

# Course Contents

## SINAMICS G120/ 150 Service and Commissioning (DR-G120) – 3 days

**HRDF CLAIMABLE**

\*Subject to Approval

### Requirements

This course is for commissioning and configuring engineers, and service personnel who are involved with drive applications. Persons with basic knowledge of electrical engineering can attend this course. Recommended to attend Simatic PLC Service L1.

### Objectives

After the course you are able to be correctly commission the inverter and adapt it to address the particular application. You know suitable inverter functions and parameter settings for a wide range of applications. You can make a data backup, and taking the appropriate measures when faults occur.

On completion of the course, you will be able to implement automation solutions with the SINAMICS G120/ G150. You can carry out startup and optimization of the SINAMICS G120/ G150 quickly and effectively with skilful use of the STARTER commissioning tool. In this way, you reduce engineering costs and minimize downtimes in your plant.

### Topics

After attending the course, you can do the following:

- Design and principle of operation of the SINAMICS G inverter with:
- Control Unit CU
- Power Module PM
- Parameterization, data backup and diagnostics with:
- BOP-2 and IOP operator panels
- STARTER PC tool
- Setpoint channel and closed-loop control
- Control signals and signal interconnections
- Inverter functions

### Course Certificate

Certificate of participation will be awarded after the training.

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### Contact Information

**SIEMENS MALAYSIA SDN. BHD. (93008-X)**

**GST Reg No. 000956203008**

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Website: [www.siemens.com.my/sitrain](http://www.siemens.com.my/sitrain)

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### Bank Details

Bank Name: Deutsche Bank (M) Sdn Bhd

Bank Account Number : 0020768000

Bank Address : 18th – 20th Floor, Menara IMC 8,  
Jalan Sultan Ismail,  
50250, Kuala Lumpur

Bank Swift Code : DEUTMYKLXXX

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## SINAMICS G120/150 Service and Commissioning (DR-G120) – 3 days

### Daywise Schedule

#### Day 1

1. SINAMICS System Overview
  - The system concept of SINAMICS drive
  - SINAMICS drive design
  - Tools available for engineering and commissioning
2. Power Components/ Principle of Operation
  - Power components of modular design of device types book size and chassis/ cabinet module
  - Principle of operation of line-side and motor-side power components

#### Day 2

3. Commissioning with STARTER
  - BiCO-Technology
  - Commissioning and parameterize the drive system SINAMICS using the tool STARTER
4. Diagnostics
  - Diagnostics via LEDs and AOP30
  - Interpretation of fault messages and alarm indications
  - Diagnosis via STARTER
  - Application of diagnostics functions

#### Day 3

5. Inverter Functions
  - Application specific functions
  - Safety Intergrated
  - PID Controller
  - Exercises
6. Installation and parameterization
  - Processor module CU240
  - Terminal modules
  - Control units

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### Time-wise Schedule

Day	Time	Topics
Day – 1	09:00 Hrs – 10:00 Hrs 10:00 Hrs – 12:00 Hrs 13:00 Hrs – 15:00 Hrs 15:15 Hrs – 17:00 Hrs	Introduction to Sinamics Sinamics drive design Power Components Principle of Operation
Day – 2	09:00 Hrs – 10:00 Hrs 10:00 Hrs – 12:00 Hrs 13:00 Hrs – 15:00 Hrs 15:15 Hrs – 17:00 Hrs	Commissioning with STARTER Diagnostics and Test Functions Application of diagnostics functions Application of diagnostics functions (cont.)
Day – 3	09:00 Hrs – 10:00 Hrs 10:15 Hrs – 12:00 Hrs 13:00 Hrs – 15:00 Hrs 15:15 Hrs – 16:00 Hrs	Inverter functions Installation and Parameterization Practical exercises Q& A/ Feedback

### Break Timings:

10:00 Hrs – 10:15 Hrs	Morning Tea Break
12:00 Hrs – 13:00 Hrs	Lunch Break
15:00 Hrs – 15:15 Hrs	Afternoon Tea Break
17:00 Hrs – 17:15 Hrs	Recess & End of Day