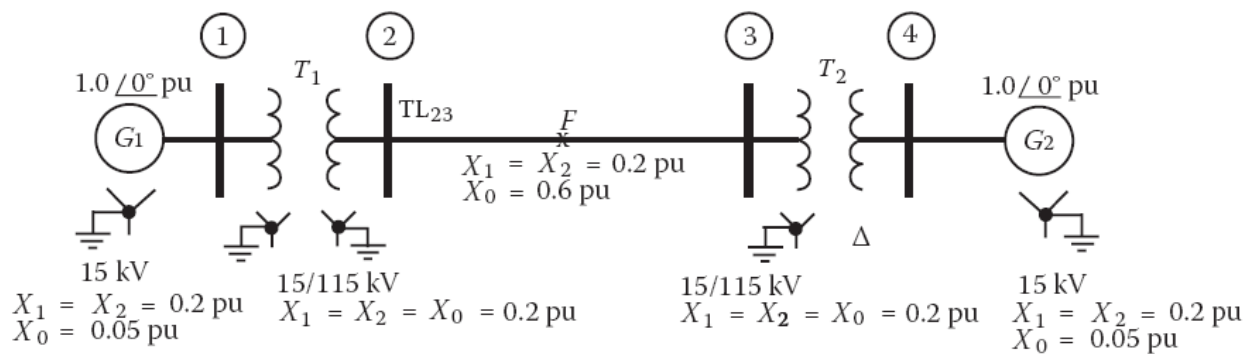


TUGAS GANGGUAN TIDAK SIMETRIS

Consider the system given in Figure 6.3a and assume that the given impedance values are based on the same megavolt-ampere value. The two three-phase transformer banks are made of three single-phase transformers. Assume that there is an SLG fault, involving phase *a*, at the middle of the transmission line TL₂₃, as shown in the figure.

- (a) Draw the corresponding positive-, negative-, and zero-sequence networks, without reducing them, and their corresponding interconnections.
- (b) Determine the sequence currents at fault point *F*.
- (c) Determine the sequence currents at the terminals of generator *G*₁.
- (d) Determine the phase currents at the terminals of generator *G*₁.
- (e) Determine the sequence voltages at the terminals of generator *G*₁.
- (f) Determine the phase voltages at the terminals of generator *G*₁.



(a)

FIGURE 6.3