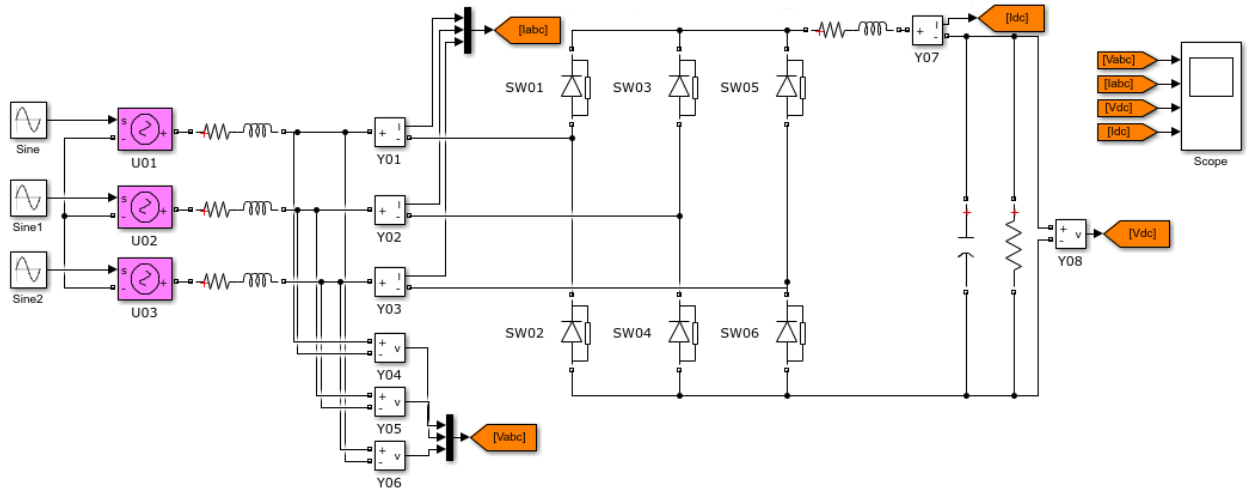


1. Three Phase Rectifier

This guide provides an overview of the **Three Phase Rectifier** Example included in the OPAL-RT Power Electronics Add-On for NI VeriStand. We will discuss deploying, running, and monitoring the simulation in real-time.

The model used in this example was created using the **Simscape Electrical Specialized Power Systems Simulink Blockset** (see below). It represents a three phase diode rectifier. In this example, we generate three sine waves using the built-in FPGA signal generators to simulate the $U01$, $U02$, and $U03$ AC sources in the electrical circuit. The $Y01$ - $Y08$ measurements are displayed on a graph and we expect $Y08$ to measure a DC voltage based on the input AC sources.



The tutorial has been split into the following sections:

1.0 Opening the Example

1.1 Configuring the Real-Time Controller

1.2 Selecting a Hardware Configuration

1.3 Updating the Circuit Model

1.4 Configuring the Sources of the Model

1.5 Configuring the Switches of the Model

1.6 Setting Default Values for the Sinewave Generators

1.7 Configuring the Waveforms of the Simulation

1.8 Deploying and Running the Simulation

1.9 Controlling and Monitoring the Simulation