

Dimensions of the grounding copper busbar in the distribution box



Article Overview

Copper grounding busbars for distribution boxes typically range from 3/16" to 1/4" thick, with widths from 3/4" to 2", and lengths customized to panel requirements, ensuring safe current conduction and compliance with IEC and NEC standards.

Standard Dimensions and Material

Copper busbars used for grounding are usually made from hard-drawn electrolytic tough pitch (ETP) copper due to its high conductivity and mechanical strength . Typical dimensions for commercial and industrial distribution boxes are:

- Thickness: 3/16" (4.76 mm) to 1/4" (6.4 mm)
- Width: 3/4" (19 mm) to 2" (50 mm), depending on current rating and number of connections
- Length: Customizable to fit the distribution box or panel, often 10" (254 mm), 12" (305 mm), or 20" (508 mm) for multiple lugs
- Stand-off from backboard or wall: Approximately 2.75" (70 mm) to allow proper clearance and insulation Busbars are typically pre-drilled with mounting holes for lugs or jumpers, with hole spacing ranging from 1" (25.4 mm) to 1-3/4" (44.5 mm) centers, accommodating standard bolt sizes such as 3/8" (9.5 mm) or 1/4" (6.4 mm) bolts .

Sizing for Current Capacity...

Article Content

Jul 13, 2026

Power Engineering: Busbar size and calculation

A bus bar (also spelled busbar, buss bar or busbar), is a strip or bar of copper, brass or aluminum that conducts

Jan 03, 2026

IEC Busbar Mounting System Specifications Technical Data

Specifications ... General Data ... (1) The admissible load of a complete system depends on the system topography and the

Dec 25, 2025

Bus Bar & DIN Rail | MCB Busbar Types, Specs & FAQs | WILLELE

Electrical bus bar guide by WILLELE: bus bar, ground bus bar, copper bus bar, battery bus bar and DIN rail mount. Sizes 8–16 mm²,

May 03, 2026

Busbar Size Calculator According to IEC and NEC

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

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Copper Bus Bars | McMaster-Carr

Choose from our selection of copper bus bars, including over 650 products in a wide range of styles and sizes. Same and Next Day

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Busbar and Cable Gland Size Charts

This document provides details on the construction and carrying capacity of copper and aluminum bus bars at 350C ambient

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Busbars for Data Centers, Telecom Rooms, and Rack Grounding ...

Copper busbars designed for grounding and bonding in data centers, telecom rooms, and network racks. Explore rack bonding bars,

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Bus Bars | Copper & Terminal Grounding Bus Bars & Kits Online | RS

Factories, assembly, or production lines Why choose RS for terminal grounding busbar products? When working with a power

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Busbar systems and installation accessories When connecting aluminum conductors, ensure that the contact surfaces of the

May 02, 2026

Busbars (BUSBAR Series)

A BUSBAR serves as a central grounding point for equipment and are constructed from tin-plated copper with factory-installed

Jun 06, 2026

Copper Bonding Busbar GRDBAR Series

The grounding bar is made from heavy-gauge copper that attaches to the inside of an enclosure, cabinet or open frame rack to

Jan 15, 2026

2016_Guide_IEC_EN61439_en_98171000_5_2016

IEC 61439-6 / EN 61439-6 Busbar distributors IEC/TS 61439-7 Distributor for for camping, camping, market market places, marinas

Sep 02, 2025

Electric Panel Bus Bar: Sizing, Materials & NEC Compliance Guide

It provides a real-world framework for selecting the right electric panel bus bar, ensuring it's sized for the application,

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Busbars | Electrical & Copper Busbars Price in Philippines

The Leading Supplier and Distributor of Busbars in the Philippines RS is your trusted busbar supplier in the Philippines, offering a

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Copper Busbars | nVent ERIFLEX

An alternative to multiple, large cables, ERIFLEX copper busbars are used for making strong and reliable power and earth-ground

Nov 15, 2025

What is Busbar? Types, Advantages (2026 Updated Guide)

Busbar is a metal strip or rod, usually made of copper, brass or aluminum, used for grounding and conducting

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What is a Busbar? A Detailed Guide

A busbar is a metallic strip or bar used in electrical power distribution, installed inside switchgear, circuit boards, and

Nov 26, 2025

IEC COPPER EDITION

Cut out details, dimensions and drilling plans are provided with the customer drawings and it is the responsibility of the switchgear

Jul 12, 2026

Busbar Dimensions Calculation : Electrical Engineering Hub

Busbars are a critical part of electrical power distribution systems. They are widely used in switchgear, panel boards,

Jan 22, 2026

Bus Bar Size Calculator

Bus Bar Size Calculator Calculate recommended copper and aluminum bus bar dimensions for electrical panels. Sizing evaluates

Oct 15, 2025

Copper Bonding Busbar (GRDBAR Series)

Hammond's GRDBAR series of copper bonding busbars are available in vertical, horizontal, and horizontal rack mounting

Jun 06, 2026

Busbar Panel Standards Overview | PDF | Power Engineering

It provides detailed dimensions for different current ratings, ranging from 100A to 6300A, and notes that custom requests may alter

May 25, 2026

Design Guide for bus bars | Mersen

In addition, individual dimensional characteristics, materials, manufacturing techniques, the interconnection scheme, plating finish,

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BUS BARS/GROUND BARS

thermOweld® proudly announces our new Ground Bars and bus bars product range. UL approved and produced on our new state-of

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Grounding Busbars

Safely and efficiently distribute ground current throughout your electrical system with our GB2D grounding busbar, available in

Contact Us

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