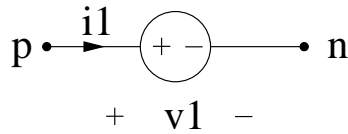


vsrcdc.ece



Attributes

```
mainnodes: p n
outvar:
+ i1=cur(n)_of_v0
+ v1=v1_of_v0
+ pwr_elec=pwr_elec_of_ece
rparms:
+ vdc=0.0
+ k_scale=1
+ t_ramp_1=0
+ t_ramp_2=0
outvar_ac: i1ac=cur(p)_of_v0
```

Description

`vsrcdc.ece` is a DC voltage source of magnitude `vdc` connected between nodes `p` and `n`. The output variables `i1` and `v1` are the branch current (from `n` to `p`) and branch voltage, respectively. The power absorbed by the element is made available as the output variable `pwr_elec`.

The parameters `t_ramp_1` and `t_ramp_2` allow the DC voltage to be ramped from 0 V to `vdc` in transient simulation. For $t < t_ramp_1$, the voltage is 0 V. For $t > t_ramp_2$, the voltage is `vdc`, and it varies linearly between the two limits.

In AC analysis, this element is replaced by a short circuit. The current is made available as the output variable `i1ac`.

The real parameter `k_scale` is used to scale `vdc` by a constant.