

Reduced Voltage Starting Training | eLearning Course

Power Generation and Distribution - W17403-CJ13JEN-E1

Objective 1: Describe the Operation of Two Methods of AC Power Generation

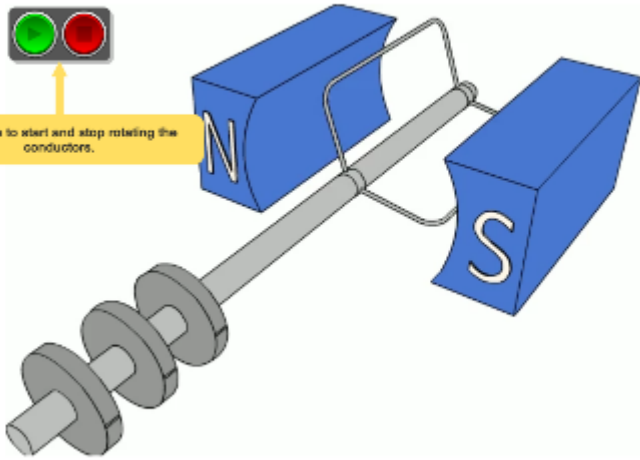
Rotating Conductors

Another common method used to produce alternating current is to rotate conductors through a permanent magnet field. The conductors are placed 120° apart.

Therefore, as the conductors are rotated inside the magnetic field, AC voltage is induced in the conductors.

The conductors are connected to slip rings. The slip rings allow the AC produced to be supplied to whatever is connected to the alternator.

This method is more commonly used because the larger size of the permanent magnets can induce higher voltages, and therefore higher currents in the conductors.



Click here to start and stop rotating the conductors.

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eLearning Course: M17403

Amatrol's Multimedia Courseware - Reduced Voltage Starting (M17403) teaches learners essential reduced voltage starting concepts applicable throughout modern industry. AC electric motors are essential in a wide variety of industrial, commercial, and residential applications. Learners using Amatrol's reduced voltage starting eLearning course begin by studying reduced voltage starting circuits. From this building block, learners begin practicing industry-relevant skills related to power generation and distribution.

In-Depth Reduced Voltage Starting Curriculum

Comprehensive Reduced Voltage Starting Curriculum Connected to Real-World Skills

Amatrol's reduced voltage starting eLearning course covers important topics, such as:

Reduced Voltage Starting Circuits

Learners begin with an introduction to reduced voltage starting circuits. Individual lessons focus on topics like primary resistor, autotransformer, and part winding reduced voltage starters. Learners will also practice skills, such as connecting and operating a primary resistor reduced voltage starter, troubleshooting an autotransformer reduced voltage motor starter, and connecting and operating a part winding motor starter.

Power Generation and Distribution

Learners will study basic principles of power generation and distribution. Individual lessons focus on topics like AC power generation, three-phase wye and delta distribution systems, and transformers in power distribution. Learners will also practice skills, such as using a multimeter to determine whether a distribution system is a wye or a delta configuration, connecting and operating single-phase transformers in a wye-to-delta bank configuration, and designing a delta-to-wye bank configuration using three single-phase transformers.

Build Reduced Voltage Motor Starting Troubleshooting Skills

Troubleshooting is a vital industry skill that will help learners understand malfunctions in normal operation and give them the skills to correct faults as they arise. Amatrol's reduced voltage starting training system allows learners to practice troubleshooting skills for reduced voltage motor starting, such as primary resistor motor starter faults,

autotransformer reduced voltage motor starter faults, and part winding motor starter faults.

Interactive eLearning and Learning Management System

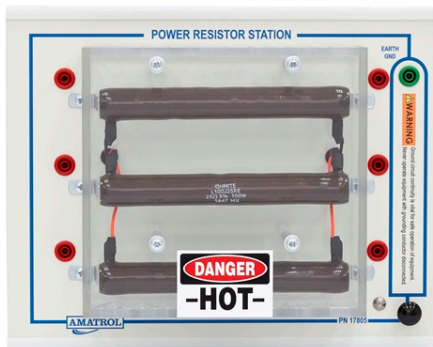
Highly-Interactive Multimedia Format Appeals to All Learning Styles

Amatrol's reduced voltage starting eLearning course features interactive eLearning curriculum that integrates various types of learning methods to create an engaging, effective learning experience. Amatrol's multimedia [eLearning](#) curriculum includes text with voiceovers, videos, 3D animations, pictures, and interactive activities, quizzes, and self-reviews.

Free Learning Management System (LMS)

Amatrol eLearning is easy-to-use for both students and instructors. Its web-based interface is simple to navigate and available on any WebGL-compatible Internet browser. Instructors love Amatrol eLearning for its simple, yet sophisticated Learning Management System (LMS). The LMS allows instructors to create custom courses, monitor student participation, track course progress, assess knowledge levels prior to a course, and test knowledge levels after completion. Learners appreciate the fact that they can start and stop as needed, moving through each Amatrol course at their own pace. If a self-review reveals that they didn't understand a particular topic as well as they thought they did, they can revisit it before moving on.

Additional Info



Requires:

- Computer (see [Computer Requirements](#))

Options:

- Reduced Voltage Starting Learning System (85-MT5B)

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