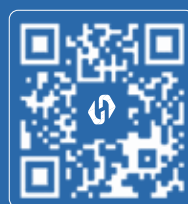


HXS-100series

Smart Power Distribution, Creating the Future

Digital Power Distribution Safety and Energy-Carbon Platform Solution



Smart Power Distribution, Creating the Future



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Xiamen Hongxin Intelligence Science & Technology Co. , Ltd.



Digital distribution helps with energy transformation and low-carbon emission reduction

Xiamen Hongxin Intelligent Technology Co., Ltd. is a provider of innovative digital distribution solutions, integrating system development, management, operation and maintenance of management platforms, as well as research and development, manufacturing, and sales of intelligent sensing terminal products. Based on over 20 years of accumulated experience in product research and development, manufacturing, and engineering in the power industry, Hongxin Intelligent has developed a series of intelligent distribution product matrices, including Hongxin Smart Distribution and Energy Carbon Cloud Platform, Intelligent Circuit Breaker Series, Intelligent Instruments, and Intelligent Gateway.

The company adheres to the concept of "innovation as the wing, altruism as the heart, and jointly building a safe, green, and intelligent electricity ecology", and the mission of "protecting electricity safety with innovative technology and empowering industrial symbiosis with altruism". It is committed to providing customers with a safer, more reliable, more efficient, and lower carbon electricity experience.

CORE CONCEPT

Innovation as the wing, altruism as the heart, jointly building a safe, green, intelligent electricity ecology

CORPORATE MISSION

Protecting electricity safety with innovative technology and empowering industrial symbiosis with altruism

CORPORATE VISION

Become a leader in innovation in the field of smart distribution, and build a safe, green, and win-win smart electricity ecosystem

CORE VALUES

Innovation driven, altruistic symbiosis, safety based, green responsibility

Introduction to Digital Miniature Circuit Breakers

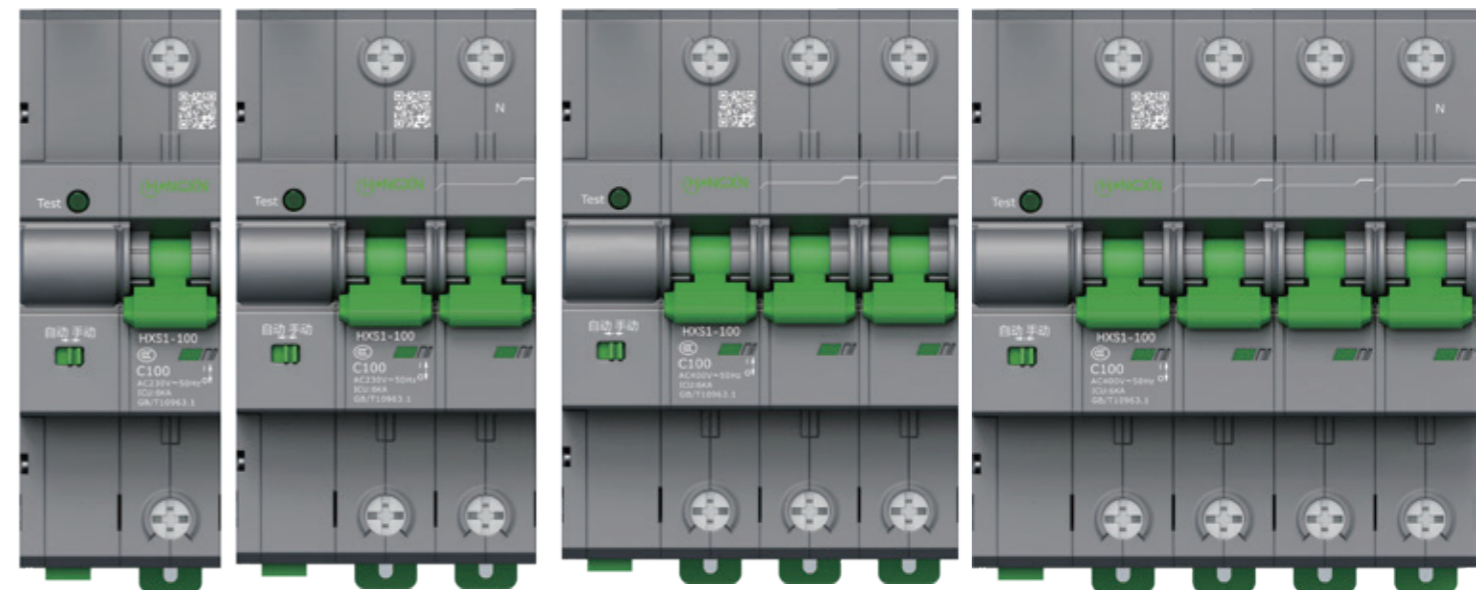
The HX S-100 series is an intelligent digital circuit breaker independently developed using new generation electronic technology. This digital circuit breaker integrates sensor technology and communication technology, and is suitable for terminal distribution systems in civil, industrial, new energy, and commercial buildings with rated voltages of AC230V/AC400V, DC48V/500V, and a maximum rated current of 100A.

It has dual protection for short circuit, overload, overvoltage, undervoltage, overcurrent, leakage current, overheating, etc; It has functions such as voltage and current, metering, electric metering, active power, reactive power, phase loss protection, three-phase imbalance, power factor, tempera-

