COURSE OVERVIEW

Operation, Maintenance & Troubleshooting of 3 Phase Induction

Course Description

AC 3 Phase Induction Motors course delivers an interactive training experience designed to help you understand how electrical 3 Phase Induction works with other systems. You will understand how to identify and calculate the speed, torque, and horsepower of a 3 Phase Induction motor, how motors operate, and identify the hard-working hardware and firmware involved in their operation. Learn how to match your system components to their respective applications and about the safety considerations associated with operating electromechanical systems and 3 Phase Induction motor Operation, Maintenance & Troubleshooting .To choose the correct AC motor.

1. Choosing and make maintenance of AC 3 Phase Induction Motors.
2. Identify and correct performance of AC 3 Phase Induction Motors .

Who Should Attend

Electric power engineers and advanced operating staff

Course Outline

- Fundamentals of AC 3 Phase Induction Motors
- Power flow in an Induction motor
- Equivalent Circuit of an Induction motor
- Torque considerations in an Induction motor
- Poly-phase induction motors
- Squirrel cage rotor
- Wound rotor and Motor speed
- AC three phase induction motors starting and motor protection
- Power line harmonics of induction motors
- Frequency converters improve the power factor of induction motors
- NEMA design classes
- NEMA specifications
- Factors affecting the speed-torque characteristics of an Induction motor
- Dynamics of motor-load system
- hanging of an Induction Motor
- Magnetic locking
- Magnetic Poles and Frequency as Related to Motor Speed

- Direct-On-Line starting, Star/Delta starting, Auto Transformer starting, and Soft Starts"
- Power Factor for a Three-Phase induction Motor and Motor power factor Correction
- Double Squirrel Cage Motor
- Standard Types of Squirrel Cage Motors
- Basic nameplate data of three phase induction motors
- Motor Maintenance - SCHEDULED ROUTINE CARE
- Testing Insulation Quality of the induction motor
- Troubleshooting of three phase induction motor
- Induction Motor Noise, Magnetic noise , Bearing noise and Unbalance noise
- Motor Protection