

## COURSE DESCRIPTION

# G731 ACS5000 Air-Cooled Operation & Maintenance

### Course goal

The goal of this course is to train the participants in the safe operation, control, configuration, troubleshooting and maintenance of the air cooled ACS5000.

### Main learning objectives

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 trained by practical operating exercises.

### Participant profile

Electricians, technicians and engineers who operate, maintain or troubleshoot the ACS5000 air cooled drive

### Prerequisites

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

### Topics

#### Generalities

- ABB medium voltage drives family overview
- ACS5000 5-level inverter topology and DTC control

#### Hardware description

##### (power electronics & control)

- Component and PCB functions
- Hardware schematics and electrical drawings
- PCB settings and configuration
- ACS5000 air cooled characteristics

#### Air cooling system

- Cooling circuit description
- Preventive maintenance

#### Operation

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

#### Software introduction

- Software structure, parameters description
- Application configuration, parameter

#### Fault tracing and troubleshooting

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

### Course type

This is a face to face class room training with maximum 8 participants.

### Learning methods

- Lectures and demonstrations
- Practical exercises with training equipment
- Factory visit

### Duration

3 days

### To register:

Please apply online ([signup](#) required):

[ABB MyLearning/G731](#)

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"><li>— Course overview</li><li>— Product overview</li><li>— Power part</li><li>— Control part</li><li>— Integrated transformer (Optional)</li><li>— Excitation Unit (Optional)</li></ul>	<ul style="list-style-type: none"><li>— Hands-on: Checking/replacing semiconductors</li><li>— Hands-on: Operation of the drive</li><li>— Hands-on: SW tool DriveWindow</li><li>— Preventive maintenance</li></ul>	<ul style="list-style-type: none"><li>— Drive system requirements</li><li>— Application SW</li><li>— Protection concept</li><li>— Hands-on: Troubleshooting, fault finding exercises</li></ul>



Classroom training



Hands-on training