

Signal Assessment of a Current Transformer Used in Load Demand of Variable Active and Reactive Power Ratio

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Abstract

This paper presents behavior of a current transformer (CT) with respect to different ratio of active and reactive power demand in primary side. This has been done by using Fast Fourier Transform (FFT) of the patterns of CT primary current, secondary voltage and CT flux. Nature of primary current has been changes and consequently spectrums hare formed of these signals. Some specific order of spectrums are observed to be changing and are part-wise linear but having different slopes at different range of L/R ratio of CT primary side, knowledge of which should be helpful in design and application of CT and its burdening adjustment.

Key words

Current transformer, FFT, First Positive Peak, spectrum analysis