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| **Title:** | Investigation of total harmonic distortion of a three-phase Cúk rectifier | | |
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| **Abstract:** |  |
| Rectification is a very common term in power electronics sector, where an AC signal is converted into a DC signal. But this process comes up with few problems, such as, distortion of input current. With high amplitude, the total harmonic distortion (THD) increases. To solve these problems, passive filtering is used to decrease harmonic distortion and to improve the nature of input current. But filtering brings lower output voltage. To solve this problem, output filtering is used with the DC-DC regulator. In this paper, the input side current of a three phase Cúk rectifier is improved with respect to output voltage level, efficiency and optimum total harmonic distortion using passive filters and PWM technique. Simulation results are presented to show the effectiveness of the design. | |