COURSE DESCRIPTION

P262
Relion® 615 series

Course goal
The goal of this course is to familiarize the participants with the operation, setting and engineering of Relion® 615 series relays.

Main learning objectives
Upon completion of this course the participants will be able to:
- Operate relay using Web HMI (Human Machine Interface);
- Manage the relay settings;
- Read and clear events and alarms;
- Manage the relay using PCM600;
- Set up and upload disturbance recordings;
- Program the relay inputs, outputs and LEDs;
- Add and remove functions to the configuration.

Topics
- Key features of the 615 series relays;
- Assembling, setting and operation of REF615, RET615, REM615, REU610 and RED 615;
- Local HMI, Web HMI;
- Relay management tool PCM600;
- Setting the relay (LHMI, Web HMI, PCM600);
- Setting and reading the disturbance recorder;
- Signal Matrix Tool (SMT);
- Graphical Display Editor (GDE);
- Application Configuration Tool (ACT).

Participant profile
System engineers, maintenance engineers and persons who want to learn how to operate as well as engineer 615 series relays.

Prerequisites
Basic knowledge of protection relays and the electrical network to be controlled.

Course type and methods
This is an instructor led classroom with lectures, demonstrations and hands on practice.

Duration
The duration is 3 days.
## Course map

<table>
<thead>
<tr>
<th>Topics</th>
<th>DAY 1</th>
<th>DAY 2</th>
<th>DAY 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Assembling, setting and operation of REF615;</td>
<td>• Assembling, setting and operation of RET 615, REM 615;</td>
<td>• Assembling, setting and operation of REU 610, RED 615;</td>
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<tr>
<td>• Key features;</td>
<td>• Components and features of the software, protective functions, configuration system, settings, the human-machine interface;</td>
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<td>• PCM 600: ACT, PST, SMT, GDE, DR + WAVEWIN ABB ...);</td>
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<td>• PCM 600: ACT, PST, SMT, GDE, DR + WAVEWIN ABB ...);</td>
<td>• Standard configurations of 615 series IEDs;</td>
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<td>• Exercises: hardware components, connection external circuits, studying the human-machine interface;</td>
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<td>• Exercises: settings, checking the protective functions, working with the Registrar of Abnormal modes by using RETOM 51.</td>
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### Time

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<tr>
<th>Time</th>
<th>DAY 1</th>
<th>DAY 2</th>
<th>DAY 3</th>
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<tbody>
<tr>
<td>9:00 am – 6:00 pm</td>
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Typical course layout (time or sequence may change)