



PHOTO-TAKING INSECT CONDITION MONITORING LAMP 3



Product Overview

PHOTO-TAKING INSECT CONDITION MONITORING LAMP 3 adopts optical, electrical and numerical control technologies to realize functions including pest trapping, pest killing and sample sorting.

Under unattended operation, it can automatically complete the full workflow of pest trapping, pest killing, insect body dispersion, photographing, sample transportation, specimen collection and rainwater drainage. With wireless transmission and Internet of Things (IoT) technologies, it uploads real-time environmental meteorological data and pest infestation status to the designated agricultural cloud platform.

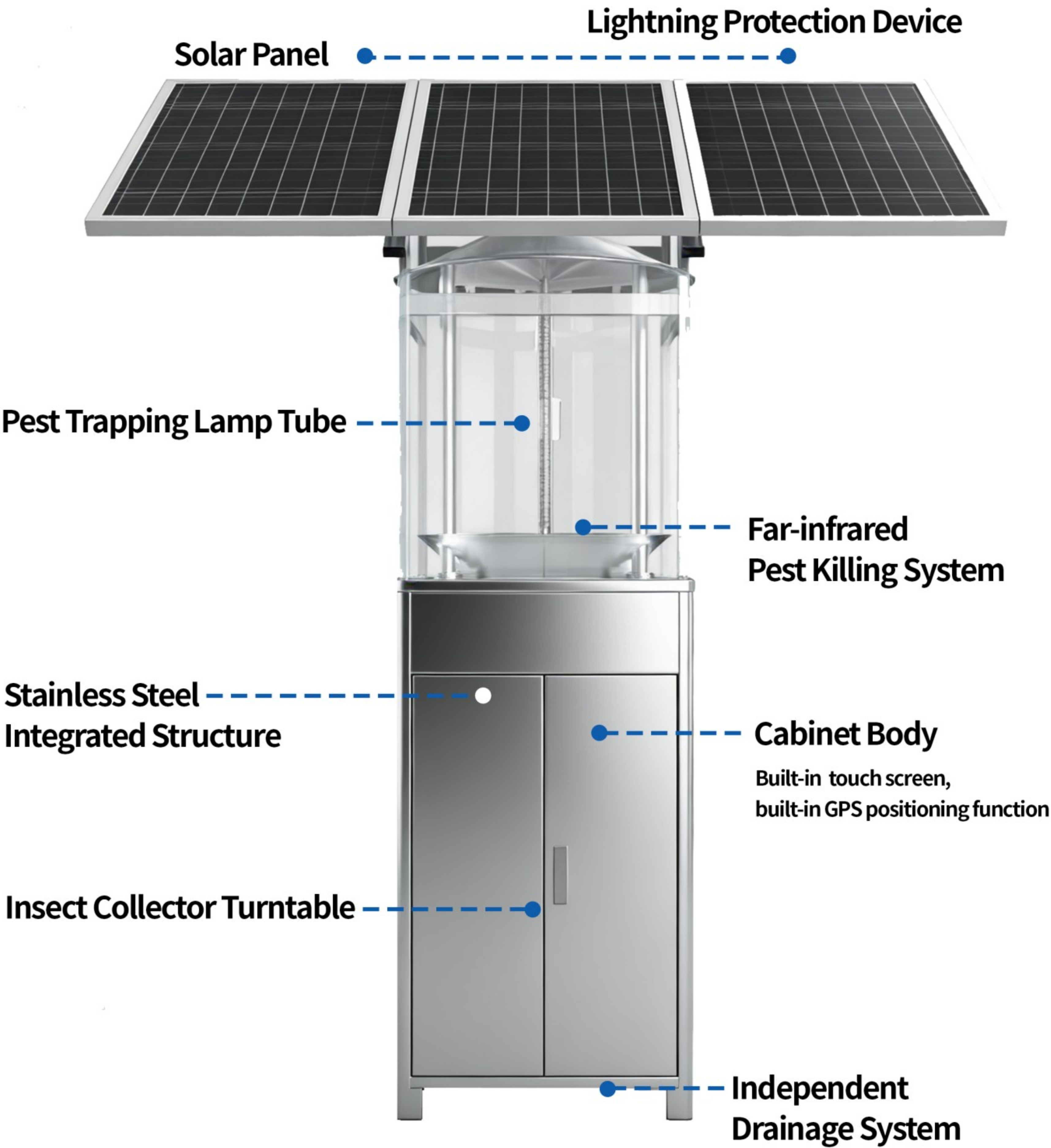
Core Functions & Advantages

- PEST TRAPPING
- THREE-LAYER FILTER SCREEN
- INFRARED PEST KILLING
- TIMING CONTROL MODULE
- ACCURATE MONITORING
- ALL-IN-ONE INTEGRATION
- DATA VISUALIZATION PLATFORM
- RELIABLE DATA TRANSMISSION





