

THE HIGH POWER LABORATORY

The High Power Laboratory with Surge-Power Generator 400 MVA (unique in Greece,) performs Short Circuit Tests, breaking capacity and Interrupting performance tests, in High Voltage, Medium Voltage and Low Voltage Electrical Equipment:

- AC metal-enclosed switchgear and controlgear.
- Power Transformers.
- Medium and Low Voltage Cables, Joints, End fittings, terminations).
- Disconnectors and earthing switch, Load switches.
- Fuse Cut-out 24kV.
- Instrument Transformers.
- Portable earthing equipment, Surge Arresters.



THE TEMPERATURE RISE LABORATORY

The Temperature Rise Laboratory makes temperature rise tests and mechanical endurance tests in electrical equipment for High, Medium and Low Voltages:

- AC metal-enclosed switchgear and controlgear.
- Power Transformers up to 1000KVA.
- Instrument Transformers, Medium and Low Voltage Cables, Portable earthing equipment.
- Resistance measurements.
- Tightness and leakage test for Insulation SF6 gas switches.

THE METROLOGY LABORATORY

The Metrology Laboratory performs mostly Calibrations for electrical quantities:

- AC / DC Voltage.
- AC / DC Current.
- AC / DC Resistance.

Main Equipment

- Calibrator Fluke 5700A / EP.
- Calibrator Fluke 5520A.
- Agilent 3458A Digital Multimeter.
- Agilent 34420A Digital Multimeter.
- Standard Voltage Fluke 732V.
- Standard Oil and Air resistors.



THE ELECTRICAL TESTS AND ELECTRICAL MEASUREMENTS LABORATORY

The Electrical Tests and Electrical Measurements Laboratory perform tests and measurements in Medium Voltage and Low Voltage Electrical Materials.

- Tests to Low Voltage electrical equipment (fuses, fuse bases, metering boxes, junction boxes, fuse boxes, relays, etc.).
- Test of tripping characteristic of micro circuit breaker.
- Degree of Protection (IP) code: any material.
- Capacity check of lead-acid batteries.
- All kinds of electrical measurements (electrical resistance, voltage, power, resistance, Insulating properties tests, conductivity, etc.).
- Earthing resistance measurements.
- Electrical ageing tests to LV components. (3 test bench).
- Dielectric tests up to 10kV.

THE HIGH VOLTAGE AND DIELECTRIC TESTS LAB

The High Voltage and Dielectric Tests Labs, perform Dielectric Tests in High Voltage, Medium Voltage and Low Voltage Electrical equipment, Safe work tools, Extinguishers, etc.

- Lightning Impulse Voltage tests 1,2 / 50 μ S full wave and chopped on the tail up to 1,800kV.
- Power frequency voltage tests up to 300kV under dry or wet conditions
- Direct current tests up to 200kV and induced voltage tests (200Hz) up to 1kV.
- Dielectric tests at variable humidity and temperature, under water immersion and under pollution.
- Partial discharges, Radio interference voltage (RIV), Power loss, tangent(δ), Capacitance measurements.
- Tests for safe work equipment (helmets, gloves, insulating hand tools, insulating filled tubes footwear's).
- Dielectric test on insulating oil, Dielectric test on tracks with insulating booms and platforms.

Inspections

The Inspection Section and Electrical and Measurements Section of the Testing Research and Standards Center (TRSC) have qualified engineers, who can inspect electrical equipment at factories, laboratories or on-site, such as generators, motors, power transformers, cables, AC metal-enclosed switchgear and controlgear, GIS, VSDs, VFDs, rectifiers, batteries, PLCs, etc., for any customer around the world.