Scilab Manual for
Power Electronics Lab
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November 5, 2026

[1]Funded by a grant from the National Mission on Education through ICT, http://spoken-tutorial.org/NMEICT-Intro. This Scilab Manual and Scilab codes written in it can be downloaded from the "Migrated Labs" section at the website http://scilab.in

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Experiment: 1

Uncontrolled 1-phase Half and Full wave rectifier with R load

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Experiment: 2

Uncontrolled 3-phase Half wave and Full wave rectifier

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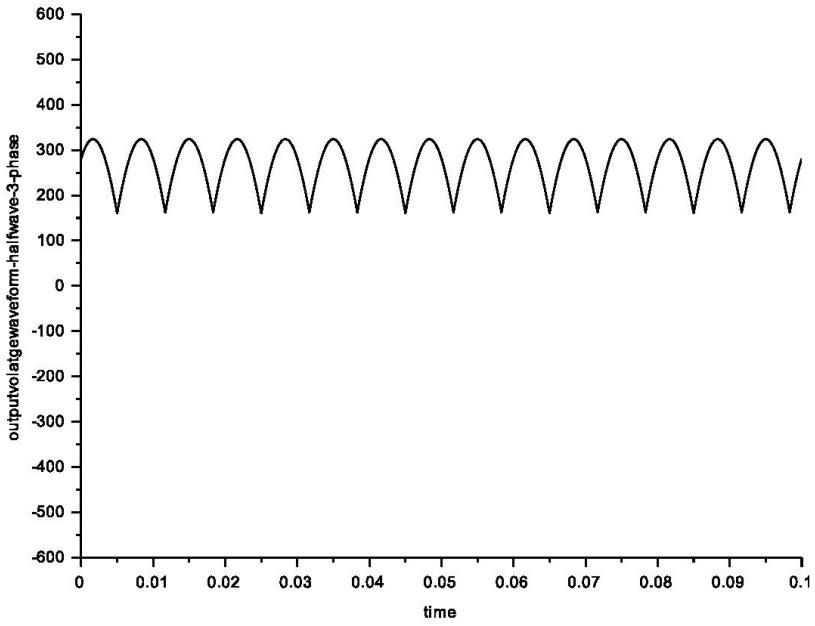


Figure 2.1: Circuit Diagram of 3phase Half Wave uncontrolled Rectifier with R load

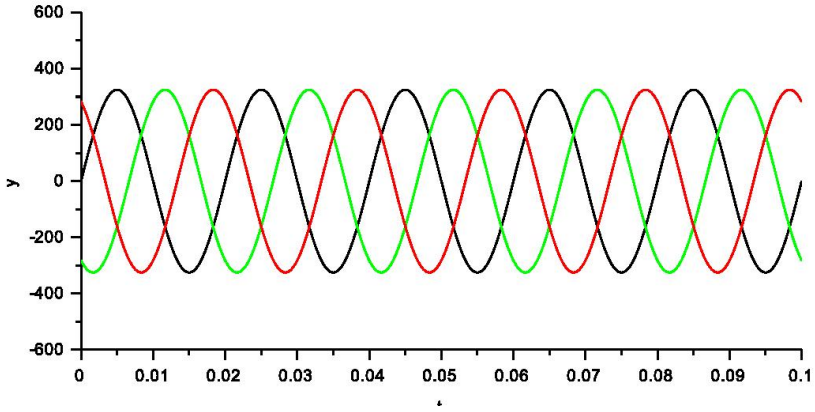


Figure 2.2: Circuit Diagram of 3phase Half Wave uncontrolled Rectifier with R load

