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Design and simulation of magnetic switch and reset circuit for non-thermal water sterilize use

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Unlike other types of switches can be used in pulsed power, magnetic switch has not control gate. This means that the switching time is a function of load conditions, the source of the initial pulse, switch terminal voltage waveforms caused by these two and the switch design parameters. Considering the fact that the switch should be designed to suit the load and source and not vice versa, we can conclude that the only determinant of switch on time is its design parameters. Considering the importance of the specially designed of magnetic Switches, design trends of this switch and its core magnetic reset circuit has been developed. The Material and core structure, material and coil structure, the cross-section of conductors, cross-section of the core and the number of winding turn included in the design process. In this article, design of reset circuit design and magnetic Switches is investigated and design sample for the use of non-thermal Water disinfection has taken place and the results of the simulation are presented.

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