Energy storage mechanism in circuit breaker

A fault identification method for circuit breaker energy storage mechanism, combined with the current-vibration signal entropy weight characteristic and grey wolf ...

A fault identification method for circuit breaker energy storage mechanism, combined with the current-vibration signal entropy weight characteristic and grey wolf optimization-support vector machine (GWO-SVM), is proposed by analyzing the energy conversion and transmission relationship between control loop, motor, transmission ...

The performance state evaluation method of circuit breaker energy storage spring mainly judges its performance state indirectly by measuring the pre-tightening force or pre-pressure of the spring. However, there may be some errors in this indirect measurement method, which will affect the accuracy of the evaluation results. Therefore, the performance state ...

Therefore, it is urge to need a novel energy pre-storage operation mechanism built in the circuit breaker to realize intelligent control of the circuit breaker.

The present invention discloses a structure of an energy storage spring operating mechanism of the circuit breaker, comprising a storage shaft, closing shaft, a spring, wherein the clutch type disc-shaped cam fitted to the movable shaft in storage, storage shaft clutch-type transmission sleeve is provided with a pinion gear, a clutch connected ...

This study attempted to establish an optimal design and perform dynamic analysis for a spring-actuated cam-linkage composite mechanism in a rated 12 kV, 25 kA vacuum circuit breaker (VCB). The optimal design of the VCB mechanism involves two steps: the first step involves the optimal design of the stiffness of closing springs and the cam profile, based on ...

A fault identification method for circuit breaker energy storage mechanism, combined with the current-vibration signal entropy weight characteristic and grey wolf ...

The present invention discloses a structure of an energy storage spring operating mechanism of the circuit breaker, comprising a storage shaft, closing shaft, a spring, ...

Abstract: The reliable storage of spring potential energy is a prerequisite for ensuring the correct closing and opening operations of a circuit breaker. A fault identification method for circuit breaker energy storage mechanism, combined with the current-vibration signal entropy weight characteristic and grey wolf optimization-support vector machine (GWO-SVM), ...

Energy storage mechanism in circuit breaker

Conventional systems use a portion of stored energy to close the circuit breaker or circuit interrupter mechanism. This energy is wasted in overcoming resistance presented by ...

The energy storage unit is one of the most critical design points in the overall design of the operating mechanism and directly affects the reliability of the energy storage of the operating mechanism. This text mainly carries on the design analysis to the energy storage unit, first

auxiliary spring 306 is sufficient to firmly retain the assembled energy storage mechanism 300 between side plate pin 418 and drive plate pin 406, but also such that only a minimal amount of effort is required to compress auxiliary spring 306 and allow auxiliary spring guide 308 to move the distance "L." This allows energy storage mechanism 300 to be easily removed by hand ...

The performance state evaluation method of circuit breaker energy storage spring mainly judges its performance state indirectly by measuring the pre-tightening force or pre ...

To address this problem, this research put forward a hybrid method for spring energy storage state identification and successfully applied it to the operating mechanism of circuit breakers. In this method, the Gramian angular field (GAF) is employed to represent the dynamic characteristics evolution process. Furthermore, combined with a ...

To address this problem, this research put forward a hybrid method for spring energy storage state identification and successfully applied it to the operating mechanism of circuit breakers. In ...

Conventional systems use a portion of stored energy to close the circuit breaker or circuit interrupter mechanism. This energy is wasted in overcoming resistance presented by components...

Web: https://reuniedoultremontcollege.nl