
# Electrical measurements and analyses

The increasing complexity of modern electrical systems imposes an additional responsibility on electrical engineers. They have the task of testing these systems and verifying whether they comply with the respective laws and standards. The measurements of the parameters of an electrical installation are naturally dominated by the pursuit of maximum safety and operational reliability.
Knowledge is power, but knowing what we can measure and 'interpreting' the measurements is even more important. The experts at Vinçotte are perfectly trained for this.

## Your tailor-made solution

*Electrical installations and their internal components must be designed and manufactured keeping in mind their nominal voltage, and the necessary protective measures should also be taken against electrocution and fire hazards, among other things.*
The electrical protection against flooding should prevent streams that could cause harm to the equipment as well as the environment from traversing through electrical equipment. This protection should be provided through one or more devices that interrupt the current before heating can take place that would be dangerous to the insulation, the connections, the conductors, and their environment.
The characteristic quantities, impedance and short-circuit currents can either be calculated or measured. The calculation produces reliable results, provided accurate information is available about all the network elements (transformers, lines, cables, etc.). Contact resistances of connections or mistakes in cable lengths cannot be taken into account in this connection. The measurements on the other hand have to take into account all the real elements, and the results are beyond dispute.
The insurance companies (Assuralia) grant rebates on insurance premiums under certain conditions, provided that the electrical installation satisfies certain standards relating to fire safety and that inspections of the same are conducted. Such inspections should be conducted by an authorised body. If the inspection results are positive, Vinçotte shall issue the certificate required by the insurance companies.

### With our services we can assure you of the following measurements:

- voltage and current measurements
- measurement of the dispersion resistance of the earthing
- insulation measurements
- short circuit current measurements
- fault loop impedance measurements
- continuity measurements
- proper operation of differential switches and related switch-off times
- continuous recording of grid parameters
- current injection testing of protective devices
- dielectric tests on high voltage lines
- cathodic protection
- thermography
- functional testing of specific protections in own production
- etc.

Safety, operational reliability and comfort hold the key to the proper functioning of an electrical installation. Entrust the inspection of your electrical system to a Vinçotte specialist.

## Your result

## Please note

### General Regulations for Electrical Installations (RGIE)

- Art. 270 Pre-commissioning Compliance Inspection of Low Voltage installations
- Art. 271 Inspection visits to low voltage installations
- Art. 272: Compliance Inspection and inspection visit to high voltage plants
- Art. 7: Electrical equipment for low voltage
- Art. 8: Electrical equipment for high voltage
- Art. 268: Duties of the owner or the manager of industrial companies

Assuralia: Insurer Rules concerning electrical installations

### Norms and Standards

## In which situation?

### This service is primarily intended for:

- private persons: residences
- SMEs
- industries