

# **Measurement Of Flux Density Distribution On 100kva 3-Phase Distribution Transformer Assembled With 90° T-Joint And Mitred Lap Corner Joint With Stagger Yoke By Using Search Coil**

## **Abstract**

This paper describes the result of measurement of flux distribution on 100kVA 3phase distribution transformer assembled with 90° T-joint and mitred lap corner joint with stagger yoke. The measurement involves the variation of flux. The flux density distributions have been measured using no load test by arrays of search coil in M5 (CGO) grades material of transformer core laminations. The localised flux density at the outer 90° T-joint is 90 mT and rises to be 198 mT at the inner 90° T-joint and the localised flux density at the outer corner-joint is 81 mT and rises to be 149 mT at the inner corner-joint when the transformer core energized 1.5 T 50Hz. A small amount of flux deviation from the rolling direction occurs at the overlap.

## **Author Keywords**

Flux distribution; Power loss; Search coil; Transformer core