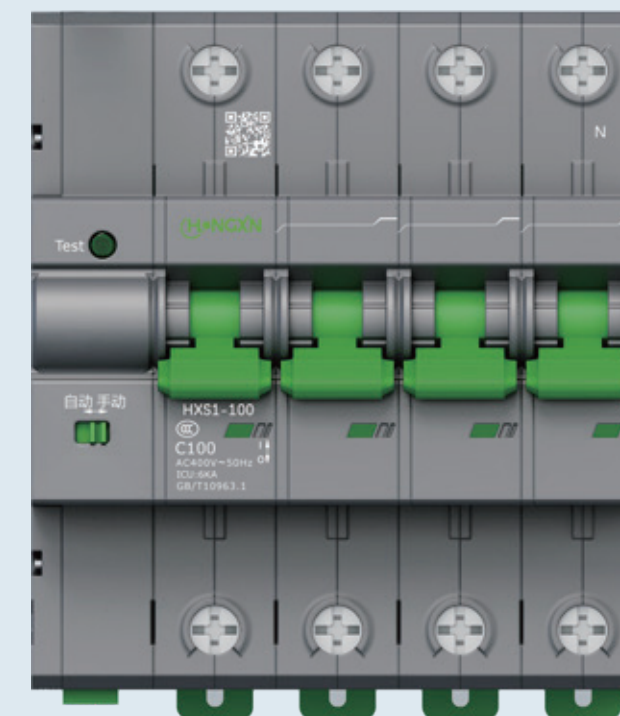
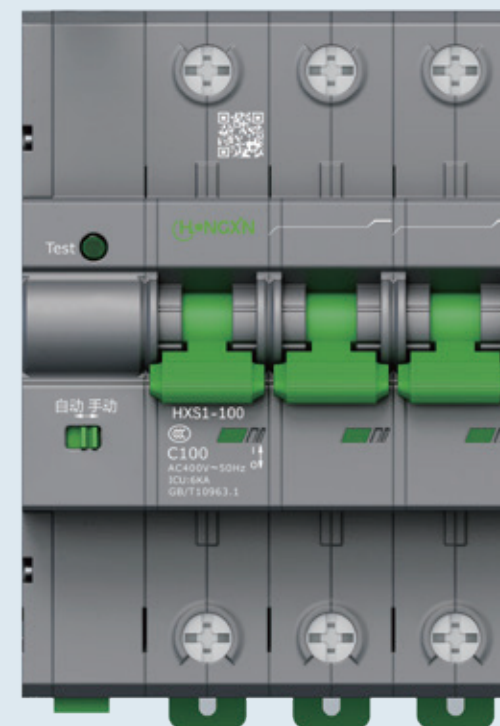
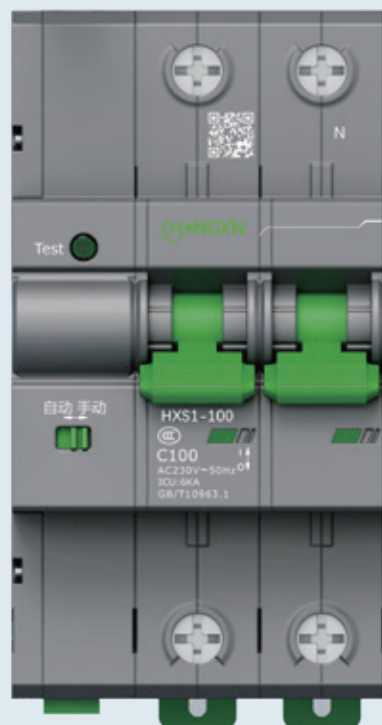
ture, timing strategy, data storage, data transmission, remote control of opening/closing, etc.

The product has the characteristics of high reliability, strong breaking ability, and small size. The device supports multiple wireless communications and can manage digital circuit breakers uniformly through a cloud platform, achieving four remote functions: "remote signaling", "telemetry", "remote control", and "remote adjustment".

Product Features



Product features



1 High-precision measurement/metering/billing

Electrical parameters meet the metering grade: current and voltage measurement accuracy up to 0.5 class; active power and reactive power up to 1 class or higher, with billing-level functionality.

2 Comprehensive electrical safety monitoring

Measurement information: current, voltage, leakage, temperature, frequency, etc.

3 Power meter functions

The built-in tripping drive mechanism supports the prepayment function

4 Storage function

Stores power failure data, fault records and electrical parameters

5 Extended linkage

Supports the DI/DO function, interlock control with other peripheral devices

6 Remote control

Supports remote control and timing control; configurable timing for switching on and off (supports local timing)

9 Protection function

Overload, overcurrent, leakage, overvoltage, ignition protection, anti-islanding.

7 Energy consumption analysis

Supports electricity consumption analysis and real-time upload of power, power factor, energy, and other energy-related information to the cloud platform for analysis and display.

8 Alarm thresholds adjustment

Can set voltage, current, cable temperature, alarm thresholds for residual current protection, supports arc fault alarm

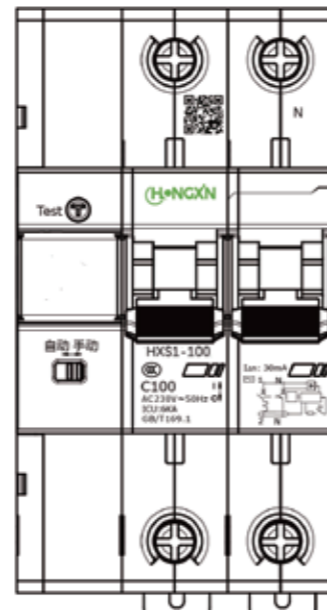
Product structure diagram and wiring diagram

