Course description

G581
DCS550 Basic Training

Course Duration

The duration is 2 days.

Course Type

This is an instructor led course for interactive training in a classroom. Real drives (demo units with DC converter and shunt wound motor) will be in use for demonstrations and hands-on lab activities.

Course Goal

This training will teach students to start-up, adjust, operate, maintain, troubleshoot and repair the DCS550 DC Drive using available programming and troubleshooting tools.

Student Profile

The students will typically be electrician, technician or engineer, responsible for planning, installing, servicing and maintaining the DCS550 Drives.

Prerequisites

- Basic knowledge of DC drives technology and power electronics.
- Knowledge of electrical installation.
- Experience in working with PC in Windows environment and measurement equipment (meters and oscilloscope).
- Completed elearnings
  G570e – DC Fundamentals and
  G581e – DCS550 Basics

Course Objectives

The converter DCS550 is a digital DC drive control system for the speed control of shunt wound motors in the current range between 20A to 1000A and mains voltage 230V to 525V.
Goal of this course is to teach students to start-up, adjust, operate, maintain, troubleshoot and repair the DCS550 DC Drive. The students will be able to program the drive via operator panel and PC-Tool DriveWindowLight, adapt the standard software for application requirements by the use of DriveWindowLight AP Tool. Commissioning and tuning the DCS550, systematic troubleshooting and correcting faults by the use of all available tools will be done.

Topics

- Recap of DC Drive theory and shunt wound motor
- Construction and complete hardware analysis (components of power section and electronic boards)
- Appropriate installation (circuit diagrams)
- Standard software analysis
- Operator panel usage
- RS232 drive communication (PC Tools)
- Parameterisation (DriveWindowLight)
- Basic commissioning and tuning the drive
- Application programming (function blocks)
- Fault tracing and troubleshooting
- Repair/exchange faulty hardware
- Fieldbus communication

Low voltage drives training
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