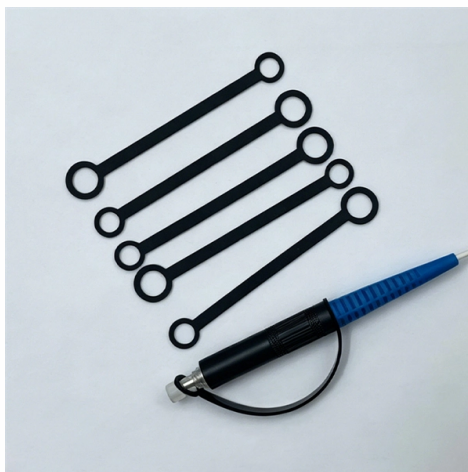


RIVO MULTITRADE OPTICAL SYSTEMS

What coefficient does kms represent for relay protection



Overview

Protection Rating: Classification system for the sealing effectiveness of electrical equipment to protect against foreign bodies.

Key Takeaways

In relay protection, "kms" represents the distance in kilometers along a transmission line that a distance relay is set to protect. Explanation

In distance or impedance-based relay protection, the relay measures the impedance between its location and the point of a fault. Since the line impedance is proportional to the line length, the relay can determine the fault location in kilometers. The coefficient "kms" is used to express this protected line length or the reach of the relay in terms of kilometers, helping engineers set the relay zones accurately .

Application in Distance Relays

- **Zone Settings:** Distance relays are divided into zones (Zone 1, Zone 2, Zone 3) to ensure selective protection. Zone 1 typically covers 80-90% of the line length, and the "kms" coefficient helps define this reach .
- **Impedance Calculation:** The relay calculates the line impedance using voltage and current measurements. The impedance is then converted into a distance using the line's per-kilometer impedance, effectively giving the fault location in kilometers (kms), .

- Coordination: Using "kms" ensures that the relay does not overreach into adjacent lines, maintaining proper discrimination between line sections .

Summary

The "kms" coefficient is essentially a distance metric used in relay protection to define the portion of the transmission line that a distance relay monitors. It allows the relay to operate accurately based on the fault location and ensures reliable and selective protection of the power system .

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Terminologies used in Protective Relaying

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13 terms concerning relaying, measurements, and breakers used by

13 terms concerning protective relays, measurements, and breakers used by protection engineers (on photo: SEL's

PSM and TMS in Relay Protection Systems

The document discusses properties of protection schemes including sensitivity, selectivity, and speed. Sensitivity refers to the

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Name two protective devices For what purpose is IEEE device 52 is used? Why are seal-in and 52a contacts used in

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RELAY SETTING CALCULATION

2.2 115/13.8KV Transformer LV Restricted Earth Fault Protection Relay Setting Circuit Ref : Aux.

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doi: 10.1007/978-3-319-20919-7_3

After setting the relays, one should consider faults at the end of each line (feeder segment) and check if the relay protecting the line

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