

Intelligent Distribution Network Automation Design Scheme



Overview

When the circuit breakers are equipped, because the breaker has the ability to break the fault current, the switches on both sides of the faulty segment will be quickly tripped. While when the load switch is configured, the upper circuit breaker will trip. When the circuit breakers are equipped, because the breaker has the ability to break the fault current, the switches on both sides of the faulty segment will be quickly tripped. While when the load switch is configured, the upper circuit breaker will trip and the whole line becomes non-voltage and non-current, then switches on the both sides of the.

2.1.1 Impacts of DG on Traditional Protection Schemes

The most intuitive change with integration of distributed generation to the distribution network is that the distribution network changes from a traditional single-supply radial network to a multi-supply network. Thus the traditional distribution network protection strategy is no longer suitable for active distribution network systems with DG. In terms of protection principle, the commonly used method for acquiring fault components is the superposition principle. The distributed resource is u.

2.1.2 Fault Location Technology Based on Neighborhood Partition

In the active distribution network, the ass. After the fault is successfully isolated, the self-healing strategy can be applied based power balancing. The self-healing strategy should meet the following constraints:

- (1) According to the switch position and the voltage on both sides, the terminal automatically recognizes the tie switch and the non-tie switch.
- (2) For the line in open-loop. The proposed distributed fault location, isolation, and self-healing rely on information interaction between devices. The fault processing time is composed of the logical processing time of the terminal and the message transmission delay. Under normal circumstances, the logic program of the terminal is run in the DSP interruption, and the interrupt.

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