

Course description

Fi203en

SAMI MEGASTAR W (AMC) User, maintenance and service

Course Duration

The course duration is 4 days.

Course type

Classroom course with focus on hands-on activities led by an instructor in the HV-test field

Course Goal

The goal of this course is to teach students to operate, maintain and trouble-shoot Megastar W -AMC.

The training covers the following types and constructions:

- n SAMI Megastar W – single drive
- n SAMI Megastar W – parallel drive
- n SAMI Megastar W – common DC-bus drive

Student Profile

This course is intended for electricians, technicians and engineers who perform preventive maintenance and normal trouble-shooting on SAMI Megastar W – AMC - drives.

Prerequisites

- n Basic knowledge of electronics and power electronics
- n Basic knowledge of AC-motor and drive engineering
- n Experience in using a DOS / Windows PC

Description

This course contains theoretical teaching and hands-on exercises and fault tracing with SAMI Megastar W. ABB internal info: This course is not equivalent with **Megastar Expert Days**, which is one of the requirements when applying for Megastar W (AMC) Expert - Certificate (PCS).

Course Objectives

Upon completion of this course, students will be able to:

- n Perform Preventive Maintenance on SAMI Megastar W -AMC
- n Trace and correct simple faults
- n Operate and test SAMI Megastar W –AMC –drives using PC-tools

Main Topics

- n Hardware and software overview
- n Component and board functions
- n Reading and interpreting circuit diagrams and part lists
- n Control panel functions
- n Preventive Maintenance
- n Fault tracing
- n Replacing HV – components
- n Using the PC-tools (Drive Windows/Remote Desktop)

Low voltage drives training

ABB University Finland, Helsinki Training Center
Helsinki.abbuniversity@fi.abb.com
www.abb.com/abbuniversity

Agenda

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Day 1

- 8:00 Introduction of the course
- 8.30 Megastar product presentation, Drawings and part lists
- 11.00 Lunch Break
- 11:45 Safety, Grounding of Megastar, Start/stop sequence
- 13:30 Control unit
 - n control boards
 - n parameters, data loggers, black box
- 16:00 End of the day

Day 2

- 8:00 Test site visit
 - Megastar presentation
 - n operation of the drive
 - n annual water cooling unit maintenance
- 9:30 Control panels, monitoring SW-tools, SW/FW downloading
- 11:00 Lunch Break
- 11:45 Maintenance schedule, PM – kits, Replacement instructions, Upgrades, Insulation resistance measurement
- 13:00 Hands on training at the test site
 - n removing modules from the drive
 - n GTO-/diode replacement rehearsal
 - n Snubber capacitor replacement induction

- 16:00 End of the day

Day 3

- 8:00 Hands-on training at the test site
 - n Replacing of snubber capacitors (+pipes)
 - n Pressure testing of the modules
- 11:00 Lunch Break
- 11:45 Hands-on training continues
 - n Filling in the Inspection records
 - n Inserting the modules into the drive
 - n Optic Fiber /Simulation test / No load – test
 - n Insulation Resistance Measurement

- 16:00 End of the day

Day 4

- 8:00 Trouble-shooting rehearsals at test site
- 10.00 Final discussion
- 11:00 Lunch Break
- 11:45 Course Certificates & End of training

After mutual agreement changes in course program are possible.

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