

LOAD UNBALANCE ANALYSIS OF DISTRIBUTION TRANSFORMERS IN PANDANSARI BALIKPAPAN USING MATLAB SOFTWARE

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ABSTRACT

In the distribution of electricity there is a distribution substation. The distribution substation is a means of distributing electric power from PLN to customers, but often there is an uneven distribution of the load so that it becomes a load imbalance and the current flows in the neutral phase which results in power losses. To balance the load, load transfer reconfiguration is carried out on each phase R, S, T. There are 8 transformers in the Pandansari area, Balikpapan City, but the PDS 1383 transformer has a high imbalance so that the current flowing in the neutral phase is 99A with an imbalance percentage of 36.17% and the percentage of power losses is 8.45%. The use of the GUI display helps field workers to balance when there is an imbalance in the load on the transformer

Keywords: *Matlab, Transformer, Load, Power Losses*