

Course description

G300

ACS600 single drive, 1 kW – 3000 kW, Operation and maintenance

Course type

Classroom course

Course Duration

The course duration is 3 days.

Course Goal

The goal of this course is to teach students to install, start-up, adjust, operate, maintain, troubleshoot and repair ACS600 single drive, 1 kW-3000 kW.

Student Profile

This course is intended for electricians, technicians, and engineers who install, operate and service ACS600 single drives.

Prerequisites

- Basic knowledge of electronics
- Experience in using a Windows PC

Description

This course belongs to a learning path that may utilize blended learning. Please see the accompanying figure of possible learning paths.

Course Objectives

Upon completion of this course, students will be able to:

- Start-up of ACS600 single drives
- Trace and correct faults
- Operate and maintain ACS600 single drives
- Use the drive PC-tool
- Make parameter backups and restore

Main Topics

- Hardware and software overview
- Direct Torque Control (DTC) principle
- Component and board functions
- Reading and interpreting circuit diagrams
- ACS600 Standard Application Program
- Control panel functions
- Using application macros to set parameters
- Locating and identifying terminals, boards and other components
- ACS600 single drive start-up
- Fault tracing methods
- Communication alternatives
- Optional equipment overview
- DriveWindow commissioning and maintenance tool operations
- Operations and measurements of the supply sections
- Exercises with demo equipment

Low Voltage Drives Training

www.abb.com

www.abb.com/abbuniversity

Helsinki.abbuniversity@fi.abb.com

Power and productivity
for a better world™



Agenda

G300

ACS600 single drive, 1 kW – 3000 kW Operation and maintenance

Day 1

- 09:00 Course information
- 09:10 Presentation of ACS600 product and DTC
- 10:00 Coffee break
- 10:15 Control panel functions and start-up procedure
 - Exercise: Control panel, start-up
- 11:00 Inverter hardware
 - Main circuit constructions (frame sizes)
 - Main circuit diagrams
 - Control boards
- 12:00 Lunch
- 13:00 Inverter hardware continues
- 14:15 Coffee break
- 14:30 Hardware
 - Exercises with ACS601, ACS604, phase module etc.
- 16:00 End of day 1

Day 2

- 08:30 Diode supply section, DSU
 - Construction
 - Operation
 - Diagrams
- 09:30 Coffee break
- 09:45 Thyristor supply section, TSU
 - Construction
 - Operation
- 11:00 DriveWindow 2.x
 - Parameter settings, monitoring, backups
- 12:00 Lunch
- 13:00 Exercises
 - DriveWindow 2.x
 - Thyristor supply, TSU
- 14:15 Coffee break
- 14:30 Exercises continue
- 16:00 End of the day 2

Low Voltage Drives Training

www.abb.com

www.abb.com/abbuniversity

Helsinki.abbuniversity@fi.abb.com

Power and productivity
for a better world™



Agenda

G300

ACS600 single drive, 1 kW – 3000 kW Operation and maintenance

Day 3

08:30	Drive firmware <ul style="list-style-type: none">▪ Application macros▪ Parameters: Control and scaling groups▪ Communication alternatives overview▪ Exercise	14:30	Coffee break
		14:45	Exercises continue
		15:30	Brief summary of the course <ul style="list-style-type: none">▪ Question and feedback▪ Evaluation form
10:00	Coffee break	16:00	End of the course
10:15	ACS600 Options <ul style="list-style-type: none">▪ IO Extensions▪ Braking resistors▪ Filters and chokes▪ Communication alternatives overview		
11:00	Fault tracing and IGBT upgrading		
12:00	Lunch		
13:00	Fault tracing and IGBT upgrading continues <ul style="list-style-type: none">▪ Exercise: checking of power stage, replacement of power plates, backups, IGBT upgrading		

Low Voltage Drives Training

www.abb.com

www.abb.com/abbuniversity

Helsinki.abbuniversity@fi.abb.com

Power and productivity
for a better world™

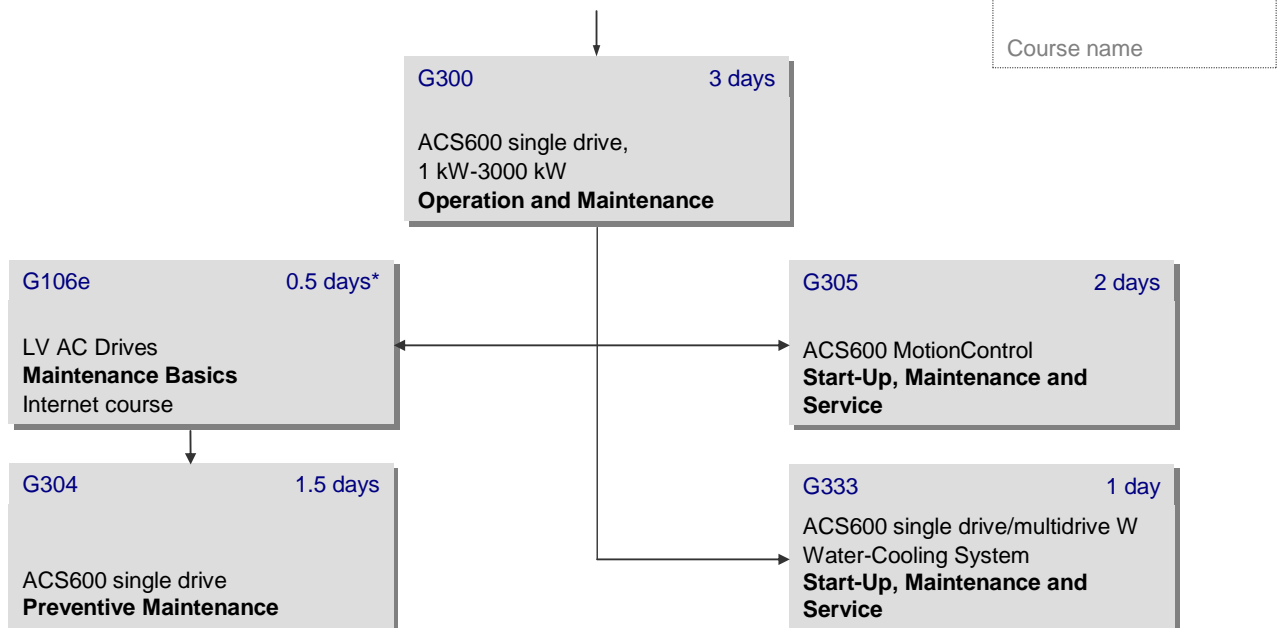


Agenda

G300

ACS600 single drive, 1 kW – 3000 kW Operation and maintenance

ACS600 Single Drive Learning Paths



* The duration of the Internet courses depends on personal professional background and study pace

Low Voltage Drives Training

www.abb.com

www.abb.com/abbuniversity

Helsinki.abbuniversity@fi.abb.com

Power and productivity
for a better world™

