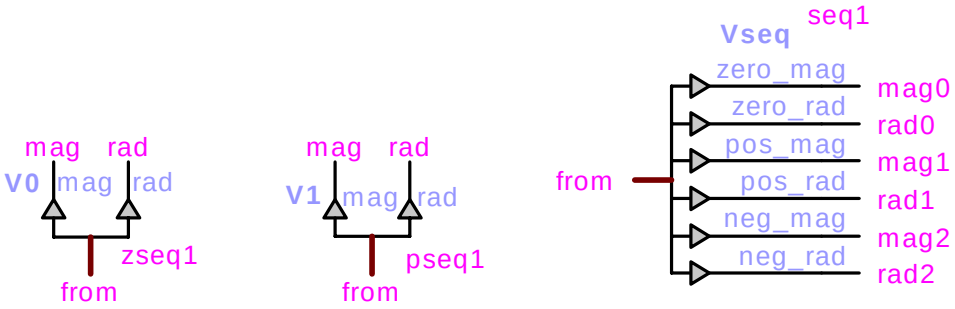
V sequence 0, V sequence positive, V sequences



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1 Description

The “V sequences” device calculates the zero, positive, and negative sequence phasors of the voltage to ground measured at a 3-phase bus. The “V sequence zero” and “V sequence positive” devices can be used for zero and positive sequence only. They constitute a variation of “V sequences” and are provided for convenience only. The following documentation is given only for the most generic device “V sequences”.

1.1 Pins for “V sequences”

This meter has seven pins:

pin	*type*	*description*	*units*
from	3-phase bus	probed 3-phase bus	
mag0	output pin	phasor magnitude of zero sequence voltage	V
rad0	output pin	phasor angle of zero sequence voltage	rad
mag1	output pin	phasor magnitude of positive sequence voltage	V
rad1	output pin	phasor angle of positive sequence voltage	rad
mag2	output pin	phasor magnitude of negative sequence voltage	V
rad2	output pin	phasor angle of negative sequence voltage	rad

1.2 Parameters

The following parameter must be defined:

parameter	*description*	*units*
freq	fundamental frequency of the probed voltage	Hz

1.3 Input

The bus pin may be connected to any 3-phase bus of a circuit.

1.4 Output

The value of the outputs are the magnitude and angle of the zero, positive, and negative sequence phasors of the first harmonic of the 3-phase voltage to ground measured at the probed bus. The transformation from 3-phase to sequences is calculated over a sliding time window of period equal to 1/freq. The phasor magnitudes are the peak amplitude, not the RMS value. The phasor angles are expressed in radians.