

DESIGN A HARMONIC FILTER AT THE DISTRIVUTION SYSTEM

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ABSTRACT

The use of power electronic equipment in modern electrical system will cause the rises of harmonic disturbance in the ac mains current. It has become a major concern due to the adverse effects on all equipment. This paper presents the simulation on non-linear load using Matlab Simulink and the implementation of LC filter to reduce the harmonic in current created by the fluorescent lamp and personal computer. Passive filters have been preferred for power quality improvement due to low cost, simplicity, reliability and control-less operation. Harmonic filters generally consist of one more tuned series LC legs which shunt specific harmonic currents away from the power system. Harmonic filters have the added benefit of supplying leading KVARs and thus provide power factor correction. As a result, we can conclude that passive filter can reduce the total harmonic distortion (THD) which is required by quality standards IEEE-519

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