alphabeta_to_dq_1.xbe

Attributes

```
xbe name=alphabeta_to_dq_1 evaluate=yes
Jacobian: variable
input_vars: alpha beta theta
output_vars: xd xq
aux_vars: c s
iparms:
sparms:
rparms:
stparms:
igparms:
outparms: xd xq alpha beta
```

Description

alphabeta_to_dq_1.xbe employs the following equations to relate alpha, beta, theta to xd, xq:

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