Course Description

G585e - DCT880 Basics
Internet Course (EN)

Course Duration
0.5 hours, depending on personal 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 understand the basics of a thyristor power controller in terms of requirements and load types of electric heating, control solutions and power optimization.

The training covers the following topics:
- General requirements of electric heating
- Power control solutions
- Hardware types of thyristor power controllers
- Control modes of thyristor power controllers
- Load types of electrical heating systems
- A special configuration called Multitap
- Power optimization of heating controllers

Student Profile
Product engineers and engineering people who are planning, installing and servicing AC thyristor power controllers.

Prerequisites and Recommendations
The student should have:
- Basic knowledge about electrical wiring
- Basic knowledge of drives or power controller engineering
- Physical understanding for electric heating application

Preparation e-Learning courses
No prior courses to attending this course needed.

Course Objectives
Upon completion of this course, students will be able to:
- Know the features of the thyristor power controller
- Enter application area for this thyristor power controller
- Know the requirements and load types of electric heating

Main Topics
Types of industrial heating
Principle of electric heating
Typical solutions for electric heating
Hardware types
Control modes:
- Phase angle control
- Full wave control
- Half wave control
Three phase loads
Single phase loads
Low voltage and high current configurations
Multitap configurations
Power optimization

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