

Field Experience with Sweep Frequency Response Analysis for Power Transformer Diagnosis

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Abstract : Sweep frequency response analysis has been turning out a powerful tool for investigation of mechanical as well as electrical integration of transformers. In this paper various aspect of practical application of SFRA has been studied. Open circuit and short circuit measurement were done on different phases of high voltage and low voltage winding. A case study was presented for the transformer of rating 31.5 MVA for various frequency ranges. A clear picture was presented for sub-frequency ranges for HV as well as LV winding. The main motive of work is to investigate high voltage short circuit response. The theoretical concept about SFRA responses is validated with expert system software results.

Keywords : transformer winding, SFRA, OCT & SCT, frequency deviation

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