

G901 Electrical Machines Theory, Operation and Maintenance (Products manufactured in Västerås, Sweden)

Course description



Course Duration

The duration of the course is 4,5 days.

Course Type

This is an instructor led course at the Machines factory, Västerås Sweden.

Course Goal

The concept of large motors and generators are introduced from an electrical as well as a mechanical aspect, covering both synchronous and induction machines. The course starts at a basic level but also covers more in-depth information. Accessories, dynamic analysis, starting methods and control equipment are also covered. Theory is combined with practice in the workshop. Focus towards the products manufactured in the ABB Machines factory in Västerås, Sweden.

Student Profile

For ABB employees as well as customers or others with an interest in large electrical machines.

Prerequisites and Recommendations

Students should have a basic electrical and mechanical knowledge.

Course Objectives

After the course the participants will be able to

- explain the basics of large rotating electrical machines, electrically as well as mechanically
- explain after sales service and maintenance issues with regards to these machines
- describe how the machines is functioning in relation to control equipment
- present some motor and generator applications
- explain what are the main features of the machines from ABB Machines in Västerås

Main Topics

- Mechanical and electrical design
- Comparison of induction and synchronous machines
- Theory of Induction & Synchronous machines
- Hazardous Area Design
- Motor and Generator control panels
- Motor starting
- After Sales Support