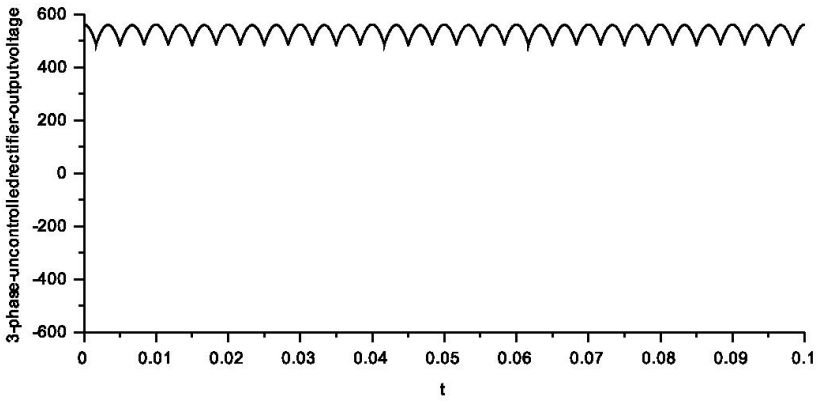


Figure 2.3: Circuit Diagram of 3phase Full Wave uncontrolled Rectifier with R load

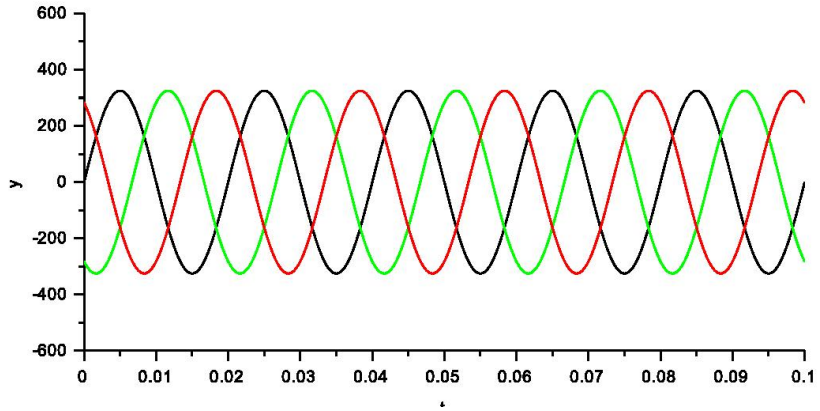


Figure 2.4: Circuit Diagram of 3phase Full Wave uncontrolled Rectifier with R load

Experiment: 3

Controlled 1-phase Half and Full wave rectifier with R Load

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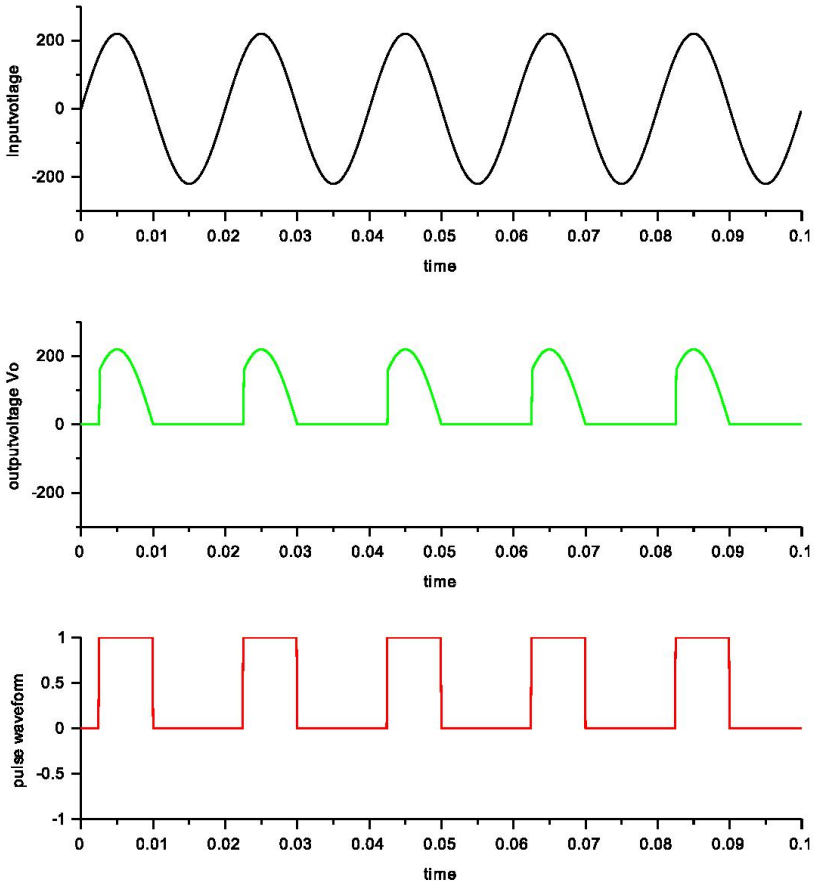


