



# 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.



## CONTENT

### 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 transformes
- Core type transformers
- HiDry72. Dry power transformers
- Applications

- The product
- HyDry72: Dry power transformers
- HyDry72: Manufacturing
- HyDry72: Accesories
- 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

**LIVE ONLINE TRAINING**

**Duration: 24 hours**

**More information and registration here:**

<https://bit.ly/HitachiGridAcademy>