

Call 1-877-978-7246



# THREE PHASE MOTOR INSTALLATION, MAINTENANCE, AND TROUBLESHOOTING

Course Topics Include – Motor Fundamentals and Installation, Motor Maintenance and Troubleshooting

Learn how to select and install the correct type of motor based on its specific application and conditions.



## Learning Objectives:

- Fundamentals of Motor Operation
- Motor Components and Terminology
- Preventative Maintenance and Troubleshooting Techniques
- Select and Install the Correct Type of Motor
- Safely and Systematically Troubleshoot Three Phase Electric Motors
- Identify the True Cause of Motor Failure

- Reserve your space now either **online** or by calling us at **1-877-978-7246!**
- Check us out online at **live.tpctraining.com** for a complete list of all virtual and in-person seminars.
- This seminar is also available for **Virtual** or **In-Person Private Group Training**



## SEMINAR OVERVIEW

In this 1-day interactive course attendees will learn the fundamentals of three phase electric motors including proper installation, preventative maintenance and troubleshooting techniques. Electric motors are the source of power that drives nearly all commercial, industrial, and HVAC systems. Understanding how to maintain and troubleshoot common problems is critical to increasing productivity and reducing downtime.

This course covers how to select and install the correct type of motor based on its specific application and conditions. Important motor design parameters will be reviewed including, horsepower, voltage, FLA, Frequency, RPM, frame size, and many more, to ensure the motor is installed correctly and is properly protected. Attendees will learn the steps to safely and systematically troubleshoot three phase electric motors, with the goal of helping them identify the true cause of motor failure and prevent future incidents.

This course is designed for all knowledge levels of technician and progresses from a thorough overview of motor basics to replacement procedures and fundamental motor maintenance techniques.

## WHAT YOU WILL TAKE HOME

- A laminated, full-color TPC Training Reference Guide detailing all the “must know” information covered in the class. Keep this with you while on the job for immediate knowledge recall.
- Comprehensive classroom materials
- A Personalized Training Certificate with 0.8 TPC Training Continuing Education Units.
- All the information you need from asking our instructors specific questions about your own unique equipment or facility.

## CONTINUING EDUCATION

Upon completion of this seminar, the student will receive a Certification of Completion and and .8 TPC Training CEUs per day attended. Most employers and many government agencies accept TPC Training CEUs to fulfill their continuing education requirements. If the student needs CEUs to renew a state license, please contact us at 303-867-5039 to ensure the state licensing board has approved the seminar. If we are currently not approved by your state licensing board, we are happy to begin the process as long as we receive your request at least one month before the training date.

## DISCUSSION TOPICS

### Motor Fundamentals and Installation

- Motor Basics
- Motor Terminology
- Types of Motors and Their Suitable Applications
- Motor Selection
- Nameplate Data
- Dual Voltage Motor Connections
- Sizing Conductors
- Short-circuit Protection
- Overload Protection
- Motor Starters

### Motor Maintenance and Troubleshooting

- Motor Storage
- Bearings and Lubrication
- Replacing Motor Fuses Safely and Correctly
- Testing Motor Windings
- Megohmmeter Testing of Motors
- Predictive Maintenance Testing for Motors
- Methods of Verifying Proper Phase Rotation
- Determining Voltage and Current Imbalance and Its Effects
- Recommended Maintenance Practices of NFPA 70B
- Sizing and Adjusting Overloads per the NEC®
- Recognizing and Correcting Common Motor Issues

## JOIN OUR CLASSROOM SEMINARS FROM VIRTUALLY ANYWHERE

Our virtual instructor-led training option allows students to connect to a live classroom seminar via a web link, with the ability to participate full in the classroom dialogue, exercises, and Q&A. Online participants get all the benefits of the full classroom experience, plus the convenience of remote access.

### Features include

- One full day of live, interactive instruction from a TPC Training instructor
- All classroom materials in PDF format
- Certificate of completion for 8 hours of live training
- Full technical support to ensure your online experience is a rewarding one

## SEMINAR FEE & AGENDA

This 1-day course is just \$595 (Earn 0.8 CEUs)

7:30 am	Registration
8:00 am	Class Begins
12:00 -1:00 pm	Lunch (on your own)
4:30 pm	Class Ends

## NO RISK REGISTRATION & MONEY-BACK GUARANTEE

You can reserve your space in the class at any time and cancel without penalty. Cancellations made more than 14 days prior to the seminar may be refunded or rescheduled. Cancellations made within 14 days may be rescheduled for any future topic and/or date. If you're not satisfied with the course, we'll promptly refund your payment.

## BRING THE TRAINING TO YOUR FACILITY VIRTUALLY OR IN-PERSON

Every public seminar class in our Course Catalog can be conducted virtually or on-site at your facility, with the same expert instructors. To arrange an in-person private group training, call or email us at [virtual@tpctraining.com](mailto:virtual@tpctraining.com).

### Some Advantages of In-Person Private Group Training

- Cost Savings — Save time and travel costs by keeping workers on-site
- Customized Content — Tailor the seminar to your facility and equipment
- Flexibility — Accommodate multiple shifts and different start and end times