

Width of busbar compartment in GCS switchgear



Article Overview

The width of the busbar compartment in GCS switchgear depends on the busbar size, current rating, and form of separation, typically ranging from 200 mm to 400 mm for standard low-voltage applications.

Determining Busbar Compartment Width

The busbar compartment in GCS (drawer-type) low-voltage switchgear houses the conductive busbars that interconnect functional units and external circuits. Its width is influenced by several factors:

- Busbar cross-section and current rating: Larger currents require thicker or multiple busbars, which increases the compartment width. IEC 61439 specifies parameters for busbar sizing, including current-carrying capacity, short-circuit withstand, and temperature rise .
- Forms of separation: Depending on the form of separation (Form 1 to Form 4b), busbars may be insulated or separated by partitions from functional units and terminals, which adds to the required width .
- Air circulation and heat dissipation: Adequate spacing between busbars and between busbars and compartment walls is necessary to prevent overheating and ensure proper ventilation .
- Insulation and safety clearances: Clearance distances are required to prevent arcing and ensure operator safety, especially in high-current or high-voltage applications

Article Content

Nov 23, 2025

Busbar Size Calculator According to IEC and NEC

The Busbar Size Calculator helps engineers and electricians find the right copper or aluminum busbar dimensions

Nov 15, 2025

Low-Voltage Switchgear Types: GGD, GCK, GCS, MNS & XL-21 Guide

Confused by switchgear codes? Compare GGD, GCK, GCS, MNS, and XL-21 low-voltage switchgear. Learn the

Mar 08, 2026

GCS □Low Voltage Withdrawable Switchgear□-Beijing HCRT

- The frame utilizes 8MF type open-section steel, ensuring flexible and convenient framework assembly;
- The switchgear cabinet's

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Low Voltage Switchgear Design & Calculation Presentation

Learn LVSG design, construction, and calculations. Covers enclosures, busbars, IP ratings, and forms of separation. Electrical

Feb 02, 2026

Busbar Calculator — Current Rating, Temperature Rise, IEC 61439

The busbar sizing calculator determines the required busbar dimensions based on the continuous current rating, short

Aug 28, 2025

LV Switchboard Dimensioning Guide

This document provides guidelines for dimensioning main low voltage switchboards from Schneider, Siemens, and ABB. It specifies

Oct 14, 2025

General technical requirements, switchgear with double busbar

The busbars shall be located in a metal-enclosed compartment with complete gas insulation (without plug connections or adapters),

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Technical Requirements of Busbars And Current Carrying Parts of LV ...

All busbars and current carrying parts shall be manufactured to carry a current density of not more than 1.55 A/mm² and shall be

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GCS Low-voltage Withdrawable Electrical Switchgear

The main busbar has a rated current of 630A and a rated transfer current of 2500A. The fuse has a maximum rated current of 160A

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Low Voltage Switchboards and Switchgear

Special heights, special depths and widths, corner sections, back-to-back, front access only (on deeper switchboards that normally

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Technical Brochure Enclosure • Busbar Chamber System (BBS) •

Technical Specification ABB “BBS Busbar Chamber Systems” is made of 1.5mm or 2mm steel plate finished with impact-resistant

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Major components you can spot while looking at HV/EHV GIS (Gas

I worked twelve years at Schneider Electric in the position of technical support for low- and medium-voltage projects

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Busbar Design Guide

Typical Busbar Sizes If this program recommends sizes that do not fit into the ranges below, change either the number of conductors

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Main Busbar System in ABB Switchgear | PDF

The busbar compartment is located in the middle section of the switchgear and contains the main busbars that distribute power to the

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GCS Low Voltage Switchgear Cabinet | Cable Switchgear Box | HCRT

Compartmentalized Design: The functional compartments of the switchgear are isolated from each other, divided into functional unit

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Technical Specification Metal-clad Switchgear

Technical Specification Metal-clad Switchgear Technical Specification Metal-clad Switchgear This specification covers the basic

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IEC 61439 Low Voltage Switchgear Design: Complete 2026 Guide

IEC 61439 defines Forms of Internal Separation that specify the degree of segregation between busbars, functional units, and

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Low Voltage Power Withdrawable Switchgear Cabinet GCS

Enecell's GCS Low-voltage Withdrawable Electrical Switchgear is suitable for power distribution systems, Low Voltage Power

Aug 21, 2025

ABB LV Systems

The switchgear cubicles are delivered in the form of ready assembled complete units with horizontal busbars. Each cubicle is

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General technical requirements for 17.5 kV

The specified switchgear is an air-insulated, metal-enclosed and type-tested, medium-voltage switchgear for indoor

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Busbars: Electrical Types, Sizing & Design Guide

A busbar is a conductive metal bar, strip, or assembly used to collect and distribute electrical current inside

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GCS Low Voltage Removable Switchboard

The drawer changes only in height dimensions, and the width and depth dimensions is always the same. Thus, the drawer of the

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UNIS5GB 0704.pmd

Busbar compartment The busbar compartment is located on the top of the cubicle. This compartment contains the main busbars that

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Design and Installation of Medium Voltage Switchgear (Facts You

Any selection For example switchgear type, switching devices and their operating mechanisms, busbar circuitry,

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MEDIUM VOLTAGE SWITCHGEAR

alfa-12 Switchgear are withdrawable, air-insulated, tested for resistance to internal arc faults IAC AFLR in cable, busbar and CB

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Appendix D: Bus Bar System

The table, in addition to giving specifications regarding the maximum thickness of the busbar, the maximum current

Contact Us

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