Short-circuit current calculation and selectivity analysis in low-voltage systems.

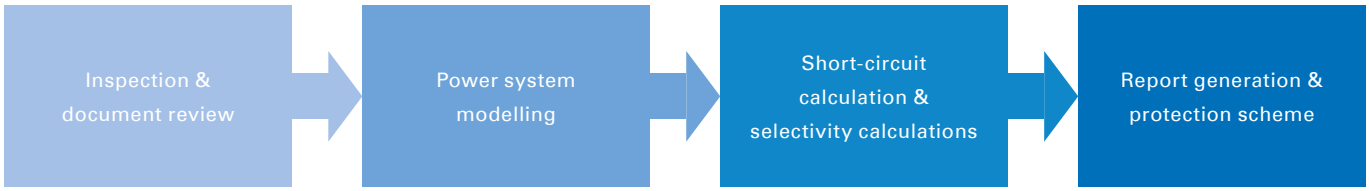
Information for operators

SECURITY OF SUPPLY IN THE FIRST PLACE

Those who operate electrical power systems, construct larger buildings or make changes to building power systems must be able to rely on their power system supply. However, planning and implementing security of supply within a power system is bound by legal standards and requires a high level of expertise. With our service "short-circuit current calculation and selectivity analysis in low-voltage systems" we analyze and document your security of supply to determine whether your supply is guaranteed as desired in the event of a fault in the power system (short circuit). To risk a black-out because of inappropriate selectivity (meaning only the protective device closest to the fault location switches off), can become expensive and quickly lead to dangerous situations in industrial plants, medical facilities or larger building complexes.

The regulations of the Verband deutscher Elektrotechnik, Elektronik und Informationstechnik define the requirements for the installation of low-voltage systems. In addition, DIN EN 60909-0 (VDE 0102) describes the short-circuit currents to be calculated in three-phase systems. All low-voltage systems must be constructed and short-circuit currents calculated based on these standards.

PROCESS OF INSPECTION



Our qualified electrical engineers carry out the initial testing of low-voltage power systems in accordance with VDE 0100-600. Before commissioning low-voltage systems, all electrical equipment is tested for functionality and safety.

Each of these inspections consists of visiting, testing and measuring the electrical equipment and networks. Just as important for safety and functionality is network modeling, short-circuit simulation, and electrical equipment design or selectivity considerations. In addition to the short-circuit calculation in low-voltage systems, we also carry out a selectivity test.

Protective devices are used to ensure that low-voltage systems are supplied as reliably as possible and to protect the employees from harm.

OUR SERVICES

- Tests according to the VDE 0100-600 directive as well as short-circuit and selectivity calculations according to DIN EN 60909-0 (VDE 0102) in low-voltage systems.
- Cooperation between power grid services and our acknowledged experts in building and electrical engineering.
- Calculations using DIgSILENT PowerFactory, xSpider from Eaton® or SIMARIS from Siemens®.

YOUR BENEFITS

- You receive all services for the construction or reconstruction of your building from a one-stop provider.
- You save time and money and have fewer interfaces with suppliers.
- If you install generating systems such as combined heat and power units or photovoltaic systems, we can issue the certificates and declaration of conformity for the feed-in remuneration after successful testing.

Call us and make an appointment – we will be happy to support you in all matters relating to security of supply.

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