Partial Discharge Testing on Power Transformers, Generators and Motors with MPD 500/600

Summary: Become familiar with both the principles of partial discharges and their measurement with the MPD test set. Learn how to identify fault types and fault locations to assess the condition of your assets. Get to know advanced testing techniques in hands-on sessions on special training equipment.

Products: MPD-Family

Prerequisites: Knowledge of electrical engineering

Duration: 4.5 days Language: English Code: C.0064.BBE

Objectives

> Measuring PD on high voltage devices with MPD 500/600 and detect PD in UHF range using UHF 620
> Localizing PD in oil filled transformers and reactors using PDL650
> Performing measurements to determine the insulation condition and identify fault types and fault location
> Evaluating aging and deterioration processes in primary assets by PD measurements
> Monitoring the quality of the production process by performing measurements on assembled parts
> Applying PD technology to design or redesign devices exposed to high voltage

Content

> Understanding the physics behind partial discharges
> Getting to know the MPD system and understanding how partial discharges are measured
> Connecting MPD to high voltage devices, such as power transformers, generators and motors
> Performing partial discharge tests according to IEC 60270 and the IEC standard of the test object
> Performing PD detection using UHF method
> Performing acoustic PD localization in oil filled transformers and reactors
> Performing real partial discharge hands-on sessions and interpreting partial discharge test results
> Getting to know PRPD, 3PARD and 3CFRD/3FREQ diagrams to discriminate noise
> Classifying partial discharge types and determine the risk for the test objects
> Synchronous and multichannel partial discharge testing for optimized test results
> Performing measurements in frequency and time domains
> Handling interferences (unit gating, amplitude gating, dynamic gating)
> Getting to know the software of MPD 500/600 for efficient measurements

Products

> PRPD/fingerprints, 3PARD, 3FREQ, Q(V), trend analysis, RIV, gating of interferences
> PDL 650 (acoustic partial discharge locator)
> MPD 500/600 and accessories

Audience

Technical staff from electric utilities, railway and service companies as well as manufacturers involved in partial discharge testing