

AUTORECLOSER

Sometimes, transient faults occur in circuits or electrical lines, due to which one or more live wire come in contact with each other, or the current carrying wires come in contact with the Earth, which you know can prove to be very dangerous. Such faults are usually caused in overhead electric cables, which sometimes fall loose or come in contact with each other due to strong winds, lightning or some other disaster like that.

These high voltage overhead lines suffer from line to line short circuits for brief time periods, and then afterwards return to their normal state when the storms and other such problems pass away.

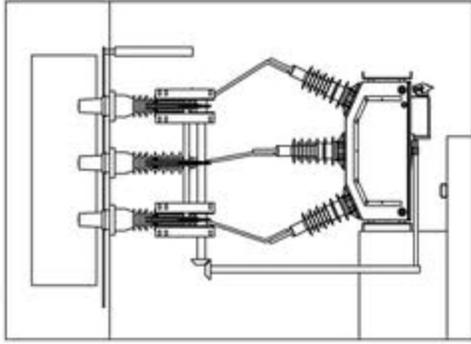


Working of an Autorecloser

So in all such cases, when such problems occur for a very short period of time, autoreclosers are used. An Autorecloser is a type of circuit breaker which possesses the ability to reset itself after a very short period of time.

They just reset themselves as soon as they trip over to break the circuit. Now once the autorecloser has caused the circuit breaker to trip over, following a transient fault in the system, after some time, it will again make the circuit breaker close, in order to maintain the working of the system once again.

When the connections close and the contacts are maintained once again, the autorecloser senses for any faults in the line if any are still prevailing.



Once it senses, and there is no more prevailing transient fault, the contacts of the circuit breaker will remain close and the electrical system will keep functioning properly. In case, if **the fault** has not yet subsided, it will again cause the circuit breaker to reopen and wait for a specific time period for **the fault** to pass.

If this happens a number of times, i.e. the fault fails to be recovered, then after a specific number of times; the autorecloser will permanently open the breaker. Usually after three tries, the circuit is made to open permanently, before it is then treated manually.

Types of Autoreclosers

There are various types of autoreclosers used in everyday situations. Two most common types of autoreclosers used now-a-days:

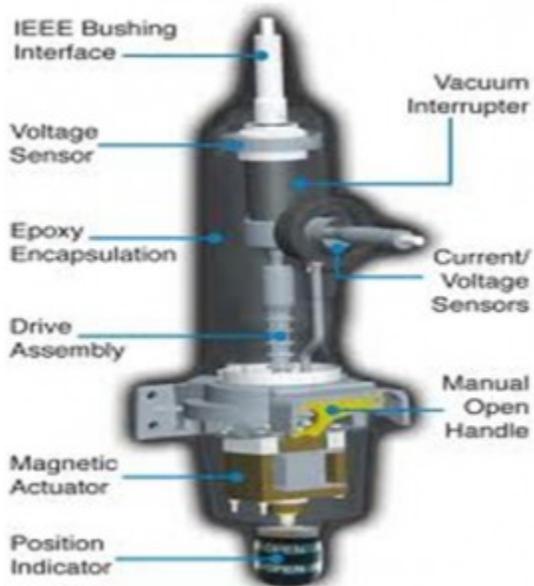
1. Medium Voltage Autoreclosers
2. High Voltage Autoreclosers

Moreover, on the basis of phase supplies, they can again be divided into two categories:

3. Single Phase Autoreclosers
4. Three phase autoreclosers

On the bases of interrupters, they are classified into:

5. Oil interrupted autoreclosers
6. Vacuum interrupted autoreclosers



When classifying according to the control Signal, they can be divided into two sub categories:

7. Hydraulically Controlled autoreclosers
8. Electronically controlled autoreclosers

And finally, last but not the least, when classifying according to the method of insulation, we have:

9. Oil insulation
10. Air Insulation
11. Epoxy Insulation

All these types have their own specific uses and advantages depending upon the conditions in which you have to use them.

Source : <http://engineering.electrical-equipment.org/electrical-distribution/autorecloser.html>