

Course description

G573e – Dimensioning DC drive

Internet Course (EN)

DC drives system, DC drive & DC motor

Course Duration

3.0 hours, depending on personnel knowledge

Course type

This course includes self-study material, self-assessment questions and interactive exercises. The language of the course is English.

Course Goal

The goal of this course is to teach students the dimensioning process for DC drives systems.

The training covers the following topics:

- Construction of a DC drives system
- DC drives module dimensioning
- Field excitation dimensioning
- DC drives enclosed converter dimensioning
- DC motor dimensioning

Student Profile

- Sales engineers,
- Product engineers and
- Engineering people who are planning, installing and servicing DC converters.

Prerequisites and Recommendations

The student should have:

- Basic knowledge about electrical wiring
- Basic knowledge about product portfolio
- Basic knowledge of DC drives engineering

Preparation e-Learning courses

- G570e – DC Fundamentals
- G575e – DCS800 Portfolio
- G560e – DCS800 Basic Training (D1-D4)
- G569e – DCS800 Basic Training (D5-D7)

prior to attending this course.

Course Objectives

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

- Know the principle structure of a DC drives system,
- Select armature converter modules,
- Select field excitation units,
- Dimension armature converter modules according to duty cycle
- Dimension enclosed converters according to duty cycle
- Select external components needed for the drive system

Main Topics

- Course introduction
- Reasons for dimensioning
- Principle approach of drive dimensioning
- Electrical network and load characteristics
- Field circuit principle
- Selection of external components
- Selection of drive module options
- DriveSize software too introduction
- How to use DriveSize
- Calculation of a duty cycle
- Dimensioning of enclosed single drives
- Dimensioning of enclosed 12-pulse-drives
- Dimensioning of enclosed group drives
- Approach to dimension a DC motor
- Motor load data
- Different selection methods for motors
- Influence of ambient temperature
- Selection of motor options

www.abb.com

www.abb.com/abbuniversity

Power and productivity
for a better world™

