

Relay protection device starting element



Overview

In and, ANSI Device Numbers can be used to identify equipment and devices in a system such as,, or. The device numbers are enumerated in / Standard C37.2 Standard for Electrical Power System Device Function Numbers, Acronyms, and Contact. In and, ANSI Device Numbers can be used to identify equipment and devices in a system such as,, or. The device numbers are enumerated in / Standard C37.2 Standard for Electrical Power System Device Function Numbers, Acronyms, and Contact Designations. Many of these devices protect electrical systems and individual system components from damage when an unwanted event occurs such as an. Historically, a single protective function was performed by one or more distinct devices, so each device would receive its own number. Today, -based relays can perform many protective functions in one device. When one device performs several protective functions, it is typically denoted "11" by the standard as a "Multifunction Device", but ANSI Device Numbers are still used in documentation like or to indicate which specific functions are performed by that device.

- 1 - Master Element
- 2 - Time-delay Starting or Closing Relay
- 3 - Checking or Interlocking Relay, complete Sequence
- 4 - Master Protective
- 5 - Stopping Device, Emergency Stop Switch
- 6 - Starting Circuit Breaker
- 7 - Rate of Change Relay
- 7F - Alternative number for Rate Of Change Of Frequency Relay ()
- 8 - Control Power Disconnecting Device
- 9 - Reversing Device
- 10 - Unit Sequence Switch
- 11 - Multifunction Device
- 12 - Overspeed Device
- 13 - Synchronous-Speed Device
- 14 - Underspeed Device
- 15 - Speed or Frequency Matching Device
- 16 - Data Communications Device
- 17 - Shunting or Discharge Switch
- 18 - Accelerating or Decelerating Device
- 19 - Starting-to-Running Transition Contactor
- 20 - Electrically-Operated Valve (Solenoid Valve)
- 21 - Distance Relay
- 21G - Ground Distance
- 21P - Phase Distance
- 22 - Equalizer Circuit Breaker
- 23 - Temperature control device, Heater
- 24 - Volts per Hertz Relay

(in some old analog applications, a 59 and an 81 device would be chained together...

Article Content

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 also suggested.

ANSI Device Numbers and Acronyms

The ANSI standard device numbers (As per ANSI/IEEE standard C37.2) are used in the design of an electrical power system. These devices protect the electrical network in the case of a ...

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 meanings behind them. Feel free to share and spread the knowledge.

To: [Customer Name]

In North America protective relays are generally referred to by standard device numbers. Letters are sometimes added to specify the application (IEEE Standard C37.2-2008).

ANSI device numbers

In electric power systems and industrial automation, ANSI Device Numbers can be used to identify equipment and devices in a system such as relays, circuit breakers, or instruments.

Protection and Control Device Numbers and Functions

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

Basic protection relay knowledge

A fast and selective arc fault mitigation for air-insulated LV & MV switchgear and Relion protection and control relays and sensor technology protect staff and plant facilities for many years.

ANSI Codes

In the design of electrical power systems, the ANSI Standard Device Numbers (ANSI /IEEE Standard C37.2) denote what features a protective device supports (such as a relay or circuit breaker).

ANSI Standard Device Numbers & Common Acronyms

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

Protection and Control Device Numbers and Functions

The suffix letters that denote parts of the main device, and those that cannot or need not form part of the device function designation, are written directly below the device function number on drawings, as ...

ANSI (IEEE) Protective Device Numbering

The widely used United States standard ANSI/IEEE C37.2 "Electrical Power System Device Function Numbers, Acronyms, and Contact Designations" deals with protective device ...

Contact Us

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