Figure 3.1: Circuit Diagram of 1phase Half Wave controlled Rectifier with R load

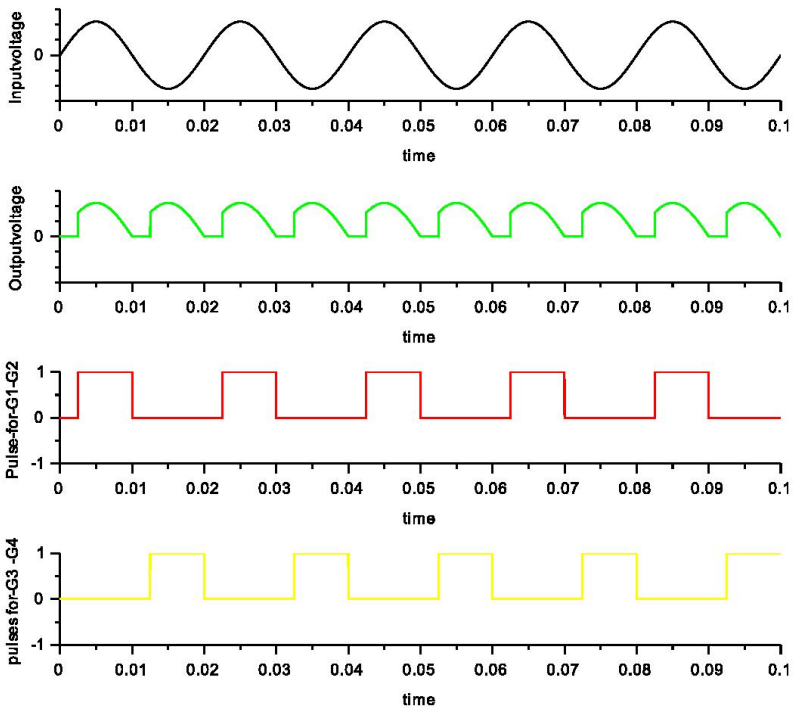


Figure 3.2: Circuit Diagram of 1phase Full Wave uncontrolled Rectifier with R load

Experiment: 4

Controlled 3-phase Half and Full wave rectifier with R Load

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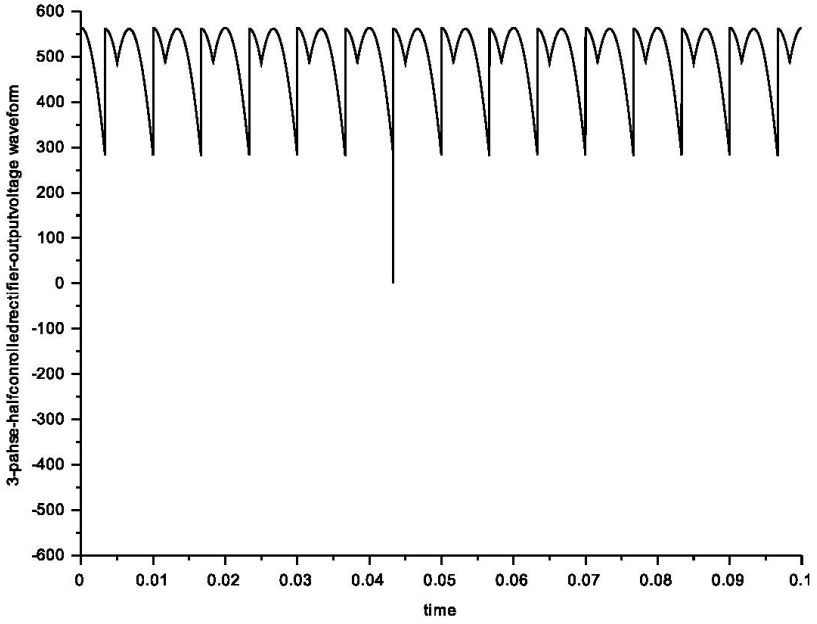


