



High Voltage Laboratory and High Power Laboratory

Our Services

On the basis of testing and certification services, AIT provides support across all stages of development - from the product concept through to series production. Professional engineering and consulting expertise make AIT a reliable partner in the product development process of devices for electric energy systems.

Typical Test Objects

Electrical devices

- Switchgear and controlgear (Circuit breakers, switches, switch-disconnectors, disconnectors, fuses, switch-fuse combinations, protective devices, tap changers)
- Switchgear and controlgear assemblies and MCC
- Surge arresters
- Static converters
- Power and measuring transformers
- Inductances, capacitors, resistors
- Cables, lines and armatures
- Earthing- and lightning protection material

Accreditation and Certificates

- Accreditation according to EN ISO/IEC 17025
- Certification according to ISO 9001
- Accepted CB TESTING LABORATORY under the responsibility of OVE as National Certification Body



The **AIT Energy Department** is developing solutions designed to ensure a sustainable energy supply for the future. Our research services are based on longstanding experience, scientific excellence, state-of-the-art laboratory infrastructure and international cooperation in the key areas of tomorrow's energy systems: smart grids, photovoltaics, thermal energy systems, smart cities and smart buildings. We act as a leading innovation partner for national and international industry providing applied research services that give our customers a cutting edge in future markets.

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Testing Services

- Breaking capacity under operating conditions and in case of short-circuits
- Resistance to internal arcs
- Short-time withstand current and peak withstand current tests
- Temperature-rise tests
- Operational performance capability
- Dielectric tests
- Partial discharge measurements
- Tripping limits and characteristics
- Mechanical and electrical endurance
- Ingress protection
- Environmental simulation (rain, salt fog, corrosive atmosphere, dust, low temperature and ice, vibration and shock, acoustic measurements)

Testing Infrastructure

The key data are:

| | | | |
|----------------------------|---------------|---------------|-------------|
| High current AC | 0,1 – 40 kV | up to 120 MVA | max. 150 kA |
| High current DC | 0,1 – 1 kV | up to 30 MW | max. 30 kA |
| | 0,1 – 1,5 kV | | max. 10 kA |
| High voltage | up to 600 kV | AC | max. 1,0 A |
| High voltage mobile | up to 250 kV | AC | |
| Impulse voltage | up to 1200 kV | LI | |