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DESIGN TRANSFORMER

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## **ABSTRACT**

Transformer is not classified as an electric machine the principles of its operation are fundamental for the induction motor and synchronous machine. The function of the transformer, as the name implies, is to transform alternating current energy from one voltage into another voltage. The transformer has no rotating parts; hence it is often called a static transformer. When energy is transformed into a higher voltage the transformer is called a step up transformer but when the case is otherwise, it is called step down transformer. Most power transformer operates at constant voltage, i.e. if the power varies the current varies while the voltages remain fairly constant. A transformer operates on the principle of mutual inductance between two or more inductively coupled coils. A sinusoidal voltage energizes one of the windings called primary. The second winding, called secondary feeds the load. Energy is transferred from the primary circuit through the medium of the magnetic field.

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