

**General sequence networks**

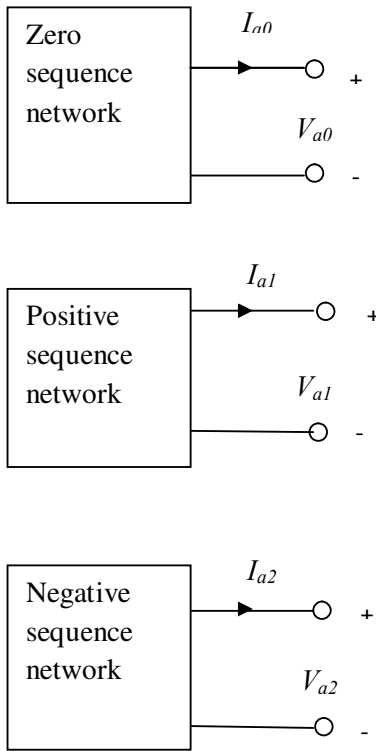


Fig.3.1 (a)

**Equivalent sequence networks**

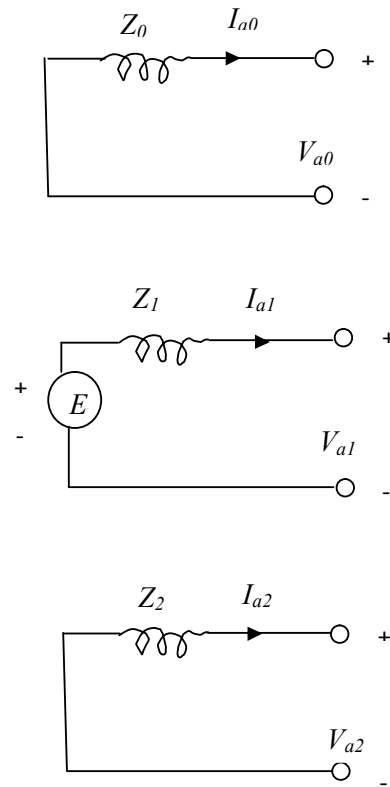


Fig.3.1 (b)

**2.4.1 SINGLE LINE TO GROUND FAULT**

The termination of the three- phase access port as shown in fig. 3.2 brings about a condition of single line to ground fault through a fault impedance  $Z_f$ .

Typically  $Z_f$  is set to zero in all fault studies. I include  $Z_f$  in the analysis for the sake of generality. The terminal conditions at the fault point give the following equations:

$$I_b = 0$$

$$I_c = 0$$

$$V_a = I_a Z_f$$

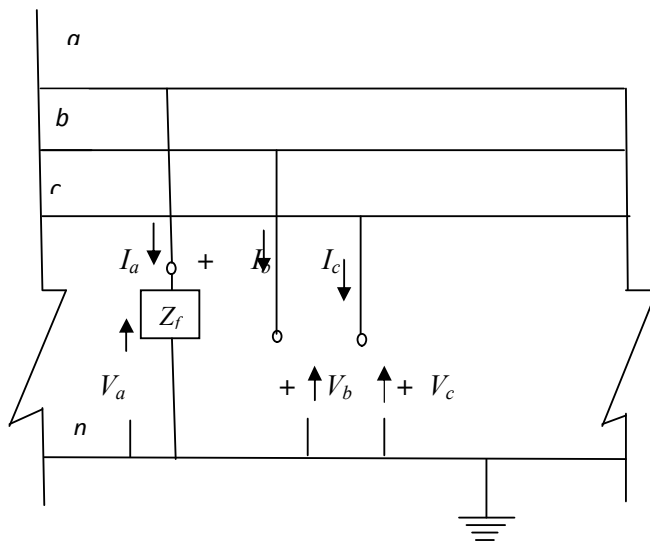


Fig. 3.2

Connections of sequence networks for a single line to ground fault and its simplified equivalent circuit are shown in the fig. 3.3(a) and fig. 3.3 (b) below:

**General sequence networks**

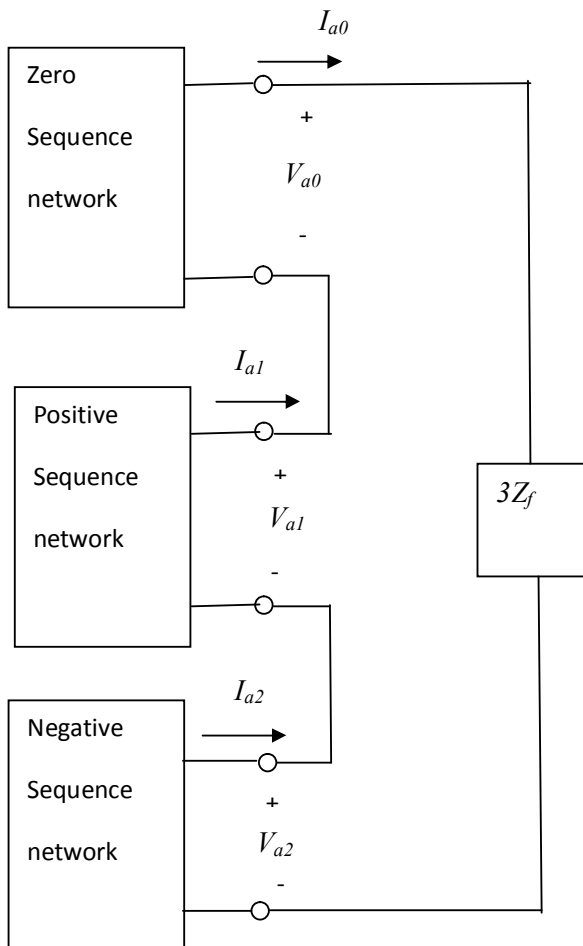


Fig.3.3 (a)

**Equivalent sequence networks**

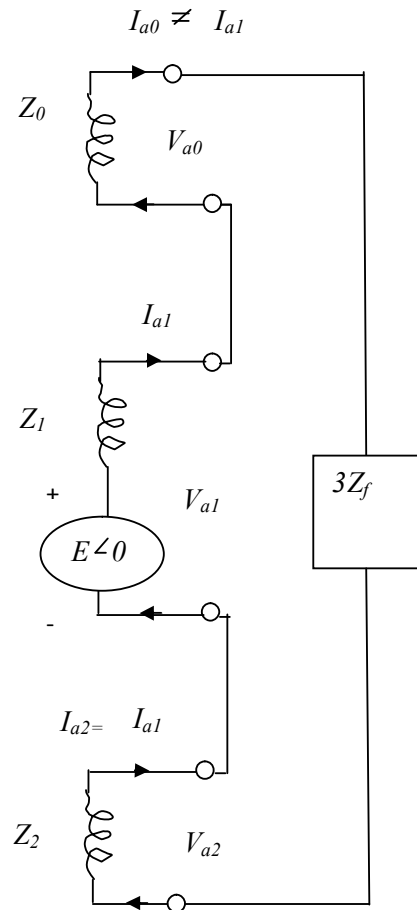


Fig.3.3 (b)