

3. Quality of energy

Study bench for grounding schemes

Training objectives

- Studying the various ground link schemes: TN, TT and IT.
- Applying, for each type of ground link scheme, the standards covering protection for an LV electricity distribution system.
- Grasping the principles of troubleshooting.

Presentation

These benches are designed for studies of the various ground link schemes:

- TN and TT neutral systems on one side,
- IT neutral system on the other side.

Receivers are simulated by loads located in the lower part of the bench.

Two versions are proposed:

- The IM20 version enables execution of manual troubleshooting.

Description

Study bench for grounding schemes

- The benches are mounted on a frame with locking wheels.

Composition of the benches

Description	Quantity
Distribution architecture mimic diagram	1
Single- or three-phase receivers representing a person	3
A protection system made up of thermal-magnetic circuit breakers and ground leakage circuit breakers.	
Pushbutton switch with indicator light	
Differential switches and contactors	
Permanent insulation controller for IT system	1

Accessory supplied

Description	Quantity
Set of safety leads	1

Troubleshooting kit

- To be ordered with the bench for grounding schemes, IM20 version.

Contents

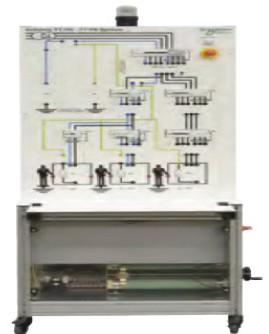
Description	Quantity
XP15 ammeter clamp	
XGR leakage current generator	1
XRM mobile receiver.	1

References

Description	Reference No.
Study bench for grounding schemes (IM20)	MDG99605
Troubleshooting kit for IM20 grounding scheme study bench	MDG99609



IT side



TT + TN side



Troubleshooting kit

Decision aid

Sectors concerned

- Electrical
- Maintenance

Designated skills

- Analysis
- Configuring
- Checking

Themes studied

- Electricity distribution