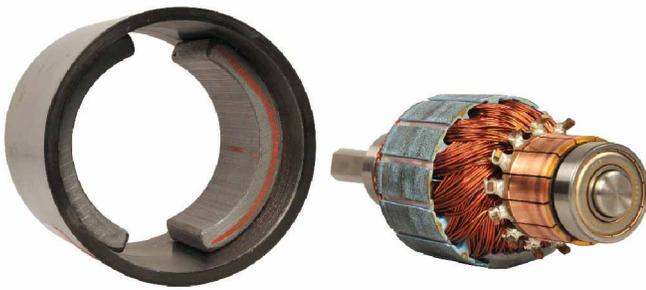


# Permanent Magnet DC Motor

Course 86357

The Permanent Magnet DC Motor course covers the operating characteristics of a permanent magnet dc motor. In this course, students will learn the motor characteristics when the permanent magnet dc motor operates as a motor or as a generator.



## Topic Coverage:

- » Analyze prime mover and brake operation.
- » Become familiar with the basic functions of the four-quadrant dynamometer/power supply.
- » Determine the polarity of speed, torque, and mechanical power for a machine operating as either a motor or a generator.
- » Learn about the construction of permanent magnet dc machines, as well as their operation as generators.
- » Study the voltage-speed and torque-current characteristics of a permanent magnet dc machine operating as a generator.
- » Study the speed-voltage and torque-current characteristics of a permanent magnet dc machine operating as a motor.

## Features and Benefits:

- » High-efficiency dc motor.
- » Covers basic principles of mechanics applied to motors.
- » Study both motor and generator operation of the dc motor.

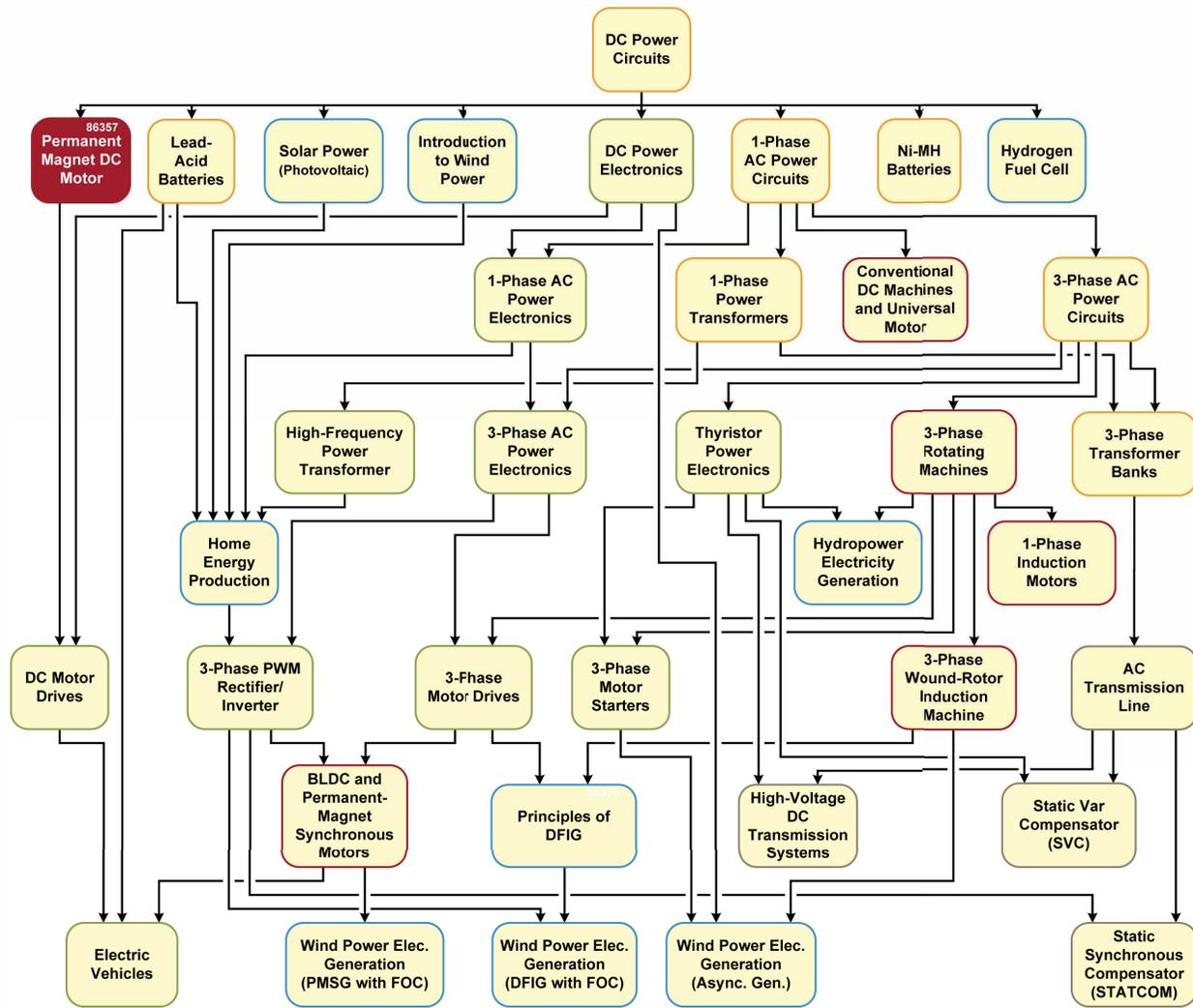


**Lab-Volt**<sup>®</sup>

Photo courtesy of Siemens



# Lab-Volt Electric Power Technology Training Program



## Equipment

Qty	Model	Description	Qty	Model	Description
1	8131	Three-Module Workstation	1	8960-C	Four-Quadrant Dynamometer/Power Supply
1	8213	Permanent Magnet DC Motor	1	9063-B	Data Acquisition and Control Interface
1	8802-1	Lead-Acid Battery Pack	1	30004-2	24 V AC Power Supply
1	8942	Timing Belt	1	86357/-1	Student Manual/Instructor Guide
1	8951-L	Connection Leads			

Lab-Volt reserves the right to make product improvements at any time and without notice. **Note:** A computer is required to perform the exercises..

