

abc_to_dq_1.gce

Attributes

mainvars: a b c d q cost sint

Description

abc_to_dq_1.gce employs the following equations to relate the general variables a, b, c to cost, sint, d, q:

$$\begin{aligned}\alpha &= \frac{3}{2}a, \\ \beta &= \frac{\sqrt{3}}{2}(b-c), \\ v_m &= \sqrt{\alpha^2 + \beta^2}, \\ \alpha &= v_m \cos t, \\ \beta &= v_m \sin t, \\ q &= -\alpha \sin t + \beta \cos t, \\ d &= \alpha \cos t + \beta \sin t.\end{aligned}$$

AC behaviour is not implemented.