Parameters of Intelligent Control Distribution Box



Overview

With a rated voltage of 380V and a current range from 10A to 400A, this distribution control box complies with the GB/T 7251.2 - 2023 standard, ensuring reliability and safety.

Key Takeaways

Intelligent control distribution boxes typically operate at 380V with current ratings from 10A to 400A, integrating real-time monitoring, intelligent load management, and safety features.

Electrical Specifications

Rated Voltage: 380V for standard building and industrial applications. Current Range: 10A to 400A, depending on model and application. Power Supply Compatibility: Some vehicle-oriented models support 12V or 24V systems with a wide voltage range of 9–32V.

Load Capacity: Can handle high-current loads, with modules supporting up to 120A in specialized configurations.

Monitoring and Control Features

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Sensors: Integrated current, voltage, temperature, leakage current, and environmental sensors for real-time monitoring. Fault Detection: Early warning for overloads, short circuits, insulation degradation, and three-phase imbalance. Data Management: Collected data can be transmitted to local monitoring platforms or cloud systems via wired or wireless communication, enabling remote supervision and analysis.

Automation: Supports intelligent load management, remote control, and smart scheduling of connected devices.

Safety and Standards

Protection Mechanisms: Overload protection, short-circuit protection, surge protection, and solid-state relays for electrical isolation. Compliance: Meets GB/T 7251. 2-2023, IEC61439.

1/2 standards for safety and reliability. Installation Requirements: Must be installed by professional electricians in dry, ventilated environments, away from flammable or corrosive substances.

Operational and Environmental Parameters

Installation Types: Wall-mounted or floor-standing. Temperature Range: Some models operate reliably from -30°C to +70°C, suitable for harsh environments. Maintenance: Regular inspection of wiring, components, and door locks; power must be cut off during cleaning.

Advanced FeaturesIoT Integration: Intelligent boxes can integrate with cloud platforms, mobile apps, and building automation systems for energy efficiency and operational optimization. Access Control: Intelligent locks allow permission-based access to connect or disconnect circuits. Energy Management: Historical load analysis, energy consumption reporting, and optimization of equipment start-up/shutdown strategies.

These parameters make intelligent control distribution boxes suitable for industrial plants, commercial buildings, residential communities, data centers, and municipal projects, providing both efficient power distribution and proactive operational management.

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Article Content

Technical Details and Application Scheme of Industrial Intelligent ...

The industrial intelligent distribution box system is the core infrastructure for power distribution and control, designed to achieve precise power supply, safety protection, and intelligent

Intelligent Control Box

With a rated voltage of 380V and a current range from 10A to 400A, this distribution control box complies with the GB/T 7251.2 - 2023 standard, ensuring reliability and safety.

Intelligent Distribution Box

Through its wide-voltage and wide-temperature design, high level of integration, intelligent diagnostic capabilities, and flexible configuration, it provides vehicles with an efficient, reliable, and easy-to

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This article explores the latest innovations in Distribution Boxes, focusing on smart monitoring and remote maintenance capabilities that are redefining power distribution management.

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Real-time Monitoring and Control: Implement a real-time monitoring system to track electrical parameters such as current, voltage power consumption, and temperature incorporate an intelligent

Main Control Box

The intelligent Main Control Box (a centralized monitoring unit) can monitor the real-time power data of Power Feed Boxes and Tap-off Boxes. Like the Power Feed Box, the NET port and Modbus RTU are

Intelligent distribution box-Product Center-Hangyue Intelligent

Combined with the Hangyue intelligent operation and maintenance system, it achieves permission management for opening (closing) doors and connecting (disconnecting) wires of the distribution box

Intelligent control electric box type II-EnSmart

The electric box uses smart meters, ten-channel/six-channel smart controllers and other core products as the main components. It is controlled by wifi wireless transmission mode and has short-circuit,

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The invention relates to the field of monitoring and controlling the current and the voltage of internal circuits of distribution boxes, and discloses a self-sensing monitoring intelligent...

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

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