

Electronic DC Drives Training | Spindle, Servo Axis, & PWM Drives eBook

The screenshot displays an eLearning course interface. On the left, a navigation pane shows a table of contents with 'SEGMENT 2 DC MOTOR FUNDAMENTALS' selected. The main content area is split into two pages. The left page, titled 'SEGMENT 2 DC MOTOR FUNDAMENTALS', features 'OBJECTIVE 5 IDENTIFY THE MAJOR COMPONENTS OF A DC MOTOR AND DESCRIBE THEIR FUNCTIONS'. It includes a diagram of a motor's internal components (stator, rotor, shaft, end bells) and a list of objectives. The right page, titled 'Figure 12. Components of a DC Motor', shows a detailed exploded view diagram of a motor with labels for 'END BELL', 'BEARING', 'FIELD POLE AND INTERPOLE (BURROF)', 'COMBUSTION', 'ARMATURE', 'BRUSH ASSEMBLY', 'BEARINGS', and 'END BELL'. Below the diagram, there are three sections: 'End Bells', 'Bearings', and 'Housing', each with a brief description of their function.

eLearning Course: E17422

Amatrol's Electronic DC Drives Troubleshooting Training eBook series teaches industrial DC electronic motor drives, which are used to provide accurate control of speed, position, and acceleration in applications such as CNC machine tools, conveyors, robots, mixers, and presses. Students will learn industry-relevant skills including how to operate, install, tune, and troubleshoot three major types of DC drives: DC spindle drives, DC servo axis drives, and DC pulse width modulated (PWM) drives. (References [85-MT102](#))

Teach DC Motors

DC Motion Control vs. AC Motion Control

Electronic motion control systems fall into two basic categories: DC motion control and AC motion control. There are several different types of DC and AC motion control systems. Each type capitalizes on the characteristics of the electrical power being used and the characteristics of the motor being driven.

DC motion control is commonly used in applications where high starting torque or constant torque over a wide speed range is required. Typical applications include conveyors, wire coil winders, extruders, and machine tools (axis and spindle drives). These applications usually result in sudden increases in the physical load on the motor. **AC motion control** is commonly used in applications that require precise speed control and efficiency. These applications include robots, machine tools (axis and high-performance spindle drives), and storage/retrieval systems.

Many of these applications were at one time considered mainly DC applications. However, because of improvements in AC drive technology, AC drives and motors now perform the same operations at a lower cost. This is made possible because AC drives are smaller, use more efficient motors, and are less expensive than DC drives.

Access eBook Online Curriculum

Electronic DC Drives Training Includes eBooks, Access to Online Curriculum

Amatrol's eBooks look like a real book and allow users to flip between pages with ease. Enhanced with features such as keyword searches and zoom controls that enable a user to quickly locate and view information, these eBooks are a fantastic learning tool. Amatrol's eBooks are available online and can be used by anyone with access to Amatrol's Learning Management System (LMS). Optionally, if you chose to use your own LMS, these eBooks are SCORM compatible to allow smooth integration into your current training system. Combined with our already extensive library of interactive multimedia titles, which are also SCORM compatible, users can now complete their entire course work online!

Additional Info



Requires:

- [Computer \(see Computer Requirements\)](#)

Options:

- DC Electronic Drives Learning System (85-MT102)

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