

over current relays, directional
relays

The over-current protection can be given directional feature by adding directional element in the protection system. Directional over-current protection responds to over-currents for a particular direction flow. If power flow is in the opposite direction, the directional over-current protection remains un-operative.

Directional over-current protection comprises over-current relay and power directional relay- in a single relay casing. The power directional relay does not measure the power but is arranged to respond to the direction of power flow.

Directional operation of relay is used where the selectivity can be achieved by directional relaying. The directional relay recognizes the direction in which fault occurs, relative to the location of the relay.

It is set such that it actuates for faults occurring in one direction only. It does not act for faults occurring in the other direction. Consider a feeder AC passing through sub-section B. The circuit breaker CB3 is provided with a directional

Relay 'R' which will trip the breaker CB3 if fault power flow in direction C alone. Therefore for faults in feeder AB, the circuit breaker CB3 does not trip unnecessarily. However for faults in feeder BC the circuit-breaker CB3 trips

Because its protective relaying is set with a directional feature to act in direction AC.

