

Generation of Subharmonics by Stochastic Loads

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Abstract: *In electrical engineering, solid state devices are becoming increasingly popular for the control of speed, torque and output power of both a.c. and d.c. machinery. One main reason is the quick response of these devices to changes of current and voltage that allow them to be used in applications. Under particular conditions of discontinuous and repetitive varying current flow, subharmonic currents should exist. These harmonics can be significant and affect the performance of the system. In this study, an attempt was made to isolate the subharmonics under the above conditions and compare their magnitudes with calculated values.*

Keywords: *Solid state devices, harmonics, subharmonic, stochastic loads*