

Course description

F333

Selectivity and back-up

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 understand the concepts behind coordinated protection systems: selectivity, back-up, continuity of service. You will be able to evaluate the options available for selective coordination, and select the circuit breakers and protection releases to be employed in some common cases.

Student Profile

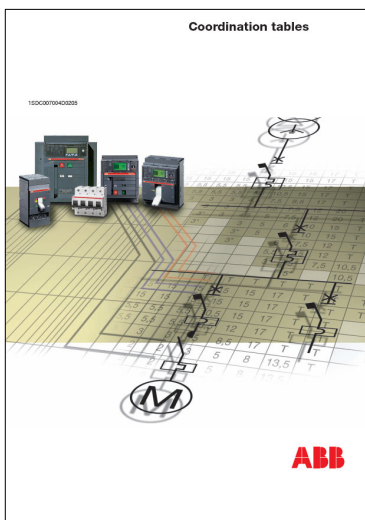
The course is intended for technicians.

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
- F320e - Low voltage selectivity with ABB circuit breakers



Main Topics

- Coordination of protections
 - Standard definitions for coordination: selectivity and back-up
 - current-based, time-based, energy-based selectivity
 - zone selectivity
 - back-up protection
 - selectivity under overload and selectivity under short circuit conditions
- Implementing back-up protection
 - circuit breaker selection
 - release selection and setting
- Implementing selectivity
 - current-based selectivity
 - time based selectivity
 - energy-based selectivity
- Advanced selectivity systems on ACBs
 - zone selectivity on S and G protections
 - coordination of zone selectivity systems with MCCBs, MCBs and third-party breakers
 - time selectivity with directional protection
 - directional zone selectivity
- Advanced selectivity systems on MCCBs
 - fast interlocking and EFDP protection
 - interlocking between MCCBs and ACBs.

