Power transformers

Objective
- Review fundamental concepts of power transformers and the protective techniques against external and internal faults and perturbations.
- Learn the basics about the installation, erection and maintenance of power transformers.

Audience
Engineers and technicians interested in learning about the structure and operation of power transformers.

Course topics

Transformers general concepts
- Classification
- Rated voltages and powers
- Service conditions
- Cooling methods. Heating and loading guide
- Insulation levels
- Efficiency and regulation coefficients
- Tests
- Parallel coupling

Main components description and manufacturing steps
- Column type transformers
- Core type transformers
- HiDry72. Dry power transformers
- Applications
- The product
- HyDry72: Dry power transformers
- HyDry72: Manufacturing
- HyDry72: Accessories
- HyDry72: Business case
Accesories: Description and maintenance
- Temperature detectors
- “BUCHOLZ” relay
- Cooling equipment
- Tap changers
- Others accesories
- Bushings and terminals

Transformers protection
- Protection against external perturbations
- Protection against internal faults
- Detection and control of incipient faults

Erection and installation of power transformers
- Safety standards and rules
- Unloading and handling
- Mounting and installation
- Treatment and oil filling
- Checking, setting and preliminary test before powering

Maintenance guide for power transformers
- Inspection conditions
- Inspection periodicity
- Control and follow-up of the inspections
- Maintenance operations
- Bushings and terminals
- Cooling systems
- On load tap changers
- Protection and measurement devices
- Other elements

Insulating oils
- Mineral oil
- Oil treatments
- Synthetic oil

Duration
4 days (24 hours)
Contact us

ABB Power Grids Spain, S.A.U.
Power Consulting
San Romualdo, 13
28037 Madrid
Spain
Phone: (+34) 666 57 40 77
E-mail: madrid.abbuniversity@es.abb.com

For more information