

Electrical / Electronic Maintenance 3

Description

This course is designed as the next level (Level 3) of electrical/electronic training for new and updated skilled craftsmen or a single unit course for your skilled personnel. Through lecture and hands-on training the students will learn how to identify and repair single, three phase motors and DC motors, test and troubleshoot motor contactors and starters, develop and understanding of

reversing and decelerating of motors, and the proper specifications of motors and motor installation. This course may be used to train new hires, update skilled craftsmen and cross-train personnel for servicing industrial electrical and electronic equipment. This course can be customized to fit your industries needs.

Outline

- AC Motors and Controls
 - Single Phase Motors; Split-Phase, Capacitor-Start, Shaded-Pole
 - Three Phase Motors; Wound Rotor, Squirrel-Cage
 - Synchronous Motors
- DC Motors
 - Shunt Motor, Series Motor, Compound Motor
 - Motor Speed Regulation
 - Motor Protection
- Motor Direction Control
 - Reversing Circuits for Single Phase, Three Phase and DC Motors
 - Accelerating and Decelerating Methods and Circuits
- Contactors and Starters
 - AC Manual Contactor and Starters
 - AC/DC Contactors and Magnetic Motor Starters
 - Electromechanical and Solid State Relays
 - AC Reduced Voltage Starters
 - Installation and Troubleshooting
- Motor Selection
 - Torque
 - Speed Ratings
 - Frame Size
 - Effects of Duty Cycle
 - Ambient Temperature Effects
 - Voltage and Current Ratings
 - Maintenance
 - Efficiency

Prerequisites

Electrical/Electronic Maintenance 2. May be used as a Single unit course in Motors for experienced electrical and maintenance personnel.

Performance Objectives

At the completion of this course the participant will have developed an understanding of AC and DC motors and controls, contactors and starters, motor direction control and motor selection.

Course Length

32 hours/ Up to 12 participants.