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

This thesis is presented in partial fulfillment for the award of the

Bachelor of Engineering (Hons) Electrical

UNIVERSITI TEKNOLOGI MARA

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JULY 2013

ACKNOWLEDGEMENT

First and foremost, I would like to thanks to our Creator for giving me the opportunity to complete this final year project. I successfully completed my final year project for my degree of Bachelor of Engineering (Hons.) Electrical (Power). I would like to express my gratitude to my supervisor Mr. Rijalul Fahmi Bin Mustapa for the continuous support and his guidance, ideas and suggestions during finishing this final year project. A special thanks to my family, friends and others for their encouragement, cooperation and continuous support for me from the beginning of this project tills the end. This project helps me to explore and gain the knowledge while doing this project. Thank you very much.

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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