SOLAR IOT POE SWITCH

Managed Solar PoE Switch with 8 Gigabit Ports

Model IOT2802SFG-S-30A

Overview

Compact Solar Industrial PoE Switch integrates Gigabit PoE networking, fiber connectivity, and intelligent power management for off-grid solar applications. Supporting external Maxsol MPPT solar controllers, it provides reliable connectivity and power for IP cameras, wireless CPEs, and IoT devices in remote outdoor environments. Ideal for solar-powered surveillance, smart agriculture, forest fire prevention, and other remote monitoring applications.

Features

- Compact all-in-one industrial PoE switch for solar-powered outdoor applications
- Built for off-grid and low-voltage DC power systems
- Intelligent remote monitoring and management for simplified maintenance
- Ideal for smart surveillance, smart agriculture, forest fire prevention, and remote monitoring
- Supports external Maxsol MPPT solar controllers (20A / 30A / 40A, customizable)
- 8 × Gigabit PoE ports + 2 × Gigabit SFP slots for IP cameras, wireless CPEs, and IoT devices
- Industrial-grade design for reliable operation in harsh outdoor environments

Specification

MAXSOL United Kingdom

Hardware Specification

Model	IOT2802SFG-S-30A
Interfaces	8 × 10/100/1000 Mbps RJ45 Ethernet ports 2 × 1000 Mbps fiber uplink ports 1 × RJ45 out-of-band (OOB) management port 1 × RJ45 console port for system configuration
PoE Switch	Port 1-8: IEEE802.3af/at 30W; Port 1-2: IEEE802.3 bt 90W ;Port 3-4: 24V/48V PoE auto detect
Processor	A40i, Operating Frequency: 1.2GHz, Total Memory: 1GB
Power Input	24–29.2V DC
Compatible with Maxsol MPPT Solar Controllers	Supports 20A, 30A, and 40A MPPT solar controllers. Customization is available based on project requirements.
Communication Protocols	Serial transparent transmission, MQTT, TCP/IP, UDP, HTTP, etc.
Power Consumption	Without Load: 11W Full Load: 140W
Reset Button	Press and hold the reset button for 10 seconds to reboot and restore factory settings
Working Temperature	-30℃ - +70℃
Communication Method	Optical fiber or RJ45 uplink
Indicators	DC24V operation
Protection Class	IP20

Software Specification

Battery Protection & Management Functions	Intelligent battery charging and discharging management Overcharge and over-discharge protection for enhanced battery safety Low-temperature charging/discharging protection High-temperature charging/discharging protection Optimized battery performance and extended service life
Advanced Network Management & PoE Features	Supports jumbo frames for stable transmission of large data packets Supports flow control to automatically optimize data transmission efficiency Supports IEEE 802.1Q VLAN for network segmentation and service isolation Supports MAC address whitelist for enhanced network security and access control Provides real-time port traffic statistics for network monitoring Supports PoE monitoring of voltage, current, and power consumption PoE Configuration: Port 1–2: IEEE 802.3bt 90W Hi-PoE output Port 3–4: Remote PoE output with selectable 24V/48V modes Port 5–8: Up to 30W PoE output per port Supports adjustable PoE priority with up to 120W total PoE power budget
Solar Control and Management	Supports real-time monitoring and display of solar panel voltage, current, and power generation data Supports battery status monitoring and display Records daily minimum battery voltage, real-time charging/discharging current, and charging/discharging power Records system operating days, over-discharge cycles, and full-charge cycles Supports fault detection and reporting for solar panels and batteries Provides multiple battery protection functions, including reverse polarity protection, low-temperature cut-off, overcharge protection, and high-temperature shutdown protection Supports uploading and reporting of all fault alarms for remote monitoring and maintenance
System Management	Supports user account and password management Supports display of hardware and firmware version information Supports remote firmware upgrades and configuration updates Supports remote device reboot for efficient maintenance Supports factory default reset Supports NTP (Network Time Protocol) for automatic time synchronization

