

battery_c.ebe

Attributes

```
ebe name=battery_c x_inputs=yes
Jacobian: variable
nodes: p n
state_vars: qp qm
aux_vars:
aux_vars_startup: cur_p
x_vars: soc
iparms:
sparms:
rparms:
+ a0=700
+ b0=-700
+ b1=20
+ c=0
stparms: v0=0
igparms:
outparms: i v
```

Description

battery_c.ebe, along with battery_r.ebe and battery_vsrc.ebe are used to make up the battery model (sub-circuit s_battery_1) described in the following reference. It is a capacitance whose value depends on the variable soc.

Reference:

M. Chen and G.A. Rincon-Mora, "Accurate electrical battery model capable of predicting runtime and IV performance," *IEEE transactions on energy conversion*, vol. 21, pp. 504-511, 2006.