z.ece

Attributes

```
mainnodes: p n
auxnodes: p1
outvar: i1=cur(p)_of_r1
rparms: r=1 x=1 f0=1
outvar_ac: i1ac=cur(p)_of_r1
```

Description

`z.ece` is an impedance $\mathbf{Z} = R + j\,X$ connected between nodes `p` and `n`.

In transient simulation, $j\,X$ is replaced by the equivalent capacitance C or inductance L. For computing C or L, the frequency is required, and that is supplied by the real parameter `f0`. The output variable `i1` gives the branch current.

In AC simulation, $\mathbf{Z} = R + j\,X$ is used directly, and there is no need to compute the equivalent capacitance C or inductance L. The frequency `f0` is therefore ignored. The AC output variable `i1ac` gives the AC branch current.

Note that `r=0` or `x=0` is not allowed; instead, a suitably small value of `r` or `x` should be specified. For example, an impedance of $0 + j\,4\,\Omega$ may be specified with `r=1u` and `x=4`.