

# Drives



## PowerFlex 400/70/700/753 AC Drive Field Startup for Water Wastewater Applications Course Description

### Course Agenda

#### Day 1

- Basics of Drive and Motor Control Theory (review)
- PowerFlex 400/70/700/753 Product Overview
- Applying Drive Installation Best Practices
- Monitoring and Modifying PowerFlex Drive Parameters Using the HIM

#### Day 2

- Monitoring and Modifying PowerFlex Drive Parameters using Software
- Programming PowerFlex Drives
- Setting up a PowerFlex Drive to Communicate over Ethernet
- Troubleshooting a PowerFlex Drive over Ethernet



### Course Number

CCA177

### Course Purpose

This skill-building course provides you with fundamental concepts of AC drive and motor operation to enable effective startup of PowerFlex® 400, PowerFlex 70 EC (enhanced control), PowerFlex 700 VC (vector control), and PowerFlex 753 drives for Water Wastewater applications.

The course also provides information related to applications, proper drive selection and sizing as well as various installation considerations and troubleshooting practices.

You will learn how to recognize PowerFlex 400, 70, 700, and 753 drive hardware and properly program and troubleshoot the drive as part of a typical startup. Throughout the course, you will use the various LCD HIMs, DriveExplorer™ software, DriveExecutive™ software, and DriveObserver™ software to program and monitor various drive parameters.

After each demonstration, you will be given an exercise that offers hands-on practice using PowerFlex 400, PowerFlex 700 VC, and/or PowerFlex 753 drives.

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

LISTEN.  
THINK.  
SOLVE.™

## Who Should Attend

Individuals responsible for starting up PowerFlex drives in Water Wastewater applications should take this course.

## Prerequisites

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

- Working knowledge of electricity, and knowledge of electrical and industrial safety (including PPE requirements and safe practices).
- Ability to perform basic Microsoft Windows tasks
- *Completion of the AC/DC Motors and Drives Fundamentals course (Course No. CCA101) or Fundamentals of AC and DC Motors and Drives Web-based training (ePass/WBT1PACK) or equivalent experience*

## 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*
- *PowerFlex 400 Adjustable Frequency AC Drive Packages for Fan & Pump Applications User Manual*
- *PowerFlex 700 AC Drives User Manual - Series B*
- *PowerFlex 750-Series AC Drive Programming Manual*
- *PowerFlex 750-Series AC Drive Installation Instructions*
- *PowerFlex 700 Standard and Vector Control Procedures Guide*

## Hands-On Practice

Hands-on practice is an integral part of learning, and this course offers extensive hands-on opportunities. In-class workstations allow students to start up a drive and practice troubleshooting common faults and alarms. The PowerFlex 400, PowerFlex 700 VC, and PowerFlex 750-Series drive workstations introduce real-world startup and troubleshooting situations into a classroom setting.

## Course Length

This is a two-day course.

## 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>

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