

## SINAMICS S120 - Diagnostics and Service in the TIA Portal (DR-S12-DGT)

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### Short Description

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In this course you learn to determine the cause of faults and resolve them using the PC-tool Startdrive in the TIA Portal. You can also perform changes of the parameterization.

[Also available as online-training](#)

### Objectives

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You are responsible for reliable operation of the SINAMICS S120 drive system. If faults occur, then these should be resolved in the shortest possible time and operation resumed.

In this course, you will learn how to correctly and safely handle SINAMICS S120 drives when a fault occurs. Based on various scenarios, you will practice suitable measures such as data backup, replacing components and recommissioning.

After the course, you can determine the cause of faults and resolve them faster. When changes are made to the plant or system, you are also in a position to adapt the parameterization.

### Target Group

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Service personnel  
Maintenance personnel

### Content

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Design and principle of operation of the SINAMICS S120 converter system:

- Control module, infeed and power units
- Motor, encoder and DRIVE-CLiQ interfaces

Data backup and diagnostics using:

- PC-tool Startdrive in the TIA Portal
- BOP operator panel and web server

Determining the signal flow in the setpoint channel

Internal interconnections to PROFIBUS and PROFINET

Procedure when troubleshooting and recommissioning

- Checking the operating state and enable signals
- Analysis of alarms and fault messages
- Read-out of the diagnostics memory
- Tracing signals using the trace function
- Test operation using the control panel and measurement functions

Typical power unit, motor, encoder and cable faults

Procedure when replacing:

- Control module, power unit, motor and encoder
- Components with safety functions Safety Integrated

Practical exercises on training equipment with SINAMICS S120 in the booksize format

### Note

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Additional information and diagnostics is provided in courses DR-S12-CHA and DR-S12-NET.

### Type

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Face-to-face training

### Duration

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5 days

### Language

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