

PST-3570A2

Uni-phase Electric Energy Meter & RTU 2-in-1 Smart Terminal

Product introduction

PST-3570A2 is a plug and play single-phase watt hour meter, which can be used to detect the power usage of single-phase electricity. Multi range options can be provided according to customer needs

Detection principle

When the electric energy meter is connected to the circuit to be tested, alternating current flows through the current coil and voltage coil, and these two alternating currents generate alternating magnetic flux in their iron cores respectively; The alternating magnetic flux passes through the aluminum disk and induces eddy current in the aluminum disk; The eddy current is also subject to the force in the magnetic field, so that the aluminum disk can get the torque (active torque) and rotate. The greater the power consumed by the negative track load, the greater the current through the current coil, the greater the eddy current induced in the aluminum disk, and the greater the torque that makes the aluminum disk rotate. That is, the torque is proportional to the power consumed by the load. The greater the power, the greater the torque, and the faster the aluminum disk rotates. When the aluminum disc rotates, it is also affected by the braking torque generated by the permanent magnet. The braking torque is in the opposite direction to the active torque; The braking torque is proportional to the rotating speed of the aluminum disc. The faster the aluminum disc rotates, the greater the braking force capacity torque. When the active torque and braking torque reach a temporary balance, the aluminum disc will rotate at a uniform speed. The electrical energy consumed by the load is proportional to the number of revolutions of the aluminum disk. When the aluminum disk rotates, it drives the counter to indicate the consumed electric energy

Product features

- ❖ Detection items: Power, voltage, current, frequency, power consumption
- ❖ Integrated design
- ❖ HD multi-function display
- ❖ Multi range optional
- ❖ Flame retardant thickened shell, safe and reliable
- ❖ High precision and sensitivity
- ❖ Easy installation



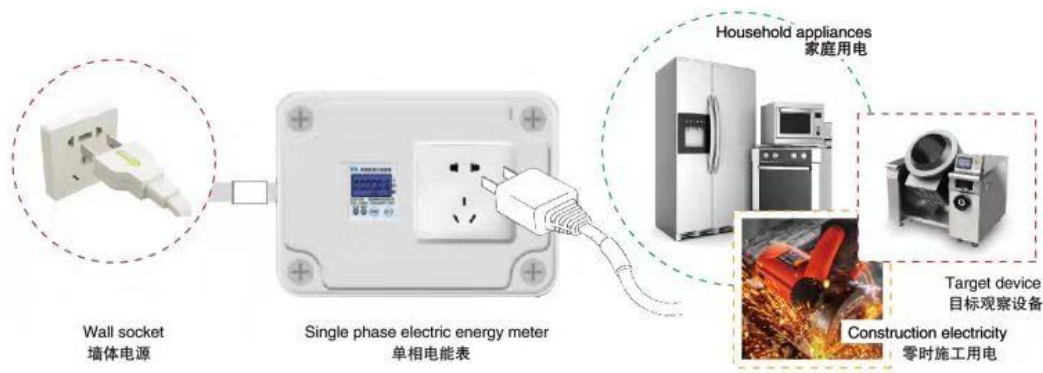
Product parameters

Parameters	
working voltage	110V AC (USA)/220V AC (China) according to customer demand
working frequency	60Hz (US)/50Hz (China) according to customer demand
data display	Power, voltage, current, frequency, power consumption
Communication	MODBUS-RTU RS485

protocol	
current range	5 (20) A/10 (40) A/15 (60) A/20 (80) A/30 (100) A according to customer requirements
Internal power consumption	≤2W / 10VA
Interface	
Output signal	RS485
Mechanical	
Size	170mm×140mm×103mm
Work environment	-40℃ ~+85℃
Power	
Power	12V DC

Usage method

No operation by professional electricians is required, just plug the plug of the target electrical equipment into the panel of the "single-phase electric energy meter". The statistics of electricity quantity, voltage, current and other indicators of zero hour power consumption and target equipment power consumption can be carried out.



Application

It is widely used in power monitoring system of large sports venues, airport power monitoring system, conference center power monitoring system, power monitoring and power consumption monitoring of each system unit.

Ordering Guide

- ❖ PST-3570A2 needs to be used together with WxS series communication boards (WxS78xx, WxS88xx, WxS98xx, WxS99xx, WxSC8xx, WxSC9xx, WxSD8xx and CxS18xx) to form intelligent IoT terminals with different communication modes
- ❖ According to the specific scenario of use case, the enclosure and antenna of intelligent IoT terminal will be replaced to ensure the product quality and performance.
- ❖ Example of products are as follows:
 - WxS7800-3570A2 WiFi Series Uni-phase Electric Energy Meter & RTU 2-in-1 Smart Terminal
 - WxS8800-3570A2 LoRaWAN Series Uni-phase Electric Energy Meter & RTU 2-in-1 Smart Terminal
 - WxS9800-3570A2 NB-IoT (China) Series Uni-phase Electric Energy Meter & RTU 2-in-1 Smart Terminal

- WxS9900-3570A2 NB-IoT (Global) Series Uni-phase Electric Energy Meter & RTU 2-in-1 Smart Terminal
- WxSC800-3570A2 LTE Cat1 Series Uni-phase Electric Energy Meter & RTU 2-in-1 Smart Terminal
- WxSC900-3570A2 LTE Cat1 w/GPS Series Uni-phase Electric Energy Meter & RTU 2-in-1 Smart Terminal
- WxSD800-3570A2 LTE Cat4 Series Uni-phase Electric Energy Meter & RTU 2-in-1 Smart Terminal
- CxS1800-3570A2 Ethernet (RJ45) Series Uni-phase Electric Energy Meter & RTU 2-in-1 Smart Terminal