

Drives

PowerFlex 400 AC Drive Field Startup for HVAC Applications



**Rockwell
Automation**



Allen-Bradley
by ROCKWELL AUTOMATION

Course Number

CCA171-LD

Course Purpose

This skill-building course provides fundamental concepts of AC/DC drive and motor operation to enable effective start-up of PowerFlex 400 drives within the HVAC market. The course also provides information related to applications, proper drive selection and sizing as well as various installation considerations.

You will learn how to recognize PowerFlex 400 drive hardware and properly program and troubleshoot the drive as part of a typical “start-up” service. Throughout the course, you will use the LCD HIM to program and monitor various drive parameters. You will also perform application-based exercises that offer extensive hands-on practice using the PowerFlex 400 drive.

Course Objectives

As a result of this course, participants will be able to:

- Understand basic drive and motor technology
- Relate product features to application needs
- Verify proper installation of the drive
- Effectively program the drive

The course will prepare students to take the written exam and qualify for the warranty.

COURSE AGENDA

- Basics of Drive and Motor Theory
- PowerFlex 400 Product Overview
- General Programming Lab
- Application Specific Features Overview and Labs
- Bypass Lab
- Installation and Application Considerations
- Configured Product Overview
- DriveExplorer Software Overview
- Network Communications Overview
- Start Up Registration Procedure
- Written Exam

WHO SHOULD ATTEND

Maintenance and start-up technicians, contractors, ESCO's, HVAC controls integrators, and others who will conduct PF400 drive start ups for HVAC applications should attend this course.

WHAT DOES A START UP INCLUDE?

Start up is a verification and quality check of the drive installation and start up ensuring proper electrical, mechanical and environmental criteria is met. A qualified start up is limited to only those individuals who have taken the course and passed the written exam. A qualified start up extends the standard Rockwell Automation product warranty from 12 months after start up (or eighteen months from the date of manufacture) to 24 months from start up (not to exceed 30 months from date of manufacture).

WHAT WILL THE TECHNICIAN PROVIDE?

The start up technician will perform start up on PowerFlex 400 drives and provide warranty service when authorized by Rockwell Automation Technical Support Department. Warranty service is limited to drive replacement. Reimbursement for drive replacement will be limited.

The Drive Start Up technician will perform and document the following to qualify for the extended warranty:

- Drive and motor nameplate information
- Verify proper drive installation
- Physical inspection of the equipment, including checking all electrical connections for tightness
- Verify proper mounting and grounding
- Verify proper distribution network and power being applied to the Drive
- Verify installation checklist or electrical checks
- Verify drive set-up, tuning, programming and operation
- Provide application description

COURSE LENGTH

This is a one-day 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 equivalent experience
- Previous experience working with AC drive technology

COURSE LOCATION

This course will be held locally or regionally based upon demand and number of students.

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>

To be respectful of the environment, Rockwell Automation is transitioning some of its training courses to a paperless format. Students are asked to complete downloads and bring personal devices to these classes. A full list of digital/paperless courses is currently available through your local distributor.

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