ABSTRACT

This study implements harmonic filter in DC Chopper with DC motor load that aim to reduce electromagnetic emission in the form of harmonics. Before the installation of filters to identify harmonics, obtained harmonic current in DC Chopper 3rd harmonic of 29% and 5th 18%, while DC Chopper with DC motor load harmonics 3rd 53%, 5th 19,2% and the 7th of 13.1%. After implementation of filters, harmonics DC Chopper proved to be reduced. 3rd harmonics to 7.8%, the 5 to 6.3% and the combined filter 3rd & 5th great Current Total Harmonic Distortion (THDi) to 8.3%. While DC Chopper with DC motor load harmonic 3rd to 27.8%, 10.5% for 5th and 7th of 3.2%. Implementation harmonic filter already showed a big drop harmonics, change becomes more distorted sine wave sinus and also improve the power factor, but does not meet the standard of compliance with IEC 61000-3-2 class D.

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Keywords: Harmonics Filter, *DC Chopper*, IEC 61000-3-2 *class , Total Harmonics Distortion(THD).*