Abstract

Generally the harmonics are not presents in a supply which is given to the drives but the harmonics are generated by the load itself. Harmonic distortion is form of electrical noise that can cause a problem such as, motor may overheat or become noisy and torque oscillations in the rotor can lead to mechanical resonance and vibration, capacitors overheat. All power electronic converters used in different types of electronic systems can increase harmonic
disturbances by injecting harmonic currents directly into the grid. Common non-linear loads include motor starters, variable speed drives, computers and other electronic device. After the identification of the harmonics, it can be reduced either by modifications to the drive system or by using external filtering. The current harmonics depend on the drive construction and load. Factors that increase current harmonics include large motor compared to the supply transformer higher motor load Factors that decrease current harmonics include Greater DC or AC inductance, Higher number of pulses in the rectifier. By using simulation with mat lab software we can reduce the harmonics for AC drives to overcome the above mentioned problems and to get smooth performance.

References

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Identification of harmonics in AC drives & design of Harmonic filters using SIMULINK


**Index Terms**

Computer Science

Harmonic Filter

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Keywords
Point Of Common Coupling (pcc)  Short Circuit Safe.  Adjustable Speed Drives (asd)