

# VFDs for Facilities Maintenance 2 Days

## Hybrid Course – Physical Hands-On Class with Optional Free Online Course

---

This 2-day class is designed for facilities maintenance technicians in the field responsible for installing, programming, troubleshooting, and retrofitting electric motor drives. This industry-leading class begins with electric motor principles, power requirements, and control methods and focuses on the safe operation, installation, startup, and troubleshooting of electric motor drives.

This class is 75% Hands-On. Over 30 hands on lab projects.

We use custom training equipment made to be just like the equipment on the floor. One work station for 2 students.

Maximum of 10 students per class.

---

### Objectives

Describe the advantages of using solid-state switching.	List the different types of semiconductor devices used in electric motor drives.
Explain how heat affects solid-state switches.	Describe integrated power modules.
Describe resistors and capacitors.	Explain how to prevent electrostatic discharge from damaging electronic components.

Describe the function of the three main sections of an electric motor drive.	Explain how pulse width modulation (PWM) is used to control a motor.
Describe AC drives.	List the considerations that need to be addressed when installing an electric motor drive.
Explain how poor power quality affects electric motor drives.	Discuss the importance of parameters.
List the factors that must be considered when installing an electric motor drive.	Describe different electric motor drive programming devices.
Describe electric motor drive wiring.	List programming features that are included in basic parameters.
List programming features that are included in advanced parameters.	Describe the process of performing an initial check on an electric motor drive.
Describe the process of performing a secondary check on an electric motor drive.	Describe the process of performing a final check on an electric motor drive.
Hands-on lab projects	Safe Torque Off
Setup for ethernet	Network configurations
CCW software programming	

[www.troubleshootingbootcamps.com](http://www.troubleshootingbootcamps.com)