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FUSES AND THEIR TYPES

In the field of electronics or electrical, a fuse is an essential device used in various electrical circuits which gives the protection from the overcurrent. It comprises a strip or a metal wire that dissolves when the heavy flow of current supplies through it. Once this device has functioned in an open circuit, it ought to rewire or changed based on the type of fuse. A fuse is an automatic disconnection of supply, the alternative of the fuse is a stabilizer or circuit breaker.

These are used to prevent the home appliances from the high current or overload damage.

If we use a fuse in the homes, the electrical faults cannot happen in the wiring and it doesn't damage the appliance s from the fire of wire burning. When the fuse gets break or damage, then an abrupt sparkle happens which may direct to damage your home appliances. That is the reason we require different types of fuses to guard our home-appliances against damage.

The working principle of the fuse is "heating consequence of the current". It is fabricated with a lean strip or thread of metallic wire. The connection of the Fuse in an electrical circuit is always in series. When the too much current is produced due to the heavy flow of current in the electrical circuit, the fuse gets soften and it opens the circuit. The extreme flow of current may direct to the collapse of the wire and prevents the supply.

The fuses are classified into several types based on the application namely **AC type fuse** and **DC type fuse**. Again these fuses are classified into several types.

DC fuses are available superior in size, and DC supply has a stable value over 0 volts. So it is tough to remove and deactivate the circuit. There will be a chance of generation of an electric arc between dissolved wires. To conquer this, electrodes located at better distances. For this reason, the size of DC fuse gets amplified.

AC fuses are slighter in size and oscillated 50 to 60 times in each and every sec from least to highest. As a result, there is no scope for Arc generation between the dissolved wires. For this reason, they can be crammed in small size. Further,

AC fuses are classified into two parts namely HV fuses and LV fuses. Here LV& HV indicates the low voltage and high voltage.

The low voltage fuses are divided into five types such as rewirable, cartridge, drop out, striker and switch fuses.

HV fuses are used to protect the transformers and also used in power systems. These fuses are normally charged for voltages over 1500V to 138000V. The fuse part in HV fuses are fabricated with either copper, silver or in some cases Tin is used, in order to offer consistent and steady performance. These fuses are classified into three types: Cartridge Type HRC Fuse, Liquid Type HRC Fuse, Expulsion Type HV Fuse.