

# What does 121cd represent in relay protection



## Article Overview

121CD represents a directional undervoltage relay in ANSI/IEEE device numbering, where 121 is the device number for undervoltage protection and the suffix "CD" indicates a directional function.

### ANSI Device Number 121

In the ANSI/IEEE C37.2 standard, device number 121 is assigned to undervoltage relays. These relays monitor the voltage level in a system and operate when the voltage drops below a preset threshold, protecting equipment such as motors, transformers, and generators from damage due to low voltage conditions .

### Suffix Letters "CD"

Suffix letters in ANSI device numbers provide additional information about the relay's function or application. In the case of "CD":

- C often denotes a directional function, meaning the relay will only operate if the undervoltage condition occurs in a specific direction relative to the system or fault location.
- D can indicate a definite time or directional element, specifying that the relay may include a time delay or directional discrimination to coordinate with other protective devices . Thus, 121CD is a directional undervoltage relay, which trips a circuit breaker only if the undervoltage occurs in the set direction, providing selective protection a...

## Article Content

Apr 04, 2026

What are the meaning of numbers on relay ? : r/PLC

It's a pinout for the relay like others said. the reason you have numbers in parentheses is that there are two standard numbering

Jul 08, 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

Aug 22, 2025

Info Byte: What's the Reason Behind Relay Terminal Numbering?

Info Byte: What's the Reason Behind Relay Terminal Numbering? Any industrial electrician can instantly recognize a

Oct 02, 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

Mar 13, 2026

Protection Basics

Review What is the function of power system protection? Name two protective devices For what purpose is IEEE device 52 used?

May 27, 2026

Understanding Relays, part 2: DIN numbers and different types of relay

Perhaps it is most useful in describing, understanding, and troubleshooting relays since the function of a relay, the

Aug 26, 2025

relay symbols and device numbers iiec37

2. time-delay starting or closing relay is a device that functions to give a desired amount - of time delay before or after any point of

Feb 04, 2026

## 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

Mar 30, 2026

## Types of Electrical Protection Relays or Protective Relays

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

Apr 02, 2026

## Distance (21) Protection | Electric Power Measurement

In the age of microprocessor relays, this design philosophy of physically wiring time-delay relays to the

Dec 09, 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

Sep 23, 2025

## What do multiple contact ratings on a relay represent?

Following on from @KarlKnechtel apart from the relay itself overheating in a failure, you have to consider the knock-on

Feb 22, 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 05, 2025

## Basic protection relay knowledge

STABILITY OF PROTECTION A protection scheme – for example, a differential protection scheme – is stable when it does not

May 16, 2026

## ANSI (IEEE) Protective Device Numbering

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

Jul 26, 2026

## HW Relay Symbols Essential Guide for Electrical Engineers

Unlock the secrets of HW power relay symbols! Learn definitions, components, standards, and real-world applications

Nov 30, 2025

## Protection Relays & Coordination Reference Cheat Sheet

Protection relays detect abnormal electrical conditions and trip circuit breakers to isolate faults before equipment is damaged. This

Jul 28, 2025

## ANSI Standard Device Numbers & Common Acronyms

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

Aug 24, 2025

## Types CR, CRC, CRP and CRD Directional Overcurrent Relays

These time delayed directional overcurrent relays are used to detect phase or ground faults in a particular direction on a power

Apr 04, 2026

## All Types of Relay Symbols and Its Basics

Relays allow a low-current circuit (like a microcontroller or dashboard switch) to control a high-current circuit (like a

Nov 30, 2025

## Relaying Schemes and ANSI Device Numbers

Relaying and protection can be confusing-REALLY CONFUSING. Elaborate new ways to protect power systems are

May 23, 2026

## ANSI device numbers

Historically, a single protective function was performed by one or more distinct electromechanical devices, so each device would

May 02, 2026

## Protection and Control Device Numbers and Functions

A device that functions to give a desired amount of time delay before or after any point of operation in a switching sequence or

Jun 06, 2026

Protective Relay Basics Part 2

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

Oct 04, 2025

Introduction to Protective Relaying | Electric Power Measurement and ...

Introduction to Protective Relaying What are Protective Relays, or Protection Relays? Protective relays are used in industrial power

Sep 09, 2025

Protection relay selection table

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

Jan 05, 2026

Protection Relay

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

Jun 10, 2026

Understanding Protective Relays in Power Systems

Protective relays are critical components in power systems, providing essential protection for various elements such

Oct 13, 2025

Intro to Relays #2

Intro to Relays #1 – What are Relays, CTs, & PTs? Intro to Relays #2 – ANSI/IEEE Relay Device Numbers (below on

## Contact Us

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

Website: <https://khanimamboguesthouse.co.za>

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

Phone: +27 64 852 1973

Address: Unit 7, Greenway Business Park, 8 Innovation Drive, Centurion, 0157, South Africa

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

