

**VOLTAGE SAG MONITORING BY USING PHASE-
TO-PHASE AND PHASE-TO-GROUND :
DIFFERENCE IN PROFILE**

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ABSTRACT

Abstract—In power system, voltage sags have always been present and be considered as one of the most harmful power quality problems. This may affect industrial and large commercial customers. The several causes of voltage sags such as by power system faults, lightning strikes, large induction motors starting, switching operation and flow of fault current. Voltage sags happen due to during fault, current is high, meanwhile the voltage is drop. But faults in the system are the most frequent cause of voltage sags and these will cause the equipment trips. The main objectives of this research is to analyze the monitoring voltage sag based on phase-to-phase and phase-to-ground in order to monitoring the severity of voltage sag, so it will be used to prevent any harm to utilities and consumer equipment. The main voltage sags characteristics can be identified by the magnitude. To obtain the voltage sag, common cause which is unsymmetrical faults was simulated. The simulation was done by using Matlab/Simulink software. It is expected that by doing this research the preferable monitoring voltage sag can be done in order to monitor voltage sag that can harm consumer equipment.

Keywords - component; magnitude of voltage sag characterisic; phase-to-phase; phase-to-ground

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