Figure 4.1: Circuit Diagram of 3phase Half controlled Rectifier with R load

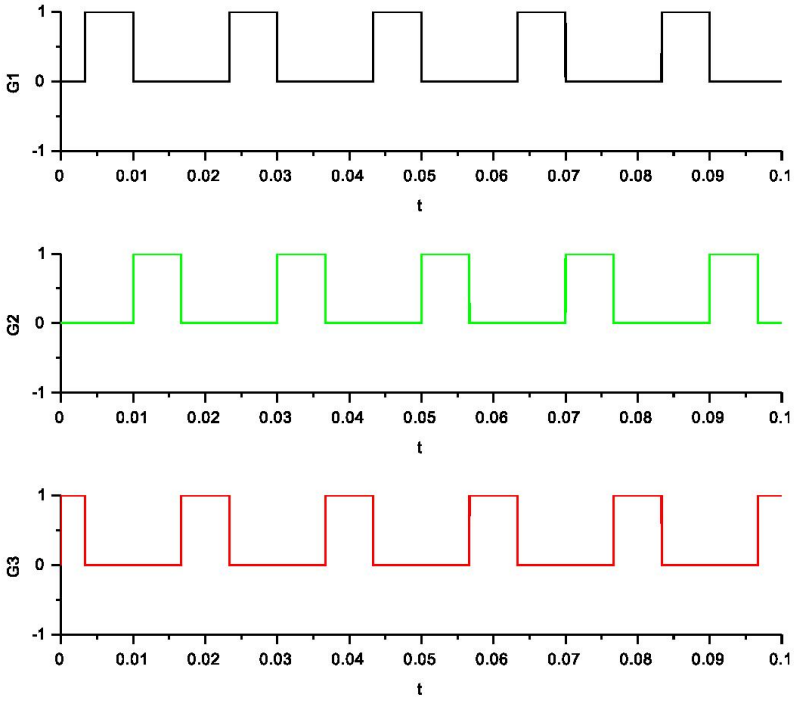


Figure 4.2: Circuit Diagram of 3phase Half controlled Rectifier with R load

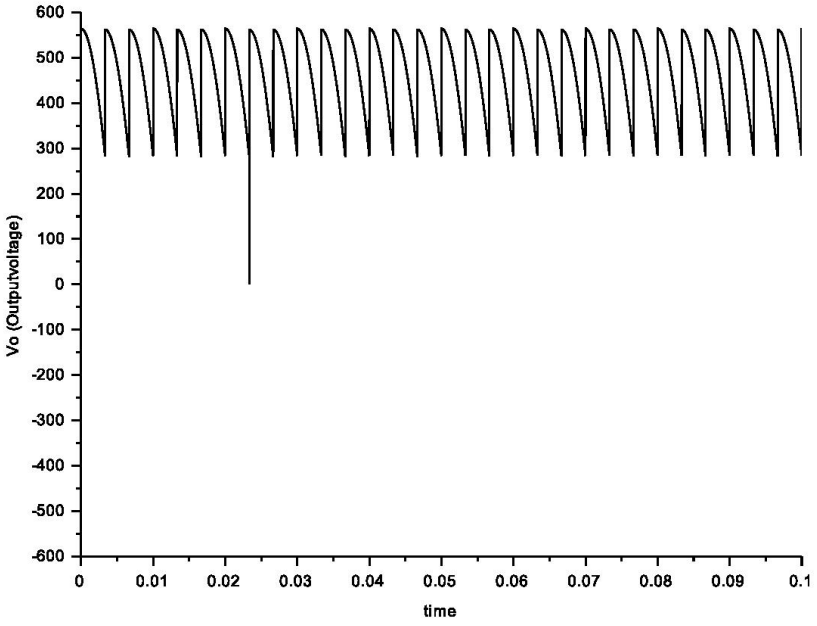


Figure 4.3: Circuit Diagram of 3phase Full Wave controlled Rectifier with R load