Product Structure





Product Specifications

Item	Detailed Description
Main Structure	Adopts stainless steel integrated structure
Core Technology	Integrates optical, electrical and numerical control technologies with automatic control, compatible with the ATCSP pest monitoring and prevention system
Monitoring & Networking	Color 7-inch LCD touch screen, displays ambient temperature, humidity and time; 5-megapixel camera supports remote photographing and IoT networking
Control Mode	Supports time-phased control with dual modes of automatic warehouse rotation and manual rotation; supports manual control of warehouse rotation, on/off of the trapping lamp, heating tube, and cleaning of the insect killing & drying warehouse
Insect Collection Switching	8-position automatic switching system, stores pests by time periods without mixing
Insect Body Treatment	Dual-layer (upper and lower) far-infrared treatment chambers realize integrated pest killing and drying, no poison bottle required, specimens stored by date; treatment time is adjustable
Light Sensing	Automatic day-night switching. free from instantaneous strong light interference at night
Time Setting	Working time periods can be set according to the living habits of target pests
Rain Control Function	Automatic rainwater discharge realizes rain-insect separation; rainfall linkage control function is available
Safety Protection	Equipped with lightning protection device, effectively prevents lightning strikes
Function Expansion	Expansion interfaces are available for wind speed & direction, soil temperature & moisture, illumination, rainfall and other parameters

Technical Parameters

Parameter	Specification
Solar Power Supply System	Solar panel power: 300W; Battery: DC12V 200Ah (maintenance-free)
Power Consumption	Standby power ≤5W; total lamp power ≤450W
Trapping Light Source	20W black light lamp tube (dominant wavelength: 365nm)
Impact Screen	Arranged at 120° to each other; single screen size: 595±2mm (L) × 213±2mm (W) × 5mm (T)
Lamp Start-up Time	Starts within 5 seconds
Temperature of Far-infrared Treatment Chamber	Reaches 85±5℃ after 15 minutes of operation
Insulation Resistance	≥2.5MΩ
Overall Dimension	650mm × 650mm × 2000mm
Design Service Life	≥10 years
Insect Treatment Effect	Pest mortality rate ≥98%, insect body integrity rate ≥95%
Camera Pixel	5 megapixels





Introduction to the upper computer software

Function Category	Specific Description
Core Functions	Realize integrated management of data reception, storage, viewing and analysis in the PC standalone environment
Data Reception and Processing	1. Support data reception via serial port, as well as data processing and visual display 2. Compatible with communication methods such as JSON string and MODBUS485
Parameter Configuration	1. Allow independent setting of data storage time 2. Support custom collection time in MODBUS485 collection mode
Monitoring Parameter Management	Support users to independently add, delete and modify monitoring parameters, including information such as parameter protocols, names and icons
Data Processing Expansion	1. Equipped with data post-processing function 2. Support external running of JAVASCRIPT scripts



Introduction to Cloud Platform

Function Category	Specific Description
Architecture & Access Method	Adopts a CS architecture software platform, supporting direct access and observation via mobile phones and PC browsers without additional software installation
Account & Device Management	Supports multi-account and multi-device login, meeting the collaborative management needs of multiple users and terminals
Data Display Function	1. Provides dashboards for real-time data display and historical data display 2. Supports data curve analysis 3. Supports map display and device information viewing
Data Storage & Stability	Implements cloud data storage based on cloud servers, featuring stability, reliability, easy scalability and load balancing
Alarm & Threshold Management	Supports SMS alarm function, allowing custom alarm threshold settings to respond to abnormal data in a timely manner
Data Processing & Output	1. Supports data export in table format 2. Has data post-processing function 3. Supports external running of JAVASCRIPT scripts to enhance customization capabilities
Data Forwarding Function	Supports data forwarding via multiple protocols, including HJ-212 protocol, TCP forwarding, HTTP protocol, etc.