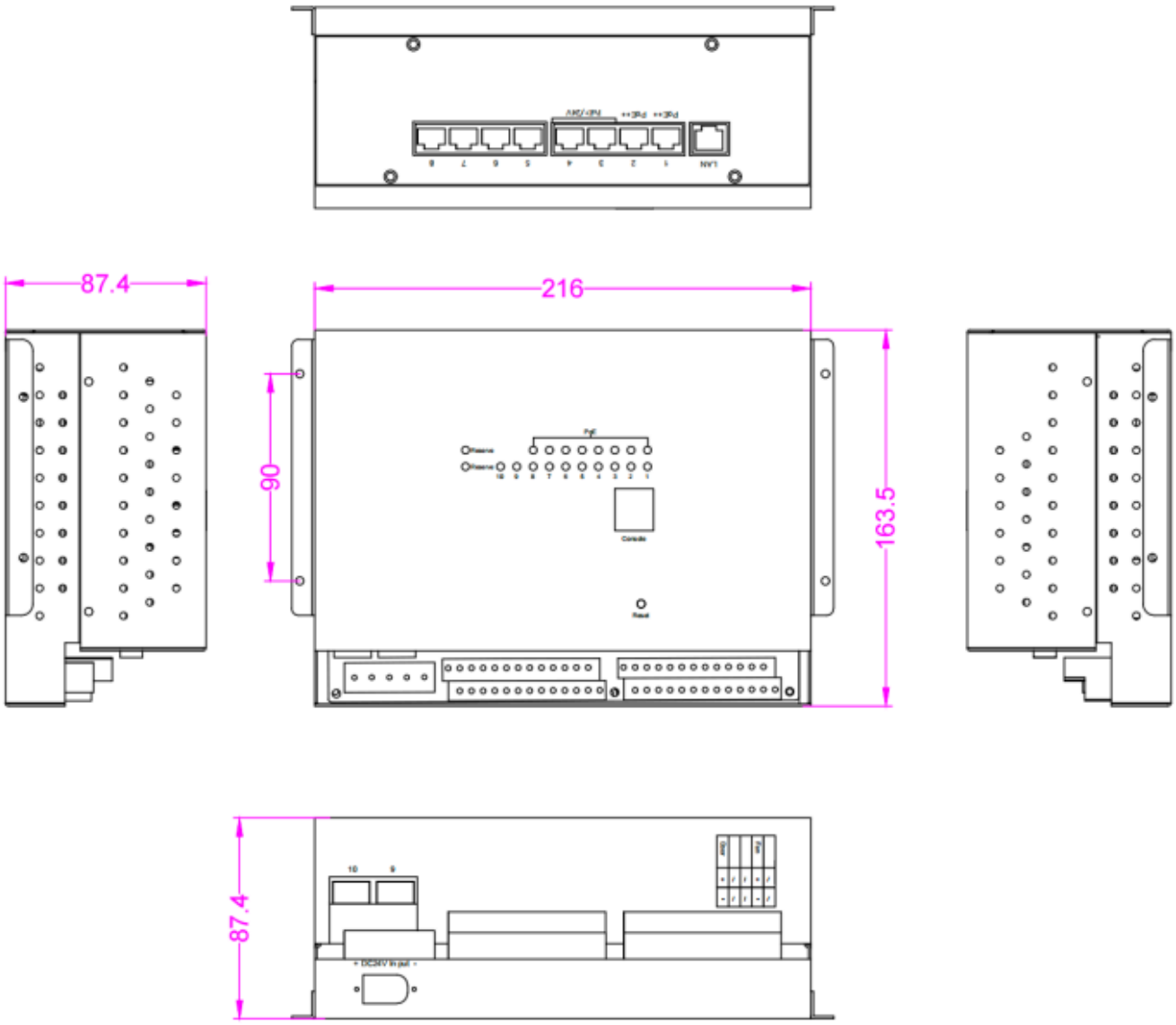
Package

Dimension(H×WxD)	390*265*170mm
Weight	Net weight: 3.6kg
Installation	Mounting into the Cabinet
Optional Accessories	* Fan: DC 24V 2-wire cooling fan, size 92 * 92 * 38 mm (9238), rated speed 3500 RPM, cable length 0.6 m. * Door Micro Switch * MPPT Solar Controller

