Arc Terminator™ Arc Extinguishing System for Use in Medium Voltage Switchgear

Uses state-of-the-art technology to detect and extinguish medium voltage arcing faults

Medium voltage switchgear can have an additional degree of protection from damaging open arcing faults with the Arc Terminator arc extinguishing system. This system detects and controls the effects of arcing faults. It extinguishes arcs rapidly, significantly minimizing equipment damage and reducing equipment downtime.

Benefits

- Confines the effects of the arc to the point of initiation
- Enhances protection by detecting and commuting arc fault current
- Extinguishes high magnitude arc currents within less than 1/4 of a cycle and prevents the buildup of high internal pressures

Features

- Uses sensors to detect arcs in medium voltage switchgear
- Initiates the closing of a high-speed vacuum switch if an arc is detected via the electronic control unit
- Uses two sensing inputs:
  - Optical sensors detect arcing faults
  - Current transformers are used to detect any change in current (both input events must occur together to operate the high-speed switch)
- The Arc Terminator system can be shipped with any new switchgear lineup
- Easy to install and operate; no settings or other calculations required during switchgear installation
- Switchgear protective relaying functions are coordinated to provide maximum protection with the addition of the Arc Terminator system
How It Works

The Arc Terminator system confines the effects of an arcing fault to the point of initiation. When an arc is detected, a high speed vacuum switch closes, effectively crow-barring the short circuit. This action creates a solid conducting path for the current parallel with the arc. The open burning arc is extinguished, preventing the buildup of damaging pressures. The energy released by the arcing fault is significantly reduced. The electronic control requires two sensing inputs: (1) optical sensors to detect arcing faults and (2) current sensors to detect changes in the current waveform.

An indicator on the junction box (which serves as a collector for the optical inputs), points to the compartment where the arcing fault occurred, making it easy to pinpoint the location of a fault and repair the problem quickly. Once the cause of the fault has been fixed, the system is ready to be reset and returned to normal operation. For critical applications such as petrochemical and large Internet data centers, this means less downtime.

For more information, contact your local Square D field sales representative or call 1-888-Square D (1-888-778-2733). Visit our Website at www.us.squared.com