

## **Short circuit MVA or Fault level**

When a fault very large currents used to flow, in order to minimize the damage caused by the short circuit, the faulty section need to be disconnected. Circuit breakers are used to disconnect the faulty section. The rating of the circuit breaker depends on the Short Circuit MVA which is also known as FAULT LEVEL or FAULT MVA. The circuit breaker breaking capacity must be equal to or greater than the short circuit MVA. The estimation of circuit breaker capacity is made on the basis that it must clear a three phase fault with zero fault impedance as that is generally the worst case. By simulating three phase fault at a point and using subtransient reactances of the machines short circuit level at that point can be computed as  $\text{Short Circuit MVA} = \text{prefault voltage in p.u.} \times \text{fault current in p.u.} \times \text{Base MVA}$  Unless it is given otherwise, prefault voltage shall be taken as 1.0 p.u.