

## Online Training - SINAMICS V90 (DR-V90)

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### Objectives

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This course shows you how to handle the SINAMICS V90 inverter using operating panel and V Assistant software. After the course you will be able to commission and control the drive with different control modes. You will understand positioning concepts and able to use them for different applications. You can make data backup and taking appropriate measures when fault occur.

### Target Group

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Users, Commissioning / Service / Maintenance Engineers

### Content

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- VFD working principle and block diagram of AC Drive

#### HARDWARE

- Specifications, range, features and hardware details of SINAMICS V90
- Understanding of Operator panel functions, key operation & status LEDs on the drive
- Block diagram of the product, terminal details

#### COMMISSIONING

- Operation of Drive through BOP
- BICO technology concept
- Parameterization using SINAMICS V-ASSISTANT software
- Online connection via Profinet or mini-USB cable
- Optimization / One Button Tuning / Real time tuning

#### V90 FUNCTION & FEATURE

- Controlling the drive with different control modes
  - a) Internal Speed control
  - b) Torque Control
  - c) Internal position control (IPos)
    - Basic Positioning
    - Electronic gear ratio

#### PLC DRIVE COMMUNICATION

- Establishing Communication between SINAMICS V90 & Simatic PLC (S7-1200/S7-1500) over PTI or Profinet.
- Pulse train input (PTI) –Using S7 1200 PLC
- PZD description (Send / Receive data)
- Diagnostics at Drive & PLC Side (Control word /Setpoint / Status word)

#### DIAGNOSTICS

- Operating states, Alarms, and Fault codes
- Fault Diagnostics with Trace in V-ASSISTANT and other hardware options
- Project Backup

#### HANDS ON

- Exercises defined based on topic explained.
- Hands on practice on demo kit.

### Prerequisites

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Engineers in Electrical / Electronic Engineering with Power Electronics Background

### Note

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#### TECHNICAL REQUIREMENT (ONLY FOR ONLINE TRAINING)

- A Desktop or laptop with Windows 7/10 OS and a stable internet connection. (We recommend a data transfer rate of 5 Mbit/s.& above)
- Team Viewer platform for Hands-on.
- Microsoft Teams platform for technical presentations.

### Type

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Face-to-face training

**Duration**

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3 days

**Language**

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**Fee**

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16,500 INR  
18% GST additional on course fees