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POWER QUALITY ENHANCEMENT USING RESONANT CONVERTER: AN EXPERIENCE WITH PSIM

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Abstract

This paper describes the measures to improve input power quality using resonant converter and proper utilization of electric power for different applications With the advancement in the power electronics & the introduction of various improved power converter topologies problems related to poor power factor & harmonics will be eliminated .Thus the quality of the input power is improved. Series parallel resonant converter operating at high power factor with reduction in the total harmonic distortion in input line current is developed using high frequency switches (MOSFETs) .Series parallel resonant converter is simulated in PSIM 6.0 under various load conditions.

Keywords : Resonant converters. Zero voltage switching, THD, Improved power quality