

EXPERIMENT 14

Symmetrical Short Circuit Fault Calculation

Objectives:

Calculate the fault current and contributions to fault current due to 3-phase symmetrical faults.

Statement of the problem:

Complete the work requested for each problem below.

Problem 1. Do Problem 7.24 from Glover/Sarma text.

Problem 2. Do Problem 7.27 from Glover/Sarma text.

Problem 3. Do Problem 7.30 from Glover/Sarma text. You will need to study Example 7.5 from the Glover/Sarma text.

Describe how you solved each problem. You will need to use the **PowerWorld** simulator. What other tools did you use? What input data was required?

Results obtained: Show your results, including graphs and relevant printouts.

Discussion of Results: Write an analysis and discussion of the results you obtained. Include answers to the following questions.

1. What assumptions were made that affected your calculations?
2. How did you verify your results with respect to reasonableness and accuracy? Do not be afraid to do manual calculations.