ABB UNIVERSITY COURSE DESCRIPTION

US187

ACS800 Multidrive Operation and Maintenance

Learn programming and troubleshooting tools to start-up, adjust, operate, maintain, troubleshoot, and repair ACS800 MultiDrive digital frequency inverter.

Course type and methods
This is an instructor led workshop with short presentations and demonstrations, extended exercises, and hands-on sessions and discussion.

Student Profile
This training is targeted to electricians, technicians and engineers who install, service and maintain ACS800 MultiDrive.

Prerequisites
Students should have basic knowledge of power electronics and computers.

Course objectives
Upon completion of this course the participants will be able to:

- Communicate with the drive using all available operator interfaces
- Commission and tune the ACS800 MultiDrive frequency inverter
- Explain the relationship and interaction between the drives hardware and software and apply this knowledge to system troubleshooting
- Trace and correct faults using available troubleshooting tools

Main Topics

- Control and operation principles of AC inverters
- Hardware and software overview
- Direct Torque Control (DTC) principles
- Component and circuit board functions
- Reading and interpreting circuit diagrams
- Application software and parameter settings
- Operator panel usage (CDP312R)
- Drives Window operations
- Start-up, commissioning and fine-tuning
- Fault tracing and trouble-shooting
- Inverter supply sections

Duration
The duration is 4 days

Course Outline

Day 1	Day 2	Day 3	Day 4	Day 4 (Cont.)
• Course information and introductions • Manuals overview • System overview • DTC Motor/drive concepts • Inverter units - Main circuit hardware - Control hardware - Circuit diagrams	• Hardware identification • Hardware lab exercises • Operations panel CDP312R - Actual values - Parameter handling - Start-up exercise • Software configuration - Parameters/signals - Control software diagrams - I/O configurations	• Software configuration (continued) • Drives Window - Parameter handling - Fault logger - Monitoring - Data logging - Backup and restore • Drives Window lab exercises - Commissioning - Fine tuning - Upload/download	• Supply sections hardware and software - DSU - TSU - ISU • Service and troubleshooting - Fault analysis - Firmware loading - Board replacement - Power component removal and installation	• Communications - APC - AC80 - Advant - Master Follower • Troubleshooting lab exercises • Summary - Review - Q&A

To register, contact the North America Customer Service Center or visit us online
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