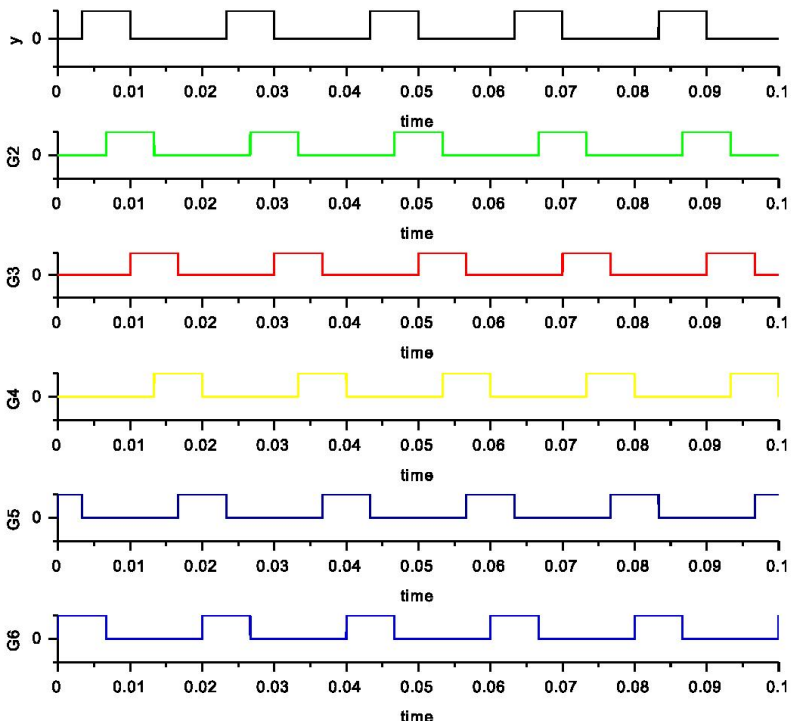


Figure 4.4: Circuit Diagram of 3phase Full Wave controlled Rectifier with R load

Experiment: 5

Step Down and Step up chopper with R load

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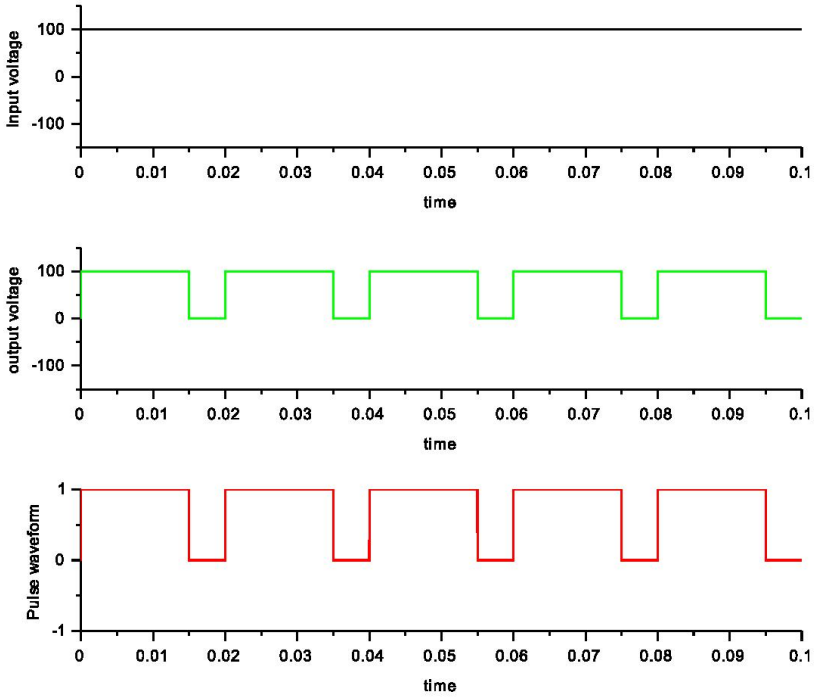


