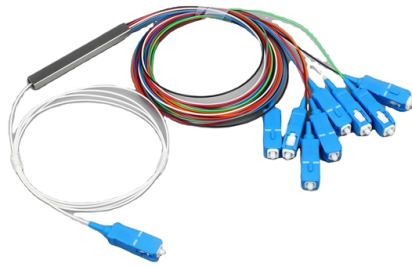


What size wire should be used to connect the small busbars



Article Overview

For a small DC busbar, a wire size of approximately 50 mm² (10 mm x 5 mm busbar) is suitable for currents up to 150 A over short distances.

Determining Wire Size

The wire size for a busbar depends on the current it needs to carry, the length of the connection, and the acceptable voltage drop. For small DC busbars, the cross-sectional area of the busbar itself can guide the wire selection. For example, a busbar with dimensions 10 mm thickness × 5 mm width has a cross-sectional area of 50 mm², which is suitable for 150 A over distances up to 5 meters .

Key Considerations

- **Current Rating:** Ensure the wire can handle the maximum continuous current without overheating. Use the busbar's current capacity as a reference.
- **Voltage Drop:** Keep voltage drop below recommended limits (typically 2–3% for DC systems) to maintain efficiency .
- **Material:** Copper wires are preferred for their high conductivity; aluminum can be used but requires a larger cross-section.
- **Safety Factor:** Include a safety margin (commonly 25%) to account for future load increases .
- **Connection Quality:** Ensure the wire termination matches the busbar's cross-section to avoid hot spots and excessive resistance

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4. DC wiring

4.7. DC isolation switches 4.8. Shunt 4.9. Parallel and/or 3-phase system DC wiring
4.10. Large system busbars 4.11. Voltage

Copper for Busbars

The use of copper for the busbars to which these parts are connected therefore avoids contacts between dissimilar metals and the

Catalogue SIMABUS-EPP-2829-8-16 rev2-HD

Regardless of a project's size or scope, utilities should seek a part-ner who can understand and adapt to their unique needs and

Bus Bar Size Calculator

Busbar is simply a node (conductor or group of conductors) which collects power from incoming feeder and distribute it to outgoing

Contact Us

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