Panel and Model Description

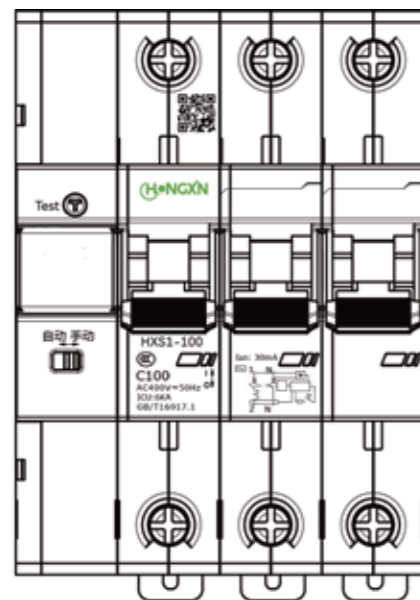
Product Outline Drawing



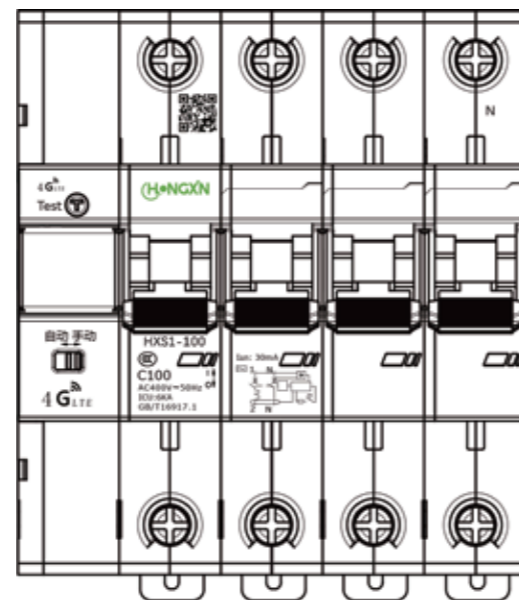
1P



2P



3P



4P

功能按钮/指示灯
用于检测漏电功能。
分闸时绿灯常亮，通讯运行时蓝灯常亮。

手动自动开关
可通过拨动来切换自动/手动模式。
自动：可以进行远程分合闸；
手动：只能进行分闸，不能远程合闸。



电源侧接线螺钉
接输入端

手柄
可通过拨动手柄进行分闸或者合闸操作。
合闸：向上拨动手柄；
分闸：向下拨动手柄。

分合闸指示
分闸：显示为绿色；
合闸：显示为红色。

负载侧接线螺钉
接输出端。

Feature Description

1. Independent power supply, with an internal power module built into the circuit breaker; no external power supply required;
2. RS-485 communication, 4G communication, etc., each gateway can support up to 30 circuit breakers;
3. Supports multiple control methods including local control, timed control, group scene control, and sensor WM control;
4. Can provide real-time feedback remotely, supports statistics on the number of switching operations, and supports the automatic reclosing function;
5. The built-in transformer can collect real-time data such as voltage, current, active power, reactive power, power factor, and leakage current from the circuit;
6. Built-in metering capability to measure the line power consumption;
7. Supports various functions such as over-voltage and under-voltage protection, temperature protection, over-load/short circuit protection, leakage protection;
8. Supports local and remote self-test functions

Product Structure and Model Definition



1P



2P



3P



4P



4G网关

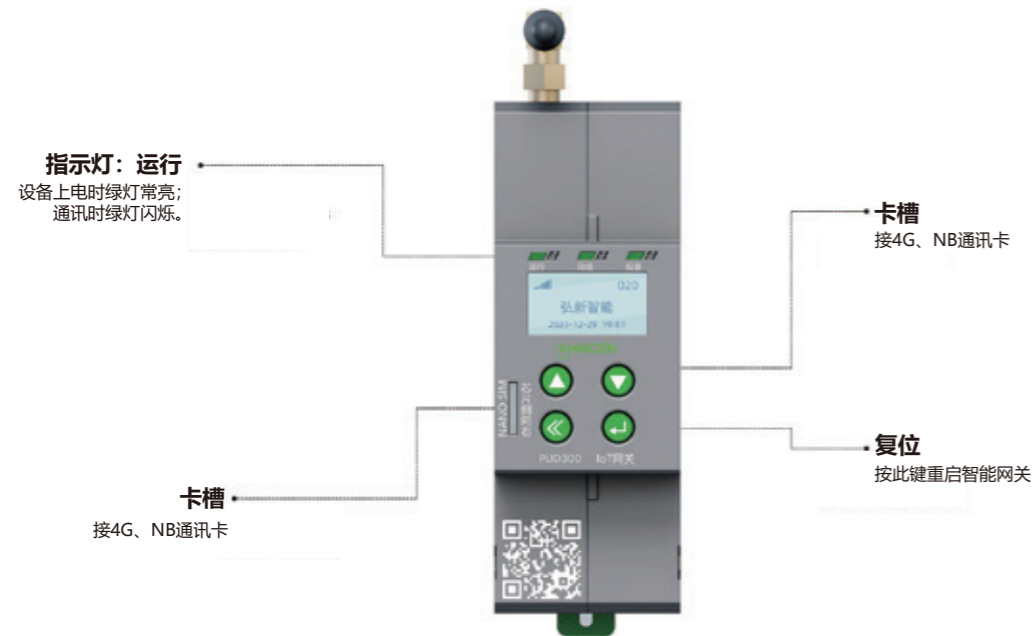
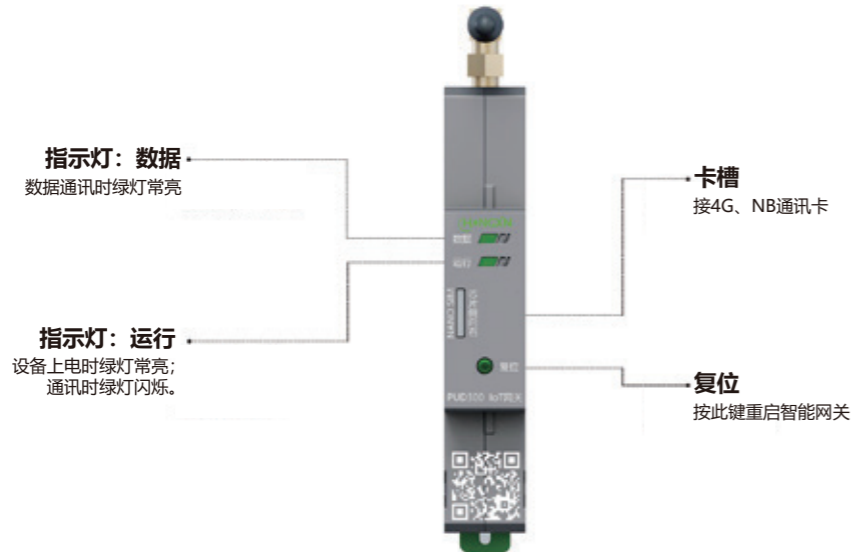
Product Technical Parameters

