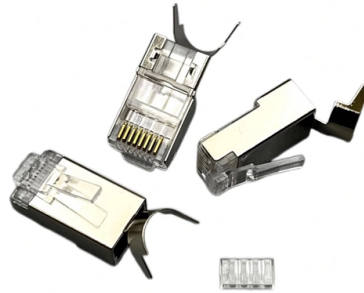


Current of the outgoing switch of the cabinet head unit



Overview

How to Read Car Stereo Wiring Diagrams CorrectlyA car stereo wiring diagram shows how the radio, speakers, power wires, and harness Car Stereo Wiring Harne.

Key Takeaways

The outgoing switch in a cabinet head unit carries the branch current from the busbar to the connected load, monitored and protected by current transformers and circuit breakers.Function and Role

The outgoing cabinet, also known as a feeder cabinet, distributes electrical energy from the main busbar to various branch circuits, such as industrial lines, residential transformers, or commercial loads . Each outgoing switch is responsible for making and breaking the circuit to its respective load, ensuring safe and reliable power distribution. The current flowing through this switch is the load current of the connected branch, which can vary depending on the demand of the equipment it supplies .

Components Affecting Current

- Circuit Breaker: The outgoing switch typically includes a vacuum or SF6 circuit breaker that can carry the rated current continuously and interrupt fault currents . The breaker protects the branch from overcurrent and short-circuit conditions.



- **Current Transformers (CTs):** Each outgoing line is equipped with CTs that measure the current and provide input to protection relays and metering devices . These CTs ensure accurate monitoring and trigger the breaker if the current exceeds preset limits.
- **Busbars:** Thick copper or aluminum busbars inside the cabinet act as the main conductor, distributing current evenly to all outgoing switches .

Current Ratings and Protection

The rated current of the outgoing switch is determined by the design of the switchgear and the load it serves. For example, in a 12 kV XGN17-12 ring main unit, the busbar rated current is 630 A, and outgoing switches are designed to handle branch currents within this limit . Protection devices, including overcurrent relays and fuses, ensure that any abnormal surge or overload is quickly interrupted to prevent damage to equipment or the switchgear itself .

Monitoring and Metering

Outgoing switches are continuously monitored using CTs and voltage transformers (VTs). This allows operators to track real-time current, detect overloads, and ensure balanced distribution across all feeders . Advanced metering cabinets can record current with high precision ($\leq 0.2\%$ error), providing both operational safety and accurate energy accounting .

Summary

The current of the outgoing switch is essentially the load current of the branch it serves, managed and protected by circuit breakers, CTs, and relays. Proper design ensures that the switch can safely carry the rated current, respond to overloads, and provide accurate metering for operational and billing purposes .

Article Content

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Outgoing cabinet Outgoing cabinet: it is the switch cabinet that distributes electric energy from the bus to the power transformer. This

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4.17.2 Where it is proposed to install circuit breakers for all or any of the outgoing submain circuits, then, if these units are not rated

Incoming vs Outgoing Switchgear Functions and Differences Explained

The Function of the Incoming Switchgear The incoming switchgear is the main switchgear Cabinet on the load side.

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The outgoing line cabinet mainly includes vacuum circuit breaker, disconnecting switch, current transformer,

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This works relatively well but sometimes causes a pop if the head unit is switched on or off (with the power button on the head unit)

The facts about switchyards, incoming and outgoing feeder

Go back to Contents Table ↑ 2. Incoming and Outgoing Feeders Incoming and outgoing feeders in switchgear are

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