

Course description

G1750

ACS880 Crane control program (+N5050), operation and programming

Course Duration

The course duration is 2 days.

Course type

Classroom course

Course Goal

The goal of this course is to teach students to:

1. Understand motions of hoists, trolleys and long travels in different industrial cranes
2. Program and modify crane application by using the Drive Composer PC tool.

Student Profile

This course is intended for electricians, technicians, and engineers, who commission, install, operate and service ACS880 with Crane Control Program application software and sales people.

Prerequisites

- Either course G380, G381, G3881 (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 Crane Control Program features
- Describe supervision and end limit functions
- Describe M/F and anti-sway communication
- Describe anti-sway functionality
- Make settings and start-up to the Crane Control Program

Main Topics

- Crane basics and terminology
- Control and reference interfaces
- Brake control logic
- Hoist speed optimization
- Master/Follower and shaft synchro control
- Anti-sway control
- Speed match and Speed monitoring
- Maintenance counters
- Safety control
- Hands-on exercises

Low voltage drives training

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Course agenda

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Day 1

- 09:00 Course Information
- 09:15 ACS 880 Crane Control basics
- 10:00 Coffee break
- 10:15 Start-up and mechanical brake exercise
- 12:00 Lunch
- 13:00 ACS 880 Crane Control basics continue...
- 13:30 Slowdown and end limit switch exercise
- 13:45 Hoist speed optimization
- 14:15 Coffee break
- 14:30 ACS 880 Crane Control basics continue...
- 15:00 Speed reference handling exercise
- 16:00 End of the day**

Day 2

- 09:00 Master/Follower communication (D2D)
- 10:00 Coffee break
- 10:15 Master-Follower exercise
 - common load
 - separate loads,
- 10:45 Synchro control
 - position counter, exercise
 - synchro control, exercise
- 12:00 Lunch
- 13:00 Anti-sway control
- 14:15 Coffee break
- 14:30 Anti-sway exercise
- 15:00 Maintenance counters
- 15:30 End of the course
 - course feedback
 - presentation of certificates

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