

HANDS-ON VARIABLE FREQUENCY DRIVES

WE IMPROVE WORKPLACE SAFETY & PERFORMANCE

TRAINING DESCRIPTION:

In this two-day hands-on seminar you will learn about the operation, setup and maintenance of AC Variable Frequency Drives. It is designed to familiarize maintenance personnel with the concepts and principles necessary to repair and troubleshoot VFD systems. The following will be covered:

AC Drive Fundamentals

Regardless of the manufacturer, all AC Variable Frequency Drives Systems have two major components: AC induction motor and variable speed controller. Understanding these two components and how they work together will increase your ability to troubleshoot in a variety of applications.

Types and Applications

Variable Frequency Drives are used in a variety of applications including pumps, blowers, fans, compressors, and other machinery. This seminar will teach you the benefits of using this variable speed technology in these applications and which style of controller can and should be used.

Setup and Operation

You will learn the basic setup of parameters, control wiring, and safety precautions necessary for installing an AC Variable Frequency Drive. Various drive features will be discussed including operating modes, braking types, automatic restart, and many more.

Maintenance Troubleshooting

You will learn hands-on the basic requirements necessary for an AC Variable Frequency Drive to function properly, and how to recognize problems when it doesn't. We will discuss common faults, their causes, and how they can be repaired.

Using your multimeter, you will be instructed how to seek out failures in the VFD control system. This hands-on approach will help you learn to be an efficient troubleshooter on VFD systems.

REMEMBER: Attendees should bring a multimeter, preferably the one they use on the job, with them for this hands-on training.

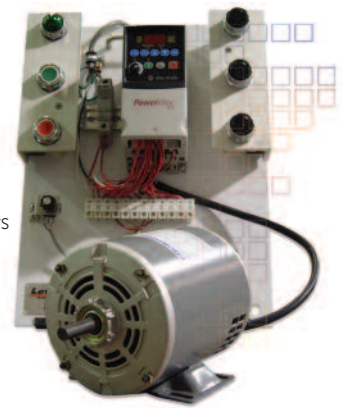
TRAINING TOPICS:

GENERAL AC DRIVES VS. DC DRIVES

- Background information
- Why AC drives

AC DRIVES

- AC motors
 - Applications
 - Induction motors
 - Inverter duty motors
 - Selection method for motors
- Starting Methods
 - Manual starting
 - Automatic starting
 - Other starting methods
- Drive Types and Applications
 - Comparison of each type
- Setup and Operation
 - Installation precautions
 - Basic setup parameters
 - Operating modes
- Maintenance Troubleshooting
 - Safety precautions
 - Common fault codes
 - Common causes of failure
 - Motor Vs. Drive troubleshooting
- Meter Uses and Safety
- Hands-On Lab Exercises
 - Two wire controls
 - Three wire controls
 - Potentiometers using 0-10VDC
 - Preset Speed controls



CLASS DISCUSSION AND REVIEW

2-DAY
TRAINING

CLASS SIZE: UP TO 14
CLASS LENGTH: 12 HOURS
CLASS NUMBER: N_A312

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