MOKO Smart LoRaWAN Plug
LW005-MP

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Product Introduction

LW005-MP is a LoRaWAN smart plug with power and energy monitoring, the measuring accuracy can reach ±0.5%. The plug can connect to your server through LoRaWAN network, so as to realize smart control, power and energy monitoring and other functions.

It is mainly used for intelligent electrical control, industrial equipment monitoring, power monitoring and energy management, etc.

LW005-MP → LoRaWAN → LoRaWAN Gateway → Internet → Your cloud server → Client

Product Model

LW005-MP series contains several product models, the model list is as below:

Series Model	Product Model	Description
LW005-MP	LW005-MP- B	US type, max current is 15A, US915(Default Frequency)
	LW005-MP- G	UK type, max current is 13A, EU868(Default Frequency)
	LW005-MP- F	EU type, max current is 16A, EU868(Default Frequency)
	LW005-MP- E	FR type, max current is 16A, EU868(Default Frequency)

Note: All the above four models can be customized for other frequency bands:US915 / CN779 /EU433 /AU915 /CN470 /AS923 /KR920 /IN865 /RU864.

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Features

1. Support wide range of voltage input

Supports 100V-240V, 50/60Hz voltage input.

2. Multiple plug types

Support multiple plug types, can be used in many countries.
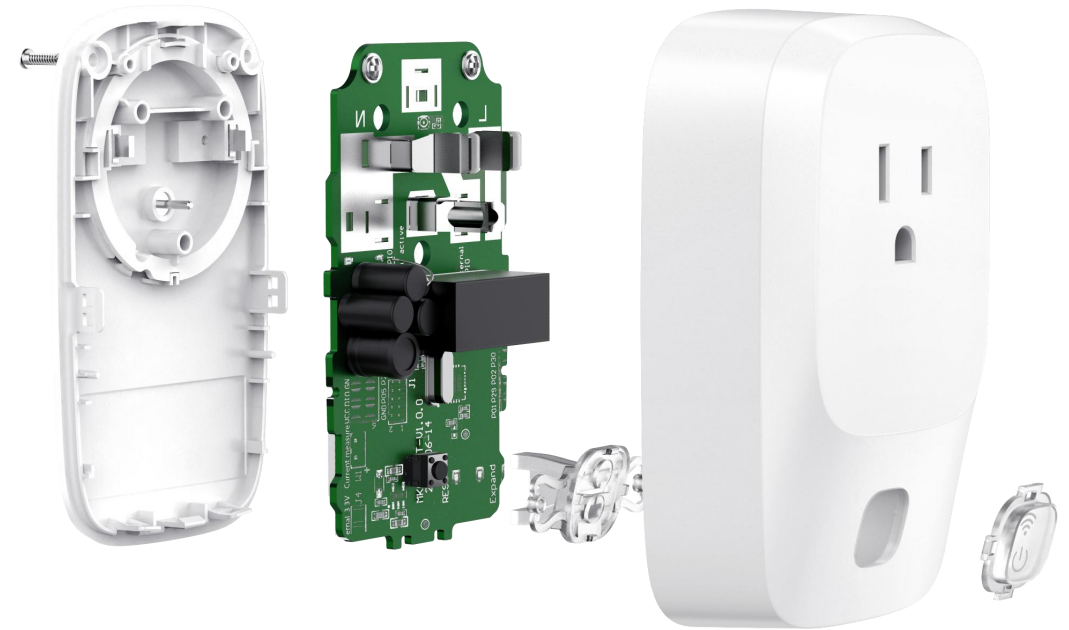
3. Mature power supply design solutions

We have rich experience in socket product development, accumulated and formed a mature and reliable power supply design solutions, can ensure the stability and safety of the product in the work.

4. ±0.5% measuring accuracy

LW005-MP can measure the instantaneous voltage, current, active power, power factor and power consumption data, and the built-in meter-level power meter chip and high-precision sampling resistors, making power and electrical parameters more accurate monitoring, reducing monitoring deviations, to ensure the safety and reliability of electricity.

5. Local storage of energy data

LW005-MP has a built-in memory chip for statistical and local storage of electrical energy data, which includes hourly electrical energy data of the day and total accumulated historical electrical energy data, preventing errors and loss of historical electrical energy data due to sudden power failure and improving the accuracy of customers' electrical energy analysis of power-using equipment.

