Open-Loop DC/AC Half Bridge Converter

Power Circuit

- Now have grounded midpoint on DC link
- Both switches need to be bidirectional

Gate Controls

- Updated somewhat from DC/DC case
Create sinsoidal \( m(t) \) function

\[
V_{m_{pu}} + V_{m_{pu}} + T_{w} \tau + T_{w} = - \cos V_{m_{pu}}
\]

Create sinsoidal \( m(t) \) function

\[
\text{TIMEX} \times w^t \times \Sigma \times \cos \times M
\]
AC voltage
AC voltage between the two inductors compared to ac source

AC current
Zoomed current

Current in switch 1
Averaged converter model

Averaged Model

AC current

(file AveragedDCAC.plt4; x-var t) c:VA -IAC c:IACAV -IS
Zoom in on part of waveform

- Voltage at converter terminal (zoomed in)