Course description

G191
ACSM1 machinery drive, motion control hands-on

Course type
This is a classroom course with hands-on lab activities supported by an instructor. Before this course the classroom G190 and the theory based e-learning courses G191e, G195e and G063e need to be studied.

Course Duration
The course duration is 1.5 day.

Course Goal
The goal of this course is to teach students to adjust, operate ACSM1 single drives with motion control applications.

Student Profile
This course is intended for motion control orientated electricians, technicians, and engineers who commission, operate and service ACSM1 single drives with motion control applications.

Prerequisites
- Basic knowledge of electronics
- Experience in using a Windows PC
- Courses G190, G195e and G191e.

Please refer to the accompanying figure for course names and durations.

Description
This course contains hands-on ACSM1 exercises. Any of the exercises can be replaced with optional Profibus exercise. Please inform Training Center 1 week before course if you would like to do Profibus exercise.

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:
- Commission and tune ACSM1 single drives with motion control applications

Main Topics
- ACSM1 standard motion control features
- Positioning
- Homing
- Synchronizing
- Cyclic correction
- Encoder connections
- Profibus (optional)
- DriveStudio commissioning and maintenance tool operations
Course agenda

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Day 1

08:30  Course Information
08:45  Exercises
10:45  Coffee break
10:30  Exercises
12:00  Lunch
12:45  Exercises
14:15  Coffee break
14:30  Exercises
16:00  End of the day

Day 2

08:30  Exercises
10:00  Coffee break
10:15  Exercises
11:30  Course evaluation
12:00  Lunch
**Learning Paths**

**ACSM1**

**Learning paths**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Duration</th>
<th>Course name</th>
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<tbody>
<tr>
<td>G191e</td>
<td>1 hour</td>
<td>ACSM1 Machinery Drive Fundamentals for Service Internet course</td>
</tr>
<tr>
<td>G191e</td>
<td>1 hour</td>
<td>ACSM1 Machinery Drive Motion Control Features Internet course</td>
</tr>
<tr>
<td>G190e</td>
<td>3 hours</td>
<td>Hands-On Training</td>
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<tr>
<td>G065e</td>
<td>2 hours</td>
<td>DriveStudio Internet course</td>
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<tr>
<td>G192e</td>
<td>1 hour</td>
<td>ACSM1 Machinery Drive Solution Programming Internet course</td>
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<tr>
<td>G063e</td>
<td>2 hours</td>
<td>DriveStudio Internet course</td>
</tr>
<tr>
<td>G107e</td>
<td>1 hour</td>
<td>Fieldbus basics for ABB drives Internet course</td>
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<tr>
<td>G190e_a</td>
<td>1 hour</td>
<td>ACSM1 Product Specification Internet course</td>
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<tr>
<td>G192e_a</td>
<td>1 hour</td>
<td>ACSM1 Product Specification Internet course</td>
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*The duration of the Internet courses depends on personal professional background and study pace.*