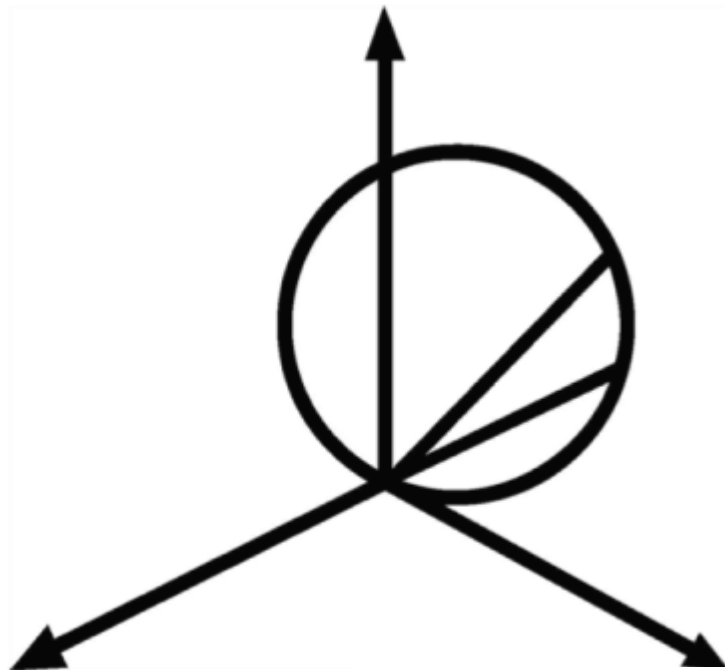


Swedish Neutral Workshop 2013

Ground Fault Neutralizer
2 days



Swedish Neutral AB

Workshop Ground Fault Neutralizer

The supply of electricity constitutes a vital part of society's infrastructure and the demand for reliable distribution of high-quality electricity is ever increasing. With the Ground Fault Neutralizer (GFN) these demands can be met while still guaranteeing highest possible safety in the network.

Earth faults (single phase to ground faults) are the dominating type of fault in an electrical network. Therefore it is of utmost importance that these faults are handled in a satisfactory way. By injecting an anti-phase current into the neutral, the GFN effectively cancels out the fault current. This interception is exceptionally fast and has no impact on the conveyance of payload over the faulty feeder. Thus, earth faults can be handled without customer outage.

With a total response time of less than 60ms (three cycles) the GFN is substantially faster than traditional protection schemes. Instead of tripping the faulty feeder, the GFN brings the fault current down to practically zero making it possible to maintain safe operation without disturbing power supply to customers. Installed in the substation and connected to the transformer neutral, the GFN protects the entire network from one point.

Target Audience

Utilities distributing electricity in a high voltage network.

Industries maintaining their own high voltage network.

Goal of the Workshop

To gain good basic understanding of system grounding.

To gain a good basic understanding of the Ground Fault Neutralizer.

To gain good basic understanding of how to specify, install and commission a Ground Fault Neutralizer.

To gain hands on experience using the Ground Fault Neutralizer.

Venue

Swedish Neutrals facilities in Stockholm – Kungsängen, Sweden.

Contact information

Please send your enquiry to mail@swedishneutral.se

Program Materials

Each participant will receive:

- GFN User Manual
- Workshop Power Points & materials
- Copy of NMTerm for personal use

Content of the Workshop

Day 1

- **Introduction Neutral Treatment**
 - Grounding concepts of the world
 - Resonant Earthing
 - Ground Fault Neutralizer

- **Ground Fault Neutralizer**
 - Basic concepts GFN
 - Review of GFN equipment
 - Basic concepts Residual Current
 - Various GFN operating schemes

Day 2

- **GFN Theory**
 - Basic concepts GFN Project Specification
 - Basic concepts GFN Implementation
 - Basic concepts GFN Commissioning

- **GFN Practical Exercises**
 - Using the terminal software of the GFN (NMTerm)
 - Understanding the Alarms of the GFN
 - Understanding the Event File of the GFN
 - Understanding the Earth Fault Recordings of the GFN

- **GFN Net Model Exercises**
 - Demonstration of the various GFN operating schemes
 - Definition Earth Fault (theory)
 - Earth Fault simulations