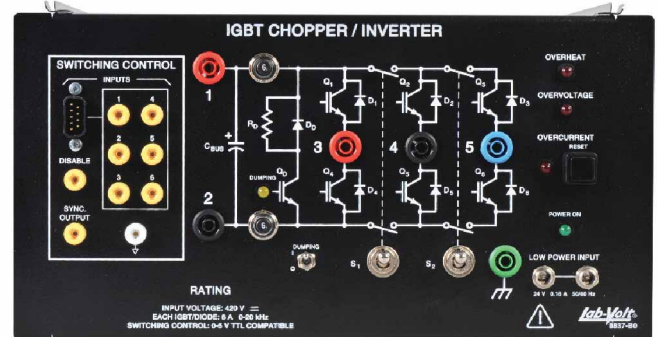
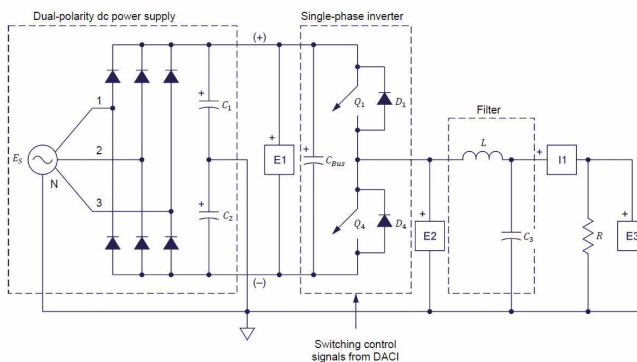


Three-Phase AC Power Electronics

Course 86362

The Three-Phase Power Electronics course introduces students to power electronic circuits (rectifiers and inverters) used to perform ac/dc power conversion in three-phase circuits. The course begins with the study of three-phase diode rectifiers. Students then become familiar with the operation of the single-phase inverter built with a dual-polarity dc bus. The course continues with the operation of the three-phase PWM inverter built with a single-polarity or a dual-polarity dc bus and concludes with the study of the three-phase PWM inverter.



Topic Coverage:

- » Analyze three-phase half-wave and full-wave rectifiers as well as single-phase and three-phase PWM inverters.
- » Become familiar with the voltage and current waveforms present in these power electronics circuits.
- » Examine the advantages of three-phase rectifiers over single-phase rectifiers.
- » Study the dual-polarity dc power supply.

Features and Benefits:

- » Half-wave and full-wave diode rectifier.
- » Use of an eight-channel oscilloscope to observe all important waveforms simultaneously.
- » Easy-to-implement three-phase power electronics circuits.

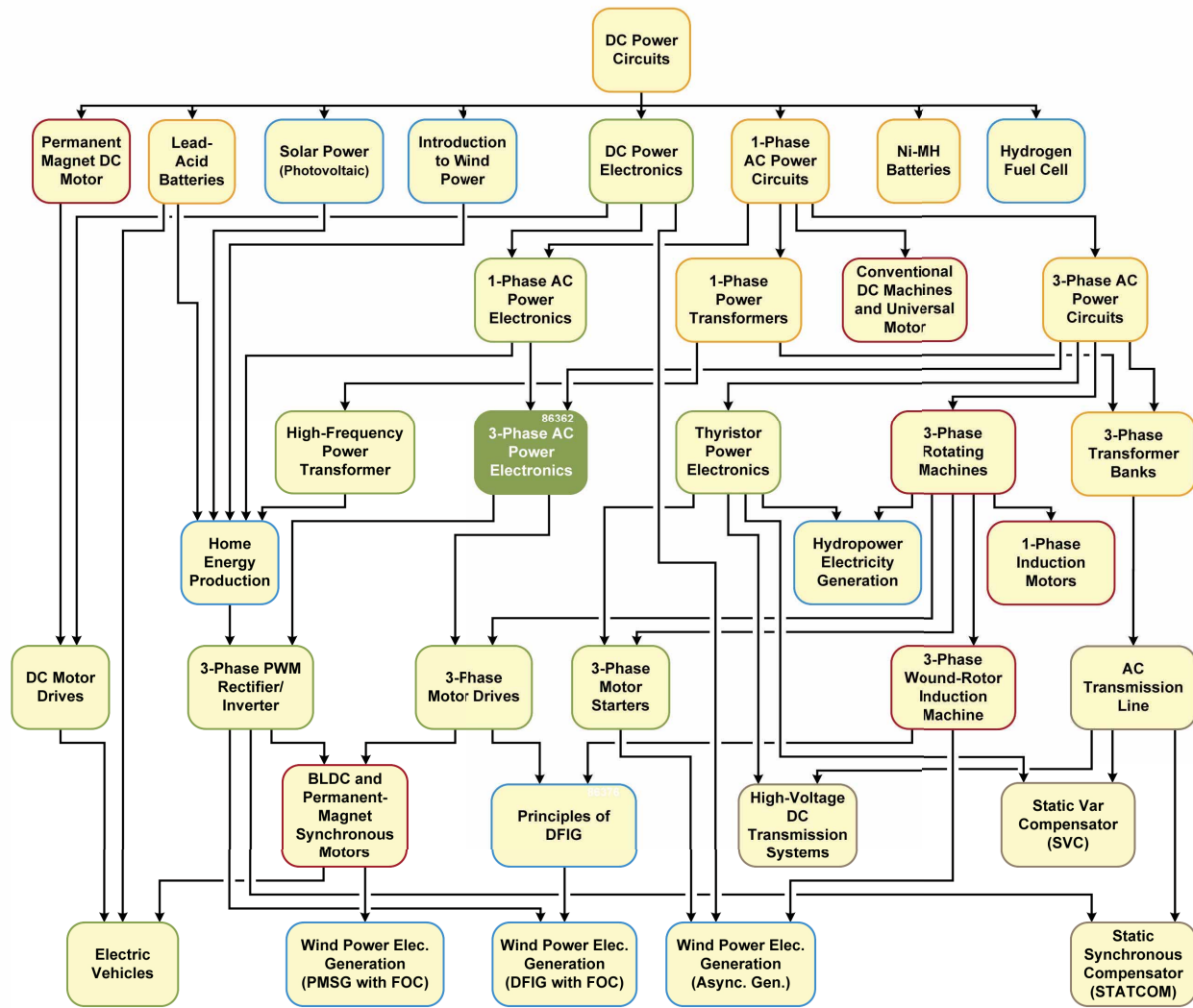


Lab-Volt®

Photo courtesy of Siemens



Lab-Volt Electric Power Technology Training Program



Equipment

Qty	Model	Description	Qty	Model	Description
1	8131	Three-Module Workstation	1	8951-L	Connection Leads
1	8311	Resistive Load	1	9063-C	Data Acquisition and Control Interface
1	8325-A	Filtering Inductors/Capacitors	1	30004-2	24 V AC Power Supply
1	8326	Three-Phase Filter	1	86362/-1	Student Manual/Instructor Guide
1	8823	Three-Phase Power Supply			
1	8837-B	IGBT Chopper/Inverter			
1	8842-A	Rectifier and Filtering Capacitors			

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

