

SUMMARY

Rifka Agustina Kusuma Pratiwi, Department of Electrical Engineering, Faculty of Engineering, Universitas Brawijaya, November 2017, *Influence of Placement of Kraft Paper on Leak Flow Rate on Coaxial Electrode Arrangement*, Supervisor: Drs. Ir. Moch Dhofir, M.T. and Dr. Rini Nur Hasanah, S.T., M.Sc.

In this thesis book describes the results of research on the influence of kraft paper insertion location against the level of leakage current on the arrangement of coaxial electrode. In this research, it is done to test the influence of kraft paper insertion location between the coaxial electrode arrangement with the air dielectric to the leakage current, testing the effect of kraft paper thickness to leakage current on the coaxial electrode, and testing the effect of cross-sectional area of the coaxial electrode array to the leaking current occurring on the aluminum. Each test was performed by varying the voltage of 3 kV, 6kV, 10 kV, 15 kV, 20 kV, and 25 kV. The result of the research has been done that the effect of the kraft paper insertion location between the coaxial electrode arrangement with the air dielectric to the leakage current is the smallest leakage current lies in the kraft paper insertion location which has a diameter of 4 cm. In addition, for the results of research in effect of kraft paper thickness to leakage current on coaxial electrode is leakage current on kraft paper with thickness 0,015 mm for same coaxial section cross section and same kraft paper diameter larger than leakage current on kraft paper with thickness 0,02 mm. Then for the leakage current test result on the cross-sectional area of the coaxial electrode array to the leakage current occurring in aluminum is the leakage current on the 1.5 mm² coaxial cross-sectional area larger than the 6 mm² coaxial cross-sectional area for the same kraft paper thickness and the paper diameter the same kraft.

Keywords: Leakage current, kraft paper, coaxial electrode.