

What does intelligent distribution box mean



Overview

WO2024255014A1 The intelligent distribution box comprises multiple electrical devices, the electrical devices at least comprising a common power Intelligent.

Key Takeaways

An intelligent distribution box is a smart electrical panel that integrates monitoring, control, and protection functions for power distribution, often using IoT, cloud computing, and AI technologies.

An intelligent distribution box is an advanced electrical distribution device designed to manage and protect electrical circuits while providing real-time monitoring and control. It typically includes:

- Intelligent circuit breakers for overcurrent, short circuit, and leakage protection
- Sensors and meters to monitor voltage, current, power, temperature, and environmental conditions
- Central processing unit (CPU) or embedded processors to process data and control operations
- Communication modules for IoT connectivity, enabling remote monitoring and management via apps or web platforms
- Standard guide rails and PCB boards for modular installation and data transmission between devices

Key Functions

Intelligent distribution boxes offer multiple functions beyond traditional panels:

- Electrical safety protection: anti-leakage, overvoltage, surge, overcurrent, overload, short circuit, and line overheat protection
- Real-time monitoring and diagnostics: tracks the status of circuits, detects hidden faults, and sends alarms remotely
- Load management: monitors and controls power consumption, allowing flexible limits and scheduling for energy efficiency
- Remote control and automation: enables opening/closing of circuits, connecting/disconnecting wires, and adjusting settings via mobile devices or cloud platforms
- Data collection and reporting: generates daily, monthly, or customized reports for energy usage and system performance

Applications

Intelligent distribution boxes are widely used in:

- Residential buildings: home lighting, appliances, and weak current systems
- Commercial buildings: offices, shops, hotels, and advertising lights
- Industrial facilities: factories, data centers, and smart parks
- Renewable energy systems: photovoltaic and wind power installations

Benefits

- Enhanced safety: reduces risk of electrical accidents and fires
 - Energy efficiency: optimizes power usage and prevents overloads
 - Convenience: allows remote monitoring, control, and automated management
 - Integration with smart grids: supports digitalization and intelligent operation of power distribution networks
- In summary, an intelligent distribution box transforms traditional electrical panels into smart, connected devices that improve safety, efficiency, and operational control in modern electrical systems.

Article Content

WO2024255014A1

The intelligent distribution box comprises multiple electrical devices, the electrical devices at least comprising a common power

Intelligent Smart Distribution Box Solutions – People Electric

People Electric smart distribution boxes are built for buyers who need more than a conventional electrical enclosure. They provide an

Main functions and application fields of intelligent distribution box ...

In the future, the intelligent switch in the intelligent distribution box is suitable for low-voltage distribution system, which is easy to

Intelligent Distribution | Solutions | ABB

Digital technologies such as Cloud Computing, Big Data, Internet of Things (IoT), Artificial Intelligence (AI) and Industry 4.0 are

Intelligent Power Distribution Box Solution

Intelligent power distribution box is composed of traditional leakage protector, air switch, AC contactor and KC868-H8.

Intelligent Distribution Box

Through its wide-voltage and wide-temperature design, high level of integration, intelligent diagnostic capabilities, and flexible

CN112018602A

Further, the intelligent power distribution box further includes: a leakage protection module, which is arranged on the incoming side of

What is a Smart Panel Box? The Brain of Modern Power | Matismart

The Matismart Intelligent Distribution Box is designed to bring this high-tech connectivity to your fingertips. Our system

How to create an intelligent distribution architecture with ABB

In this session, we will show how ABB satisfies customer needs and supports them throughout the whole project journey, from the

HZMX Series Intelligent Distribution Box-Hangyue Intelligent

It comprehensively utilizes big data, cloud computing, and mobile internet to build an intelligent power grid distribution operation and

What is a distribution box (DB box)?

