COURSE DESCRIPTION

CHH641 – ACS800 Operation and Maintenance

Course goal
The goal of this course is to learn the operation and maintenance aspects of ACS800 frequency converters.

Main learning objectives
The participants will be able to:
— Identify the hardware components and the installation principles
— Describe the features and advantages of the ACS800 drive
— Start-up, operate, maintain and troubleshoot a drive
— Adjust and tune the drive by using the available programming tools

Participant profile
This training is targeted to engineering, planning, maintenance, testing and service personnel.

Prerequisites
Participants should have basic knowledge of (power) electronics. We also recommend previous attendance of the web-based ACS800 fundamentals course G152e (available on the Internet at www.abb.ch/abbuniversity).

Topics
— Control and operation principles of AC drives
— Direct torque control (DTC) principle
— Hardware and software overview
— Component and board functions
  - Main circuit diagrams
  - Locating and identifying electronic boards and terminals
— Options and optional equipment overview
— Installation principles and initial inverter start-up
— Control panel functions
— Application software
  - Parameter settings
  - Application macros
— Commissioning, operation and fine-tuning
— Fault tracing and troubleshooting
— Drive maintenance
— Software tools
  - DriveWindow for commissioning
  - DriveAP for adaptive programming

Course type and methods
This is an instructor-led course with lectures, interactive classroom discussions, associated practical exercises, demonstration of best practice examples and group work.

Duration
The standard duration is 3 days. This can be extended by additional 2 days on request to deepen the knowledge and practical exercises.

Course map

	DAY 1	DAY 2	DAY 3
Topics	Welcome, personnel introduction Course overview Control principles AC drives Overview features and hardware Applications Components hardware Application software Control panel functions Questions and answers	Review day 1 Options and optional equipment Installation principles Parameters and software overview ACS800 startup, tuning and operation Communication options, serial communication Questions and answers	Review day 2 Overview PC tools and DriveWare Adaptive programming, DriveAP Fault tracing and troubleshooting Preventive maintenance Manuals for ACS800 Questions and answers Summary Course evaluation Course close
Time	9:00 am – 5:00 pm	9:00 am – 5:00 pm	9:00 am – 5:00 pm

Typical course layout (time or sequence may change)