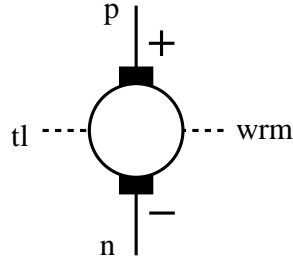


`dcmc.ece`



Attributes

```

mainnodes: p n
outvar:
+   i1=cur(p)_of_dcmc0
+   tem=tem_of_dcmc0
main_var: wrm tl
rparms: ra=1 la=1m c=1 j=0.25

```

Description

`dcmc.ece` is a DC machine with terminals **p** and **n**. The field current is assumed to be constant, giving the following model equations.

$$\begin{aligned}
 e_b &= C \omega_{rm} , \\
 \tau_{em} &= C i_a , \\
 L_a \frac{di_a}{dt} + R_a i_a + e_b &= v_p - v_n , \\
 J \frac{d\omega_{rm}}{dt} &= \tau_{em} - \tau_L ,
 \end{aligned} \tag{1}$$

The terminal current (from **p** to **n**), and the electromechanical torque **tem** are made available as output variables.

AC behaviour is not implemented.