Abstract

Power quality is one of major concerns in the present era. It has become important, with the introduction of industrial devices, whose performance is very sensitive to the power quality that results in a failure of user equipment's. Voltage sag is one of power quality problem which is caused by industrial device like as induction motor. To solve this problem, custom power devices are used. One of those devices is the Dynamic Voltage Restorer (DVR), which
is the most efficient and effective modern custom power device used in power distribution networks. The paper analyses and to mitigate voltage sag caused by starting of induction motor using without energy storage system DVR with PWM controller. A test system is simulated in Matlab/Simulink to prove the effectiveness of proposed control strategy with DVR.

References

- S. F. Torabi, D. Nazarpour, Y. Shayestehfard, "Compensation of sags and swells voltage using dynamic voltage restorer (DVR) during single line to ground and three phase faults"; International Journal on &quot;Technical and Physical Problems of Engineering&quot; (IJTPE)September 2012 Issue 12 Volume 4 Number 3 Pages 126-132.
- Hadi Ezoji, Abdol Reza Sheikhaleslami, Masood Shahverdi, Arash Ghatresamani and Mohamad Hosein Alborzi, "Hysteresis Voltage Control of DVR Based on Unipolar PWM", www.intechopen.com

**Index Terms**

Computer Science

Power Systems

**Keywords**

Dynamic Voltage Restorer  Voltage Sags  Hysteresis Controller  Power Quality