HONGXIN Main Technical Parameters Table

Rated current I_n (A)	6-100A
Polar number (P)	1P,2P,3P,4P
Rated working voltage U_e (V)	AC230V (1P/2P) AC400V/415V (3P\4P) DC48V/ 500V
Rated insulation voltage U_i (V)	690V
Rated impulse withstand voltage (U_{imp})	6KV
Frequency	50/ 60Hz
Breaking capacity	$\geq 10000A$
Electrical life	8000次
Mechanical life	≥ 20000 次
Shell fire rating	V0级
IP rating	IP20
Operating temperature	-35°C~80°C
Maximum installation altitude	2000m
Installation method	35mm DIN rail mounting

Smart Gateway

Panel and Model Description



Product Technical Parameters

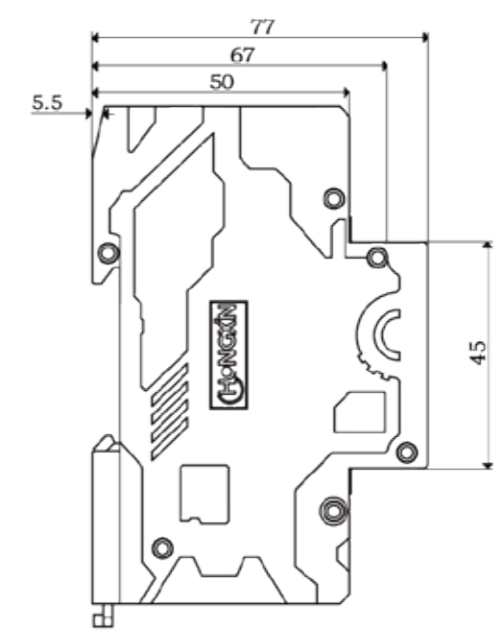
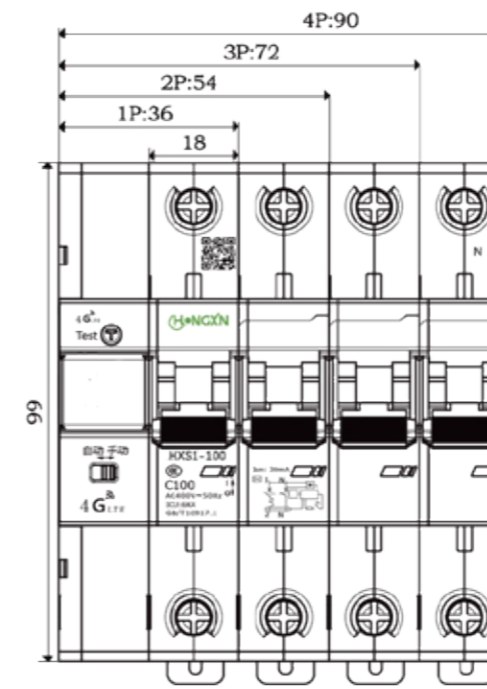
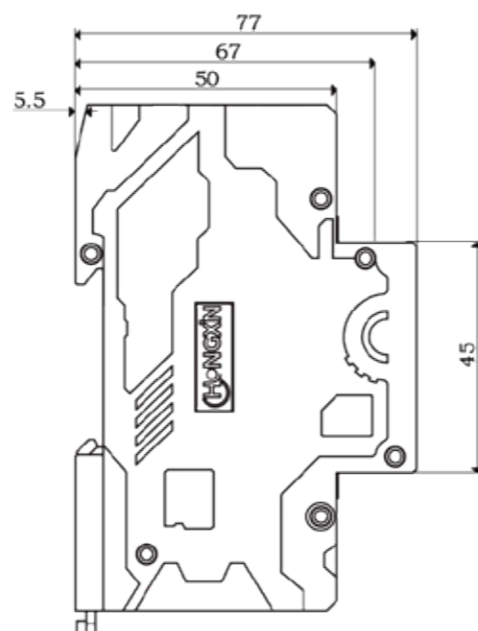
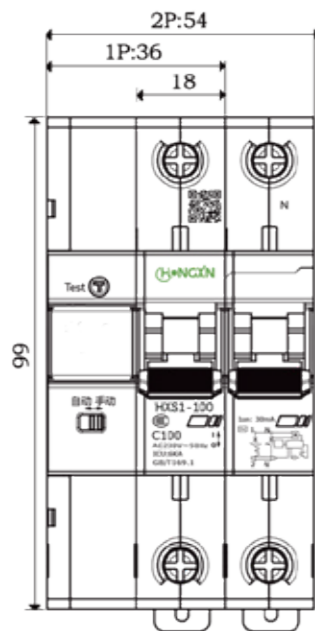
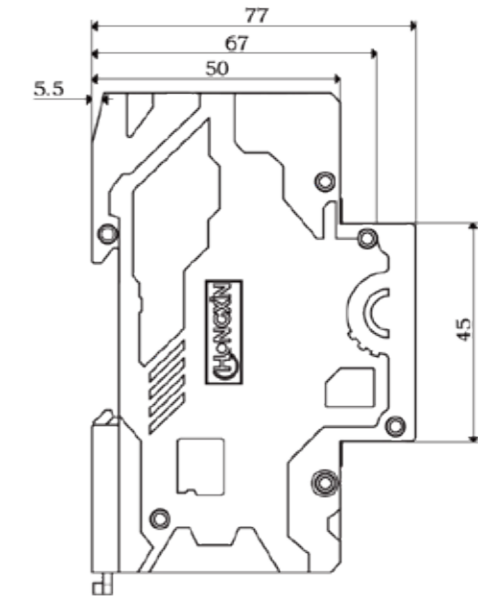
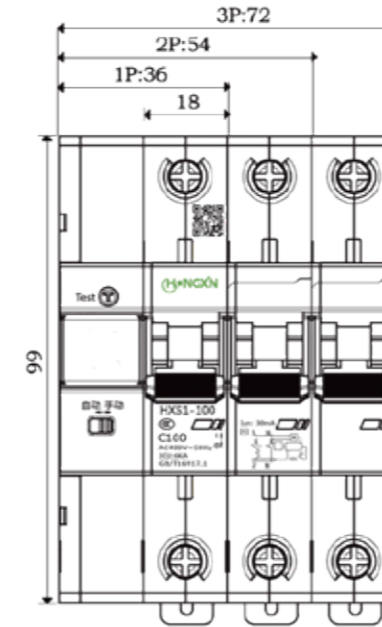
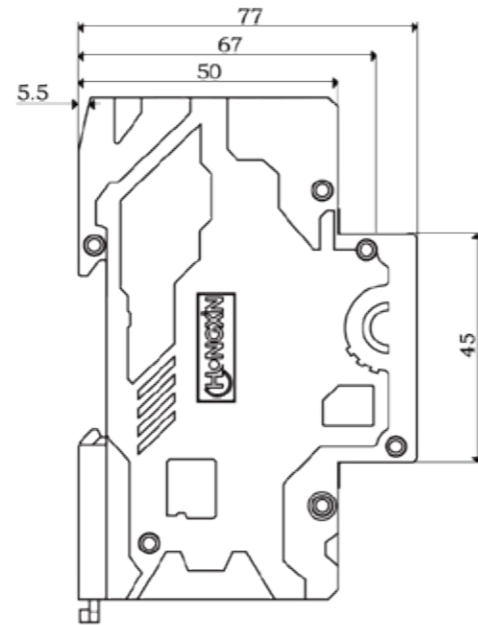
Wiring Instructions



