

# ABSTRACT

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Three phase transformer is important electric equipment in our world nowadays. It makes the large power system possible and able to transit megawatts of power efficiently over long distances.

This project is aim to protect the three phase transformer from damage by creating one short circuit protection kit to it. Whenever there is a fault occurs, the short circuit protection kit will be operated to turn off the power supply by using specific choose circuit breaker. This circuit breaker must be able to detect short circuit current efficiently in a short period of time and turn off power supply. Circuit breaker will be able to turn on manually after the fault is eliminated.

Relay will be added in between circuit breakers and AC lamp indicators. Signal will be send from circuit breakers to the relays to turn on or off the relays. Relays are able to turn on or off the power supply to the AC lamp indicator with this signal. Hence, AC lamp indicator will be light up by power supply to show the fault when fault is occurs.

After the effort, the product is being constructed and 60 percentages meets the requirement of the project. There are some part of the circuit is failed to perform because enable to create fault circuit directly on three phase transformer. So far, the circuit breaker is unable to test.

**Keywords:** Short circuit protection kit, Circuit breaker, relay, AC lamp indicator