

Demonstration boards Trainer package sets

AD3 MI 3399 PAT – APPLIANCES & MACHINES SAFETY TRAINER

Module includes the following equipment:

- MI 3340 AlphaEE XA
- A 1488 BT Able printer (with battery charger and one role of labels)
- 25 pcs chart: Machines & switchboards safety & quality testing
- 25 pcs chart: Testing and verification of electrical equipment
- Poster: Testing and verification of electrical equipment



AD3 – APPLIANCES/ MACHINES/ SWITCHBOARD PACKAGE SET

Enables performing of the following tests and fault simulation:

- Continuity of Equipotential Bonding
- Insulation Resistance
- PE Leakage Current
- Substitute Leakage Current
- Touch Leakage Current
- Polarity of Cables
- Functional Operation
- Auto Sequence® Procedure

Examples are on following electrical equipment simulators:

- Portable appliance of class II (flat iron)
- Portable appliance of class II (radio receiver)
- Portable appliance of class I (extension drum)
- Portable appliance of class I (coffee machine)
- Portable appliance of class I (washing machine)
- Low voltage switchgear
- Electrical machine
- IEC cord



AD4 MI 3399 PV – PHOTOVOLTAIC SYSTEMS TRAINER

Module includes the following equipment:

- MI 3115 PV Analyser*
- A 1785 EurotestPV Remote
- A 1849 Communication cable, 1m, DB9/PS2
- A 1850 Test cable, 1m, DB9/2x stack. ban. plug
- A 1942 Current clamp-Iron, 4/200 A, Dia=25 mm AC/DC

* Instrument is not intended for field use.



AD4 – PHOTO VOLTAIC PACKAGE SET

Enables performing of the following tests:

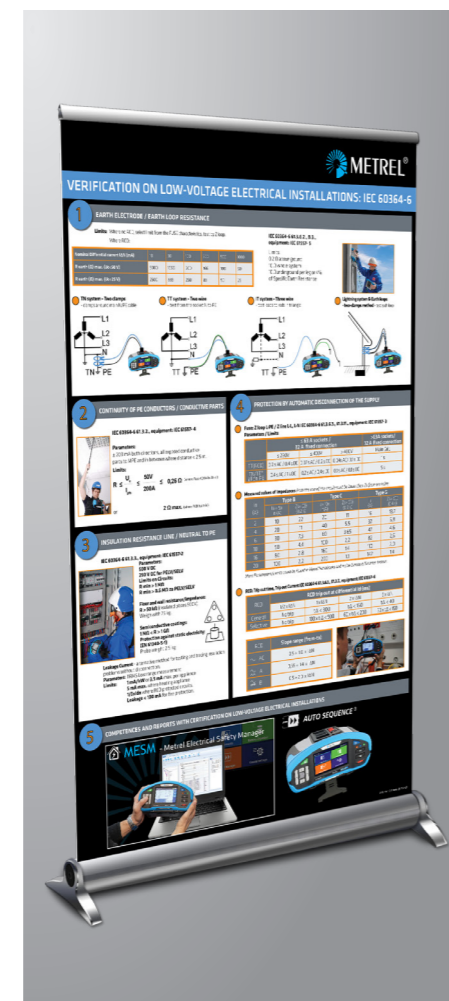
- Continuity of earthing system
- PV array insulation resistance
- Measurement of irradiation and temperature
- Uoc, Isc test and I/V characteristic measurement
- Automatic test sequence
- PV panel test
- Measurement of inverter input – DC side
- Measurement of inverter output – AC side
- Inverter efficiency



More than 65 different measurements and testing methods could be demonstrated all in accordance to IEC 61557 and IEC 60364-6 (insulation resistance, continuity of PE conductors, earth resistance, specific earth resistance, line and loop impedance, phase rotation, leakage current, RCD testing, voltage and frequency and other).

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.

More than 20 different errors can be set where problems on the field could be analysed and troubleshooting procedures trained.



* Stand not included

METREL d.o.o.
Test and Measurement Equipment
Ljubljanska 77, SI-1354 Horjul, Slovenia
T +386 (0)175 58 200
info@metrel.si
www.metrel.si