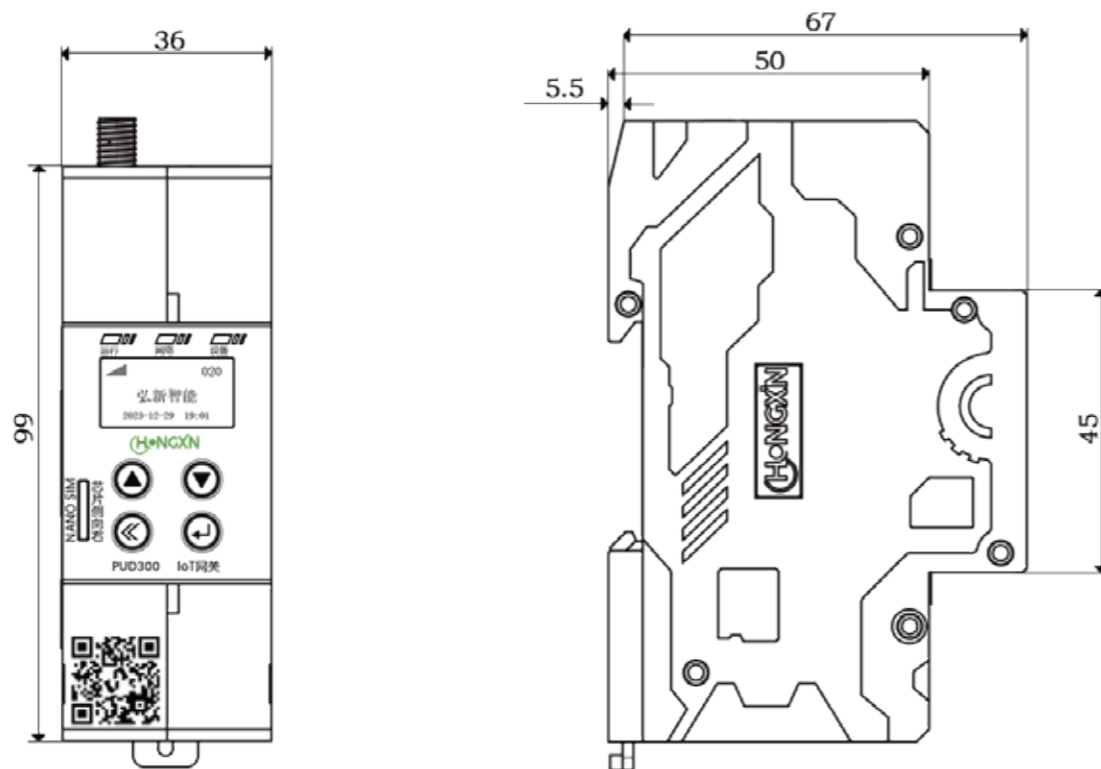
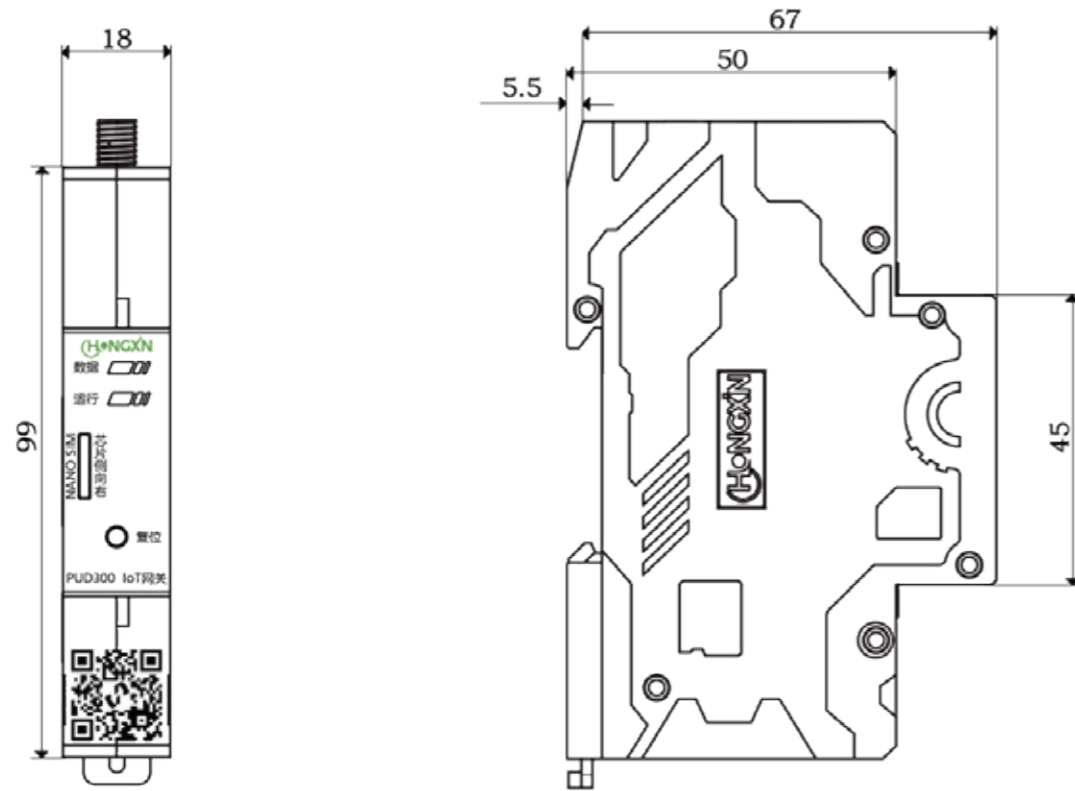
Feature Description

