

AIT Power Service Center – PSC

Overview

The Power Service Center provides a development infrastructure, focusing on the development of small, efficient and cost-effective components. The focus lies on the development of new switching technologies by combination of mechanical and semiconductor switches in hybrid switching systems. 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.

Research and 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)
- EMC measurements (line conducted)

Typical Test Objects

Low Voltage:

- Switchgear and control gear (Circuit breakers, switches, switch-disconnectors, disconnectors, fuses, switch-fuse combinations, protective devices)
- Switchgear and control gear assemblies and MCC
- Surge arresters
- Static converters
- Power and measuring transformers
- Inductances, capacitors, resistors
- Cables, lines and armatures

Medium and High Voltage

- Switchgear and control gear (Circuit breakers, switches, switch-disconnectors, disconnectors, fuses, switch-fuse combinations, tap changers)
- Switchgear and control gear assemblies
- Surge arresters
- Static converters
- Power and measuring transformers
- Inductances, capacitors, resistors
- Cables, lines and armatures

Earthing- and lightning protection devices

Simulation and Numerical Computation

- Circuit simulation
- Internal arc simulation
- Calculation of magnetic fields and electro-dynamic forces

Key data of Infrastructure

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

Accreditation and Certificates

- Accreditation according to EN ISO/IEC 17025 (No. MMWA-92.714/0504-I/12/2007)
- Certification according to ISO 9001 (Reg. No. CH-12769)
- Accepted CB TESTING LABORATORY under the responsibility of OVE as National Certification Body

