

## Online-Training - SINAMICS S120 - Planning and Engineering (DR-S12-PL)

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### Short Description

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[Also available as face-to-face training](#)

### Objectives

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You design and engineer motion control drives with highly dynamic performance using the SINAMICS S120 converter system. Special emphasis is placed on dimensioning a servo motor and the power unit - as well as the common infeed for multiple axes. In this course you will learn about the interrelationships between the specified load cycle and the static and dynamic data of the drive. Precise calculations are supported by the SIZER engineering software. After the course, you will be able to quickly and reliably engineer multi-axis drive systems based on the SINAMICS S120.

### Target Group

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Planners, Decision makers, Sales personnel

### Content

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Design and principle of operation of the multi-axis SINAMICS S120 converter system

Fundamentals of mechanical and electrical calculations:

- Load diagrams of motion control drives
- Influence of gearbox ratio and moment of inertia
- Overload capability, DC link power, regenerative feedback (energy recovery), line connection

Selecting all the components for a complete drive system

Configuring using the SIZER software and catalog data:

- Entering data for mechanical systems and complex load cycles
- Calculating and selecting the optimum motor and power unit
- Calculating and configuring multi-axis drive systems

Influence of the controlled infeed on the DC link and energy balance

Configuring and engineering notes for chassis and cabinet units

Overview of interfaces, drive functions and Safety Integrated

Practical exercises with the SIZER engineering software

### Prerequisites

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- Basic knowledge of drive engineering
- Knowledge of the SINAMICS S120 product range as learned in the DR-SYS training course is helpful
- [Technical requirements](#)

### Note

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To be able to select the optimum motor, we also recommend the DR-MCM-PL training course (SIMOTICS Motion Control Motors - Planning and Configuring)

### Type

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Online-Training

### Duration

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5 days

### Language

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