

Short Circuit Tests for Electrical Safety

Short circuit tests are conducted to evaluate the electrical safety of products, aiming to ensure protection against fire or shock hazards. Since 2006, with the acquisition of a 7.5 MVA transformer, **INTEK** has been performing short circuit tests. This specific area has become a source of great satisfaction due to the experience gained and the collaboration with prestigious companies and institutes, making it a fundamental pillar of **INTEK**'s electrical safety testing activities.

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How a Short Circuit Test is Conducted

A **short circuit test** simulates a fault condition where two conductors with different voltages come into direct contact, causing a high current flow and potential damage. The importance of this test lies in its ability to evaluate the effectiveness of products in safely managing such situations, preventing severe







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accidents and explosions. During the **short circuit test**, the product's responses are monitored, and any damage or performance anomalies are identified.

The **INTEK Short Circuit Laboratory** can verify the behavior and performance of electrical and electronic devices under fault conditions that can occur in the electrical network.

Short Circuit Tests: Industries and Reference Standards

Short circuit tests are widely used in various sectors, including consumer electronics, the automotive industry, and the field of electrical power distribution. The execution of **short circuit tests** is regulated by specific directives for each field, such as IEC 60947 for controlgear or IEC 61800-5 for variable speed motor drives. These standards establish test requirements and procedures, as well as evaluation criteria to ensure product compliance with industry regulations.



INTEK Short Circuit Testing Laboratory

The **INTEK laboratory is the ideal partner for short circuit tests**. The current acquisition systems used, calibrated by the National Institute of Metrological Research, guarantee the quality of the test results. **INTEK is distinguished by the traceability** of its high current measurement system, directly conducted with INRIM, fully compliant with the EN 62475 standard. This field fascinates those new to such tests







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and physics enthusiasts due to the complexity of the phenomena involved, ranging from electrodynamic forces to plasmas and thermodynamics.



In the field of electrical safety, INTEK also conducts low voltage (LVD) tests.

Request information for Short Circuit Tests for Electrical Safety

INTEK is an independent test and measurement laboratory, an Italian excellence in test and measurement services. Request information online about the service Short Circuit Tests for Electrical Safety:

https://www.intek.it/en/short-circuit-tests-for-electrical-safety/