Figure 5.1: Circuit Diagram of StepDownchopper with R load

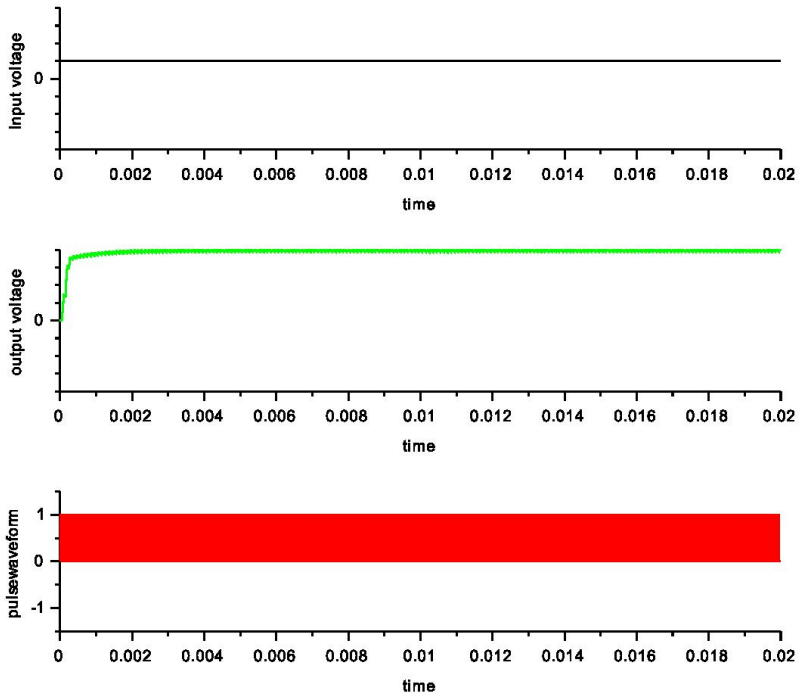


Figure 5.2: Circuit Diagram of Step Up chopper with R load

Experiment: 6

1-phase AC- voltage controller with R load

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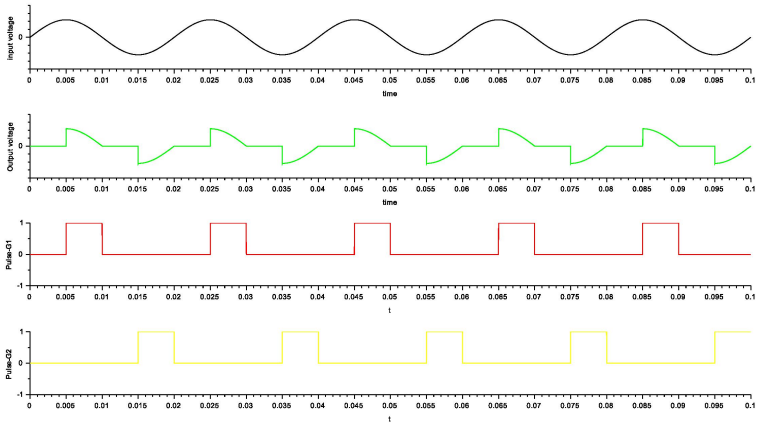


