

ABSTRACT

The Total Harmonic Distortion (THD) voltage and current do not meet IEEE 519-2014 standard can be losses to the power transformer, so that it will can be interference with the electric power system. The research try to analyze losses and THD (Total Harmonic Distortion) because of nonlinear loads and compare with measurement results using a power quality analyzer and ETAP simulation. Based on THDv and THDi from the result measurement and simulation, obtained difference THDv of 0.13% and THDi of 0.62%. The result indicated the electricity data obtained for simulation are almost in accordance with field condition. At peak load conditions between 6:00 a.m. to 9:30 p.m. measurements were carried out using a power quality analyzer at time interval of 5 minutes each with total average THDi of a minimum of 6.59 and a maximum of 4.78, and a minimum total average of 1.6886 and a maximum of 1.8535. The condition show is THDi high then losses increased.

Keywords: THD (Total harmonic distortion), Losses, Non Linear Loads



PENGESAHAN TESIS

Judul : *Analisis Losses Dan THD (Total Harmonic Distortion) Akibat Pengaruh Beban Non Linear Pada Transformator Daya*

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