Features

6. Multiple protection mechanism

Over load/Over voltage/Sag voltage/Over current protection, when the measured value exceeds the safe range, it will automatically turn off.

7. Load work status detection

When it detects that the load starts/stops working, immediately reporting a notification to the server.

8. Network status and switch status are indicated separately

➢ Network indicator indicates the current network status of the device, which allows customers to visually observe the network connection status of the device.

➢ The switch indicator is used to indicate the device switch status, and the indicator color changes according to the active power of the connected load, users can intuitively and quickly capture the change of load power.

9. Products designed to meet testing standards for various certifications

CE (Pending): VDE0620 EN61058 EN300328 EN301489 EN62479(EU Type)
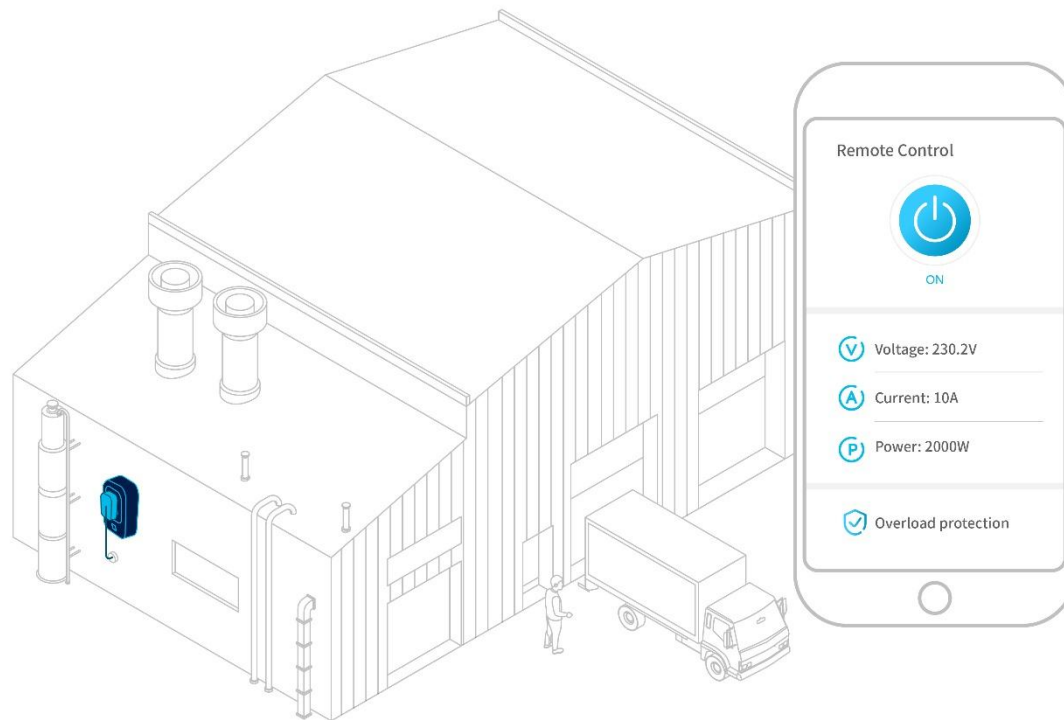
NFC61-314 EN61058 EN300328 EN301489 EN62479(FR Type)

BS1363 EN60669 EN300328 EN301489 EN62479(UK Type)

FCC (Pending): Part15C(US Type)

