dq_to_alphabeta_1.xbe

Attributes

```
xbe name=dq_to_alphabeta_1 evaluate=yes
Jacobian: variable
input_vars: xd xq theta
output_vars: alpha beta
aux_vars: c s
iparms:
sparms:
rparms:
stparms:
igparms:
outparms: xd xq alpha beta
```

Description

dq_to_alphabeta_1.xbe employs the following equations to relate xd, xq, theta to alpha, beta:

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