s_pwm_3 (subcircuit)

Attributes

```
inputs:
outputs: g1a g2a g1b g2b g1c g2c
e_left_nodes:
e_right_nodes:
e_top_nodes:
e_bottom_nodes:
b_left_nodes:
b_right_nodes:
b_top_nodes:
b_bottom_nodes:
parameters:
  L1_tri: -1
  L2_tri: 1
  T_tri: 1m
  V_peak_sine: 1
  delt_min: 0.002u
  delt_nrml: 0.5u
  f_hz_sine: 50
  flag_frequency_tri: 1
  flag_period_tri: 0
  frequency_tri: 1e3
  x_high: 1
```

Description

s_pwm_3 is used to generate PWM pulses for 3-phase circuits using a triangle wave and sine waves generated internally (see Fig. 1). The parameters `flag_frequency_tri`, `flag_period_tri`, `frequency_tri`, `T_tri`, `L1_tri`, `L2_tri` are used to control the triangle wave (see the documentation for `triangle_2.xbe`). The parameters `delt_min`, `delt_nrml` are used for controlling the simulator time steps as explained in the documentation for `cmpr_2_2.xbe`. The parameter `x_high` specifies the height of the output pulses `g1a`, `g2a`, `g1b`, `g2b`, `g1c`, `g2c`; the lower level is assumed to be zero.

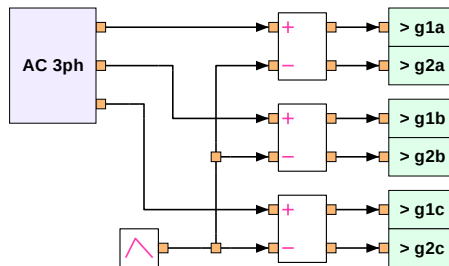The parameters `V_peak_sine` and `f_hz_sine` specify the amplitude and frequency of the sinusoids, respectively.

Figure 1: Schematic diagram of s_pwm_3.