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STUDY OF OUTPUT CHARACTERS OF PULSE TRANSFORMER WITH DIFFERENT CLOSED MAGNETIC CIRCUIT

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ABSTRACT:

Pulse Transformers are used in pulse power generating system when Output Voltage is to be raised, to invert the polarity and provide a DC isolation between discharging source and Load with minimum loss of energy and maximum transformation efficiency. Among different kinds of high-voltage pulse transformers, Authors have studied Pulse Transformer with closed magnetic core. Studies are made with pulse transformer with different geometric structure of transformer windings and considerable impacts on the output characteristics has been observed. Authors also studied the effect of auxiliary windings on the pulse shape of a closed magnetic circuit -type high-voltage pulse transformer. Source pulse signal with different repetition rate, pulse widths, and rise times are applied on the Pulse transformer with closed magnetic circuit and both the time and the frequency response has been observed.

Key words:

Pulse Transformer, Pulsed Power, Fast Rising Voltage, Magnetic Circuit, Frequency Response.

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