



Troubleshooting AC/DC Motors

Duration 5 Days

Introduction

Electric motors provide the means to convert electrical energy into a meaningful and measurable output. Because they are so common and critical in industrial facilities, the ability to quickly recognize, diagnose and remedy an evolving motor problem will help prevent catastrophic failures. When troubleshooting motors, technicians should perform electrical tests on insulation before mechanical inspections, because of the lower time investment. An effective motor maintenance program increases productivity, reduces unnecessary downtime, maximizes electrical motor efficiency and saves money

Who Should Attend

This course was designed to provide training for electricians, mechanics, and others, wanting to know more about AC and DC motor Troubleshooting.

Objectives

Upon completion this program, participants will be able to:

- ❖ Recognize AC motors types
- ❖ Recognize DC motors types
- ❖ Understand principles of AC/DC motor operation
- ❖ Differentiate between AC and DC motors
- ❖ Troubleshoot AC/DC motor failurea
- ❖ Understand Speed control of AC/DC Motors
- ❖ Read motor starting circuits and troubleshoot them

Course Outlines:

1. AC Motors

- 1.1. Types, construction and operation of AC motors
- 1.2. Effects of varying voltage and frequency on motors
- 1.3. Applications of different types of AC motors

2. DC Motors

- 2.1. Types, construction and operation of DC motors
- 2.2. Applications of different types of DC motors
- 2.3. Troubleshooting procedures in AC and DC motors
- 2.4. Troubleshooting charts

3. Motors Branch Circuits

4. Components of rating and voltages used for motor branch circuit

- 4.1. Rating and voltages used for motor branch circuits
- 4.2. Performance tasks of motor branch circuits
- 4.3. Reversing starter of a shunt motor
- 4.4. Full voltage starter for a shunt motor with dynamic braking
- 4.5. Injection of Faults: Simulation of open contact, Simulation of open push button, Simulation of open time delay relay contact, Simulation of open overload contact
- 4.6. Static Controllers