Figure 6.1: Circuit Diagram of 1phase AC Vokltage controller with R load

Experiment: 7

1-phase Inverter (Half Bridge and H bridge) with R load

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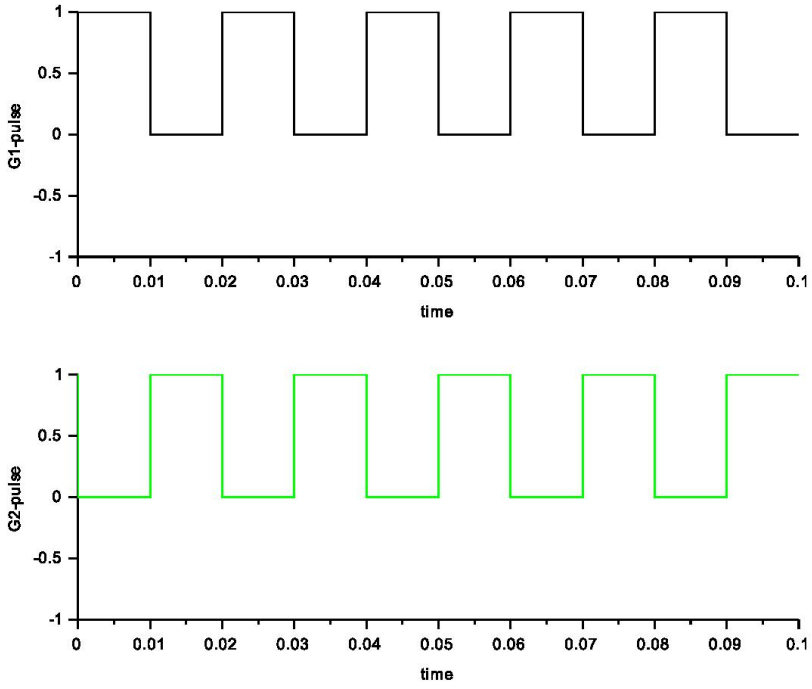


