COURSE DESCRIPTION

G5952e – DCS880 Functional Safety (STO)
Internet Course (EN)

Course Duration
1.0 hour, depending on personnel knowledge

Course type
This course includes self-study material.
The language of the course is English.

Course Goal
The goal of this course is to get the most important information of the DCS880 Functional Safety (STO).

The training covers the following topics in 2 units:
- DCS880 Functional Safety STO Part I
  - Legal Framework
  - Relevant EU Directives
  - Relevant Standards
  - Declaration of conformity and certification
  - Customer documentation
  - Emergency OFF and Emergency Stop
  - Drive based safety functions (IEC61800-5-2)

- DCS880 Functional Safety STO Part II
  - STO in DC drives
  - Major concerns for STO in DC drives
  - The fault shutdown path
  - Safety performance with DCS880 STO
  - STO detailed timing (normal operation / fault shutdown path)
  - Standard operation and reset indication
  - E-Stop circuit calculation
  - Typical implementations
  - Repetitive function test

Student Profile
Field service engineers and technical support of the DCS880 DC drive.

Prerequisites and Recommendations
The student should have:
- Basic knowledge about electrical wiring
- Basic knowledge of DC drives
- Physical understanding for drives application

Preparation e-Learning courses
E-learning courses G570e – DC drives fundamentals, G5950e – Basics Hardware (H1 – H4) and G5951e – DCS880 Standard Firmware to attending this course is needed.

Course Objectives
Upon completion of this course, students will be able to:
- Know the safety functions of the DCS880 converter module
- Know the typical implementations of functional safety
- Know the major concerns and the fault shutdown path of the DCS880

Main Topics
- Legal Framework, relevant EU directives and standards
- Stop categories and drive-based safety functions
- E-Stop circuit calculation
- STO in DC drives
- Safety performance with DCS880 STO
- Repetitive function test

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ABB Automation Products GmbH
Wallstadter Straße 59
D-68526 Ladenburg
Germany
dc-drives@de.abb.com
www.abb.com/dc-drives