

dq0_to_abc_1.gce

Attributes

mainvars: xd xq x0 xa xb xc c s

Description

dq0_to_abc_1.gce employs the following equations to relate the general variables **xd**, **xq**, **x0**, **c**, **s** to **xa**, **xb**, **xc** (where $\cos \theta$ and $\sin \theta$ are computed elsewhere (i.e., not within this template) and provided as **c** and **s**, respectively):

$$\begin{bmatrix} x_a \\ x_b \\ x_c \end{bmatrix} = \begin{bmatrix} \cos \theta & \sin \theta & 1 \\ \cos (\theta - 2\pi/3) & \sin (\theta - 2\pi/3) & 1 \\ \cos (\theta + 2\pi/3) & \sin (\theta + 2\pi/3) & 1 \end{bmatrix} \begin{bmatrix} x_d \\ x_1 \\ x_0 \end{bmatrix}.$$

AC behaviour is not implemented.