

Under Voltage and Overvoltage Protection System

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Abstract: *This paper identifies the development of an under voltage and over voltage protection in order to avoid damage in load side. Most of the industries and as well as home appliances are very expensive also more sensitive. This may get damaged due to the instabilities in ac mains supply. It can also lead to losses in the electrical circuit. These losses lead to low power factors and wastage of so much power. The fluctuations can cause great impact to the power quality and many precious and expensive equipment may be damaged. It is therefore advisable to have a tripping mechanism to protect the load.*

The voltage below the rated value are usually caused under unexpected raise in load due to faults in the system, during short circuit conditions and also rapid increase in source impedance due to loose connection in the circuit.

The voltage above the rated values are caused by a sudden decrease in load in a circuit having a poor or damaged voltage regulator. The over voltage may also be caused by a damage in the circuit or loose connections in neutral wire. Anything below that will be considered as under voltage and anything above that will be considered as over voltage.

Thus, we can protect the equipment from damage. By doing this, the proposed circuit is able to protect the electrical appliance.

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