Spacing between multiple distribution boxes installed side by side

Overview

Regardless of the wiring method, box fill calculations apply equally to all cables. Use our conduit fill calculator to determine the calculation in your specific case.

Key Takeaways

The minimum side-to-side clearance for distribution boxes or electrical panels is 30 inches, or at least the width of the equipment, to ensure safe access and maintenance.

Side Clearance Requirements

For side-by-side installation of distribution boxes, the National Electrical Code (NEC) specifies a minimum of 30 inches of clear space from the sides of all electrical equipment, or at least the width of the equipment itself, whichever is greater, to allow safe working access and prevent entrapment during maintenance. This clearance is measured from the edge of one panel to the edge of the adjacent panel or obstruction. The panels do not need to be centered within this space; for example, you can have 10 inches on one side and 20 inches on the other, as long as the total clearance is maintained.

Front and Height Clearance

In addition to side clearance, the front working space must be at least 36 inches deep for panels up to 600V, and the vertical clearance should be at least 6. 5 feet (78 inches) from the floor to the ceiling or any obstruction. The panel doors must be able to open at least 90 degrees without obstruction.

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Special Considerations

If panels are installed in rows with live parts on both sides, the aisle between them must be at least 4 feet wide, and greater if voltage exceeds 600V. UL-listed power distribution blocks may have specific spacing requirements, such as 1 inch through air and 2 inches over surface at 600V, which should be followed for industrial control panels. Equipment should not obstruct the working space; no furniture, pipes, or other devices should encroach on the required clearance.

Practical Tip

When installing multiple distribution boxes side by side, ensure that all panels are accessible for maintenance, inspection, and emergency operation, and that the total side clearance meets or exceeds 30 inches. This ensures compliance with NEC 110. 26 and UL standards, and provides a safe working environment for electricians.

By following these guidelines, side-by-side distribution boxes will be safely spaced, accessible, and code-compliant.

Article Content

A Complete Guide to NEC Article 314 on Electrical Boxes and Conduit

Regardless of the wiring method, box fill calculations apply equally to all cables. Use our conduit fill calculator to determine the calculation in your specific case.

NEC Electrical Junction Box Rules – Complete Compliance Guide

Learn NEC electrical junction box rules with box fill calculations, accessibility guidelines, grounding requirements, and inspection essentials.

NEC Requirements for Panelboards and Load Centers

In case of dump or wet locations, there be at least a 6 mm (1⁄4 inches) air space between the wall and a surface mounted enclosure to account the moisture and prevent the rusting and damaging of

What is the clearance for electrical enclosures

This space allows technicians to stand and work comfortably. Side Clearance: On the sides, maintain a minimum of 30 inches, or at least the width of the equipment—whichever is greater.

Electrical Equipment Working Space Requirements

Spacing must provide the dimensional clearance (described below) for personnel access to equipment likely to require examination, adjustment, servicing, or maintenance while energized.

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Electrical equipment floor space

This paper will review some of the NEC requirements regarding required electrical space and discuss new product concepts serving to reduce equipment size, resulting in reduced space requirements,

2026 NEC Electrical Junction Box Sizes Guide: Calculator + Code ...

Choosing the right electrical junction box size is crucial for safety and code compliance in your US projects. This guide helps you determine the correct dimensions based on wire fill capacity,

Spacing Requirements for Power Distribution and Terminal Blocks

Power Distribution blocks are evaluated to UL1953, the Power Distribution Block standard and are listed for general installation, meaning they have adequate spacing for most OEM and field applications.

Electrical Panel & Gear Clearance Guide | NEC 2023

Clearances, including minimum working space, approach boundaries, and safety margins, are critical for ensuring safe access to electrical equipment, preventing hazards, and facilitating

Cable Tray Spacing Standards for Installation and Safety

The Importance of Cable Tray Spacing in Electrical Infrastructure Cable tray spacing is a critical aspect of electrical infrastructure, influencing both

IEC / BS 7671 Codes for Consumer Unit and Distribution Board

All the protective devices used in the consumer unit for residential and distribution board for commercial and industrial application must be verified by BS EN 61439-3 and comply with IEC – 60898 and IEC

Spacing between multiple modules of transistor modules installed side ...

Spacing between multiple modules of transistor modules installed side by side Transistor Module Spacing for Multi-Module Parallel Installation: What Actually Works When you line up multiple

Control panel design guide according UL 508A

UL 508 Type F Combination Motor Controllers (CMCs) (manual motor protector + contactor + line-side adapter) provide the most efficient means to build a branch circuit for a motor. CMCs are designed

Receptacle Boxes and Cable Installation Codes

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By installing the appropriate electrical boxes in the right manner, you''ll have a safe and great looking installation. The electrical cables that run through walls and in and out of electrical

Electrical Installations: Guide to Pull Box Sizing

Electrical Installations: Pull Box Sizing Pull boxes are used along with conduit to simplify wiring installation, hence their name. They are made of sheet metal, cast

Electrical Junction Box Code Requirements: NEC Rules

The National Electrical Code (NEC), published as NFPA 70, sets minimum safety standards for electrical junction boxes in residential and

Distribution Box and Selection Guide: Internal Structure, Components ...

Distribution Box Internal Structure Diagram: MCBs, Busbars, Neutral Bars, and SPDs Explained The internal structure of a distribution box is where many selection and installation errors

Specifications for Electrical Underground Distribution Systems for Pad ...

6.24 For multiple occupancy Secondary Service accounts fed from padmounted transformation, the Contractor is to provide, install and maintain (1) the conductors and associated raceways from the

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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