

# PowerFlex 7000C™ Drive Maintenance

## COURSE DESCRIPTION

### COURSE AGENDA

#### Day 1

- Product Introduction
- Safety
- Design Goals for PF7000C
- Rectifier/Inverter Topology
- Drawing Review
- Power Supplies

#### Day 2

- SCRGD
- Identify Components in PF7000C
- PowerCage layout
- Snubber Resistor Circuit
- Sharing Resistor
- PowerCage Test Points
- Labs:
  - Resistance Checks
  - Device Replacement
  - Snubber Resistor Replacement
  - Firing Check

#### Day 3

- PowerCage
- Control Boards
- Drive Liquid-Cooling System Overview
- PF7000C Parameters Description
- Operator Interface
- Labs:
  - Operator Interface

#### Day 4

- Drive Mechanical Layout
- Drive Diagnostics and fault descriptions
- Liquid-cooling system details
- Troubleshooting
- Labs:
  - PowerCage Extraction

#### Day 5

- Preventative Maintenance review
- Drive Communications
- Labs:
  - Drive Memory
  - Firmware Loading
  - Parameter Download

## Medium Voltage PowerFlex 7000C™ Drive Maintenance



**COURSE NUMBER: MV-CAN700C**

### COURSE PURPOSE

To provide the students with techniques needed to facilitate operation and maintenance of the MV PowerFlex 7000C™ Drive. Emphasis is on hardware familiarity, programming procedures, and troubleshooting.

Upon completion of this course, you will have experienced and should be able to perform the following tasks:

- Adopt proper safety measures while working on MV equipment
- Recognize proper drive and motor operation
- Understand the significance of all the key parameters
- Troubleshoot drive malfunctions
- Remove and replace power components of the PowerFlex 7000C™ Adjustable Frequency AC Drive.

LISTEN.  
THINK.  
SOLVE.®

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### ***Who Should Attend***

Engineers, technicians, and electrical maintenance persons engaged in the operation and maintenance of the Medium Voltage equipment.

Typically the course begins Monday at 8:30 a.m. until approximately 5:00 p.m. Course ends Friday at noon.

### ***Prerequisites***

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

- Familiarity with sound safety procedures
- Comprehensive knowledge of electrical principles and circuits
- Practical experience using a multimeter, ammeter and oscilloscope

### ***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 topical outlines and exercises. Students will use this manual to follow presentations, take notes, and work through the exercises.
- By following the procedures in this job aid, students can immediately apply what is learned in the course to their own jobs.

### ***Hands-On Practice***

Throughout the course, students will have the opportunity to practice skills they have learned through a variety of hands-on exercises. Students will also have the chance to combine and practice several key skills.

### ***Course Length***

This is a four and half day course.

### ***Course Number***

The course number is MV-CAN700C.

### ***To Register***

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

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/services>

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### **Power, Control and Information Solutions**

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