1. Adopting high-performance industrial grade 32-bit ARM processors;
2. Adopt high-performance industrial grade 4G wireless module/WiFi/Ethernet;
3. Wide voltage input range (AC/DC 48V ~ 250V);
4. Standard industrial RS-485 communication interface;
5. Equipped with operation and network connection prompts;
6. Adopting a comprehensive anti disconnection mechanism, automatic reconnection after disconnection, and reducing terminal maintenance work;
7. No additional configuration is required; registration and heartbeat packets are sent automatically when powered on;
8. Support basic parameter modification: IP and port, heartbeat packet interval, registration packet sending mechanism, etc.

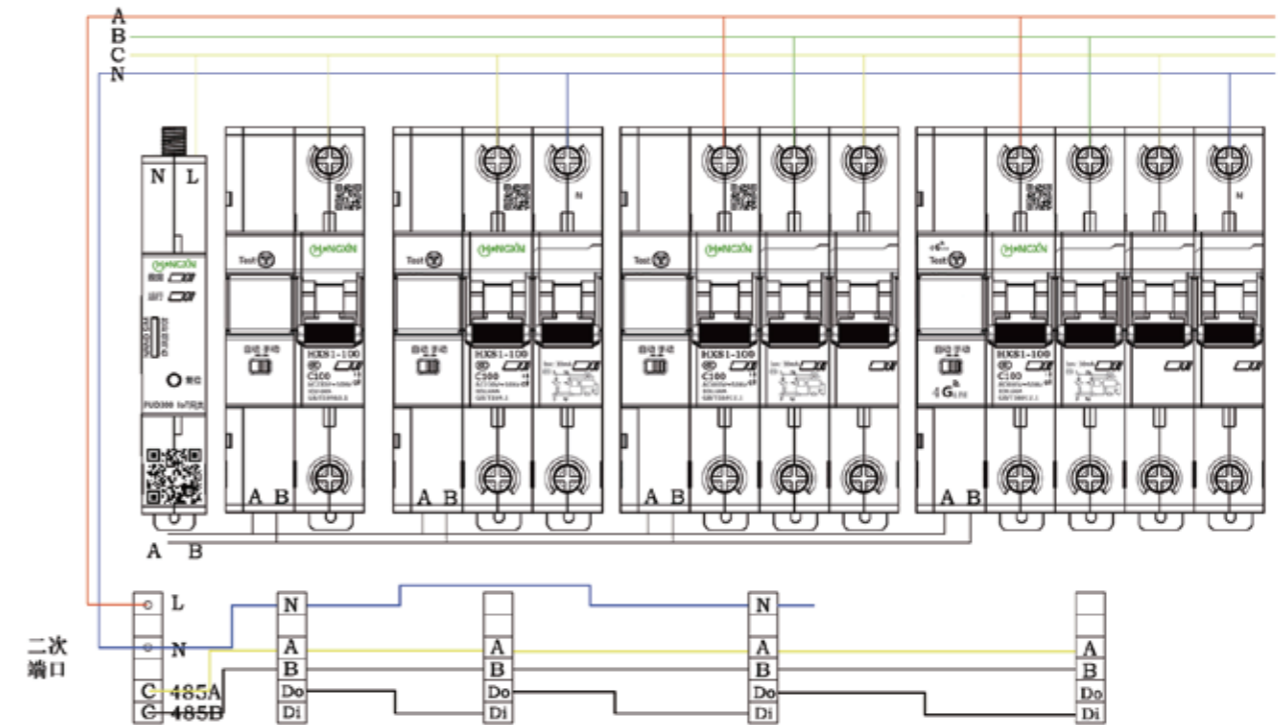
Dimensional drawing of digital miniature circuit breaker



Intelligent Gateway Size Diagram



Product wiring method



The wiring diagram is for the internal power supply type, which can be directly connected to the mains supply without an external power module.

Introduction to Digital Distribution Safety and Carbon Energy Platform

The Digital Power Distribution Safety and Energy-Carbon Platform adopts an integrated "cloud-edge-end" operational platform, combining cloud computing, IoT, big data, and edge computing technologies to provides an electrical safety control and energy-carbon management system.

The system captures real-time data from digital circuit breakers, power meters, and other sensing device terminals, identifying potential electrical safety hazards. It provides integrated preventive solutions including real-time early warnings, alarms, fault location and root cause analysis to ensure comprehensive power safety. With 24/7 continuous monitoring, it guarantees security, provides data-driven analysis and insights, and enabling more efficient and user-friendly management.

Smart digital circuit breakers, power meters, and other sensing terminal devices upload data to the cloud platform via self-developed gateways through Ethernet or 4G wireless communication technology. Through web interfaces on computers and mobile apps or mini-program terminals, they enable human-machine interaction (HMI). Real-time data acquisition includes switch states, current, voltage, leakage current, temperature, phase loss, power, operating frequency, power factor, active power, reactive power, apparent power, active energy, reactive energy, apparent energy, timing switching, line status, ault early warnings, fault alarms and fault tripping protection. Big data analytics are applied for comparison, calculation, analysis and recording, enabling remote reporting for electrical safety and energy management, statistical calculations, device positioning, equipment inventory statistics, energy consumption statistics and automatic report generation, user statistics, configuration displays, early warning settings, residual current alerts, app notifications and SMS alerts and multi-channel reminders.

