Product overview

The single-phase guide rail prepayment meter is a new generation of intelligent electricity developed and produced by Shenzhen Jiangji Industrial Co., Ltd Capable of measuring products, designed specifically for residential use. This meter supports STS 2.0 compatible prepaid mode,And equipped with optional uplink bidirectional communication module to achieve AMI function.

Product function

Phase line measurement and neutral line measurement (optional), The remaining prepaid amount that decreases during use measuring kWh, kvarh, kVAh, MD, billing and load configuration files, Time of Use (TOU) measurement, power quality monitoring,disconnection and reconnection control, tamper detection and anti tampering, alarm notifications, local and remote communication modules.

product introduction

DDSY110 single-phase rail prepaid IoT meter is a new generation of intelligent IoT energy metering products developed and produced by Shenzhen Jiangji Industrial Co., LTD. It is designed for campus, rental and other use scenarios, and uses microelectronics technology to measure energy.

product feature

1.The use of fully sealed structure, the use of advanced single-chip microcomputer processing system for data acquisition, processing and storage.

2.Good resistance to EMC

3.low power consumption

4.high accuracy,anti-tamper.

5.Current in the range of 5-60 amps, High overload protection,Long service life

6.Application APP plus cloud background computer management, purchase electricity before use;

7.Limit the maximum power usage within the rated current range (defined by the power supply department)

8.Support cash recharge and WeChatpay, Alipay, m-pesa and other third-party payment methods

9. Build- in WIFI/BLE(Optional) Communication module, support users to use mobile phones to recharge offline in a non-network environment, after the watch box is connected with the Guard 3.0 configuration, support remote recharge.

10.When the power is zero, the power is automatically switched off. Electric meters have anti-tamper software design. Built-in wifi or Bluetooth module.

GUARD 3.0

- 485 collection
- infrared collection
- Support WIFI gateway
- Support Bluetooth gateway
- Downlink supports a variety of meter protocols and communication protocols:DL/645-1997、DL/645-2007、DL/T698.45-2017、ModbusCJ/T188、DLMS.

- Uplink use MQTT protocol.
- metering cabinet support Remote Video Monitoring
- Unboxing photos and obtaining evidence Upload Optional
- Tampering incident reports, videos and photos are uploaded to local storage and cloud storage

>>> Value Analysis

Enhanced Anti-tampering

All meters in one cabinet which isolates from users. The cabinet equips with box cover sensor and nobody can easily touch the cabinets.

Save Cost

Save about 70% cost without losing performance.

	Traditional Solution	Generation One	Generation Three
Components	6 DIN Meters(GPRS+PLC) 6UIU (PLC)	6 DIN Meters (RS485) Gateway (GPRS+ PLC+ RS 485) 6 UIU (PLC)	6 DIN Meters (BLE/WIFI) GUARD 3.0(GPRS+ WIFI+BLE+ RS 485) Use your mobile APP(free)
Cost	100%	Save about 35%	Save about 70%
Data collection	✓	✓	✓
Remote recharge	✓	✓	✓
Wifi gateway	—	—	✓
Ble gateway	—	—	✓
Video surveillance Unpack record and take photos	—	—	✓

Cost Ratio Chart

- UIU
- PLC MODULE
- GPRS MODULE
- BASE ETER

Traditional Solution: 24%, 6%, 10%, 60%

Generation One: 26%, 7%, 1%, 66%

Generation Three: 2%, 98%

IoT Cluster Metering

Solution3.0

STANDARD INNOVATIVE PROSPECTIVE SUSTAINABLE

JIANGJI

IoT Metering Solution 3.0

➤➤➤ Challenges

- High investment cost and operation & maintenancecost for Smart metering Project faced by Most utilities.
- Traditional smart metering solution which is far behind to the development of IoT technology, Cloudy platform and Internet technology.
- Lack of competitive forward-looking, flexibility and scalability of traditional solution.
- Low customer experience without coming up with the development of internet era.

