FCOURSE DESCRIPTION

G750 ACS6000 Operation & Maintenance training

Course goal

The goal of this course is to train the participants in the safe operation, control, configuration, troubleshooting and maintenance of the ACS6000. The students will develop their knowledge, confidence and skills in the handling of ACS6000 Voltage Source Inverter.

Main learning objectives

The course goal is to teach students how to operate, maintain and troubleshoot the ACS6000 drive.
Upon completion of this course, the 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 taught by practical operating exercises.

Participant profile

Electricians, technicians and engineers who operate, maintain or troubleshoot ACS6000

Prerequisites

- Basic knowledge of AC motors and drives
- Basic knowledge using Windows computers

Topics

Generalities

- ACS6000 family overview, system requirements
- AC motor and DTC control
- Drive specific safety requirements

Hardware description (power electronics & control)

- Component and PCB functions
- Hardware schematics and electrical drawings
- PCB settings and configuration

Water cooling system

- Cooling circuits description
- Preventive maintenance

Operation

- Energize / de-energize, start / stop sequence
- Local operation with drive control panel and DriveWindow tool
- Remote control

Software introduction

- Software structure, parameters description
- Application configuration

Fault tracing and troubleshooting

- Alarm and fault indications
- Checking and replacing PCB's and components
- Using DriveWindow SW tool for configuration and troubleshooting
- How to get help from ABB

Course type
This is a face-to-face classroom training with maximum 8 participants.

Duration
4 days

Learning methods and tools
— Lectures and demonstrations
— Practical exercises on training drive and simulators

Project specific or standard training at additional course dates are available on request. Please note: The course is only carried out if at least 5 participants have been booked.

Course outline

DAY 1	DAY 2	DAY 3	DAY 4
— Course overview — Product overview — Active Rectifier / Inverter Unit — Hands-on: Checking semiconductors	— Hands-on: Removing phase module — Line Supply Unit — Capacitor Bank Unit — Excitation Unit — Water Cooling Unit	— Control Unit — Protection concept — Hands-on: Operation of the drive — Application SW — Hands-on: DriveWindow	— Preventive maintenance — Hands-on: Exchanging semiconductors — Hands-on: Troubleshooting

COURSE DESCRIPTION

G950 ACS6000 / ACS6080 Operation & Maintenance Training

Course goal

The participants are trained in the safe operation, control, troubleshooting and maintenance of the ACS6000 and ACS6080. The students will develop their knowledge, confidence and skills in the handling of ACS60x0 through practical exercises on real drive equipment.

Main learning objectives

The students learn how to operate, maintain and troubleshoot the ACS6000 and ACS6080 drives.
Upon completion of this course, the 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 taught by practical exercises.

Participant profile

Electricians, technicians and engineers who operate, maintain or troubleshoot ACS60x0

Prerequisites

- Basic knowledge of AC motors and drives
- Basic knowledge using Windows computers

Topics

Generalities

- ACS60x0 family overview, system requirements
- AC motor and DTC control
- Drive specific safety requirements

Hardware description (power electronics & control)

- Component functions
- Hardware schematics and electrical drawings
- Board settings and configuration

Water cooling system

- Cooling circuits description
- Preventive maintenance

Operation

- Energize/de-energize, start/stop sequences
- Local operation with drive control panel and PC tool
- Remote control interface

Fault tracing and troubleshooting

- Alarm and fault indications
- Checking and replacing boards and power components
- Using PC tool for configuration and troubleshooting
- How to get help from ABB

ABB Singapore M0SE
Training center

Course type
This is a face-to-face classroom training with maximum 8 participants.

Learning methods and tools
- Lectures and demonstrations
- Practical exercises on training drive and simulators

Duration
4 days

Please note: The course is only carried out if at least 4 participants have been booked.

Project specific training, training for applications without motor (despite the similar hardware), on-site training or standard training at additional course dates are available on request.