The system significantly elevates the level of modern digital intelligent electrical safety .

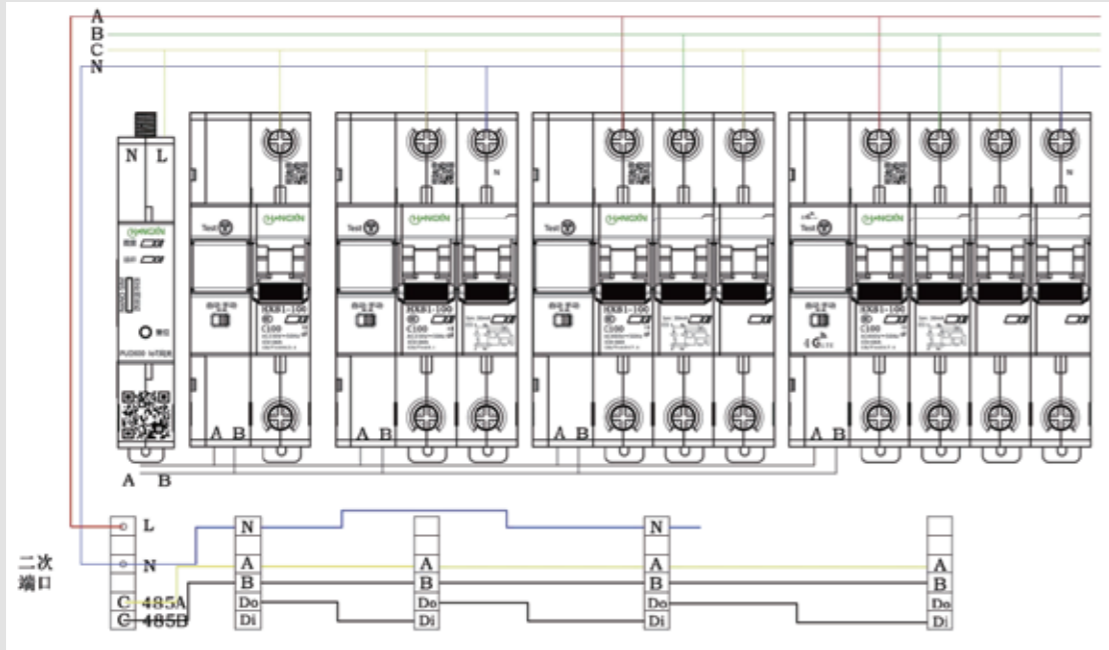


数字配电安全及能碳平台



Introduction to the functions of smart power distribution solutions

The solution integrates Hongxin Intelligent Digital Miniature Circuit Breakers and IoT Gateways, which constitute the core components of the intelligent electrical safety system.