➤➤➤ Highlights of IoT metering solution

- Ultimate anti-tampering design such as pole-mounted metering cabinet complete set with various anti-tampering technology like cabinet door open detection, etc.
- A Variety of stable IoT technology applications such GPRS/3G/4G, Bluetooth, Wi-Fi, Internet to guarantee the stability and flexibility of whole solution.

- Perfect customer experience and auxiliary home energy management through mobile APP substituted traditional Customer Interface Unit.
- Low investment cost through innovative design such as removed UIU and embedded IoT module in meters.
- Low operating costs, such as the design and free maintenance of shared communication channels through the addition of "GUARD3.0", while achieving video surveillance of meter boxes

➤➤➤ Solution Components

- Smart metering system platform
- Ultimate anti-tampering smart metering cabinet with flexible meter quantity and meter types.
- Mobile APP with full traditional UIU functions and Home energy management screen functions.

SYSTEM | APP

Architecture

Vending Channels

E-bank | APP | Scratch Card | ATM | POS | CDU | Third Party Vending

Smart Metering System Platform

MDM | HES | WEB | Vending | WEB Portal | Third Party System

Ultimate Anti-tampering Smart Metering Cabinet

Mobile APP
Smart phone with full traditional UIU functions and Home Energy Management functions.

Smart Phone

Communication Architecture

Smart Metering System Platform | Mobile APP | Ultimate Anti-tampering Smart Metering Cabinet
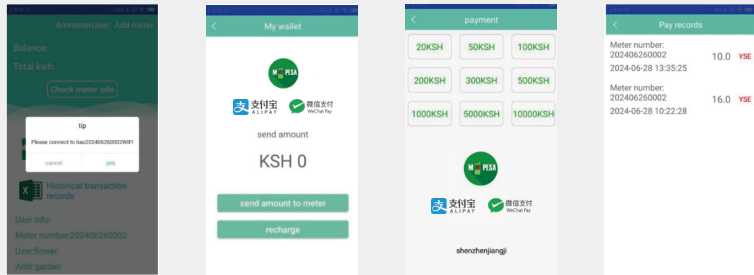
GPRS/Internet | Bluetooth | Child Meter — Mother Meter | GPRS/3G/4G
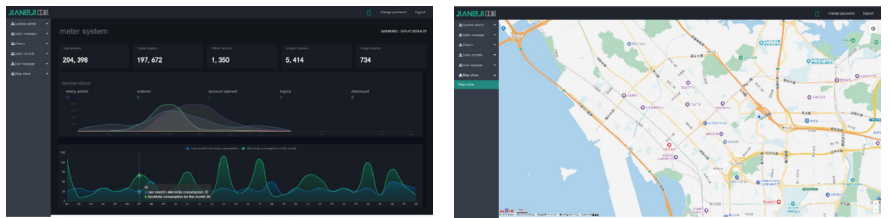

➤➤➤ Component Functions and Features

Mobile APP with UIU functions and Home Energy Management functions

- Support Android Platform Including management app and user app.
- Communication with master station by Internet when "GUARD3.0" uplink is well.
- When the network cannot be connected properly, the user can use the APP (Bluetooth /WIFI) to communicate directly with the meter.

- Query energy consumption, credit, instantaneous data, load profile,etc.
- Recharge the meter remotely
- Event/message notification.
- Support vending online.WeChat payment Alipay payment or MPESA etc.
- Support cash payment.

➤➤➤ Smart Metering System

- Full AMI functions, STS prepaid functions and FDM (Field Deployment Management) functions Full Web-portal/MDM and GIS functions
- Full Web-portal and GIS functions.

- Convenient to integrate with 3rd meter providers
- Secure and reliable communication encryption
- Support a variety of vending channel, such as APP, and 3rd vending Support workflow management
- Support bidirectional communication with smart meter
- Support customized report and customized big screen