

dtc.gce

Attributes

```
mainvars: psis_alpha psis_est psis_beta
+ vs_alpha vs_beta is_alpha is_beta
+ md_est sctr sa sb sc t0 f0
iparms: poles=4
rparms: rs=1 vdc=100
```

Description

dtc.gce employs the following equations to relate the general variables in the `mainvars` list above.

$$\begin{aligned}\frac{d\psi_s^\alpha}{dt} &= v_s^\alpha - r_s i_s^\alpha \\ \frac{d\psi_s^\beta}{dt} &= v_s^\beta - r_s i_s^\beta \\ m_d^{\text{est}} &= \frac{P}{3} [\psi_s^\alpha i_s^\beta - \psi_s^\beta i_s^\alpha]\end{aligned}$$

$$v_s^\alpha = k_1 [2 S_a - S_b - S_c]$$

$$v_s^\beta = k_2 [S_b - S_c]$$

$$\psi_s^{\text{est}} = \sqrt{(\psi_s^\alpha)^2 + (\psi_s^\beta)^2}$$

AC behaviour is not implemented.