

## Diagnosis of Distribution and Power Transformers

**Summary:** Participants acquire the knowledge and skills to perform and operate diagnostic tests (conventional or advanced as FRSL measures, FRA, FDS) on power and distribution transformers. Subsequently this knowledge is embodied in practical work.

**Products:** CPC-Family, DIRANA, FRANEO 800

**Prerequisites:** General knowledge of power and distribution transformers

**Duration:** 4 days

**Language:** English

**Code:** C.0145.EAX



### Objectives

- > Performing diagnostic measurements on transformers
- > Interpreting and evaluate the measurement results
- > Correlating results from different measurement methods



### Content

- > Introduction to the diagnosis of transformers
- > Electrical basic tests on a transformer
  - Transformer Ratio
  - Winding Resistance
  - On-load Tap Changer Test
  - Short-circuit impedance measurement
- > Introduction to the measurement of  $\tan \delta$  (dielectric loss factor) and the frequency response of the dielectric (FDS)
  - Measurement of dissipation factor on insulation of windings
  - Implementation and interpretation of results
- > Introduction to the sweep frequency response analysis of the scanning coils (SFRA)
  - Measurement principles of the SFRA
  - Implementation and interpretation of results



### Products

- > CPC 100, CP SB1, CP TD1
- > DIRANA
- > FRANEO 800
- > PTM (Primary Test Manager)



### Audience

Technicians and engineers from utilities or companies responsible for maintenance and diagnostics of power transformers.