

Drives

PowerFlex 7000 Medium Voltage Drive Operation and Maintenance



Course Number

MV7000-LD

Course Purpose

This course will provide you with techniques needed to facilitate operation and maintenance of the medium-voltage PowerFlex® 7000 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 7000 adjustable frequency AC drive

COURSE AGENDA

DAY 1

- PowerFlex 7000 Drive Product Overview
- PowerFlex 7000 Drive Topology
- PowerFlex 7000 Drive Power Components
 - Drive Component Identification Lab
- PowerFlex 7000 Drive Resistance Checks
 - Drive Resistance Checks and Device Replacement Labs

DAY 2

- PowerFlex 7000 ForGe Drive Control Power
 - Power Supply Component Identification, Measurement, and Replacement Labs
- PowerFlex 7000 ForGe Control Hardware
 - Drive Control Hardware Component Identification and Replacement Labs
- PowerFlex 7000 Drive Communications
- Voltage and Current Monitoring – ForGe Control
 - Voltage and Current Monitoring Identification Lab

DAY 3

- PowerFlex 7000 Drive Cooling
 - Drive Cooling Component Identification Lab
- PowerFlex 7000 Drive Operation
 - PowerFlex Drive Operation Gate Test, System Test, and Current Test Labs
- PowerFlex 7000 Drive Tuning
 - Rectifier Tuning, Motor Impedance Tuning, and Motor Flux/Speed Regulator Tuning Labs

DAY 4

- PowerFlex 7000 Drive Terminal
 - Forge Shell Lab
 - PowerFlex NetServer Interface (PFNI) IP Address Lab
 - Firmware Installation Lab
 - Black Box Data Collection Lab
 - Diagnostic Trending Lab
 - Alarm and Fault Troubleshooting Demo/Lab
- Liquid-Cooled Drive Maintenance and Commissioning (Optional half-day for students with liquid-cooled drives)

WHO SHOULD ATTEND

This course is intended for engineers, technicians, and electrical maintenance persons engaged in the operation and maintenance of PowerFlex 7000 drives.

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)
- Comprehensive knowledge of electrical principles and circuits
- Practical experience using a multimeter, ammeter and oscilloscope

STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual
 - Includes the key concepts, definitions, examples, and activities presented in this course
- Lab Book
 - Provides learning activities and hands-on practice. Solutions are included after each exercise for immediate feedback. In this job aid, you can immediately apply what you learn to your own work.

HANDS-ON PRACTICE

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises. These exercises focus on the skills introduced in each lesson.

COURSE LENGTH





This is a four-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>

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.

Connect with us.    

rockwellautomation.com — expanding **human possibility**™

AMERICAS: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

EUROPE/MIDDLE EAST/AFRICA: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

ASIA PACIFIC: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

Allen-Bradley and PowerFlex are trademarks of Rockwell Automation, Inc.

Trademarks not belonging to Rockwell Automation are property of their respective companies.

Publication GMST10-PP327I-EN-E - January 2020 | Supersedes Publication GMST10-PP327H-EN-E - September 2018

Copyright © 2020 Rockwell Automation, Inc. All Rights Reserved. Printed in USA.