

Course description

F332

Electronic releases

Course Duration

The duration is 1 day.

Course type

This is a classroom course with activities led by an instructor.

Course Goal

After this course, you will have a depth knowledge of electronic protection releases and the protections they implement. You will be able to select the proper protection release, depending on the application.

Student Profile

The course is intended for technicians.

Prerequisites and Recommendations

The student must have a basic electro technical knowledge.

The following courses should be completed:

- F330 - Introduction to circuit breakers
- F300e - Tmax circuit breakers
- F310e - Emax circuit breakers



Main Topics

- Basic concepts
 - overcurrent electronic releases: structure and functions
 - comparison to electromechanical releases
 - self-supply and auxiliary supply
- ABB SACE range of electronic protection releases
 - MCCB releases
 - ACB releases
- Overcurrent protections
 - basic protections: overload and short-circuit
 - selective short circuit protection
 - how to read time-current curves
 - advanced functions: start-up thresholds, double S, thermal memory
- Ground fault protection
 - distribution systems
 - G and double G protections
 - RC protection
- Advanced protections
 - voltage-based protections
 - reverse power protection
 - Early Fault (EFDP)
 - zone selectivity
 - directional protection
 - directional zone selectivity
 - dual setting
- Additional functionalities
 - measurements
 - signaling / communication
 - event detection + logging
 - fault / alarm data logging
- Sample applications
 - feeder protection
 - transformer protection
 - connection to Profibus via EP010 Fieldbus Plug
 - connection to Ethernet networks