

Electric Motors: Understanding & Troubleshooting



A DIVISION OF ECPI UNIVERSITY

Participants learn the basics of electric motors including how to maintain and troubleshoot common problems found in the workplace. This course covers the operation and maintenance of AC and DC motors, including 3-phase, dual voltage and multiple speed motors.

For each motor application, factors such as driven load, environmental conditions, power availability and performance capabilities will help determine what type of motor is the best fit for a given purpose. Participants will become familiar with the National Electrical Code® (NEC) requirements for motor operation and installation. Course content progresses logically from basic operational theory to the actual operation of various types of AC and DC motors. The training includes numerous hands-on lab exercises designed to help participants operate, test and troubleshoot electric motors

WHAT THIS COURSE COVERS

- Basic Motor Theory
- Nameplate Data
- Three-Phase Motors
- National Electrical Code® and Motors
- Single-Phase Motors
- DC Motors
- Megohmmeter Checking and Insulation Breakdown
- Tachometer, Capacitor Checker

WHO SHOULD TAKE THIS

- Maintenance Technicians
- HVAC Maintenance and Repair Technicians
- Energy Management Personnel
- Plant and Facility Maintenance Technicians
- Building Engineers
- Building Managers and Superintendents
- Stationary Engineers
- Safety Directors
- Multi-Craft Personnel
- Anyone who Needs Cross-Training on Pumps and Pump Systems

COURSE OUTCOMES

- Basics of Electric Motors
- Troubleshooting Common Problems Found in the Workplace

COURSE AGENDA

- Basic Motor Theory
- Nameplate Data
- Three Phase Motor
- National Electric Code and Motors

Lecture

Hands-on

• **ONSITE:** 2-days (16 hours)

• **LIVE ONLINE:** N/A



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