

Network cabinet circuit breaker type C



Overview

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Key Takeaways

Type C MCBs are ideal for network cabinets, providing reliable protection against overcurrents while accommodating moderate inrush currents from IT equipment. Overview of Type C MCBs

Type C miniature circuit breakers (MCBs) are designed to trip when the current reaches 5 to 10 times the rated current, making them suitable for circuits with moderate inrush currents, such as network switches, servers, and small motors. This characteristic prevents nuisance tripping during normal startup of devices that draw a temporary surge of current.

Why Type C is Suitable for Network Cabinets

- **Moderate Inrush Handling:** Network equipment like servers, PDUs, and UPS systems often have short-term current spikes when powered on. Type C MCBs tolerate these surges without tripping unnecessarily.
- **Protection Against Overcurrent:** They safeguard sensitive IT equipment from sustained overcurrent conditions that could damage components or cause fire hazards.

- **Common in Commercial Installations:** Type C breakers are widely used in commercial and light industrial settings, including data centers and office network cabinets, due to their balance between sensitivity and robustness .

Installation Considerations

- **Current Rating:** Select a Type C MCB with a rated current appropriate for the total load of the cabinet. Typical ratings for network cabinets range from 6A to 32A depending on the number of devices .
 - **Breaking Capacity:** Ensure the MCB's breaking capacity meets or exceeds the maximum prospective short-circuit current of the distribution system, commonly 6kA to 10kA for commercial network setups .
 - **Rack Integration:** Type C MCBs are compatible with standard 19-inch rack-mounted PDUs and distribution panels, allowing easy integration into network cabinets .
- #### Comparison with Other Types
- **Type B:** Trips at 3-5 times rated current; suitable for lighting circuits but may trip unnecessarily with IT equipment inrush .
 - **Type D:** Trips at 10-20 times rated current; designed for heavy industrial loads, not ideal for network cabinets .
 - **Type C:** Balanced for moderate inrush, making it the preferred choice for network and small commercial circuits .

Summary

For network cabinets, Type C MCBs provide reliable overcurrent protection while accommodating the startup surges of IT equipment, ensuring operational continuity and safety. When selecting a Type C breaker, consider the total load, breaking capacity, and compatibility with the cabinet's PDU or distribution panel to optimize protection and performance .

Article Content

Rack 19" PDU 6 outputs with circuit breaker and C14 plug

Rack 19" PDU 6 outputs with circuit breaker and C14 plug Cod: I-CASE STRIP-16V Connector A Type C14 C20 Italian 16A Schuko

Related Video Reference

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