

ABSTRACT

Transformer that used to step down from transmission voltage to primary distribution voltage in the house station need protection for earth fault, because earth fault belong to fault that often occur. Transformer that give supply to distribution network will feel the earth fault that occur in distribution network. Protection must be selective, it's mean that it can differ fault between in network and transformer, because most of fault in the distribution network is phase to earth fault, so relay must can detect this fault. Neutral point of transformer must be grounded, either direct or use resistance. Value of resistance will measure value of current of earth fault. It's mean that it must have more value for setting relay but also must be limited in order to don't break the ground cable. Transformer that used in distribution network, it's relay must be more sensitive to earth fault in transformer. So there are no problem about protection between transformer and cable. This minithesis an idea about how to solve this problem by Restricted Earth Fault Relay (REF).

Keyword: Restricted Earth Fault Relay (REF)