COURSE DESCRIPTION

G820 MEGADRIVE-LCI with AC 800PEC Operation & Maintenance

Course goal
Load Commutated Inverters (MEGADRIVE-LCI) or in other terms Static Frequency Converters (SFC) are used together with large synchronous motors as an adjustable speed drive or to start large gas turbines without high inrush current on the power supply. These systems are available in a power range from 1MW up to 100MW.

Main learning objectives
The course goal is to teach students to operate, maintain and troubleshoot a MEGADRIVE-LCI controlled by AC800PEC.
Upon completion of this course, the participants will be able to:

- know the function of a MEGADRIVE-LCI
- know the different modes of operation
- are able to operate and maintain a MEGADRIVE-LCI
- are able to localize faults and replace defective parts

Participant profile
Operating personnel
Maintenance personnel

Prerequisites

- Basic knowledge of AC motors and drives
- Basic knowledge using computers with Windows

Topics
Power electronics in general

- The function of rectifiers and inverters

Static Frequency Converter

- Principal function
- Configuration for various applications
- Regulation circuits
- Characteristic curves
- Limitations, monitoring and protection

Operation

- Operating modes
- Annunciation
- Safety in relation to MEGADRIVE-LCI

Documentation

- Project documentation
- How to read the Hardware schematics
- Hardware components
- Functions, settings
- Interfaces to peripherals
- Water cooling / Air cooling
- Maintenance and Trouble shooting
- Replacement of Thyristors
- Software tools:
  - LCI Control Terminal
  - (Transient Recorder)
- Test programs overview

Course type
This is a face to face class room training with maximum 8 participants.

Learning methods

- Lectures and demonstrations
- Practical exercises with training equipment
- Factory visit

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Duration
4 days

To register:
Please apply online (signup required):
Motion Upskill/G820
Custom-tailored training courses or standard training at additional course dates are available on request.
Please note: The course is only carried out if at least 4 participants have been booked.

Course outline

DAY 1	DAY 2	DAY 3	DAY 4
— Course overview — Basic LCI-Theorie - overview - rectifier - mode of operation - blockdiagram - on/off sequences - protection — Characteristic curves	— Operator Training - Converter - Safety - Operation - Fault handling — Users manual operation — Maintenance Training - Safety instruction - Converter overview - Documentation - How to read hardware drawing — Factory tour	— Maintenance Training (cont.) - Preventive maintenance - Corrective maintenance — Overview Hardware component - signal flow - setting	— Maintenance Training (cont.) — Testprograms overview — User's manual — Troubleshooting



Classroom training



Hands-on training

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