

**ANALISIS TINJAUAN DARI TOTAL HARMONIC DISTARTION ARUS
MAUPUN TEGANGAN TERHADAP BEBAN SISI PRIMER
DAN SISI SEKUNDER PADA TRANSFORMATOR**

ABSTRAK

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Abstract: *Andi Mohammad Ridwan Fikri and Muh. Riswan. T (2025) Analysis of Total Harmonic Distortion Current and Voltage Review of Primary and Secondary Side Loads on Transformers supervised by DR. Ir Zahir Zainuddin, M.T., Rizal A Duyo, S.T., M.T. The purpose of this study is to determine the comparison of linear and non-linear loads to harmonics on single-phase transformers. To determine the active power loss caused by single-phase transformers due to the influence of harmonics. The method used in this study is to conduct research and data collection at Jl. Sultan Alauddin No.259, Gn. Sari, Kec. Rappocini, Makassar City. The results obtained in this study are. With almost the same power, linear and non-linear loads have quite significant differences in terms of Total Harmonic Distortion (THD). THD current and voltage on non-linear loads are relatively greater than on linear loads. On the primary side of the THDi transformer, the linear load is 5.99% while the non-linear load is 68.25%, the THDV of the linear load is 1.51%, while the non-linear load is 1.60%. On the secondary side of the THDi transformer, the linear load is 1.18% while the non-linear load is 72.53%, the THDV of the linear load is 1.81%, while the non-linear load is 11.27%. This is because the non-linear load contains harmonics. The active power loss of the transformer due to harmonics generated by the non-linear load in this study was 0.024 kW, exceeding the standard set by the IEEE 519 standard, which is more than 10% of the total transformer rating of 0.022 kW. This can cause the transformer to overheat. While at a linear load of 0.019 kW, it can be said to be safe.*

Abstract: *Current, Voltage and Transformer*