Repression Of Transformer Inrush Current

Abstract

In a transformer due to abrupt change in magnetizing voltage results in Magnetizing inrush current, a transient current up to 10 to 50 times larger than the rated transformer current can flow for several cycles. When a transformer is first energized, this is magnetizing inrush current. Magnitude of this current is dependent on parameters like switching instant of supply voltage, residual flux, the hysteresis characteristics of the transformer core, impedance of the primary circuit, etc. which may cause system disturbances and damage the transformer windings. In order to overcome this situation, it is necessary to reduce the inrush current. In this paper, inrush current limiters are used that reduce inrush current at the time of switching of the transformer. Here, inrush current limiters using power electronic converters are used.
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References


Index Terms

Computer Science Signal Processing

Keywords

Transformer Inrush Current Core Saturation residual Flux Dc Reactor Pwm Converter.