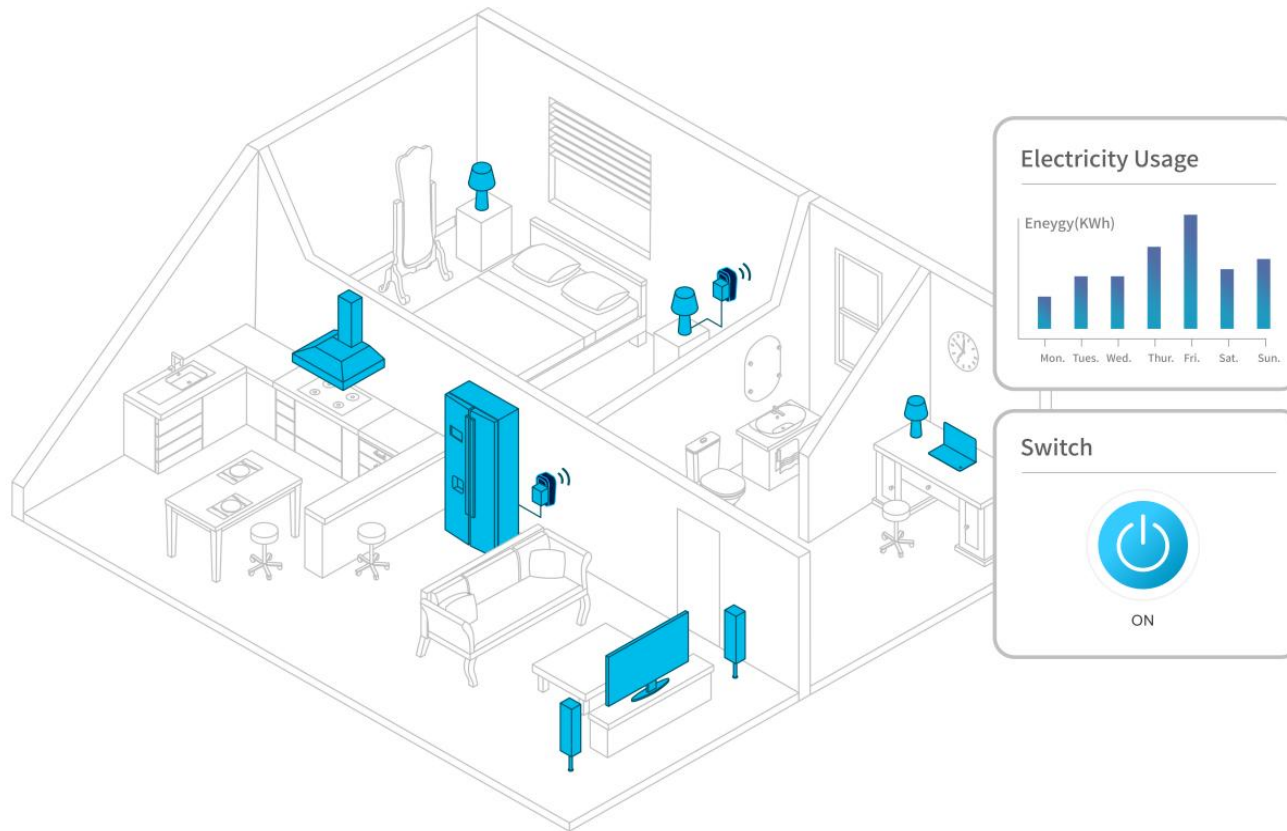UL: UL498A UL60730(US Type)

Applications

Remote Control

ON

V Voltage: 230.2V

A Current: 10A

P Power: 2000W

Overload protection

Scenario 1: Intelligent industrial control
LW005-MP can be used for electrical energy monitoring and remote control of some key industrial equipment. It can report the electrical parameters (voltage, current, power) and total electrical energy data during the operation of the equipment. Data analysis can be generated on the server, so that users can find abnormal power consumption and abnormal working equipment in time to ensure power safety and optimize power distribution.

Applicable function:
Electricity protection;
Remote control;
Power and energy monitoring;

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Applications

Electricity Usage

Eneygy(KWh)

Mon. Tues. Wed. Thur. Fri. Sat. Sun.