Each part has a specific role, working together to ensure the distribution box functions

Intelligent Power Distribution Modules (IPDMs)

An Intelligent Power Distribution Module (IPDM) is an advanced vehicle component that

Power Distribution Boxes Explained Simply

Learn what a power distribution box is, how it works, key components, types, and why it's

Understanding Distribution Boxes: Your Guide to Power

These features enhance the safety and reliability of your power distribution system.
Q: How

Distribution Box: Types and Functions | Axis-Electricals

A distribution box ensures that electrical supply is distributed in the building, also known as a distribution board, panel board, breaker

Understanding Distribution Boxes:A Comprehensive Guide

A distribution boxes is an essential device that manages the safe and efficient flow of

How to create an intelligent distribution architecture with ABB

Contents Customer journey and digital tools: ABB Connect Partner Hub Introduction to ABB architectures as examples of intelligent

What Is A Distribution Box?

What Is A Distribution Box? A distribution box, also known as a distribution board, is a

What is an Intelligent PDU?

An intelligent PDU, or smart PDU, goes beyond distributing power to data center IT equipment. It is capable of monitoring, managing,

How Does a Power Distribution Box Work

Learn how a power distribution box works step by step—from incoming power to circuit protection and smart monitoring—for safe,

What Does Intelligent Power Distribution Mean

Intelligent power distribution, as the name suggests, is the intelligent management of electricity, and we usually say

Distribution Board vs Box: Which Do You Need?

A distribution board controls and protects multiple circuits, while a distribution box usually houses local wiring or

qjcmcb

We value your privacy. We use cookies to enhance your browsing experience, serve personalised ads or content, and analyse our

How Does a Power Distribution Box Work

Learn how a power distribution box works step by step—from incoming power to circuit protection and

What Does Intelligent Power Distribution Mean

Intelligent power distribution, as the name suggests, is the intelligent management of electricity, and we usually say

Distribution Board vs Box: Which Do You Need?

A distribution board controls and protects multiple circuits, while a distribution box usually

qjcmcb

We value your privacy. We use cookies to enhance your browsing experience, serve personalised ads or content, and analyse our

Power Distribution Box Essentials: Functions, Types & How to choose

We all know that electricity is the backbone of modern life. However, the problem may occur in its management. But

Jesus said, "Love your enemies." But what does that really mean?

Jesus said, "Love your enemies." But what does that really mean? ☐☐ #Jesus #JesusChrist #Bible #Christianity #Faith

Power Distribution Boxes Explained Simply

How Does a Power Distribution Box Work? A power distribution box acts like a traffic

What is the Internal Structure of The Distribution Box

Learn about the internal structure of a distribution box, its components, functions, and key types. Understand its role

EL2P Intelligent Power Distribution Unit

Whether that means speeding up Saturday installs or focusing on what matters most, the EL2P delivers

Top 10 Smart Home Distribution Boxes for Modern Homes

How does a smart panel help me save energy? What maintenance does a smart distribution box need? If you want the best for your

Do you know what I mean? | Michael Jr. Comedy

Do you know what I mean? Awesome. Why did I think you didnt want to go to Alaska. Alaska cruise and land tour was one of the

Distribution Boards

Distribution boards, often referred to as electrical panels or breaker boxes, serve as the nerve center of any electrical system. Here

Main functions and application fields of intelligent distribution box ...

In the future, the intelligent switch in the intelligent distribution box is suitable for low-voltage distribution system, which is easy to

What does 99% mean to bikers?

The 99% symbol is well-known in biker circles and has a long history. While it's sometimes confused with 1%ers, it has a completely

What is a distribution box (DB box)?

Each part has a specific role, working together to ensure the distribution box functions

Intelligent Power Distribution Modules (IPDMs)

An Intelligent Power Distribution Module (IPDM) is an advanced vehicle component that

Power Distribution Boxes Explained Simply

Learn what a power distribution box is, how it works, key components, types, and why it's

Understanding Distribution Boxes: Your Guide to Power

These features enhance the safety and reliability of your power distribution system.

Q: How

Distribution Box: Types and Functions | Axis-Electricals

A distribution box ensures that electrical supply is distributed in the building, also known as a distribution board, panel board, breaker

Understanding Distribution Boxes:A Comprehensive Guide

A distribution boxes is an essential device that manages the safe and efficient flow of

How to create an intelligent distribution architecture with ABB

Contents Customer journey and digital tools: ABB Connect Partner Hub Introduction to ABB architectures as examples of intelligent

What Is A Distribution Box?

