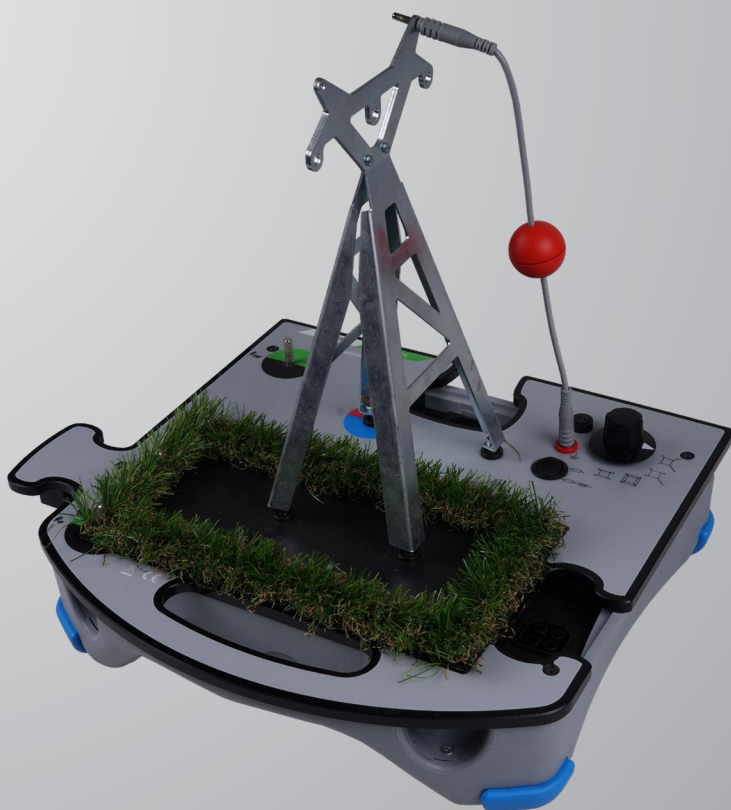


Demonstration boards

MI 3298 P1 Earth/Ground trainer module



MI 3298 P1 Earth/Ground trainer module is designed as a stand-alone module for training different earth measuring methods. The module offers simulation of different errors and object states through the use of a selectable switch and ground wire. Due to the puzzle concept, other MI 3298 P1 Earth/Ground trainer modules and/or MI 3298 T Transformer/Insulation trainer modules can be joined together to simulate a complete transmission line with a switchyard at the end.

KEY FEATURES

- Ground network impedance;
- Earth surface potentials;
- Fault simulated step & contact voltage;
- Pylon (selective legs);
- HF earth impedance.

Different modules can be evaluated separately as an independent system and / or connected together to demonstrate the interconnectivity problems and influences between them.

This approach could give trained personnel clear information about testing methods, measured values and results on known systems and an overview of situations where systems become more complex when connected together.

APPLICATION

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

MI 3298 P1 module offers simple error simulation, thus enabling trainees to practice troubleshooting procedures.

Metrel instruments, which could be used with MI 3298 P1 training module:

- MI 3295 Step Contact Voltage Measuring System
- MI 3205 TeraOhmXA 5kV
- MI 3280 Digital Transformer Analyser
- MI 3250 MicroOhm 10A
- MI 3290 GX 1 Earth Analyser



Different measuring procedures and methods can be demonstrated/trained on the MI 3298 P1 Earth/Ground trainer module:

- 3-pole measuring method;
- 4-pole measuring method;
- S-flex measuring method by using one or more flex clamps;
- HF measuring method;
- Impulse measuring method;
- GPR measurement;
- Step and contact voltage measurement;
- Pylon ground wire (PGW) test.

Different measuring procedures can be demonstrated/trained under various simulated errors and types of objects:

- Simulation of broken connection pylon foot resistance;
- Pylon grounding ring simulation for GPR measurements;
- Simulation of a ground wire connection;
- Simulation of different earthing types.

