alphabeta_to_dq_2.xbe

Attributes

```
xbe name=alphabeta_to_dq_2 evaluate=yes
Jacobian: variable
input_vars: alpha beta c s
output_vars: xd xq
aux_vars:
iparms:
sparms:
rparms:
stparms:
igparms:
outparms: xd xq alpha beta
```

Description

alphabeta_to_dq_2.xbe employs the following equations to relate alpha, beta, c, s to xd, xq:

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

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