Sensing Mechanism of Fiber Optic Current Transformer

In this paper, the output signal model of FOCT with sine modulation under steady-state and error-state is established. Modulation and demodulation algorithms are given according to ...

Interferometric fiber optic current sensors (FOCS) employ circularly polarized light traversing a closed loop path around an electrical conductor"s current-generated magnetic flux, which reflects off a mirror.

We report on ABB"s fiber-optic current and voltage transducers and their applications in high-voltage substations. We consider bulk-optics and all-fiber current sensors and voltage sensors that exploit ...

Aiming at the problem that the accuracy of a fiber optic current sensor is susceptible to external disturbances and temperature fluctuations, we present an adaptive technology of a fiber...

The basic principle of Fiber Optic Current Sensors (FOCS) and Optical Current Transformers (OCTs) is to measure polarization rotation due to the Faraday effect.

Conventional testing methods often fall short in providing high-precision, spatially resolved diagnosis of FOCT internal fiber links. To overcome this limitation, this paper proposes a ...

The FOCT is based on the Faraday magneto-optical effect, and the magnitude of the current is determined by measuring the angle at which the polarization plane rotates due to the action of the ...

In this paper, the output model of the FOCT photodetector with sine modulation is established to investigate its fault mechanism, and the factors that affect its signal processing ...

The sensing characteristic of fiber optical current transformer (FOCT) is affected by linear birefringence. In this paper, evolution process of optical polarizat.

Experimental studies on random and impact vibration characteristics summarize the variation patterns of transformer performance before and after vibration. To enhance vibration ...

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