

Course description

G750

ACS 6000 Medium Voltage Drive Operation and Maintenance

Course goal

The goal of this course is to train the participants in the safe operation, control, configuration, troubleshooting and maintenance of the ACS 6000.

Learning objectives

Upon completion of this course, students will be able to locate the hardware components, to verify and replace drive's parts and to perform preventive maintenance. The use of the available programming and troubleshooting tools is trained by practical operating exercises.

Contents

General Topics

- Introduction to product
- Different DC bus configurations (single and multi drive)
- Medium voltage safety requirements

Hardware Description (Power Electronics & Control)

- Functions of components and PCB's (printed circuit boards)
- Hardware schematics and electrical drawings
- PCB settings and configurations

Redundant Watercooling System

- Cooling circuit description
- Preventive maintenance

Operation

- Energizing and de-energizing the converter

- Using local control panels and DriveWindows tool

Software Introduction

- Active rectifier, inverter and excitation software concept
- Data exchange between modules
Setting parameters

Fault-tracing and troubleshooting

- Interpretation of alarm and fault messages
- Replacement of PCB's and components
- Getting help from ABB

Methods

Lectures and demonstrations
Practical exercises with demo equipment
Visit of the assembly line

Participants

Electricians, technicians and engineers, who will operate, maintain or troubleshoot the ACS 6000 drive system.

Prerequisites

Basic knowledge on asynchronous and synchronous motors and drive engineering
knowledge on use of MS Windows based computers and English

Duration

4 days

Add

Max. 8 participants
On-site training on request



Start / stop sequence

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Course outline

Day 1	Day 2	Day 3	Day 4
<ul style="list-style-type: none">■ Course overview■ Product overview■ Active Rectifier / Inverter Unit■ Line Supply Unit	<ul style="list-style-type: none">■ Capacitor Bank Unit■ Excitation Unit■ Water Cooling Unit■ Control Unit	<ul style="list-style-type: none">■ DTC: Main principles of motor control SW■ Protection concept■ Application SW■ Operation of the drive	<ul style="list-style-type: none">■ Hands on training■ DriveWindow■ Preventive maintenance

ABB Switzerland Ltd.

Power Electronics and Medium Voltage Drives

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