

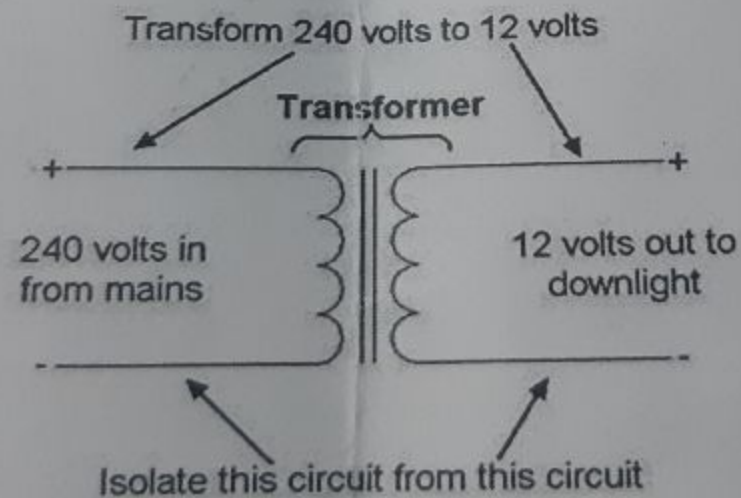
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A transformer is a device which is used to transfer electrical energy from one circuit to another.



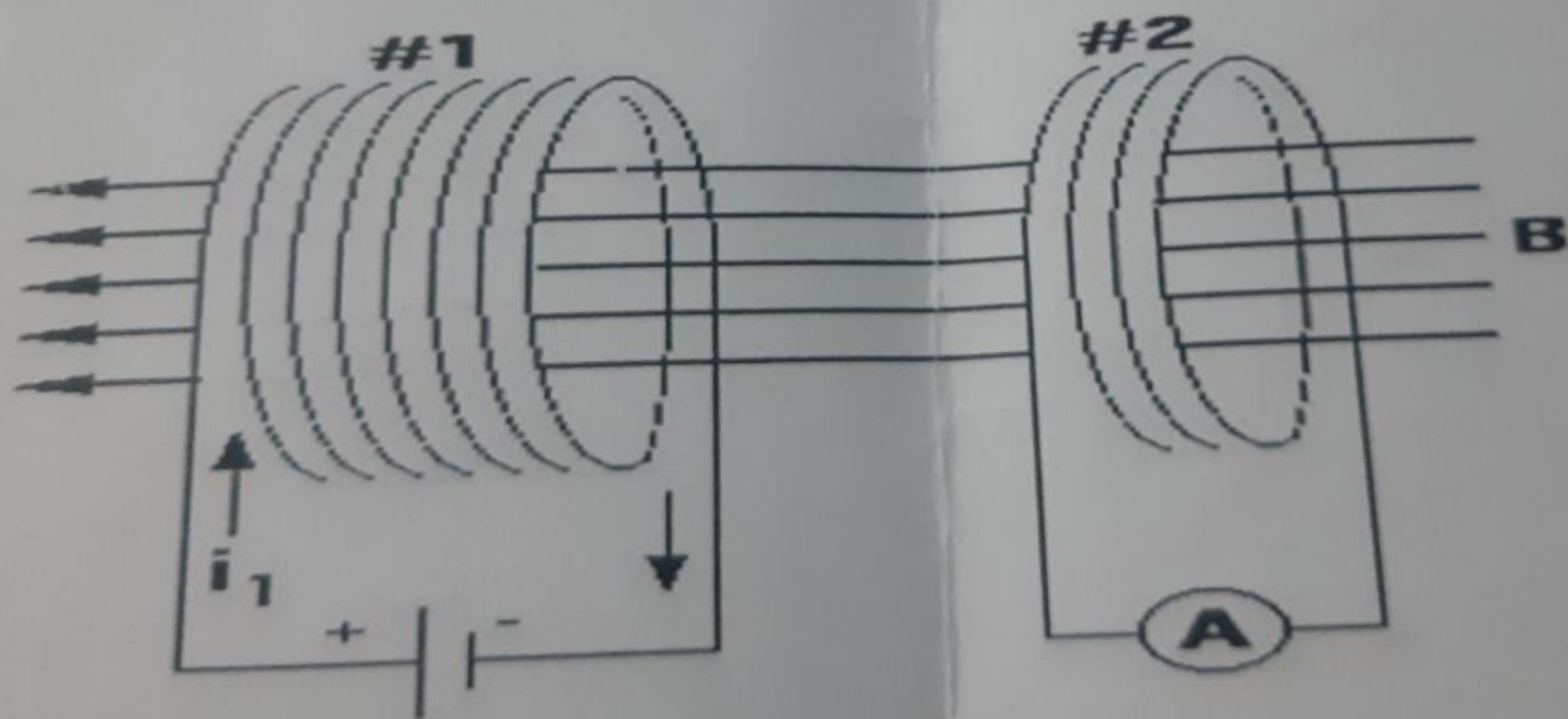
Uses

- It can rise or lower the level of Voltage or Current (when voltage increases, current decreases and vice versa because $P = V \times I$, and Power is same) in an AC Circuit.



PRINCIPLE

It is based on the principle of mutual induction that is if a varying current is set-up in a circuit then induced e.m.f. is produced in the neighboring circuit. The varying current in a circuit produce varying magnetic flux which induces e.m.f. in the neighboring circuit.



A simple transformer consists of two coils and a core. The coils are called the **primary** and the **secondary**. These coils are wound over a common core.

Transformers can have either air or magnetic cores. It depends on the frequency at which they are to be operated. The primary winding is connected to the voltage source. It receives energy. The secondary winding is connected to the load resistance and supplies energy to the load.

