



Safe distance around the primary distribution box

Article Overview

Maintain at least 3 feet of front clearance, 30 inches of side clearance, and 6 1/2 feet of headroom around a primary distribution box for safe access and compliance.

Front Clearance

A minimum of 3 feet (36 inches) of clear space should be maintained in front of all electrical equipment, including panelboards, breakers, and transformers. This ensures that doors can open at least 90 degrees and allows personnel to safely operate, inspect, or maintain the equipment without obstruction (ComSOP, NEC 110-34) .

Side Clearance

The sides of the distribution box should have at least 30 inches of clearance, or at minimum the width of the equipment itself. This side-to-side working space prevents accidental contact and provides room for safe movement around the equipment .

Height Clearance

The minimum headroom in front of the equipment should be 6 1/2 feet (78 inches) or the height of the equipment, whichever is greater. This ensures that personnel can safely stand and maneuver without risk of hitting overhead obstructions .

Dedicated Space

OSHA requires that switchboards, panelboards, and distribution boards be installed in dedicated spaces protected from damage. The dedicated space should extend from the floor to 6 feet above the equipment or to the structural ceiling, whichever is lower. No other equipment or materials should occupy this space unless adequately protected from vehicular or pedestrian traffic .

Additional Considerations

- o For areas with forklifts, carts, or high pedestrian traffic, consider physical barriers or enclosures to prevent accidental contact or damage .
- o Voltage considerations: Live parts operating at 50 volts or more must be guarded with approved cabinets or enclosures .
- o High-voltage systems may require increased clearances, and aisle widths between rows of equipment should



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be at least 4 feet for voltages above 150 volts, with larger distances for voltages exceeding 600 volts . Maintaining these clearances ensures compliance with OSHA and NEC standards, reduces the risk of electrical shock or arc flash, and allows safe operation and maintenance of the primary distribution box.

Check the appropriate boxes to indicate "yes" answers to the questions, or uncheck them to indicate "no." The calculator provides

Working space: The front clearance, side clearance, and height clearance requirements for electrical equipment that provide a safe

Most power distribution blocks available today are actually terminal blocks, and are recognized to UL 1059, the Terminal Block

2.10.3.3 Clearances in primary circuits For insulation in PRIMARY CIRCUITS, between PRIMARY CIRCUITS and earth and between

Having knowledge of when it is safe and what the appropriate boundaries are can help mitigate risk

Understanding Electrical Panel Access Clearance Requirements Electrical panels, also known as breaker boxes or distribution

Home eTools Electric Power Generation, Transmission, and Distribution : Energized vs. Deenergized Work - Minimum Approach

The distribution box is the central hub of the home circuit and the general control of our daily power consumption. It is an

This means you cannot place machinery or other equipment in the space around an electrical panel without making

The distribution box has the characteristics of small size, simple installation, special technical performance, fixed location, unique

A distribution box is the heart of any electrical system. It takes the incoming power and

In this EHS Hotline Q&A, an EHS Hero subscriber asked whether distance is satisfactory for protecting power

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Space must be provided around all electric equipment to permit ready and safe operation and maintenance.
The Occupational Safety

It's even more difficult to predict a safe distance from neighborhood power distribution lines -- the type typically found on wooden

Minimum clearances are established for work spaces in front of high voltage - electrical equipment such as switchboards, control

Electrical safety standards for LV/MV/HV includes water safely clearance on electrical fires,

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