Use EasyPower software to determine the fault currents and voltages in the 8-bus power system attached.

1. Symmetrical Faults

Determine the three-phase fault current at each of the 8 buses

Fault current at bus 1:
Fault current at bus 2:
Fault current at bus 3:
Fault current at bus 4:
Fault current at bus 5:
Fault current at bus 6:
Fault current at bus 7:
Fault current at bus 8:

Determine the bus voltages due to three-phase fault at bus 2.

Voltage at bus 1:
Voltage at bus 2: 0 V
Voltage at bus 3:
Voltage at bus 4:
Voltage at bus 5:
Voltage at bus 6:
Voltage at bus 7:
Voltage at bus 8:
Unsymmetrical Faults:

*Delta-Ground Y Transformer connection*

1) single-line to ground fault current at bus 6:

*Y-Y transformer connection.*

1) single-line to ground fault current at bus 6:

*Y-grounded –Y-grounded transformer connection.*

1) single-line to ground fault current at bus 6: