

Arc Suppression Reactor for Ground Fault Compensation

Arc suppression reactors are specialized reactors used in electrical power distribution systems. By introducing a specific inductive reactance, these coils compensate for the capacitive earth fault current.



ADDITIONAL IMAGES



Overview

Arc Suppression Reactor Functionality

The Arc Suppression Reactor, also known as a Peterson coil or extinction coil, is a critical inductor component designed for electrical power distribution systems. It is installed between the neutral point of a transformer or generator and the ground to form an arc suppression grounding system. During single-phase grounding faults or lightning strikes, the reactor compensates for capacitive fault currents, effectively extinguishing the arc and preventing sustained faults or overvoltage damage.

Technical Principles

Operating Principle	Inductive compensation of capacitive earth fault current via iron-core reactor connection at the neutral point.
Fault Response	Automatic compensation of fault current to near-zero levels, preventing arc maintenance and system overvoltage.

Product Varieties

Available Configurations

- Air-gap type
- Turn-adjusting/regulating type
- Capacitive type
- Triac/Thyristor-controlled type
- Magnetic bias type
- On-load current regulating type

Physical Construction

Mounting Style	Floor mounting
Design Features	Iron Core, Robust Winding Insulation, Three-Phase Design, High-Voltage Rated