Switch

ON

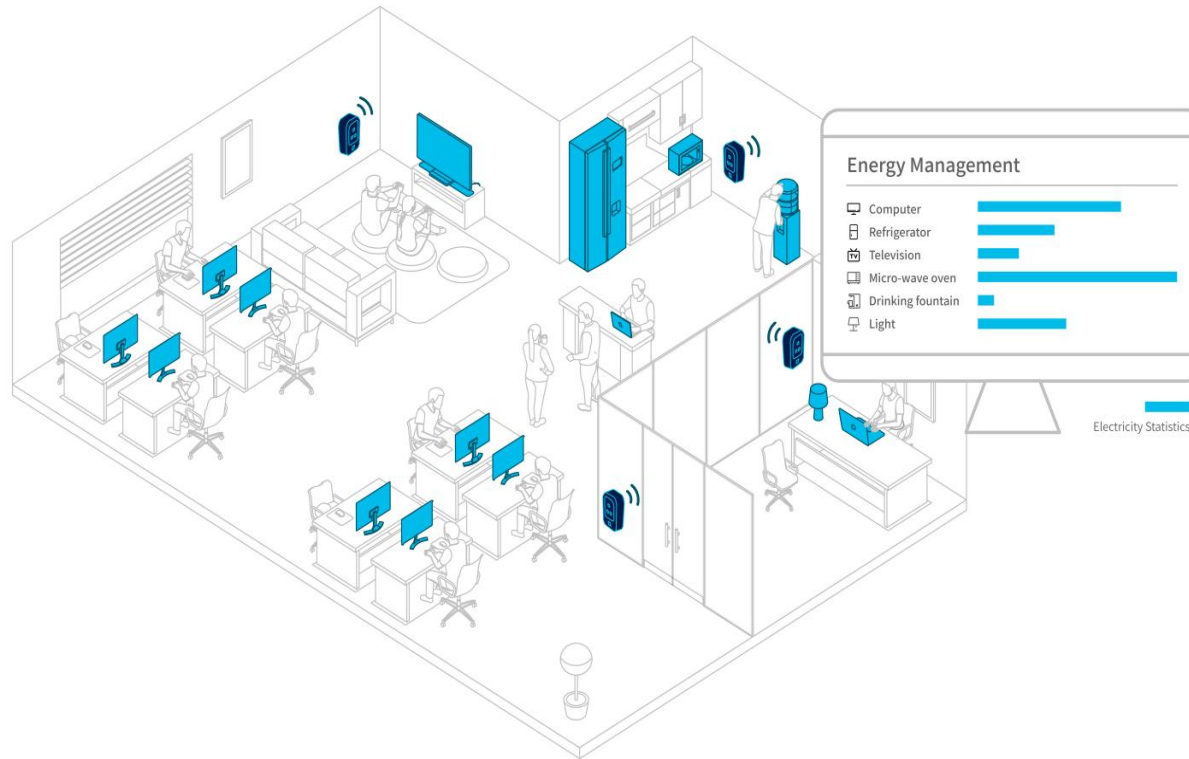**Scenario 2: Smart home appliance control**
Connect the household appliances with the LW005-MP, you can remotely control the switch status through the APP/server, and view the power consumption data at any time. When you leave home and forget to turn off an electrical appliance, you can use the APP to remotely turn it off, which can help you minimize the electricity risk and save electricity bills.

Applicable function:
Remote control;
Timer switch;
Power and energy monitoring;

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Applications

Scenario 3: Smart office energy solution

Monitor the power consumption of some frequently used office equipment or electrical appliances. The plug can automatically power on the electrical devices on working hours and turn off on the working-off hours. It also uploads the power consumption data of the load to the server in real time, the server can generate data analysis to find out the equipment with abnormal power consumption quickly, and limit the use when the power consumption exceeds the normal range. Which provides an effective way to manage the electrical devices and save the electricity bills.

Applicable function:

Remote control;

Power and energy monitoring;

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Main Specification

LoRaWAN

LoRaWAN V1.03

US915/CN779/EU433/AU915/CN470/AS923/KR920/IN865/RU864

7km communication distance (in urban open space)

Power Supply

100V-240V AC, 50/60Hz

Material

ABS + PC

Dimensions

103mm*61mm*34.6mm

Plug Type

US/UK/EU/FR

Output

US type: rated 15A
UK type: rated 13A
EU/FR type: rated 16A

Color

White

Certification (pending)

USA: FCC
Europe: CE
The certifications are on the process, other certifications can be customized

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Customized Service

Based on MOKO standard product

➢ You can develop your own mobile APP, MOKO provides Android and iOS APP SDK for you to reduce your development time
➢ Provides white label service, support customized label and package, also can print your company logo on the products
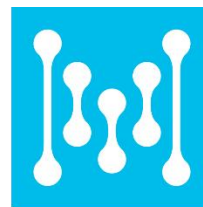
Based on MOKO standard hardware

➢ Support firmware and APP modification according to customer's requirements
➢ Support light customization on MOKO standard hardware

New product design

If MOKO standard products don't meet your requirements, MOKO supports the design of new products for you, including:
➢ Hardware design
➢ Software development
➢ Mechanical design

More details about the customized services, please contact our technical team: support_lora@mokotechnology.com

www.mokosmart.com

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