

MI 3399 ADDITIONAL TRAINER PACKAGE SETS

AD2 MI 3399 - PQA
Power and Voltage Quality Trainer

- MI-2892 Power Master - Power Quality Analyser
Includes also:
- Quick guide: Power Quality Analysing and troubleshooting procedures



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 asymmetry

3-phase simulation operates also on single phase installations



AD3 MI 3399 - PAT
Appliances & Machines Safety Trainer

- MI 3309 BT DeltaCT
- 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



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 I (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

- MI 3109 PS EurotestPV Pro Set including:
- A 1378 EurotestPV Remote
- A 1427 PV Reference cell
- A 1400 PV Temperature probe
- A 1384 PV Safety probe
- A 1391 AC/DC Current clamp or alternatively MD 9231 - Industrial TRMS AC/DC Current Clamp Meter



Photovoltaic Package Set

Enables performing of the following tests:

- PV string insulation resistance,
- Bonding resistance of PV panel metallic support to protective earthing,
- PV string U/I characteristics,
- PV string D.C. current,
- PV string D.C. power,
- Irradiance,
- Temperature on PV panels,
- Inverter output A.C. current,
- Inverter output A.C. voltage,
- Inverter output A.C. power,
- Inverter and PV system efficiency.



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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.

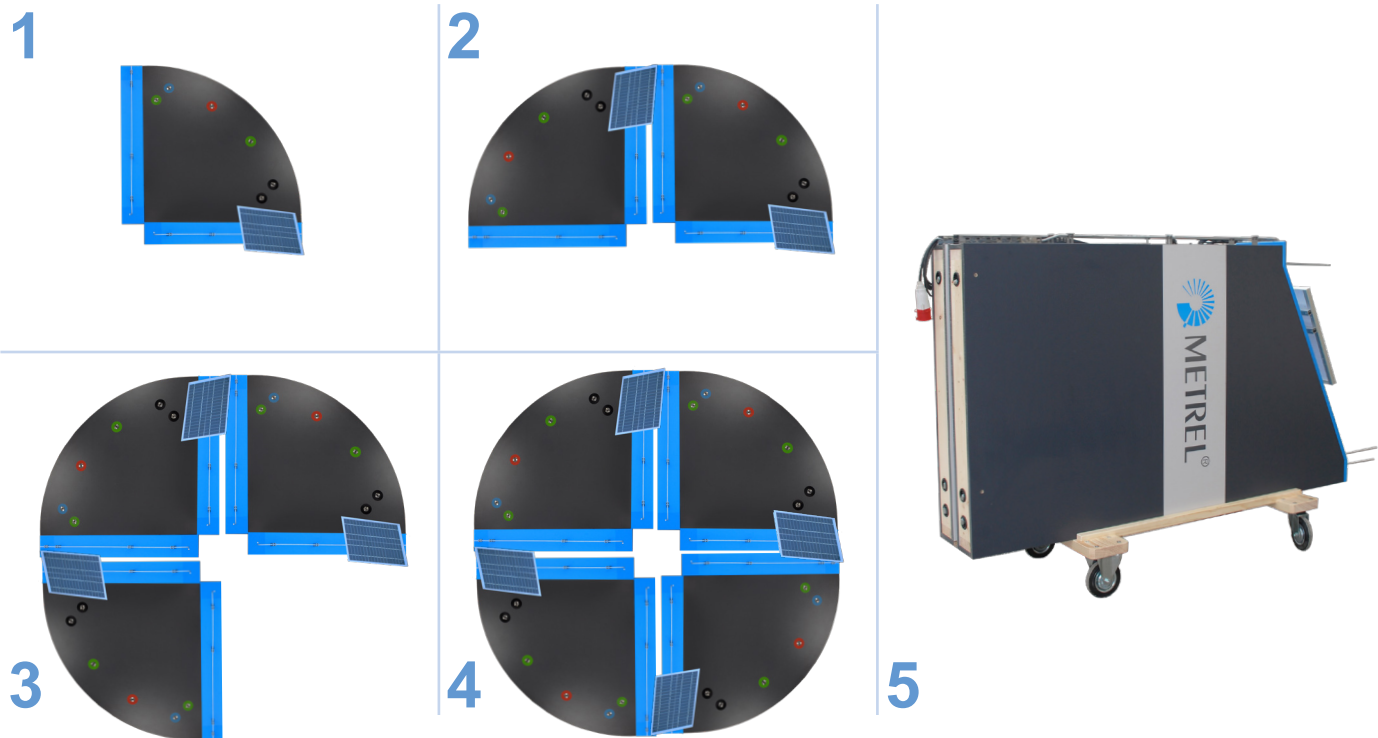
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MI 3399 ELECTRICAL SAFETY & QUALITY APPLICATION TRAINER

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.



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

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.

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

- The MI 3399 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 by Handbook with Exercises, Posters, Charts, Presentations, Catalogues of Knowledge and Certification of Competencies.

- Applications:**
- 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.

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.



MI 3399 ELECTRICAL SAFETY & QUALITY APPLICATION TRAINER PACKAGE SET:

- MI 3399 Instruction manual with exercises
- MI 3399 Instruction manual

AD1 MI 3399 - EIS
Electrical Installation Safety Trainer

- Low Voltage Electrical Installation Safety Trainer
- TN / TT / IT Earthing Systems Trainer
- Lightning Protection Trainer, Surge Protection Trainer
- Special Installations and Locations Safety Trainer

- MI 3155 ST EurotestXD - Multifunctional installation tester
- MI 3110 EurotestIM - Special installation tester
- MI 3242 MicroOhm 2A - Earth bonding 4-wire
- MI 3121H Smartec 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, 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

Electrical Safety and Quality Application Trainer
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.

- 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.

