The modified 4 node circuit with the IM placed at bus 4 is shown below. The red x indicates the fault which occurs at bus 4.

A diagram of a diagram

Description automatically generated

Fault occurs at t = 0.0833 s and lasts for 0.3333 s until t = 0.4167 where it clears. The following results show the motor current during the initial fault, fault current subsiding, and the inrush current as the fault clears and the system is restored.

A graph of a graph

Description automatically generated