

Relay protection device anti-pumping relay

Article Overview

An anti-pumping relay prevents a circuit breaker from repeatedly closing under continuous close commands, ensuring safe operation and protecting equipment from damage.

Function and Purpose

The anti-pumping relay is a protective auxiliary device used in circuit breaker systems to prevent multiple or repeated closing operations, commonly referred to as "pumping" (). Pumping occurs when a continuous close command is applied while a fault persists, causing the breaker to open and close repeatedly. This can damage the breaker mechanism, trip coils, and associated equipment, and may create unsafe electrical conditions (). The device ensures that only one close operation is allowed per close command, even if the operator or control system continues to send a closing signal ().

Working Principle

The anti-pumping relay typically uses circuit breaker auxiliary contacts and operates as a Normally Open (NO) contact:

- When the circuit breaker is closed, the relay is in the NO state, preventing current from flowing to the closing coil if another close command is issued ().
- When the circuit breaker is open, the relay is in the Normally Closed (NC) state, al...

Article Content

Apr 22, 2026

Anti Pumping Relay – Electrical practical fundaz

Anti-Pump relay also provides protection from repeated closing in the event breaker close

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What is Anti Pump Relay?

Anti-Pump relay ensures that one close command will result in only one close operation irrespective of the duration of

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Anti Pumping Relay Functionality Explained

1) Anti-pumping relay prevents continuous closing and opening operation of a circuit breaker during a fault by cutting off power to the

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Anti pumping function in circuit breakers operating mechanism

Without the anti-pump function, if the user connected a maintained contact in the close circuit, and the circuit breaker

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Operating Instructions supplement APD (Anti pumping device)

In order to protect technical infrastructures, systems, machines and networks against cyber threats, it is necessary to implement –

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Anti Pumping And Lockout Relays

The function of anti pumping relay is to cut off the supply to closing coil in case of TNC switch spring failure and prevent

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What is an anti-pumping relay?

The anti-pumping relay is a device in circuit-breaker whose function is to prevent multiple breaker closures. For instance, if the

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Anti-Pumping and Lockout Relays Explained

Anti-pumping and lockout relays are used to prevent circuit breakers from continuously opening and closing, known as "hunting".

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Anti-Pumping Coil: Essential Protection in Circuit Breakers

What is an Anti-Pumping Coil? An anti-pumping coil, also known as an anti-pumping relay or non-reclosing device, is

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Switchgear Riddle No.4 – Anti Pumping Relay

The function of an anti-pumping device is to prevent the circuit breaker closing and opening several times in quick

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Anti-Pumping Scheme in Circuit Breakers – A Complete Guide

The anti-pumping scheme is a simple yet vital protection feature in circuit breaker control circuits. By ensuring that the

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Anti Pumping and Lockout Relay Overview

The document discusses anti-pumping and lockout relays. It defines them as follows:
- Anti-pumping relays are classified as auxiliary

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What is the purpose of an "anti-pumping relay"?

A project I'm working on has another firm replacing the anti-pumping relay on a motor starter (4160 V, 500 hp). I've

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Understanding Anti-Pumping Relays | PDF | Relay | Switch

The anti-pumping relay is a device in circuit breakers that prevents multiple breaker closures if the breaker trips after closing due to a

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Anti Pumping Relay: Working Principle, Circuit Diagram & Testing ...

An anti-pumping relay is a specialized electrical protection device integrated into the closing circuit of circuit breaker

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Circuit Breaker Anti-Pumping Relay Working Principle

The anti-pumping relay is a small but vital component in circuit breaker control circuits. It

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Anti-Pump Relay Troubleshooting Tips

The anti-pump relay provides an important function feature in control circuits. Without the anti-pump function, if the

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Anti Pumping Relay in Circuit Breaker

The operating mechanism will start operating for closing operation. Meanwhile a fault has taken place and fault

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Anti pumping relay

An anti-pumping relay —also called a Y-relay, ANSI Device 94, or trip-free relay —is a protective device installed in a

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Anti-Pumping relay diagram and Working Function Explanation

Anti-pumping-relay is used to protect the circuit breaker from multiple closing command. Once the breaker closed means, if we give

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What is meant by Anti-pumping function in closing the Circuit breaker ...

The purpose of the mechanical anti-pumping function is to ensure that a circuit breaker receiving simultaneous

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Anti-Pumping Relay Diagram & Working Function

The anti-pumping relay is a circuit breaker auxiliary relay that is used to protect the circuit

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Anti-Pumping Relay in Circuit Breakers

The document discusses an anti-pumping relay, which is a device that prevents multiple closures of circuit breakers. Multiple

Contact Us

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