

## Principle of Relay Protection Line Number Identification



### Overview

These codes, detailed in the IEEE C37. 2 standard, offer a standardized way to identify the function of protective relays and devices in electrical systems. Utility companies rely on these numbers for clear communication, while manufacturers design equipment adhering to this. In the design of electrical power systems, the ANSI Standard Device Numbers denote what features a protective device supports (such as a relay or circuit breaker). Even in those parts of the world where IEC standards are predominate, the use of ANSI numbering. These numbers are based on a system that is adopted by a standard for automatic switchgear by Institute of Electrical and Electronics Engineers (IEEE), and incorporated in American Standard C37. This system is used with diagrams that are found in instruction books and in specifications. One is given in ANSI Standard and uses a numbering system for various functions.

## Principle of Relay Protection Line Number Identification



This handbook covers the code of practice in protection circuitry including standard lead and device numbers, mode of connections at terminal ...



ANSI device numbers denote the functions of protective devices ...



In the design of electrical power systems, the ANSI Standard Device Numbers denote what features a protective device supports (such as a relay or circuit breaker). These types of ...



Understanding power system protection requires familiarity with ANSI standard relay numbers. These codes, detailed in the IEEE C37.2 standard, offer a standardized way to identify the function of ...



ANSI device numbers denote the functions of protective devices like relays and circuit breakers. These devices protect electrical systems from damage during unwanted events. Device numbers identify ...



For protection engineers, a thorough understanding of this numbering system is essential for effective communication, proper relay configuration, and coordinated protection design.



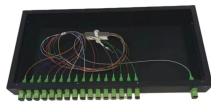
In a large installation of electromechanical relays, it would be difficult to determine which device originated the signal that tripped the circuit. This information is useful to operating personnel to ...



Reference list of ANSI/IEEE standard device numbers used in power systems protection and relaying. Includes suffixes for zone protection.



This publication contains new and updated information as indicated in the following table. The protection and control devices in electrical equipment can be referred to by numbers, with appropriate suffix ...



To assist the Protection Engineer in converting from one system to the other, a select list of ANSI device numbers and their IEC equivalents are given in the following figure.



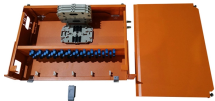
Protective relays are commonly referred to by standard device numbers. For example, a time overcurrent relay is designated a 51 device, while an instantaneous overcurrent is a 50 device.



Prepared by Working Group I5 Working Group Assignment presentation of protection and control relaying. The report will identify methodology behind these practices, present issues ...



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