

Article Overview

Relay protection cabinets typically range from compact wall-mounted enclosures around 200 x 200 x 120 mm to large freestanding cabinets up to 2200 mm high, 1800 mm wide, and 600 mm deep, with modular 19-inch rack-mounted options for substation applications.

Wall-Mounted and Freestanding Cabinets

Wall-mounted relay panels are generally smaller, with typical external dimensions ranging from 200 x 200 x 120 mm up to 800 x 600 x 300 mm, suitable for indoor control and protection applications where space is limited . These enclosures are often NEMA 1A rated, featuring steel or aluminum construction, gasketed doors, and front-only access for wiring and maintenance . Freestanding relay cabinets are larger, designed to house multiple relays, meters, auxiliary devices, and wiring. Common dimensions for these cabinets are approximately 1600-2200 mm in height, 600-1800 mm in width, and 300-600 mm in depth . The exact size depends on internal layout requirements, cable entry space, bend radius, ventilation, and future expansion capacity. Floor-standing cabinets may include removable top plates for conduit entry, copper ground buses, and terminal blocks for CT circuits .

Modular Rack-Mounted Relay Cases

For substation and utility applications, modular 19-inch rack-mounted relay cases are widely used. Standard configurations are 4U high, allowing easy integration of protection relays, switches, and auxiliary devices . These cases comply with international standards for mounting and interchangeability, and optional features include CT shorting switches, blanking plates, and custom cutouts for control devices.

Customization and Standards

Relay protection cabinets can be customized based on functional requirements, including optional breakers, disconnects, or additional instrumentation . While there is no single global standard for dimensions, manufacturers follow common size families, and enclosures are designed to meet IEC 60529 for ingress protection and ANSI/NEMA standards for indoor use .

Practical Considerations

- o Internal space: Always account for wall thickness, gaskets, hinges, and mounting hardware, which reduce usable internal space.
- o Accessibility: Front-only access is common, but larger cabinets may allow rear access for maintenance.
- o Ventilation: Typically not required for low-power relay panels, but filtered or fan-assisted options are available for heat-sensitive installations.

Dimensions of relay protection cabinet

o Future expansion: Choose a cabinet size that accommodates additional relays or auxiliary devices to avoid frequent upgrades. By selecting the appropriate size family and configuration, relay protection cabinets can efficiently house all necessary protection and control equipment while complying with safety and operational standards.

The technical and functional characteristics of the cabinets are mainly determined by the characteristics of the relay protection and

The single size swing frame cabinets shall be wider and deeper than the standard single size cabinets (see Section 5.4 Dimensions).

Learn the essentials of designing and wiring PLC control cabinets, including component selection, cooling, wiring tips,

Mounting points & overall panel dimensions meet international standards such that the cases may be interchanged with other similar

The control and relay board panel for 220KV system and 132KV system shall also be duplex type for accommodating all relays and

The SR2 enclosures are available in two versions (blind door or glazed door) and in 23 different dimensions, as well as a further 19

1 Scope This specification covers the general and technical requirements for protection and control relay panels for use in Grid, BSP

Protective relay panels Used in the protection of electrical apparatus and transmission lines detecting short circuits, overload and

Electrical enclosure sizes are not universal, but most manufacturers follow common size families. This guide explains

DESCRIPTION BOX DIMENSIONS W/ DOOR. NOTE: A LARGER SIZE RELAY PANEL BOX MIGHT BE REQUIRED IF OPTIONAL

Above dimensions include the 1" heat sinks on each side of the Relay Panel Note: A larger size Relay Panel Box might be required if

o Clearly labeled terminals with protective covers to prevent ingress of dust and water. o Suitable for

Dimensions of relay protection cabinet

interconnecting relay outputs

Cabinets and devices of relay protection and automation (RPA) manufactured by Radiy are a modern

Cabinet, SE, 2300 x 800 x 600mm, 19 Inch, 48RU Included: SE Frame, front 19 Inch x 48RU equipment mounting rails, side joiner

Learn what protection and control cabinets do, key components, and how to choose the right panel for your facility.

cal protection function can be used. The manual can al technical data sorted per function. The manual can be used as a technical

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