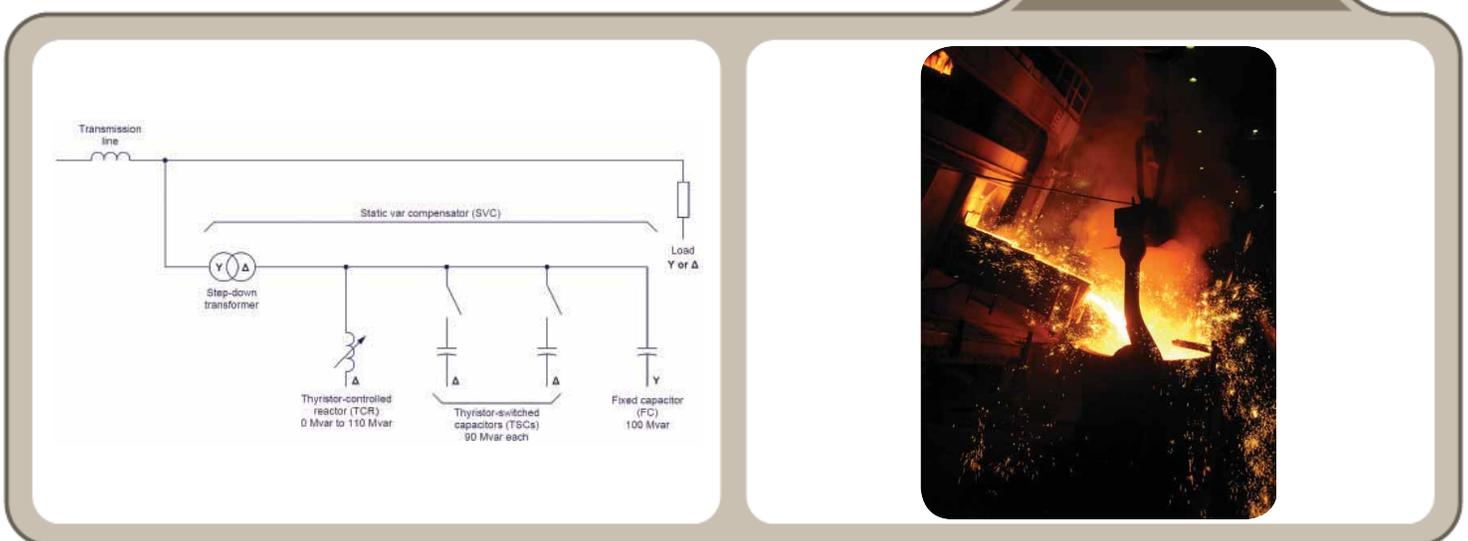


Static Var Compensator (SVC)

Course 86370

The Static Var Compensator (SVC) course explores the operation of the SVC (i.e., thyristor-controlled reactor, thyristor-switched capacitors, and SVC controller), as well as the automatic control of the voltage or the power factor in three-phase power networks. As part of the FACTS (Flexible AC Transmission Systems), the SVC technology is used by power utilities to maintain voltage quality for the distribution system as well as by industrial plants for dynamic power factor correction at their electric power entrance.



Topic Coverage:

- » Examine the main components of a static var compensator (SVC).
- » Understand the simplified diagram of an SVC.
- » Analyze the three main components of an SVC:
 - The thyristor-controlled reactor (TCR)
 - The thyristor-switched capacitor (TSC)
 - The fixed capacitor (FC)
- » Analyze the operation principles of SVCs when used for voltage compensation of ac transmission lines.
- » Explore the reasons behind power factor correction in industrial applications that absorb large amounts of reactive power from the ac power network.
- » Learn the operation principles of SVCs when used

for dynamic power factor correction in arc furnace applications and other industrial applications.

- » Bonus content: using the equipment in this course, the Three-Phase AC Power Circuits and Three-Phase Transformer Banks courses can also be completed.

