

## MV 3000 TRAINING COURSE

### MV300 Training Course

The course has been designed to familiarise Engineers with the many different aspects associated with the operation and maintenance of MV3000 inverter drives Microcubicles. This course is recommended as the introduction course for engineers.

Where possible, application specific exercises, actual drawings and programs listings are used to allow the students to gain the greatest possible benefit from the course.

#### Objectives

To introduce students to the concepts and operation of the MV3000 drive, including the following areas:

### COURSE CONTENT

- ✓ To understand the basic techniques of controlling an AC motor.
- ✓ AC motor and drive theory.
- ✓ Operation of the input and output bridges, illustrating the difference between an inverter and AEM control.
- ✓ Explanation of open loop, vector and vectorless control.
- ✓ Description of the MV3000 power terminals for the MicroCubicles.
- ✓ Demonstration of the MV3000 control terminals and selector switches.
- ✓ Introduction to the MV3000 parameter menus.
- ✓ Demonstration of the DDM keypad.
- ✓ Practical exercises with the DDM.
- ✓ Demonstration of the procedure involved in commissioning the drive, the three modes of operation. Open loop, vector and vectorless will be explained.
- ✓ Uploading and downloading the parameters using the DDM.
- ✓ Using drive coach and functions.
- ✓ Demonstration of advanced parameters including
  - Motor protection and actions
  - I/O configuration
  - Control and status flags
  - Trip avoidance
  - Auto restarting
  - Load fault detection
  - Skip bands
  - Torque control
  - Position control
- ✓ Demonstration of the trips and Warnings, as well as using the history records.
- ✓ Replacement of boards and faultfinding.
- ✓ Downloading Firmware procedure
- ✓ Using communications to control and monitor the drive, this includes Ethernet and Profibus.

**Course Reference**  
MV3000

**Course Duration**  
4 Days

**Documentation**  
MV3000 Training Manual

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