What Is A Distribution Box? A distribution box, also known as a distribution board, is a

What is an Intelligent PDU?

An intelligent PDU, or smart PDU, goes beyond distributing power to data center IT equipment. It is capable of monitoring, managing,

How Does a Power Distribution Box Work

Learn how a power distribution box works step by step—from incoming power to circuit protection and smart monitoring—for safe,

What Does Intelligent Power Distribution Mean

Intelligent power distribution, as the name suggests, is the intelligent management of electricity, and we usually say

Distribution Board vs Box: Which Do You Need?

A distribution board controls and protects multiple circuits, while a distribution box usually houses local wiring or

qjcmcb

We value your privacy. We use cookies to enhance your browsing experience, serve personalised ads or content, and analyse our

WO2024255014A1

The intelligent distribution box comprises multiple electrical devices, the electrical devices at least comprising a common power

Intelligent Smart Distribution Box Solutions – People Electric

People Electric smart distribution boxes are built for buyers who need more than a conventional electrical enclosure. They provide an

Main functions and application fields of intelligent distribution box ...

In the future, the intelligent switch in the intelligent distribution box is suitable for low-voltage distribution system, which is easy to

Intelligent Distribution | Solutions | ABB

Digital technologies such as Cloud Computing, Big Data, Internet of Things (IoT), Artificial Intelligence (AI) and Industry 4.0 are

Intelligent Power Distribution Box Solution

Intelligent power distribution box is composed of traditional leakage protector, air switch, AC contactor and KC868-H8.

Intelligent Distribution Box

Through its wide-voltage and wide-temperature design, high level of integration, intelligent diagnostic capabilities, and flexible

CN112018602A

Further, the intelligent power distribution box further includes: a leakage protection module, which is arranged on the incoming side of

What is a Smart Panel Box? The Brain of Modern Power | Matismart

The Matismart Intelligent Distribution Box is designed to bring this high-tech connectivity to your fingertips. Our system

How to create an intelligent distribution architecture with ABB

In this session, we will show how ABB satisfies customer needs and supports them throughout the whole project journey, from the

HZMX Series Intelligent Distribution Box-Hangyue Intelligent

It comprehensively utilizes big data, cloud computing, and mobile internet to build an intelligent power grid distribution operation and

WO2024255014A1

The intelligent distribution box comprises multiple electrical devices, the electrical devices at least comprising a common power

Intelligent Smart Distribution Box Solutions – People Electric

People Electric smart distribution boxes are built for buyers who need more than a conventional electrical enclosure. They provide an

Main functions and application fields of intelligent distribution box ...

In the future, the intelligent switch in the intelligent distribution box is suitable for low-voltage distribution system, which is easy to

Intelligent Distribution | Solutions | ABB

Digital technologies such as Cloud Computing, Big Data, Internet of Things (IoT), Artificial Intelligence (AI) and Industry 4.0 are

Intelligent Power Distribution Box Solution

Intelligent power distribution box is composed of traditional leakage protector, air switch, AC contactor and KC868-H8.

Intelligent Distribution Box

Through its wide-voltage and wide-temperature design, high level of integration, intelligent diagnostic capabilities, and flexible

CN112018602A

Further, the intelligent power distribution box further includes: a leakage protection module, which is arranged on the incoming side of

What is a Smart Panel Box? The Brain of Modern Power | Matismart

The Matismart Intelligent Distribution Box is designed to bring this high-tech connectivity to your fingertips. Our system

How to create an intelligent distribution architecture with ABB

In this session, we will show how ABB satisfies customer needs and supports them throughout the whole project journey, from the

HZMX Series Intelligent Distribution Box-Hangyue Intelligent

It comprehensively utilizes big data, cloud computing, and mobile internet to build an intelligent power grid distribution operation and

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

Contact Us

Continue your research online:

Website: <https://alfa-pro.co.za>

Technical inquiry: <https://alfa-pro.co.za/contact.html>

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

