



## Recloser Control testing with ARCO 400 – Virtual Class

 1 day

 English

 oCprs16en

Learn how to test recloser and sectionalizer controls quickly and reliably with ARCO 400. Become familiar with the software guided workflow of ARCO Control and learn how to prepare reusable test plans for standardized testing.

### Objectives

- ▶ Become familiar with the theory of reclosers and their application in the distribution system
- ▶ Perform easy and efficient tests of recloser and sectionalizer controls
- ▶ Learn about voltage-based distribution system restoration and how to test it
- ▶ Prepare reusable test plans with ReCoPlan for standardized and time-saving tests

### Content

- ▶ Theoretical background of reclosers and sectionalizers, their protective functions and automated distribution restoration schemes
- ▶ Getting to know the easy test setup of ARCO 400 and its smart controller adapters
- ▶ Performing simple manual trip and close checks just with the ARCO hardware
- ▶ ARCO Control overview
- ▶ Performing wiring checks
- ▶ Determining pick-up values of overcurrent curves
- ▶ Testing the reclosing sequence of recloser controls under various conditions
- ▶ Testing overcurrent operating characteristics
- ▶ Getting to know the testing principles of voltage-based restoration schemes
- ▶ Testing 2<sup>nd</sup> harmonic blocking functions
- ▶ Creating test plans with ReCoPlan and executing them with ARCO Control

### Solutions

ARCO 400  
Different controller adapters  
ARCO Control  
ReCoPlan

### Audience

Technical staff from electric utilities, service companies and manufacturers involved in recloser maintenance, installation and testing

### Prerequisites

Basic knowledge about distribution systems and protective devices

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## Implementation

This course takes place entirely online. From your desk, you participate in sessions with our trainer. Innovative tools and methods allow you to actively participate and interact with both the trainer and the course participants. Subsequently, comprehensive practical parts on our digital substation on protection relays of different manufacturer will enable you to apply the knowledge you have learned during the theoretical sessions. For this, you will connect in small groups directly to our training room via remote access.

## Structure

Session 1 – 10:00 AM – 12:00 PM

- ▶ Introduction
- ▶ Theoretical background of reclosers and sectionalizers
- ▶ ARCO 400 hardware overview
- ▶ Test setup of the ARCO 400
- ▶ ARCO Control overview
- ▶ Performing wiring checks with the Analog Output Check tool
- ▶ Overview of recloser overcurrent operating characteristics and reclosing logic
- ▶ How to use the Pick-Up tool to test the pickup value of overcurrent curves
- ▶ How to use the Tripping Sequence tool to test the reclosing sequence of recloser controls
- ▶ How to use the Trip Time Characteristics tool to test the overcurrent operating characteristics
- ▶ How to use the Sequencer tool
- ▶ How to use the Direct tool

Session 2 – 1:00 PM – 3:00 PM

- ▶ Voltage-based restoration schemes and how to test them using the Restoration tool
- ▶ Second harmonic blocking function and how to test it using the Harmonics tool
- ▶ Creating test plans with ReCoPlan
- ▶ Executing test plans with ARCO Control
- ▶ Feedback and wrap-up

## Your Tools

- ▶ Computer/Laptop with Internet access
- ▶ Headset
- ▶ Webcam
- ▶ Cisco Webex access (provided by OMICRON)