Course description

G176
ACS800 single drive, Winch Control Program (+N698), operation and programming

Course Type
Classroom course

Course Duration
The course duration is 2 days.

Course Goal
The goal of this course is to teach students to:

- Understand different a winch application as anchor and mooring.
- Program and modify those winch applications made by using the Winch Control Program of the ACS800.

Student Profile
This course is intended for electricians, technicians, and engineers, who commission, install, operate and service ACS800 with the Winch Control Program application software and sales people.

Prerequisites
- Either course G152 or G156 (or equivalent knowledge). For course names and durations, please refer to the accompanying figures of learning paths.

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

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

- Describe different winch applications
- Describe Winch Control Program features
- Describe protection functions
- Make settings and start-up to the Winch Control Program

Main Topics
- Basics of the winch application and terminology
- Winch control locations
- ACS800 Winch control with extended I/O
- Basic start-up of ACS800 with Winch Control
- Mechanical Brake Control and Winch system checking
- Anchor control
- Mooring control
- RoRo gateramp winch control
- Master/Follower configuration
- General protections
- Service counters
- Hands-on exercises
Low voltage drives training
ABB University Finland, Helsinki Training Center
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Course agenda
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Day 1

09:00 Course information
09:10 Basics of the winch application and terminology
10:00 Coffee break
10:15 Winch control locations
  - EXT1 Stand alone mode
  - EXT2 Winch mode
  - User macro 1 / User macro 2
  - Multi I/O for Winch control
11:00 ACS800 Winch control with extended I/O
  - Optional IO modules
  - Extended IO with AIMA-board
  - IO connection with pointers
  - Exercise
12:00 Lunch
13:00 Basic start-up of ACS800 with Winch Control
  - Motor setup (passcode protected)
  - Basic control settings (EXT1)
  - Rotation direction
  - Exercise
14:15 Coffee break
14:30 Mechanical Brake Control and Winch system checking, braking resistors
  - Exercises
16:00 End of the day

Day 2

08:30 Anchor control
  - Principle of Anchor mode
  - Slip detection
  - Anchor in protection
  - Exercise
10:00 Coffee break
10:15 Mooring control
  - Hand mooring
  - Auto mooring
    - Time control
    - Load cell
    - Constant
    - Peak torque protection
  - Separate speed ramp and limit settings
  - Exercise
12:00 Lunch
13:00 Power control
13:30 Master-Follower
  - Exercise
14:15 Coffee break
14:30 General protections
15:00 Service counters
16:00 End of the day and the course
  - Course feedback
  - Certificates

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Would you like to take a course via the Internet?

Yes

G152e 1-2 days
ACS800 Single Drive Fundamentals
Internet course

No

Do you have knowledge of ACS600 single drives?

Yes

G152A 1 day
ACS800 Single Drive Fundamentals

No

G152B 2 days
ACS800 Single Drive Fundamentals

Would you like to take a course via the Internet?

Yes

G163e 1-2 days
ACS800 liquid-cooled drives Internet course

No

G163A 1 day
ACS800 liquid-cooled drives

Would you like to take a course via the Internet?

Yes

G160e 1-2 days
ACS800 Multidrive Fundamentals Internet course

No

G161 2.5 days
ACS800 Multidrive Operation and Maintenance

Would you like to take a course via the Internet?

Yes

G155 2 days
ACS800 Multidrive Hands-On Training

No

G156 1.5 days
ACS800-07,-17,-37 Single Drive Start-Up & Service Hands-On Training

G157 2 days
ACS800-01,-02,-04,-11 Single Drive Start-Up & Service Hands-On Training

G158 2 days
ACS800 Drives DriveAP Programming

G170 2 days
ACS800 Drives Motion Control

G171 2 days
ACS800 Drives Intelligent Pump Control

G172 2.5 days
ACS800 Drives Winder/Inline Control

G173 2 days
ACS800 Drives Template Control

G174 2 days
ACS800 Drives PCP/ESP & Rod Pump Control

G175 2 days
ACS800 Drives Crane Control Program (+N697)

G176 2 days
ACS800 Drives Winch Control Program (+N698)

G177 2 days
ACS800 Drives Control Section AC800M Operation and Maintenance

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