

Relay Protection Device Coding



AI Overview

Relay protection devices are coded using standardized ANSI/IEEE device numbers, with suffixes and multifunction designations to identify their specific protective functions and applications.

ANSI/IEEE Device Numbering System

The ANSI/IEEE C37.2 standard defines device numbers to identify the function of protective relays and devices in electrical power systems . Each number corresponds to a specific protective function, such as:

- 50 – Instantaneous overcurrent relay
 - 51 – Time overcurrent relay
 - 52 – AC circuit breaker
 - 59 – Overvoltage relay
 - 87 – Differential relay
- These numbers are used in single-line diagrams, schematics, and relay documentation to indicate the function of each device .

Suffixes and Special Designations

Suffix letters or numbers are added to device numbers to indicate specific conditions or connections:

- N – Neutral connection (e.g., 59N for neutral overvoltage)
- G – Ground or generator (e.g., 51G for ground overcurrent, 87G for generator differential)...

Article Content

Jul 05, 2026

Protection Relay Code Overview | PDF | Relay | Transformer

This document discusses numerical codes and symbols used to define protection relays according to IEEE and IEC standards. It

Mar 30, 2026

Relay Protection Device Codes List

The document outlines standard device numbers for protective relays, such as 50 for instantaneous overcurrent and 51 for time

May 23, 2026

ANSI Codes for Protective Relays | PDF | Relay | Switch

The document lists 99 international codes and their corresponding descriptions of protective devices used in drawings of circuits for

Jun 01, 2026

ANSI Standard Device Numbers & Common Acronyms

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

Mar 24, 2026

ANSI Codes for Protection Relays | PDF | Relay | Switch

The ANSI has standardized codes for protective relay functions, with each function assigned a specific number. Some common

Dec 20, 2025

ANSI (IEEE) Protective Device Numbering

The widely used United States standard ANSI/IEEE C37.2 "Electrical Power System Device Function Numbers,

Jun 14, 2026

ANSI Relay Protection Codes Overview

The document lists codes and acronyms used for electrical relay protection devices. Codes 1-99 are assigned to various relay

Dec 05, 2025

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

Sep 13, 2025

[ANSI/IEEE C37.2 Protection Codes | PDF](#)

[Ansi IEEE C37.2 - Protection Relays Codes - Free download as Word Doc \(.doc / .docx\), PDF File \(.pdf\), Text File \(.txt\) or read](#)

Apr 30, 2026

Power System Protective Relays: Principles & Practices

Abstract: Protective relays and devices have been developed over 100 years ago to provide “last line” of defense for the electrical

Dec 09, 2025

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ANSI (IEEE) Protective Device Numbering

Protective relays are commonly referred to by standard device numbers. For example, a time overcurrent relay is

May 26, 2026

Protection and Control Device Numbers and Functions

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

Sep 19, 2025

ANSI Device Numbers for Relays | PDF | Relay | Switch

[Ansi Code for Protective Relay - Free download as PDF File \(.pdf\), Text File \(.txt\) or read online for free. ANSI device numbers](#)

Dec 08, 2025

ANSI CODES FOR PROTECTION FUNCTIONS

Following is the list of the functions. The codes are sometimes followed by an alphabet which gives some additional information for

Jan 03, 2026

ANSI Relay Protection Code List | PDF | Relay | Detector (Radio)

This document lists 57 ANSI codes and their corresponding descriptions of protection devices and functions.

Jan 22, 2026

ANSI codes and IEC Relay Symbols – Electrical Engineering

There are two methods for indicating protection relay functions in common use. One is given in ANSI Standard and uses a

Jul 07, 2026

Relay Protection Device Codes List

It provides a comprehensive list of device numbers and their corresponding functions, as well as prefixes and suffixes for more

Jul 09, 2026

ANSI device numbers

In electric power systems and industrial automation, ANSI Device Numbers can be used to identify equipment and devices in a

Nov 01, 2025

Protection Relay : Circuit, Working, Types, Codes & Its

Relays are generally available in different types like reed, protective, thermal,

Sep 19, 2025

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

Nov 12, 2025

IEC Protection Relay Codes PDF

ECE 525 Session 3, Page 1/1 Power Systems Protection and Relaying Fall 2018
ANSI/IEEE Standard Device Numbers In North

Jun 08, 2026

ANSI/IEEE Function Number Codes

In this system, a single protective relay device performs multiple functions:
instantaneous overcurrent on the phase conductors (50P)

Apr 22, 2026

ANSI Relay Protection Code List

This document lists 57 ANSI codes and their corresponding descriptions of protection devices and functions. The codes cover a wide

May 17, 2026

To: [Customer Name]

ANSI/IEEE Standard Device Numbers In North America protective relays are generally referred to by standard device numbers.

Aug 22, 2025

Protection Relays Numbering (ANSI) | PDF

This document lists standard electrical power system device function numbers from ANSI C37.2. It includes 99 device functions

Apr 29, 2026

Protection Relay

In the design of electrical power systems, the ANSI Standard Device Numbers denote what features a protective

Contact Us

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