

Residential incoming power distribution box

Article Overview

A residential incoming power distribution box safely receives electricity from the main supply and distributes it to multiple circuits in a home while providing protection against overloads and faults.

Purpose and Function

A distribution box, also called a DB box, breaker panel, or electrical panel, serves as the central hub for a home's electrical system. It receives incoming power from the utility or main supply and divides it into multiple branch circuits for lighting, outlets, and high-power appliances, ensuring organized and safe electricity distribution throughout the house . It also protects circuits from overloads, short circuits, and electrical faults using devices like circuit breakers, fuses, and residual current devices (RCDs), .

Key Components

- Main Switch or Incomer: Controls the overall supply to the distribution box and allows the system to be shut off for maintenance or emergencies .
- Bus Bars: Conductive metal strips (copper or aluminum) that distribute power from the main switch to individual circuits .
- Circuit Breakers: Protect individual circuits by automatically cutting off power in case of overload or short circuit .
- Residual Current Devices (RCDs): Detect leakage currents and prevent electric shocks

Article Content

May 13, 2026

What is a DB Box? Types, Wiring, Selection Guide

It's the enclosure that houses MCBs, RCBOs, and other protective devices, used to safely distribute

Dec 20, 2025

Everything About Electrical Panels or Load Centers

What Is a Load Center? A load center is a metal electrical service box that receives incoming power from the utility

Nov 29, 2025

Distribution Box: Types and Functions | Axis-Electricals

The distribution box serves as the load centre and distributor of electrical power. A distribution box ensures that electrical supply is

Sep 25, 2025

Basic knowledge of distribution cabinet and distribution box

Function: it is mainly used to distribute energy, distribute the main power supply to each power branch

Jan 13, 2026

What Is A Distribution Board and How Does It Work? | TOSUNlux

Do you wonder how electric power is distributed in different parts of your home? Well, a distribution board or

May 14, 2026

Electrical Distribution Box: Complete Panel Types

Whether you call it a distribution box, panel, circuit breaker panel, breaker box, or load

Apr 01, 2026

Customized Residential Power Distribution Boxes for

Overcurrent faults, electrical leakage, voltage instability, and three-phase imbalance remain

Nov 06, 2025

A Definitive Guide To Distribution Boxes

The distribution box acts as the center of power distribution, distributing electricity to all connected devices. A

Mar 30, 2026

DIY Wiring a Consumer Unit and Installation

/ Consumer Unit Background Wiring a Distribution Board is vital in any electrical installation. All the

Jul 22, 2026

Electrical Distribution Box: Complete Panel Types

Learn what an electrical distribution box is in simple terms. Complete guide to panel types,

Jul 11, 2026

What Is a Distribution Box?

Some distribution boxes have a longer cord than others. When choosing a distribution box, make sure the cord is

Apr 12, 2026

Diagram of residential electrical service

Diagram of residential electrical service Understanding the electrical service diagram is essential for homeowners and electricians

Jul 21, 2026

The installation requirements for the distribution box

Learn how to install a distribution box safely and correctly. Covers wiring, placement,

Feb 11, 2026

Distribution Box and Selection Guide: Internal Structure,

Below is a simplified internal structure diagram for a typical single-phase AC distribution

Aug 30, 2025

What is a DB Box? Types, Wiring, Selection Guide

What is a DB Box In the world of electrical installations, the term DB box —short for Distribution Board box

May 15, 2026

Distribution Box Guide: Types, Components & Solutions

Distribution box 1-phase: Commonly used in residential applications, these are designed for lower power loads and

Jan 26, 2026

How to Wire 120/240V Main Panel – Breaker Box

The following tutorial explains how to wire a 120V single-phase breaker and load points in a residential

Feb 24, 2026

Residential electrical installation

Electrical equipment used in residential premises are commonly certified by third party ensuring conformity with the

Nov 30, 2025

Home Electrical Panel: Complete Guide & Diagrams | Solera

Complete guide to the home electrical panel: components, wiring diagrams, and regulations. Learn how to understand

Mar 18, 2026

Understanding Your Home Electrical System

Electrical Service Panel Home Wiring System Electrical Outlets and Receptacles Extension Cords Introduction Electricity plays an

Jun 19, 2026

The installation requirements for the distribution box

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

Feb 02, 2026

What Is a Distribution Box? Types, Uses & How to Choose

A distribution box, also known as a power distribution box or electrical distribution box, is

May 14, 2026

Distribution Box Guide: Types, Components & Solutions

Understand distribution boxes (DB boxes) in 5 minutes. Learn about types, components, functions, and uses. Find

Jan 22, 2026

How to Choose a House Distribution Box | CHINT global

A well-chosen distribution box ensures the safety and efficiency of your household electrical system. This article guides

Oct 31, 2025

Single line diagrams of substations 66/11 kV and 11/0.4 kV

Substation single line diagrams This technical article describes single line diagrams of two typical power substations

Dec 15, 2025

A Peek Inside A Typical British Residential Power Panel

Compared to the distribution panels and circuit breakers common in North American

Mar 15, 2026

Wiring of the Distribution Board with RCD (Single Phase Home Supply)

A distribution board unit installed in the buildings which firstly receive the incoming single phase electric supply (AC low voltage (LV)

Feb 05, 2026

myusawire

Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

Feb 11, 2026

How to Choose a Home Distribution Box – Expert Guide

Learn how to choose the right home distribution box with our expert guide. Compare circuit capacity, IP

Mar 25, 2026

How to Install a Cable Distribution Box Safely and

Reliable cable distribution boxes ensure safe, efficient power management for residential,

Contact Us

For more information, pricing, or custom solutions, please contact us:

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

Email: sales@iiss.co.za

Phone: +27 63 174 2895

Address: Unit 8, Innovation Park, 15 Rivonia Road, Sandton, Johannesburg,
2196, South Africa

This document is for informational purposes only. Specifications subject to
change without notice.

