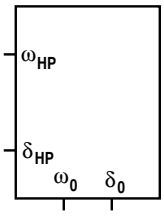
exc_rotor.ece



Attributes

```
  mainvars:
+   delta
+   omega
+   delta_hp
+   omega_hp
  auxvars:
  outvar:
  bias:
  stparms:
+   delta_sv=0
+   omega_sv=0
  igparms:
  iparms:
+   i_compute_strt=1
  rparms:
+   h0=0.05
+   d0=0.1
+   k_hp=20
+   d_hp=0.3
+   fb=50
+   f0=50
```

Description

`exc_rotor.ece` is an exciter rotor model satisfying the following equations:

$$\begin{aligned} \frac{d\delta}{dt} &= \omega\omega_B - \omega_0\,, \\ \frac{d\omega}{dt} &= w_p\,T_m - K'_{HP}\,(\delta - \delta_{HP}) - D'\,\omega - D'_{HP}\,(\omega - \omega_{HP})\,. \end{aligned}$$

In the above equations,

$w_p = D_0/2H_0$, $K'_{HP} = K_{HP}\,w_p$, $D' = D_0\,w_p$, $D'_{HP} = D_{HP}\,w_p$.

When the integer parameter `i_compute_strt` is specified as `1`, the start-up values of the state variables are computed in the synchrosnous machine template and are supplied to `exc_rotor.gce` through a Fortran common block.

AC behaviour is not implemented.