

Dimensions of the control panel for the electrical distribution box



Article Overview

Electrical control panels typically range from compact wall-mounted boxes of 200×200×120 mm to large floor-standing cabinets up to 2200×1800×600 mm, with NEC-required clearances for safe operation.

Standard Enclosure Sizes

Wall-mounted enclosures are commonly used for residential or small commercial setups. Typical dimensions range from 200 × 200 × 120 mm up to 800 × 600 × 300 mm, depending on the number of circuits and internal components . These compact panels are ideal for breaker boxes, small control panels, or junction boxes. Floor-standing cabinets are used in industrial or large commercial applications. They generally range from 1600–2200 mm in height, 600–1800 mm in width, and 300–600 mm in depth . These larger panels accommodate medium-voltage equipment, PLCs, relays, contactors, and extensive wiring, allowing for future expansion and proper thermal management.

NEC Clearance and Working Space

According to the National Electrical Code (NEC 2023), panelboards up to 600V require a minimum working space of 30 inches (762 mm) wide, 36 inches (914 mm) deep, and 6.5 feet (≈2 meters) high in front of the panel . The panel door must open 90°, and no equipment should extend more than 6 inches beyond the panel front. Dedicated electrical space from the floor to 1.8 m (6 ft) is required, and mounting h...

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Website: <https://www.greatpremiersolutions.co.za>

Email: sales@greatpremiersolutions.co.za

Phone: +27 82 914 3675

Address: Unit 5, Silicon Heights, 22 Electron Avenue, Cape Town, 8001, South Africa

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