



School of Electrical and Computer Engineering
University of Newcastle, Australia

ELEC3251

Assignment 2

**Analysis of Switching Harmonics,
Grid Connected Inverters and
Space Vector Control System Design**

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1 Switching Harmonics

1.1 Method

To determine the correct switching output, a test was performed at the H-bridge output to confirm that both switching strategies can be achieved. This test involved setting a constant sinusoid input at the H-bridge controller.

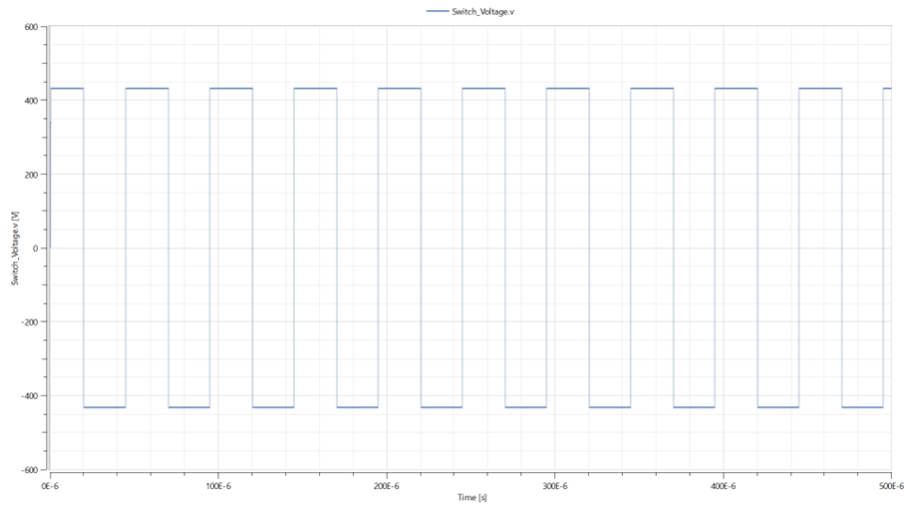


Figure 1: Bipolar Switching Test

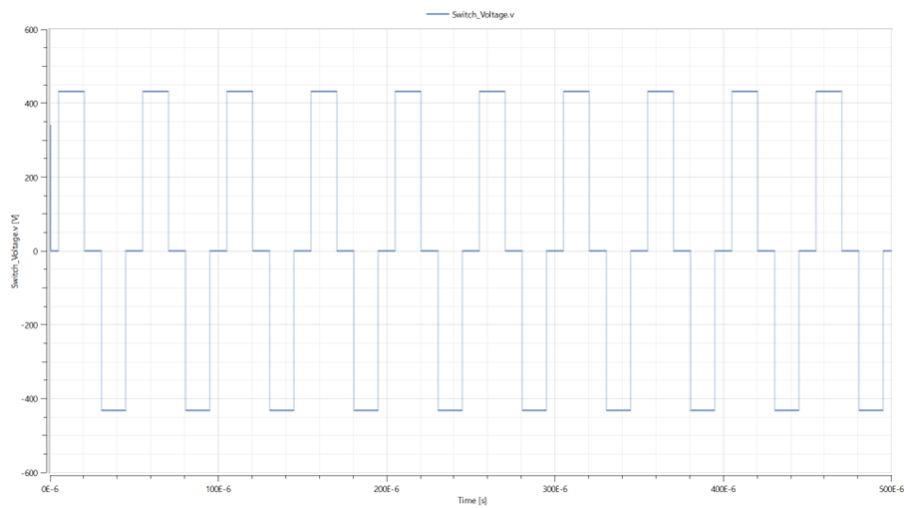


Figure 2: Unipolar Switching Test

1.2 Results

2 Grid Connected Inverters

3 Space Vector Control System Design

References