

# What is Kcon for relay protection



## Article Overview

Kcon is a constant used in relay protection to adjust the operating characteristics of protective relays, ensuring proper coordination and selectivity in power systems.

### Definition and Purpose

In relay protection, Kcon (or the connection constant) is a factor applied in the calculation of relay settings, particularly for overcurrent, inverse-time, and directional relays. It helps to fine-tune the relay's operating time or current threshold to ensure that the relay responds correctly to faults while avoiding unnecessary tripping of upstream or downstream devices. The main objectives of using Kcon include:

- Coordination: Ensuring that only the relay closest to the fault operates first, while others remain in standby.
- Selectivity: Preventing simultaneous tripping of multiple relays for a single fault.
- Reliability: Adjusting relay sensitivity to account for variations in system parameters such as line impedance, transformer ratios, and fault current levels.

### Application in Relay Settings

Kcon is typically used in the time-current characteristic (TCC) equations of relays. For example, in an inverse-time overcurrent relay, the operating time  $t$  can be expressed as:

$$t = K \cdot Kcon \cdot 1(I/Is)^n - 1$$

Where:...

## Article Content

### Protection and Control Device Numbers and Functions

Description The protection and control devices in electrical equipment can be referred to by numbers, with appropriate suffix letters

Practical handbook for relay protection engineers | EEP

The most important requisite of the protective relay is reliability since they supervise the circuit for a long time before a

Feeder protection and control REF615 IEC

REF615 is a dedicated feeder IED aligned for the protection, control, measurement and supervision of utility and industrial power

Protection relay selection table

Protection relay selection table Please note before using selection table! number = Number of stages, shots, X =

Basic protection relay knowledge

Relion protection and control relays for several application reduce complexity. Long term cost reduction (TCO) for trainings and

Protective Relay Testing and Maintenance Overview

Protective relay testing may be divided into three categories: acceptance testing, commissioning, and maintenance

Protective Relays: Overcurrent and Safety Relays | TE

TE offers types of protective relays from overcurrent relays to safety relays that trips a circuit breaker when

Types of Electrical Protection Relays or Protective Relays

□□ Key learnings: Protective Relay Definition: A protective relay is an automatic device that senses abnormal conditions

Protective Relay Basics Part 2

Part 1: Protective relay compared to low voltage circuit breaker. Review fundamental concepts, components, and terminology using

ANSI codes and IEC Relay Symbols – Electrical Engineering

To assist the Protection Engineer in converting from one system to the other, a select list of ANSI device numbers and their IEC

Line protection calculations and setting guidelines for relays ...

Protection Settings The documents presented should serve as a model to various utilities in preparing similar

Table of ANSI IEEE Standard Device Numbers

This table details ANSI IEEE Standard Device Numbers as used for protective relaying in North America. Suffixes for numbers are

EMC Test Applications

Power System protection is crucial part of power station and substations safety which use protection relays and circuit breakers to

Relay and Device Number List | PDF | Relay | Alternating Current

List of Device Numbers and Acronyms - Free download as PDF File (.pdf), Text File (.txt) or read online for free. The document lists

ANSI Standard Device Numbers & Common Acronyms

ANSI Standard Device Numbers & Common Acronyms ANSI Standard Device Numbers & Common Acronyms

Basics of Protective Relaying and Design Principles

Rules for protecting a network using overcurrent relays. Requirements for instrumentation (number and locations of instrument

Protection Relay

Protection of motors against voltage sags or detection of abnormally low network voltage to trigger automatic load

Protection Basics

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

Distribution Automation Handbook

Time-graded protection is implemented using overcurrent relays with either definite time characteristic or inverse time characteristic.

Protective relay

Electromechanical protective relays at a hydroelectric generating plant. The relays are in round glass cases. The rectangular devices

A quick guide for ANSI relay protection codes

In this article, I combined all the main IEEE/ANSI definitions for protection elements, possible extensions, and

## Basic protection relay knowledge

On the other hand, unselective protection operation in the extra high voltage network – i.e. at the national grid level- may endanger

IEEE Guide for Protective Relay Applications to Transmission Lines

IEEE-SA Standards Board Abstract: Information on the concepts of protection of ac transmission lines is presented in this guide.

## Types of Protective Relays

This article covers various types of protective relays, such as overcurrent, directional, and differential relays, highlighting their

## Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.watermanfinance.co.za>

Email: [sales@watermanfinance.co.za](mailto:sales@watermanfinance.co.za)

Phone: +49-176-8294713

Address: Neue Mainzer Str. 66-68, 60311 Frankfurt am Main, Germany

This document is for informational purposes only. Specifications subject to change without notice.