STANDARDS

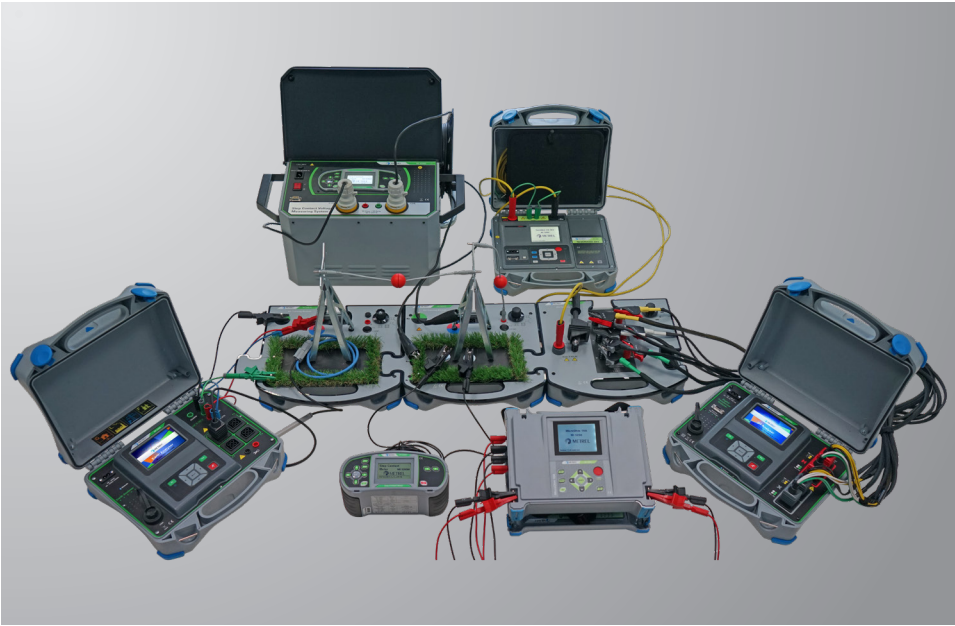
Functionality

- IEC 61557-5, IEEE Std 81-2012

Safety

- IEC 61010-1:2010

MI 3298 POWER NETWORK APPLICATION TRAINER SET MODULES



The MI 3298 Power Network Application Trainer (MI 3298 P1 and MI 3298 T) based on “puzzle” concept for simulation and training of different measurement situations on the power network field. It could be used as stand-alone training module or any numbers of training modules connected together. Training modules are designed for demonstrations, trainings and educational purposes.

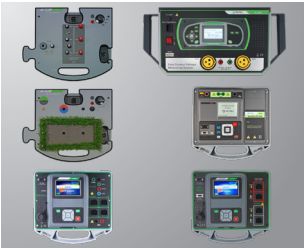
The “puzzle” concept is ideally suited for training and education of larger groups of people as well as for independent practice. Due to various integrated electrical elements the module enables complete testing, troubleshooting and practice on earth, insulation measurements as well as power transformer measurements.

AD1 MI 3298 – Earth/Transformer/ Insulation Resistance Trainer



- Module includes the following equipment:
- MI 3298 P1 Earth/Ground trainer module
 - MI 3298 T Transformer/Insulation trainer module
 - MI 3295 Step Contact Voltage Measuring System
 - MI 3205 TeraOhmXA 5kV
 - MI 3280 Digital Transformer Analyser
 - MI 3290 GX 1 Earth Analyser

AD2 MI 3298 – Earth/Transformer/ Insulation Resistance Trainer



- Module includes the following equipment:
- MI 3298 P1 Earth/Ground trainer module
 - MI 3298 T Transformer/Insulation trainer module
 - MI 3295 Step Contact Voltage Measuring System
 - MI 3205 TeraOhmXA 5kV
 - MI 3280 Digital Transformer Analyser
 - MI 3290 GX 1 Earth Analyser

AD3 MI 3298 – Earth Trainer



- Module includes the following equipment:
- MI 3298 P1 Earth/Ground trainer module
 - MI 3295 Step Contact Voltage Measuring System
 - MI 3290 GX 1 Earth Analyser

ORDERING INFORMATION



- MI 3298 P1**
- MI 3298 P1 Earth/Ground trainer module, code 20 919 237
 - Step voltage probe, code 20 052 009, 2 pcs
 - Pylon, code 20 052 006
 - Ground wire connection, code 20 692 042
 - Puzzle interconnection part, code 20 052 010
 - Set of measuring cables
 - Flex current clamps A 1612 (fi 14 cm), code 20 051 222

GENERAL DATA

Dimensions (w x h x d)	40 cm x 11 cm x 33 cm
Pollution degree	2
Weight	3,94 kg
Degree of protection	IP 40
Operation conditions:	
Working temperature range	-10°C ... 50°C
Maximum relative humidity	90 %RH (0°C ... 40 °C), non-condensing
Working nominal altitude	up to 3000 m

METREL D.D.
Measuring and Regulation Equipment Manufacturer
Ljubljanska 77, SI-1354 Horjul, Slovenia
T +386 (0)175 58 200, F +386 (0)175 49 226
metrel@metrel.si, www.metrel.si

OPTIONAL ACCESSORIES

Photo	Order No.	Acc. description
	A 1612	Flex current clamps A 1612 (fi 14 cm), code 20 051 222

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

