

---

G932

# Service training for motors and generators for hazardous areas

## COURSE DESCRIPTION

### Course goal

The goal of the course is to certify personnel to work as an Ex responsible in a service workshop for ABB low voltage hazardous areas motors and generators on the following protection types: flameproof, increased safety, pressurized, non sparking and dust ignition proof.

### Learning objectives

Upon completion of this course, students will be able to:

- describe the relevant standards and main principles of protection types
- describe the hazardous are motor and auxiliary constructions and motor protection
- carry out trouble shooting, adjustments and settings of hazardous are motors
- describe which the permitted maintenance and repair actions are
- carry out, supervise or advice maintenance and repair of hazardous are motors
- test the functionality of the motor after undertaken action
- have a complete overview on the design of ABB Ex LV Motors

### Participant profile

This training is mainly targeted to service and maintenance engineers, technicians and workshop management.

### Prerequisites

The student should have basic knowledge and experience in service of standard motors prior to attending this course. Provide IEC 60079-14, IEC 60079-17 and IEC 60079-19 standards in participants language (if available).

### Topics

- Hazardous environments
- Directives and standards (EN an IEC-standards)
- ABB's hazardous area motor product range and design
- Service requirements for Hazardous area motors
- Dismantling and assembly guides
- Hands-on training

### Course type and methods

This is an instructor led course with some hands-on exercises. The training will be based on IEC 60079-14, IEC 60079-17 and IEC 60079-19 standards. In the end of the training a test will be held to ensure that student has acquired the qualifications required.

### Course duration

The duration of the course is two days.

### Language

The course is in English

BL Motors and Generators training

<https://new.abb.com/>

<https://new.abb.com/service/abb-university>

## Agenda

Day 1	Date
9:00	Welcome
	Hazardous environments
	Standards in hazardous areas, general requirements of standards
	Ex-protection modes (first part)
12:00	Lunch
13:00	Ex-protection modes (second part)
	ABB Ex-products
	Service requirements for Ex-motors: IEC 60079-14 standard
	Service requirements for Ex-motors: IEC 60079-17 standard
17:00	Finishing the lectures
Day 2	Date
9:00	Welcome
	Service requirements for Ex-motors: IEC 60079-19 standard
	Repair methods on ABB LV motors
	Warranty and After Sales
12:00	Lunch
13:00	Certification exam
	Dismantling and assembly guides
	Ex-motor service & maintenance
	Hands on training
	Summary of the training – Certification
17:00	Finishing the seminar