## MOKOLO RAYMOND EBUBECHUKWU

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## 1. WHAT IS A CIRCUIT BREAKER?

A circuit breaker is a switching device that interrupts the abnormal or fault current. It is a mechanical device that disturbs the flow of high magnitude (fault) current and in additions performs the function of a switch. The circuit breaker is mainly designed for closing or opening of an electrical circuit, thus protects the electrical system from damage.

- 2. HOW DOES A CIRCUIT BREAKER DIFFER FROM A SWITCH?
- Switches are not automatic as they need to be manually turned on or off while circuit breakers just trips off on certain conditions.
- Switches allow users to cut off power supply to a certain area or equipment while circuit breakers are more preventive in nature
- 3. WHICH OF THE GASES ARE EMPLOYED INCOMMERCIAL GAS BLAST CIRCUIT BREAKER
  - Sulfur hexafluoride circuit breaker (Sf<sub>6</sub>)
  - Air circuit breaker
- 4. Why is the asymmetrical breaking current higher than the symmetrical breaking current in a circuit breaker?

If the circuit is opened immediately upon the fault happening, the breaker may have to break an instantaneous value of current which may be higher than even the peak value of the symmetrical current waveform because of the asymmetry (addition of a dc current).



## 5. WHAT IS MEANT BY THE RATED VOLTAGE OF A CIRCUIT BREAKER?

The rated voltage is the value of voltage used to designate the switchgear and to which is related its operating performance. The rated voltage indicates the upper limit of the highest voltage of systems for which the switchgear is intended.

- 6. WHAT ARE THE TYPES OF TEST CONDUCTED ON CIRCUIT BREAKERS?
  - Mechanical test
  - Thermal test (temperature rises test)
  - Dielectric test
  - Short circuit test
  - Impulse test