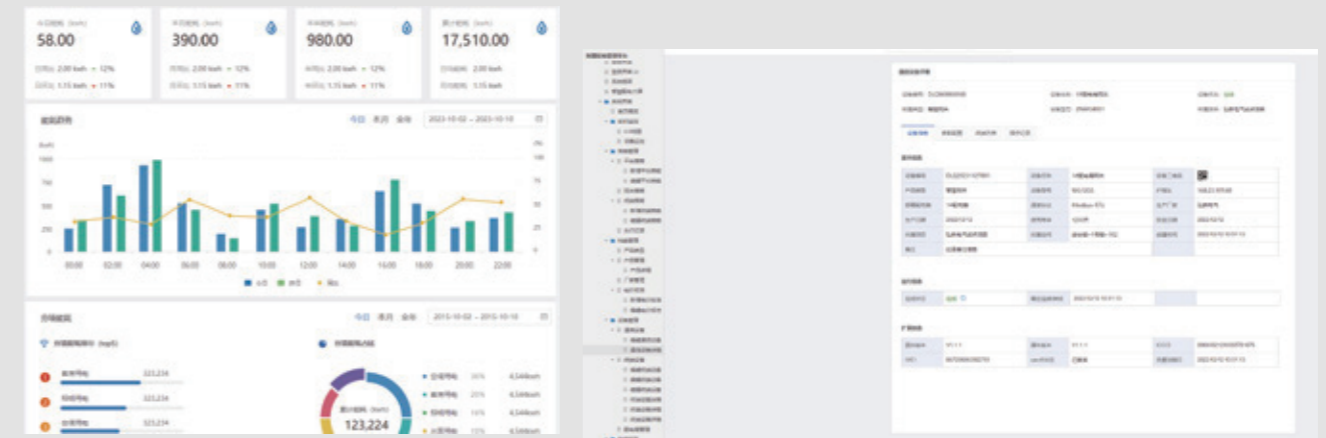
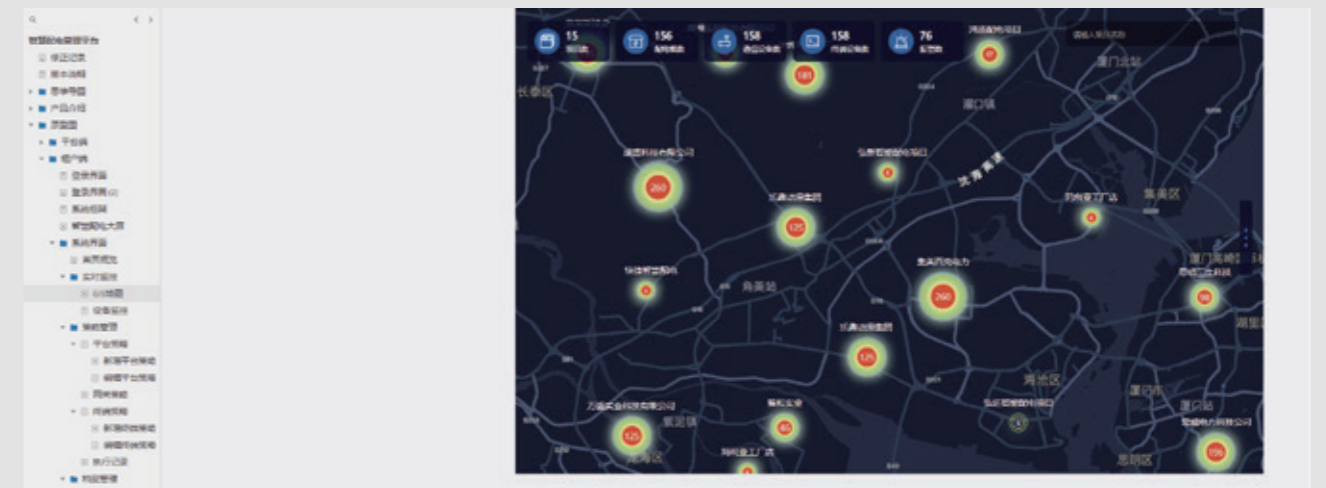
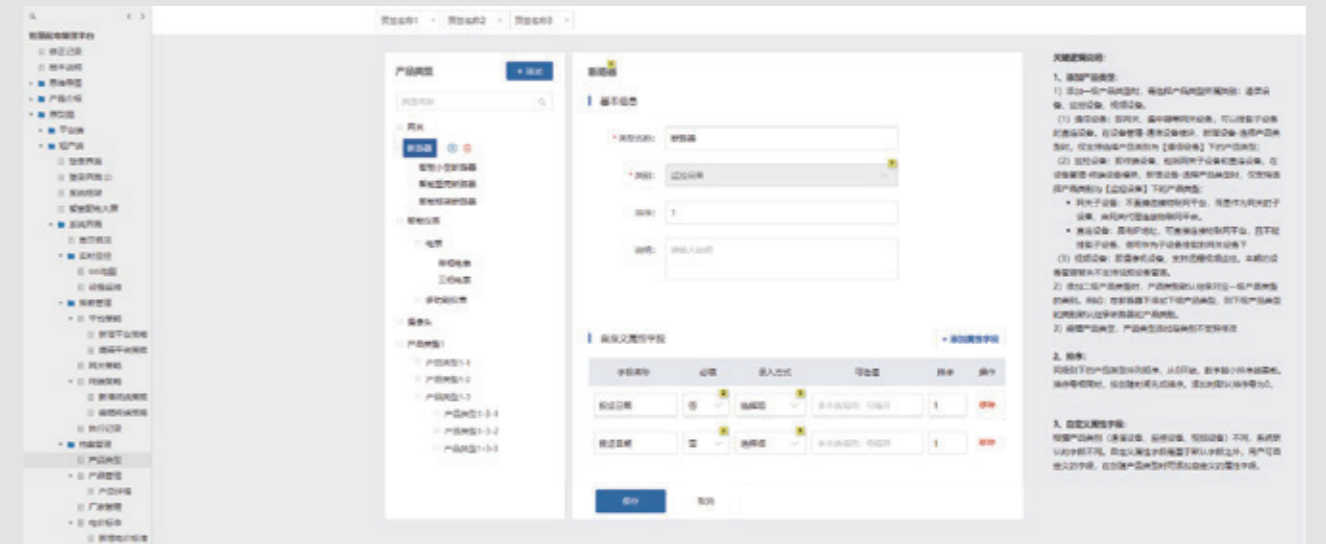


The basic architecture adopted by the digital secure power distribution and energy carbon management platform is to collect on-site data and upload it to the cloud management platform and where the cloud management platform performs calculation, analysis and statistical analysis.



Tenant side operation function

Tenant-side operation functions include: real-time monitoring, policy management, document management, device management, data reporting, energy consumption control, power distribution management, alarm management, message notification, log management, system management and personal center.



PC-based Web App



设备管理

设备ID/名称: [输入设备ID/名称] 标签: [输入设备名称] 在线状态: [选择在线/离线]

终端设备ID	名称	设备名称	在线状态	分合闸状态	所属配电柜	所属楼栋名称	设备地址	设备型号	最后在线时间/更新时间	操作
202410230007	1#柜断路器07	智能断路器07	在线	合闸	1#柜	2024-10-29 15:21:25	基本操作	实时数据		
202410230006	1#柜断路器06	智能断路器06	在线	合闸	1#柜	2024-10-29 15:21:23	基本操作	实时数据		
202410230005	1#柜断路器05	智能断路器05	在线	合闸	1#柜	2024-10-29 15:21:23	基本操作	实时数据		
202410230004	1#柜断路器04	智能断路器04	在线	合闸	1#柜	2024-10-29 15:21:22	基本操作	实时数据		
202410230003	1#柜断路器03	智能断路器03	在线	合闸	1#柜	2024-10-29 15:21:22	基本操作	实时数据		
202410230002	1#柜断路器02	智能断路器02	在线	合闸	1#柜	2024-10-29 15:21:21	基本操作	实时数据		
202410230001	1#柜断路器01	智能断路器01	在线	合闸	1#柜	2024-10-29 15:21:21	基本操作	实时数据		

智能断路器01 配置

设备ID: 202410230001 设备名称: 智能断路器01 产品类型: 断路器 设备型号: [输入设备型号]

设备地址: 1 设备状态: 在线 分合闸状态: 合闸

设备配置

- 过流报警 (A): [输入过流报警阈值]
- 欠压报警 (V): [输入欠压报警阈值]
- 过压报警 (V): [输入过压报警阈值]
- 漏电报警 (mA): [输入漏电报警阈值]
- 温度报警 (°C): [输入温度报警阈值]
- 频率报警 (%): [输入频率报警阈值]
- 缺相报警 (%): [输入缺相报警阈值]
- 功率因数报警 (W): [输入功率因数报警阈值]
- 三相不平衡报警 (%): [输入三相不平衡报警阈值]
- 总功率报警 (W): [输入总功率报警阈值]
- 启动报警 (Hz): [输入启动报警阈值]

联动: 手动

保存并下发配置

Hongxin Smart Electric Mini Program App

