

dq_to_alphabeta_2.xbe

Attributes

```
xbe name=dq_to_alphabeta_2 evaluate=yes
Jacobian: variable
input_vars: xd xq c s
output_vars: alpha beta
aux_vars:
iparms:
sparms:
rparms:
stparms:
igparms:
outparms: xd xq alpha beta
```

Description

dq_to_alphabeta_2.xbe employs the following equations to relate x_d , x_q , c , s to α , β :

$$\begin{bmatrix} \alpha \\ \beta \end{bmatrix} = \begin{bmatrix} \cos \theta & -\sin \theta \\ \sin \theta & \cos \theta \end{bmatrix} \begin{bmatrix} x_d \\ x_q \end{bmatrix},$$

where the input variables c and s represent $\cos \theta$ and $\sin \theta$, respectively.