

Development of Overcurrent Relay Instructional Devices for Improving the Professional Competence of Vocational Teachers

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ABSTRACT

This study aims to develop an overcurrent relay instructional device as a medium for increasing the professional competence of SMK teachers in the TITL field. Over Current and Ground Fault Relays were chosen because they have a variety of protection functions and easy wiring.

The final design of this device is arranged in a compact manner where every component needed in electric power protection learning is contained in one trainer with a simple and attractive design, equipped with the notation of each component, as well as the right symbol without excluding convenience for the user. The tests carried out include, three-phase overcurrent, earth fault overcurrent, derived fault overcurrent, restricted overcurrent, thermal overload (true rms), undercurrent, negative sequence overcurrent, broken conductor detected, cold load pick up, instantaneous/start contact, latching output. contacts, circuit breaker failure detection.

Kata Kunci: *Protection Relay, Over Current, Ground Fault Relay*