

# PowerFlex® 700 Vector Control Drives

## PowerFlex® 700 Vector Control Maintenance and Troubleshooting Course Description

### COURSE AGENDA

- Replacing and Rewiring Drive Hardware
- Configuring Drive Parameters Using the LCD HIM
- Configuring Drive Parameters Using Drive Explorer Software
- Configuring Drive Parameters Using Drive Executive Software
- Uploading and Downloading Drive Data
- Troubleshooting and Clearing Drive Alarms
- Clearing Drive Faults
- Troubleshooting Drive Load and Environmental Faults
- Troubleshooting Drive Equipment Malfunctions
- Integrated Practice: Maintaining and Troubleshooting a PowerFlex 700 Vector Control Drive



### COURSE NUMBER: CCA163

#### *Course Purpose*

This skill-building course introduces concepts and techniques that will assist you in successfully maintaining and troubleshooting a PowerFlex 700 vector control drive. You will learn how to recognize PowerFlex 700 drive hardware and properly wire the drive. You will also learn to diagnose specific load-related, environmental, and equipment faults. Throughout the course, you will use the LCD HIM, DriveExplorer™ software, and DriveExecutive™ software to clear faults and alarms. After each demonstration, you will be given an application-based exercise that offers extensive hands-on practice using the PowerFlex 700 drive.

This one-day course can be taken as a stand-alone course, or it can be taken in conjunction with other courses in the PowerFlex 700 curriculum for further skill development.

### **Who Should Attend**

Individuals responsible for maintaining and troubleshooting PowerFlex 700 vector control drives should take this course.

### **Prerequisites**

To successfully complete this course, the following prerequisites are required:

- Experience operating a personal computer within a Microsoft® Windows® environment
- Completion of the *AC/DC Motors and Drives Fundamentals* course (Course No. CCA101) or *RSTrainer for Fundamentals of AC and DC Motors and Drives* (Part No. 9393-RSTACD)

### **Technology Requirements**

All technology is provided for student use in the classroom by Rockwell Automation. It is not necessary for students to bring any technology with them when attending this course.

### **Student Materials**

To enhance and facilitate each student's learning experience, the following materials are provided as part of the course package:

- *Student Manual*, which contains the key concepts, definitions, and examples presented in the course and includes the hands-on exercises.
- *PowerFlex 700 Standard and Vector Control Troubleshooting Guide*, which contains flowcharts that help the user find the root of the drive problem and choose the correct solution.
- *PowerFlex 700 Standard and Vector Control Documentation Reference Guide*, which contains information from several PowerFlex™ technical publications including the *PowerFlex 700 Adjustable Frequency AC Drive User Manual*. This guide contains the most frequently referenced information and is a quick and efficient on-the-job resource.
- *PowerFlex 700 Standard and Vector Control Procedures Guide*, which provides the steps required to clear drive faults and alarms. This guide also contains a very helpful glossary of common terms.

### **Student Materials (Continued)**

- *PowerFlex 700 Standard and Vector Control Quick Reference Guide*, which provides lists of parameters in both alphabetic and numeric order

### **Hands-On Practice**

Hands-on practice is an integral part of learning, and this course offers extensive hands-on opportunities. An in-class workstation allows students to replace PowerFlex 700 control drive components and troubleshoot faults and alarms. The PowerFlex 700 drive workstation introduces real-world maintaining and troubleshooting situations into a classroom setting.

### **Course Length**

This is a one-day course.

### **Course Number**

The course number is CCA163

### **IACET CEUs**

CEUs Awarded: .7



### **To Register**

To register for this or any other Rockwell Automation training course, contact your local authorized Allen-Bradley Distributor or your local Sales/Support office for a complete listing of courses, descriptions, prices, and schedules.

You can also access course information via the Web at <http://www.rockwellautomation.com/training>

**[www.rockwellautomation.com](http://www.rockwellautomation.com)**

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