Figure 7.1: Circuit Diagram of Half bridge Inverter with R load

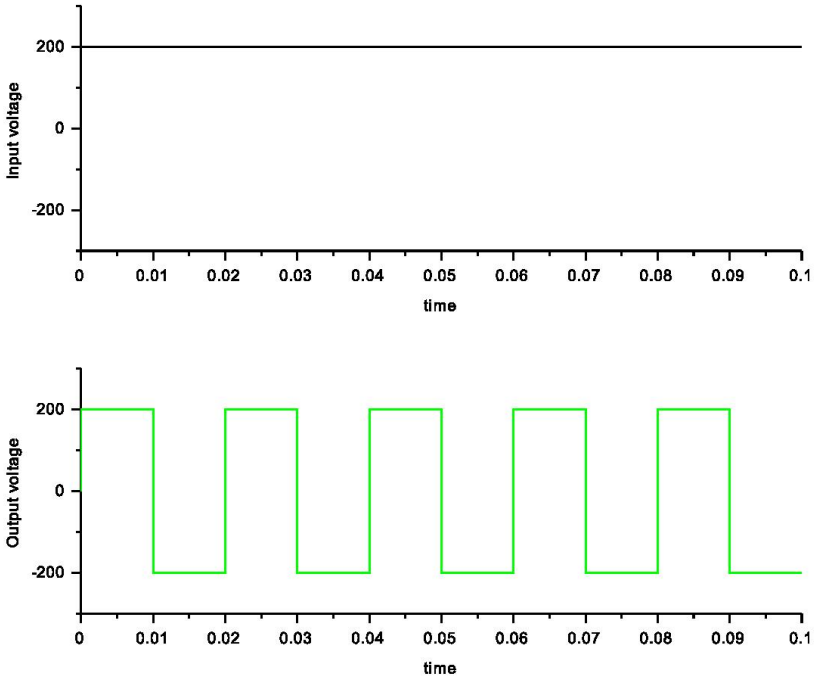


Figure 7.2: Circuit Diagram of Half bridge Inverter with R load

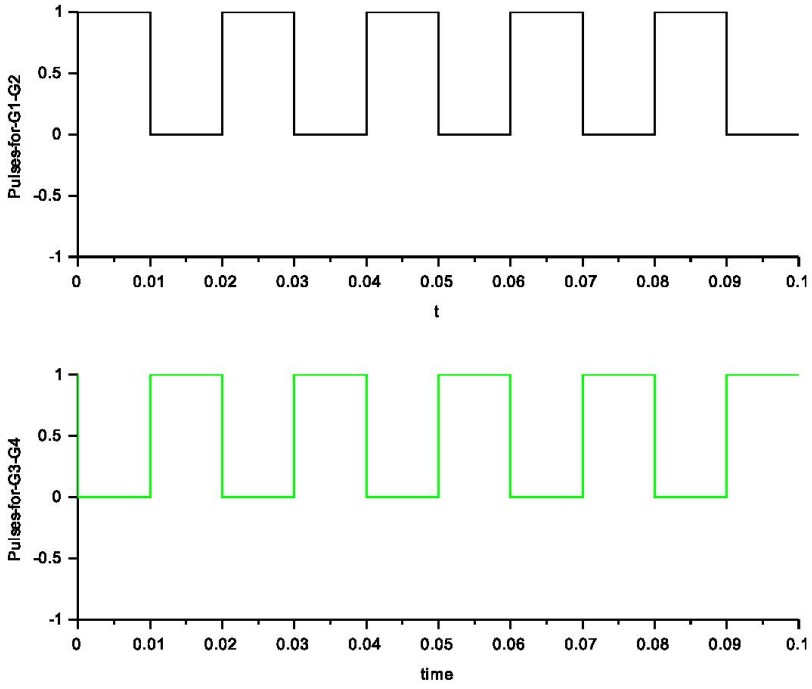


Figure 7.3: Circuit Diagram of Full bridge Inverter with R load

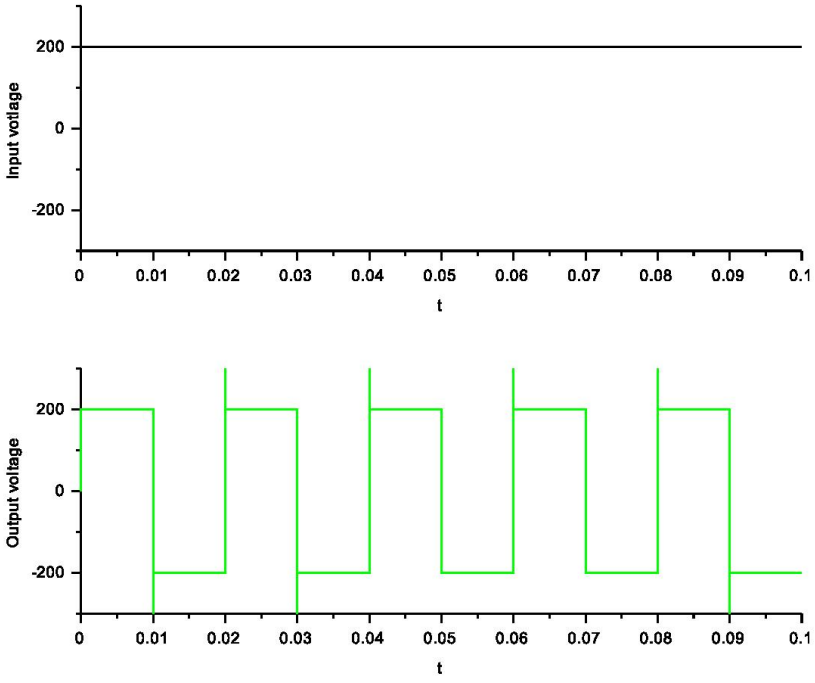


Figure 7.4: Circuit Diagram of Full bridge Inverter with R load