Three Phase Phase VSC Averaged Model

- Switching model

Power Circuit
• Averaged model
• Voltage command

• Current commands

\[
\begin{align*}
&\text{PLUS1} \quad 0.5 \\
&\text{PLUS1} \quad 0.5 \\
&\text{PLUS1} \quad 0.5 \\
&\text{PLUS1} \quad 0.5 \\
\end{align*}
\]
- Generate modulating functions
• Firing pulse generation
Phase A currents

(file ThreePhaseAve.pl4; x-var t) c:VTA -IACA c:IACSWA-VSA
Zoomed currents

(file ThreePhaseAve.pl4; x-var t)  c:VTA -IACA  c:IACSWA-VSA
Positive side DC currents
Vt from switching and averaged

(file ThreePhaseAve.pl4; x-var t) v:VTSWA v:VTA
Fundamental component from averaged model

\[ V_1 := 282.9 \text{V} \]

at 107.1deg
V1 := 279.6V

at 107.4 deg