



vsrccac3.ece

Attributes

```
mainnodes: a b c n
rparms: v_a=0 v_b=0 v_c=0 f_hz=1
+ phi_a=0 phi_b=-120 phi_c=-240
+ t0=0
```

Description

`vsrccac3.ece` is a 3-phase AC voltage source connected as shown in the figure. The real parameters, `v_a`, `v_b`, `v_c`, `phi_a`, `phi_b`, `phi_c`, `f_hz`, and `t0` represent \hat{V}_a , \hat{V}_b , \hat{V}_c , ϕ_a , ϕ_b , ϕ_c , f , and t_0 , respectively, in the following equations for the voltages:

$$\begin{aligned} V_a(t) &= \hat{V}_a \sin(2\pi f(t - t_0) + \phi_a), \\ V_b(t) &= \hat{V}_b \sin(2\pi f(t - t_0) + \phi_b), \\ V_c(t) &= \hat{V}_c \sin(2\pi f(t - t_0) + \phi_c) . \end{aligned}$$

(1)

In AC analysis, the three voltages are given by $\hat{V}_a \angle \phi_a$, $\hat{V}_b \angle \phi_b$, and $\hat{V}_c \angle \phi_c$.