

MC-700

ALLEN-BRADLEY PowerFlex 70/700 Variable Frequency Motor Drives Maintenance & Troubleshooting

Course Description	<p>This 32-hour hands-on training program is designed to provide maintenance electricians and engineers with the required knowledge and skills to install, start-up and troubleshoot Allen-Bradley PowerFlex 70/700 Variable Frequency AC Drive systems. Emphasis is on using the Human Interface Module and DriveExplorer software to set and check parameters used in normal operation and for troubleshooting. Students will locate power, signal and control terminals, monitor drive conditions, clear faults and be able to troubleshoot drive and motor problems.</p>
Topical Outline	<ul style="list-style-type: none">▪ Introduction to AC Motor Speed Control<ul style="list-style-type: none">- Motor Characteristics- Variable Frequency Inverters▪ Power and Signal Wiring▪ Drive Installation/Replacement<ul style="list-style-type: none">- Motor Feedback Polarities▪ Control Options<ul style="list-style-type: none">- Interface Modules- Input Modules▪ Human Interface Module<ul style="list-style-type: none">- Control and Display Panel- Operating Modes- Start-up Parameters- Advanced Parameter Operation▪ Troubleshooting▪ Fault Identification and Clearing▪ Troubleshooting Charts and Corrective Action▪ PLC Operation▪ SCANport Communication▪ Discrete Inputs and Outputs▪ Block Transfer of Data▪ Other Allen-Bradley Drives▪ DriveExplorer Software
Prerequisites	<p>A basic understanding of AC motor operation, electrical control and safety, Allen-Bradley PLC ladder logic and remote I/O.</p>
Course Length	<p>32 hours</p>
CEU's	<p>3.0</p>
Objectives	<p>Persons successfully completing this course will be able to:</p> <ul style="list-style-type: none">▪ Recognize drives in the PowerFlex 70/700 family▪ Identify input and output power, control and signal terminals▪ Install/Replace and perform initial start-up of the drive system▪ Monitor and set drive parameters using the Human Interface Module▪ Troubleshoot control inputs, outputs, drive and motor faults▪ Correlate Drive-PLC inputs, outputs and data transfers▪ Use troubleshooting charts to isolate drive problems▪ Use DriveExplorer software to monitor and set parameters and troubleshoot problems