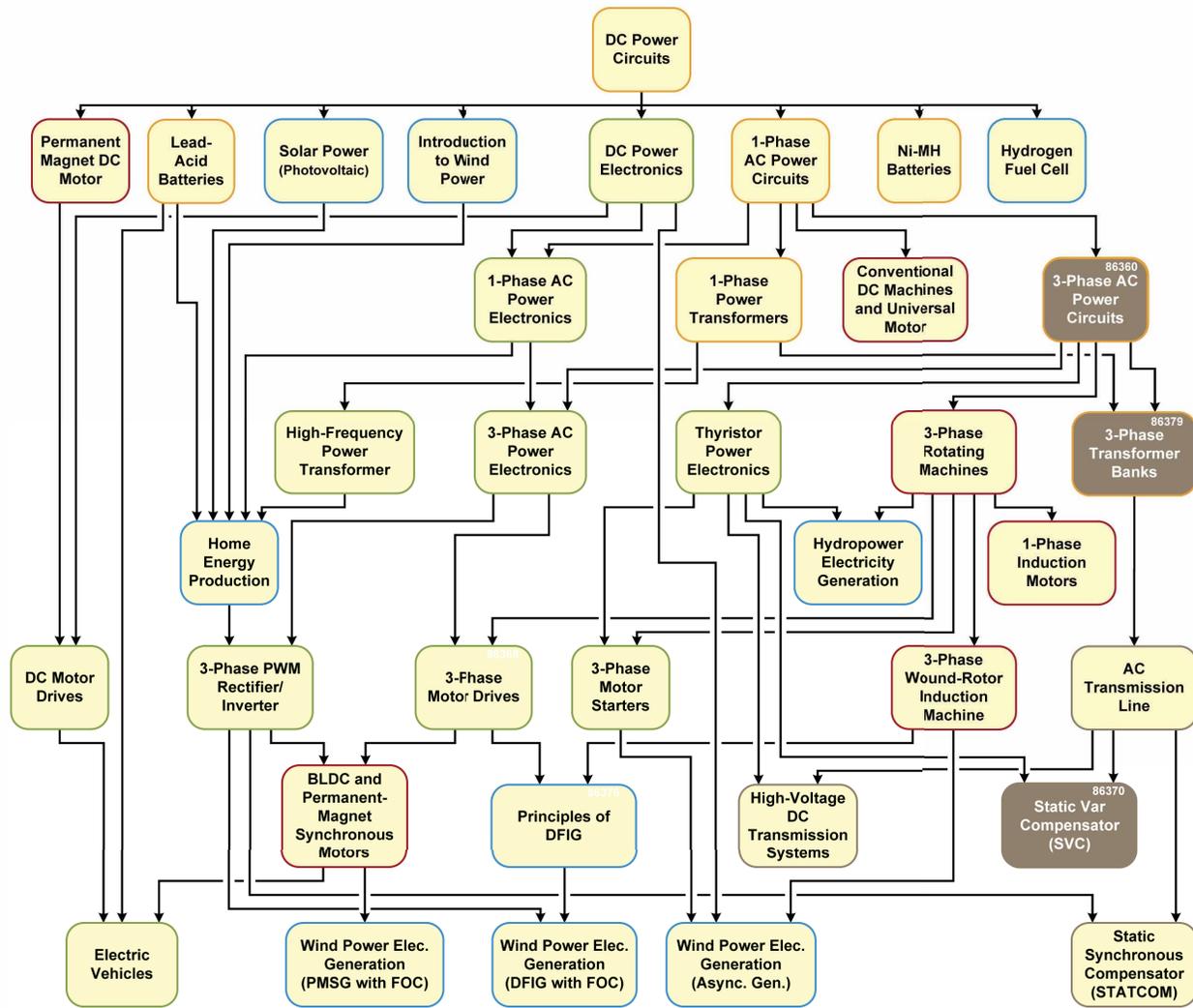
Features and Benefits:

- » Real operating static var compensator (TCR-TSC type).
- » Includes the SCADA view window of an SVC.
- » Study and experiment with voltage and reactive power control.



Lab-Volt[®]

Lab-Volt Electric Power Technology Training Program



Equipment

Qty	Model	Description	Qty	Model	Description
1	8134-2	Workstation	1	8951-L	Connection Leads
1	8311	Resistive Load	1	8951-N	
1	8321	Inductive Load	1	9063-B	Data Acquisition and Control Interface
2	8329	Three-Phase Transmission Line	1	9069-8	SVC Control Function Set
1	8331	Capacitive Load	1	30004-2	24 V AC Power Supply
1	8334	SVC Reactors/Thyristor Switched Capacitors	1	86370/-1	Student Manual/Instructor Guide
1	8348-4	Three-Phase Transformer Bank	Bonus content:		
1	8823	Three-Phase Power Supply	1	86360/-1	Student Manual/Instructor Guide
1	8841-2	Power Thyristors	1	86379/-1	Student Manual/Instructor Guide

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

