

OMICRON Academy Training in Cooperation with  
BLICHFELD POWER & MEASUREMENTS A/S

## Power System Protection Testing with the CMC Test System

**Duration:** 3 days  
**Language:** English  
**Location:** Birkemosevej 11 D  
6000, Kolding

**Schedule**  
Day 1: 08:30 – 17:00  
Day 2: 08:30 – 17:00  
Day 3: 08:30 – 17:00

**Price** 16.900 DKK ex VAT

*Welcome!*



## Power System Protection Testing with the CMC Test System

**Summary:** Learn how to efficiently test overcurrent, distance and transformer differential relays with the OMICRON Test Universe. Get familiar with the test procedure in hands-on and theoretical sessions. Work with special test set-ups that simulate the substation in the classroom.

**Audience:** Technical staff from utilities, transmission and distribution networks, railway grids, service companies and manufacturers involved in protection testing

**Prerequisites:** Basic knowledge of power system protection

**Limitations:** Min. 6 and max. 12 participants.

**Duration:** 3 days                                      **Language:** English

### Objectives

- > Performing commissioning, trouble-shooting and periodic tests of protection relays
- > Testing overcurrent, distance and transformer differential relays with the OMICRON Test Universe
- > Creating and modifying automated test plans and customized test reports
- > Using the OMICRON Test Universe from scratch

### Training topics

- > Quick current and voltage output for easy wiring tests
- > Configuration of the test object parameters and the test hardware
- > Creating test plans which adapt automatically to newly entered relay settings
- > Creating a flexible test plan for overcurrent relays including testing pick-up values and trip times
- > Hands-on testing of the overcurrent protection function
- > Creating a flexible test plan for distance relays including testing the trip times and zone reaches as well as switch on to fault (manual close) and auto-reclosing
- > Hands-on testing of distance relays
- > Creating a flexible test plan for transformer differential relays including testing the stability during external faults, the tripping characteristic, the trip times and the harmonic restraints
- > Hands-on testing of transformer differential relays

### Get to know

- > Control Center, QuickCMC, Ramping, Pulse Ramping, Overcurrent, Advanced Distance, State Sequencer, Autoreclosure, Advanced Differential (Diff Configuration, Diff Operating Characteristic, Diff Trip Time Characteristic, Diff Harmonic Restraint)
- > CMC 256, CMC 256plus, CMC 356

### Strategy

Our trainer explains the procedure of protection testing, while providing the necessary background knowledge. This is done in alternating theoretical and hands-on sessions. Specific questions and requests of the customers are also taken into account by the trainer.

The practical parts are performed with OMICRON Test Towers. These are equipped with notebooks, distance and differential relays (Siemens 7SA6, 7UT6 and Areva P435, P633) CMC test sets and the OMICRON SimBox which simulates the field related to the protective relays.

During the practical sessions in small groups up to 3 persons the participants gain direct test experience and enhance their acquired knowledge

## Hotel Information



## Contact

+45 75 51 00 00  
hotel@koldingfjord.dk

Hotel Koldingfjord A/S  
Fjordvej 154  
6000 Kolding  
Danmark

<http://www.koldingfjord.dk/>

## Booking

- > Please book rooms by yourself.
- > Participants pay their own hotel room

## Registration

The application is binding, and the fee must be paid before the course starts.

After the course, the participant will receive a certificate on completion of the course.

Please send registration to: [brp@blichfeld.dk](mailto:brp@blichfeld.dk)

- Name
- Email
- Phone no.
  
- Company
- Address
- Invoice mail or EAN no. (if applicable)