Condensed Equiv. Circuit (Symmetrical)

If \( \eta_1 = \eta_2 \), then ...

\[
\begin{align*}
I_1 & = \eta_c \frac{I_2}{\eta_2} \\
V_1 & = C_1 x \\
V_2 & = C_2 x
\end{align*}
\]

where

\[
\begin{align*}
L_x & = \frac{m}{\eta_c^2} \\
C_x & = \frac{\eta_c^2}{k} \\
R_x & = \frac{b}{\eta_c^2}
\end{align*}
\]

Holds for the symmetrical case, where port 1 and port 2 are identical.

Phasings of Signals

*Below: plots of resonance electrical and mechanical signals vs. time, showing the phasings between them.

\[
\begin{align*}
V_1 & \quad t \\
V_p & \quad t \\
V_2 & \quad t \\
n_1 & \quad t \\
n_2 & \quad t \\
f_d & \quad t
\end{align*}
\]