

COURSE DESCRIPTION

G700 ACS1000

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 ACS1000. The students will develop their knowledge, confidence and skills in the handling of ACS1000 Voltage Source Inverter.

Main learning objectives

The course goal is to teach students to operate, maintain and troubleshoot the ACS1000 drive, air-cooled and water-cooled units. 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.

Participant profile

Electricians, technicians and engineers who operate, maintain or troubleshoot ACS1000

Prerequisites

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

Topics

Generalities

- ACS1000 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
- ACS1000i characteristics

Water-cooled system

- Water circuits description
- Preventive maintenance

Operation

- Safety requirements
- Energize / de-energize the drive
- Local operation with drive control panel and DriveWindow tool
- Remote control

Software introduction

- Software structure, parameter's 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 class room training with maximum 8 participants.

Learning methods and tools

- Lectures and demonstrations
- Practical exercises on fully operational training drive and other training equipment
- Factory visit

Duration

3 days

To register:

Please apply online ([signup](#) required):
[Motion Upskill/G700](#)

Custom-tailored training courses or standard training at additional course dates are available on request.

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

Course outline

DAY 1	DAY 2	DAY 3
<ul style="list-style-type: none">— Course overview— Product overview— Power electronics hardware: description and function, for air cooled and water cooled drives— Hands-on training: Component's location	<ul style="list-style-type: none">— ACS1000i characteristics— Control HW— Protection concept— Hands-on: Operation of the drive— Factory visit	<ul style="list-style-type: none">— Application SW— DriveWindow— Preventive maintenance— Hands-on training: Troubleshooting using control panel and DriveWindow, parts measurement and replacement



Classroom training



Hands-on training