A 1018 Current Clamp - (low range, leakage)
- A 1019 Current Clamp
- S 2009 Test lead set, 2m, 4pcs

- 25 pcs Guide for testing and verification of low voltage installations
- 25 pcs Guide for measurements on IT power installation
- 25 pcs Chart Verification on Low-voltage electrical installations
- Poster Verification on Low-voltage electrical installations
- Poster Medical Sites



Picture of AD1 MI 3399



### AD2 MI 3399 – PQA POWER AND VOLTAGE QUALITY TRAINER

Module includes the following equipment:

- MI 2892 Power Master - Power Quality Analyser
- 25 pcs Guide for modern Power Quality Analysing Techniques
- 25 pcs Chart Power Quality Analysing and troubleshooting procedures



Picture of AD2 MI 3399

### AD3 MI 3399 – PAT APPLIANCES & MACHINES SAFETY TRAINER

Module includes the following equipment:

- MI 3309 BT DeltaPAT
- A 1488 BT Label Printer Able (with battery charger and one role of labels)
- 25 pcs Guide for verification of electrical safety of machines
- 25 pcs Guide for Electrical Equipment Testing
- 25 pcs Chart Testing and verification of Electrical Equipment
- 25 pcs Poster Portable appliances and electrical equipment testing



Picture of AD3 MI 3399

### AD4 MI 3399 – PV PHOTOVOLTAIC SYSTEMS TRAINER

Module includes the following equipment:

- MI 3109 PS EurotestPV Pro Set
- 25 pcs Guide for measurements on PV systems



Picture of AD4 MI 3399

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Note! Photographs in this catalogue may slightly differ from the instruments at the time of delivery. Subject to technical change without notice.

