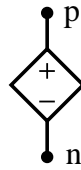


`vcvs.ece`



### Attributes

```
mainnodes: p n
outvar: v1=v1_of_v0 i1=cur(p)_of_v0
ind_nodes: vcplus vcminus
rparms: alpha=1
outvar_ac: i1ac=cur(p)_of_v0
ind_nodes_ac: vcplus_ac vcminus_ac
```

### Description

`vcvs.ece` is a voltage-controlled voltage source connected between nodes `p` and `n`. The voltage between `p` and `n` is given by  $v = \alpha[v(\text{vcplus}) - v(\text{vcminus})]$ . A similar relation holds for AC except that the voltages involved are complex numbers. Note that the independent nodes for the AC circuit are denoted by `vcplus_ac` and `vcminus_ac`.

The output variable `i1` gives the current through the element from `p` to `n` and `v1` gives the voltage drop from `p` to `n`. The AC output variable `i1ac` gives the AC branch current.