

## Transformer differential protection in the SIPROTEC 4 7UT612 and 7UT63x (H-SIP4TB)

### Short Description

In this 1-day course, you will learn how to use DIGSI 4 to program a transformer differential protection for the protection of a transformer in the SIPROTEC 4 range. This course focuses on the protection function itself, the settings that can be made and their meanings. It also covers how to practically test this function with an OMICRON test case and how to handle the online display of the measurements.

### Target Group

This course is intended for individuals involved in the engineering process, determining settings, programming, and reading transformer differential protections of the SIPROTEC 4 series. Engineers, commissioning personnel, and maintenance technicians.

### Content

- The principle of SIPROTEC version 4.
- DIGSI 4 in general.
- The capabilities of the 7UT protection.
- The theory of transformer differential protection.
  - The structure of classical differential protection, stabilization and differential forces, characteristic structure, saturation indicator and CT dimensioning, inrush stabilization and other HH stabilization, IO elimination, settings.
    - Engineering presentation with examples.
    - Vector group presentation, IO elimination and correction.
    - Testing with interpretation of SIGRA files.
    - Fault analysis from the past.
    - REF differential or earth fault differential protection.
    - CT saturation presentation.
- Testing transformer differential protections.

### Prerequisites

Basic knowledge of the different types of protections as covered in the H-BM or H-BI course. Knowledge of SIPROTEC 4 and DIGSI 4 as covered in the SIPROTEC 4 Basic Course with DIGSI 4.

### Note

1. This course is based on the specific transformer differential protection functions within the SIPROTEC 4 and contains a lot of theory. Therefore, it is more about following along rather than actively participating on your own or a training PC.
2. If you want to actively program yourself, we can add a separate practical day where you can work with a transformer differential protection and a training PC or your own PC, provided the correct software is installed.
3. For testing the transformer differential protection, the advanced course of the OMICRON course is recommended. The second day is dedicated to this protection.
4. This course can be scheduled for a minimum of 4 people. For more information or special requests, please contact the Power Academy.

### Type

Face-to-face training

### Duration

1 day

### Language

en, nl

### Fee

825 EUR

Face-to-face