Rotating Machines Diagnostics and Insulation Condition Assessment

Summary: Become familiar with the principles of diagnostics on motors and generators. Get the most out of the test equipment. Learn how to perform practical combined measurements and to identify defects.

Products: MPD-Family, CPC 100

Prerequisites: Knowledge of generators and motors

Duration: 1.5 days Language: English Code: C.0151.BBX

Objectives

> Knowing the structure of HV generator stators and their typical weak points
> Understanding the combined measurement method to benefit from combined / more accurate / comprehensive results
> Performing the measurement method professionally and efficiently
> Assessing the measurement results to draw conclusions on the insulation for condition-based maintenance planning

Content

> Summary of most common defects of stator and rotor windings
> Typical causes for insulation ageing (thermal, mechanical and electrical)
> Introduction to the design of stator windings
> Overview of measurement methods for generator diagnostics
> References to the applicable standards based on a practical approach
> Becoming familiar with a combined setup for capacitance, dissipation/power factor and partial discharge measurement for time-efficient and comprehensive measurements
> Utilizing the full scope of the test equipment
> Assessment of the capacitance and dissipation factor measurement results
> Recognizing PD patterns and identifying defects in the insulation or winding
> Analyzing case studies of most common defects on stator windings

Products

> CPC 100, CP TD1, CP CR 500
> MPD 600
> OMS 605
> MONGEMO

Audience

Technical staff involved in motor/generator diagnostics, service and maintenance at utilities, service companies, generator manufacturers and repair workshops