Installation

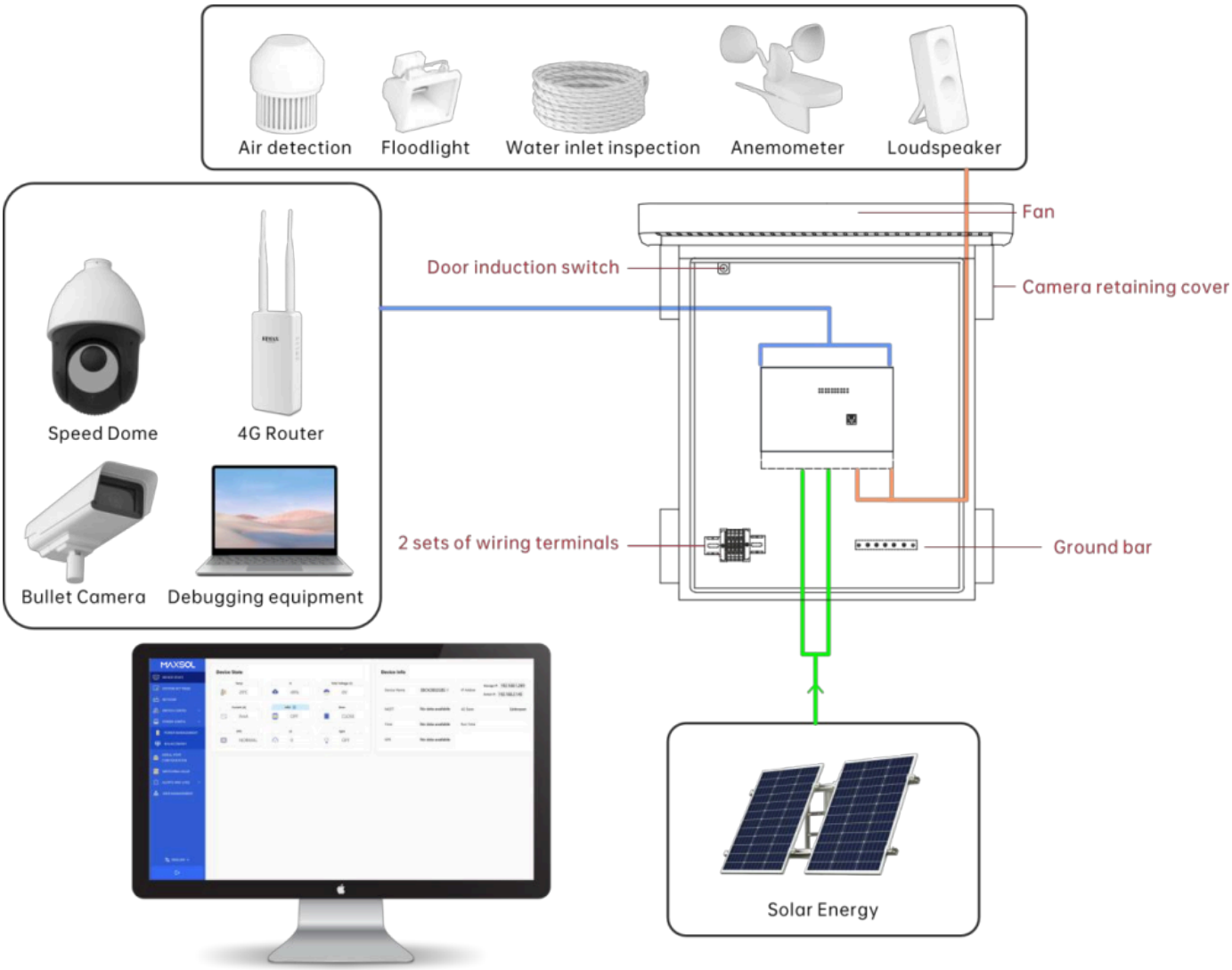
Product dimensions and installation reference

Dimension



Product dimensions and installation reference

Typical Application Scenarios



Product dimensions and installation reference

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