Content
Community
Connection

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VFD Variable Frequency Drive Training

Course details: https://www.electricityforum.com/electrical-training/vfd-variable-frequency-drive-training

The 12-Hour live online Variable Frequency Drive Training course will conclude with an operating demostration that will illustrate the three types of equipment tied together into one system via communication cabling, as well as over air via radio transmission.

The VFD Variable Frequency Drive Training course will provide the delegates with a solid base of Motor, Drive and Automation theory. The course will also make delegates aware of issues concerning the proper application, installation and maintenance of these types of equipment. The material handouts will cover a wide range starting from the basics and moving on to more complex issues.

- Application issues
- Speed range
- Torque Capability
- Min Speed
- Max Speed
- Reversing
- Stopping/Braking

COURSE BENEFITS:

- Learn the Fundamentals of motors, drives and automation systems
- Update Yourself on the Latest Advancements in VFDs
- Learn the Latest Improvements in Motor Efficiency
- Practical Approaches and Problem-Solving Solutions
- Learn How to Solve Common Motor and VFD Problems
- Learn Practical Troubleshooting Techniques
- Learn the Automation Considerations Between Motors, Drives and PLCs
- Reduce Reliance on Outside Service Companies
- Make Sure Your Equipment is Up and Running

WHO SHOULD ATTEND

- Industrial, Commercial, Institutional Electrical Engineering and Maintenance Technicians
- Electric Motor Operations staff
- Other electrical personnel involved in the operation and control of electric motors.

STUDENTS RECEIVE

- **FREE** 130-Page Electric Motors And Drives Handbook Volume 5 (Value $20)
- **$100 Coupon** Toward Any Future Electricity Forum Event (Restrictions Apply)
- 1.2 Continuing Education Unit (CEU) Credits (12 Professional Development Hours)
- **FREE** Magazine Subscription (Value $25.00)

SPECIAL NOTE: Along with the above Electric Motor handbook material:

Each Electric Motor Training student will receive a detailed Electric Motor specification and

Check list to use to ensure that all their Electric Motor issues are addressed.

The student will also receive an electronic copy of the Basics of AC Drives and the Basics of AC Motors. These two books are more than 1,000 pages, providing valuable information for the student for future reference.

Related Courses

Electric Motor Training,

Motor Control Training,

Motor Testing Training,

Variable Frequency Drive Basics,

VFD Training

COURSE OUTLINE

VFD Variable Frequency Drive Training

DAY ONE

Session One: Electric Motors

- Electromagnetism
- Developing a Rotating Magnetic Field
- NEMA Rotor Characteristics
- Motor Specifications
- NEMA and IEEE standards
- Enclosures

- MG! Part 30 and Part 31 differences
- Impregnation Systems
- Stator Failures and preventative measures
- AC Rotor Construction
- Rotor Failures
- Enclosures, Frames & Cooling
- Bearings
- Bearing Failures
- Insulation Classes
- General Motor Testing Methods
- Motor Overhauls
- Motor Rewinds
- On-line Condition Monitoring
- Information Management for Decision-making
- Qualifying Repair Facilities

Session Two: AC Drives

- VFD Overview
- Voltage And Frequency
- Basic AC Drive
- Constant Torque Applications
- Variable Torque Applications
- Constant Horsepower Applications
- Multi-motor Applications
- Input Filtering requirements
- Line transients
- Power Factor
- Harmonic mitigation
- VFD Demonstration
- Output Filtering Requirements
- Long Cable runs
- DV/DT voltage rise
- Peak voltage

- Bearing Currents

DAY TWO

Session Three: Human Machine Interface and Automation Considerations

- Introduction
- PLCs
- Number Systems
- Terminology
- Basic Requirements
- Connecting External Device
- Programming a PLC
- Ladder Logic
- Statement List
- Function Blocks
- Discrete Inputs/Outputs
- Analog Inputs and Outputs
- High-Speed Instructions
- Communications
- Network Communications
- ASI
- Data Highway
- Profibus
- Device net
- TCIP
- Demonstration

Review of expectations
Questions and Answers

COURSE SCHEDULE:

Both days:

Start: 10 a.m. Eastern Time
Finish: 4:30 p.m. Eastern Time

Contact us Today for a FREE quotation to deliver this course at your company's location.

https://www.electricityforum.com/onsite-training-rfq