

Effect different limb of transformer core assemble on performance

Abstract

This paper described the performance of transformer affected by different limb assembling. The experiment that used to investigate core is no-load, short circuit and load test to find the core loss, copper loss, flux leakage at corner joint and limb and total harmonic distortion of the flux at flux density range from 0.2 T to 1.6 T, 50 Hz. From the result of this investigation shows the core loss of transformer assembled with 2 limbs is 18.45% and 32.21% better than the transformer assembled with 3 and 5 limbs respectively at a flux density of 1.6T, 50 Hz. To increase the numbers of core limb assemble will reduce the efficiency of transformer.

Keywords; 3%SiFe, Copper Loss, Core Loss, Flux Density, Limb