MI 3399 EIS & Quality Application Trainer

Measuring
instruments
and testers



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

MI 3399 Electrical Safety & Quality Application Trainer_2025_Ang

www.metrel.si



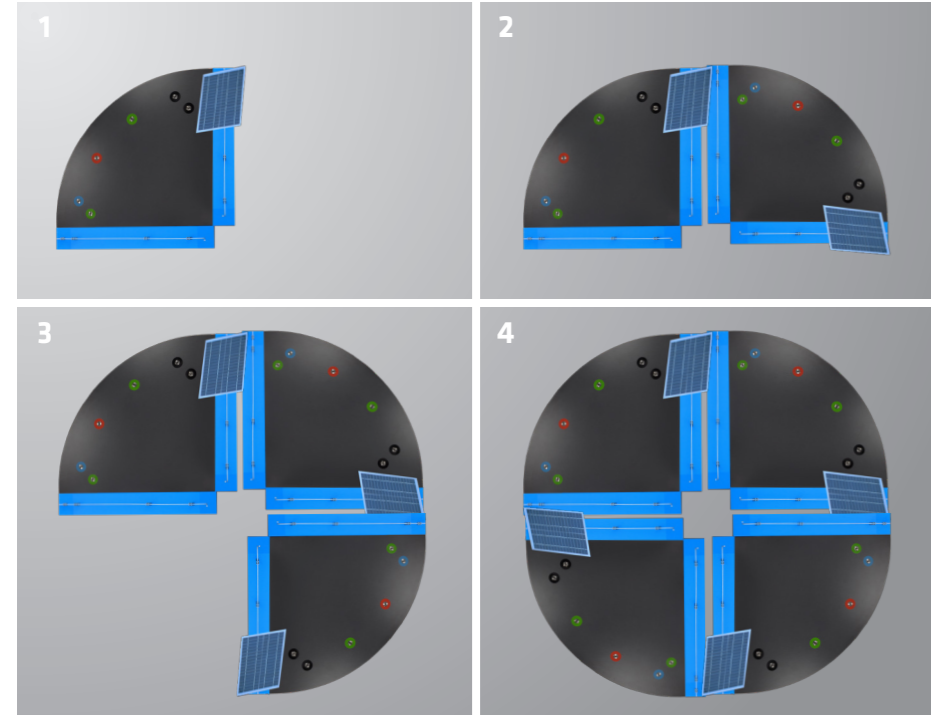
Demonstration boards

MI 3399 Electrical Safety & Quality Application Trainer



The **MI 3399 Electrical Safety & Quality Application Trainer** is a 3D simulator of real situation's safety and quality issues with many adjustable risks and errors. The model is designed as 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 the LV electrical installations, appliances, equipment, machines or switchboards by using modern methods, testing procedures and instruments.



The MI 3399 is foldable for simplified transport. The MI 3399 is designed to easy assemble with only two screws on site for training, seminar or fairground.

The dimensions of the single set are:
210 cm high x 125 cm x 125 cm.

1. One set for corner situation in training room
2. Two sets for wall line situation
3. Three sets for back corner situation
4. Four sets for training "island"
5. Optional wheels for easier transport



MODULES

The **MI 3399 Electrical Safety and Quality Application Trainer ensures absolute safety which makes it suitable for schools and training centers.**

The MI 3399 Electrical Safety & Quality Application Trainer set enables several main training modules and courses:

- LV Electrical Installation Safety Trainer Module
- TN / TT / IT Earthing Systems Trainer Module
- Lightning Protection Trainer Module, 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

Modules are supported with Handbook with Exercises, Posters, Charts, Presentations, Catalogues of Knowledge and Catalogues of Exam plus Approved Certificate optionally when separate training module is localized.

APPLICATION

- Education, trainings and seminars with theoretical and practical exercising and testing for upgrading knowledge of professional's competence.
- Education and practical training of electrical contractors about safety procedures, measuring methods and knowledge.
- Demonstration on how to use different measurement instruments and testers.



Demonstration boards

Modules and courses

We believe **education**
is the first step to help
ensuring electrical safety



Demonstration boards

Trainer package set

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 9273 Bluetooth® TRMS Leakage Clamp with Power Functions
- A 1018 Current clamp (low range, leakage)
- A 1019 Current clamp
- S 2009 Test lead set, 2 m, 4 pcs
- 25 pcs Electrical Inspector's guide
- 25 pcs Chart: Verification on Low-voltage electrical installations
- Poster: Verification on Low-voltage electrical installations
- Poster: Medical sites
- Poster: Firebrigades



AD1 – ELECTRICAL INSTALLATION SAFETY PACKAGE SET

Enables performing of the following tests:

- Continuity of PE conductors
- Earth bonding 4-wire (with MI 3242)
- Insulation resistance
- HV Insulation analysing, PI, DAR factors (with MI 3121H)
- Line impedance
- Loop impedance
- RCD testing (Contact voltage, Trip-out time, Trip-out current, Autotest)
- IMD, ELM, RCM leakage and insulation monitors adjustment and testing
- 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
- Auto Sequence® procedure for TN, TT or IT earthing system.



AD2 MI 3399 PQA – POWER AND VOLTAGE QUALITY TRAINER

Module includes the following equipment:

- MI 2892 Power Master - Power Quality Analyser



AD2 – POWER QUALITY SIMULATOR PACKAGE SET

Enables performing of the following tests:

- Periodics Recording
- Min., Max., Avg. graphs
- Phase Diagram
- Harmonics Recording
- Frequency Measurement
- Voltage Quality Recording
- Voltage Events Recording
- Dips, Swells, Sags, Interruptions
- Waveforms
- Transients
- Inrushes
- Flickers
- Voltage Unsimetry

