Relay protection for microgrids in small and micro parks

Overview

Abstract—This paper explains how microprocessor-based protective relays are used to provide both control and protection functions for small microgrids. Features described in the paper include automatic islanding, reconnection to the electric power system, dispatch of distributed generation. Inverter behavior is largely software/firmware defined; the filter determines the sub-transient response, and the type of control implementation determines the steady-state response. The rule of thumb adopted by industry is to consider the fault current from 1. New relay protection algorithms have become necessary because of the special features of microgrid regimes with distributed power generation sources. Microgrids, which are self-contained electrical networks that can operate independently or in conjunction with the main power grid, have gained significant attention in recent years due to their. Relay coordination protection system design as coordination schemes must guarantee fast, selective and reliable relay operation to isolate the power system fault sections. When connected in radial distributions.

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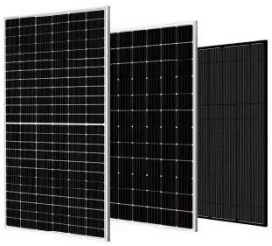

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Abstract--This paper explains how microprocessor-based protective relays are used to provide both control and protection functions for small microgrids.

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