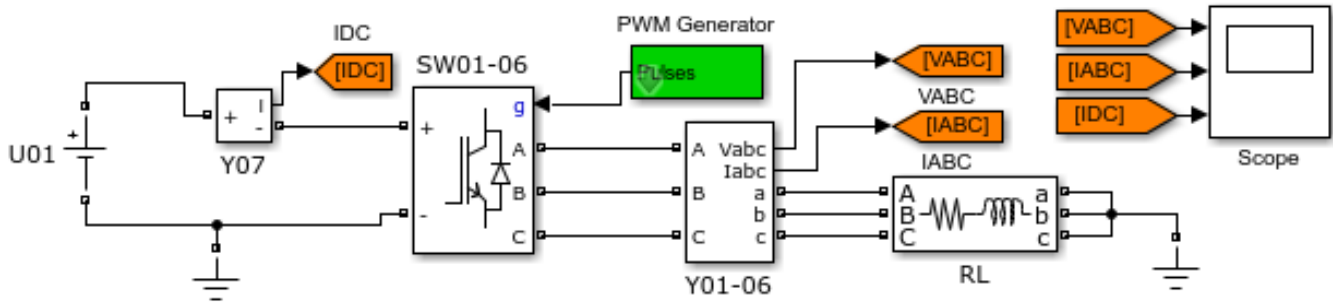


2. Two Level Inverter

This guide provides an overview of the **Two Level Inverter** 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 two-level inverter. In this example, we will send a constant voltage $U01$ to the battery block and gating signals to the universal bridge block $SW01-06$ using the on-board SPWM generators. The inverter voltages and currents (i.e. measurements), $Y01-Y06$ and $Y07$, will be displayed in the user interface.



The tutorial has been split up into the following sections:

2.0 Opening the Example

2.1 Configuring the Real-Time Controller

2.2 Selecting a Hardware Configuration

2.3 Updating the Circuit Model

2.4 Configuring the Sources of the Model

2.5 Configuring the Switches of the Model

2.6 Setting Default Values for the SPWM Generators

2.7 Configuring the Waveforms of the Simulation

2.8 Deploying and Running the Simulation

2.9 Controlling and Monitoring the Simulation