

IDSSL3LR-02S04GP-D15A-S

Industrial L2+ Managed Solar Powered PoE Switch

4x10/100/1000Base TX PoE+, 2x100/1000M SFP



Overview

IDSSL3LR-02S04GP-D15A-S is a PoE industrial grade network managed solar switch, supporting IEEE802.3af/at power supply standard, providing 4xPoE power supply ports. Equipped with an industrial grade switch monitoring platform, it provides comprehensive switch status monitoring, environmental monitoring, and alarm functions, and can withstand harsh working environments. Compared to ordinary switches, it has stronger protection performance and hardware configuration, which can meet the complex and harsh high-density intelligent PoE power supply network applications in factories, mines, industrial automation, transportation, infrastructure, ports, and farms.

Features

- The industry's first network managed PoE switch with integrated solar power generation management
- Rich L2 network management functions, easily capable of handling complex network requirements
- Supports fully automatic charging and discharging function, with a maximum charging current of 15A
- The advanced MPPT intelligent charging system improves efficiency of photovoltaic power generation
- Supports two types of batteries, lead-acid and lithium, with 6 built-in battery specifications and a maximum

capacity of 500AH

- Supports 12V/24V (maximum 1200W) solar panel input
- Supports PoE power output with a total power of up to 120W
- Adopting Realtor's latest intelligent network CPU chip

Specifications

Fixed Port	4x10/100/1000Base TX PoE+, 2x100/1000M SFP
Console Port	1*console port
Reset Key	1
PoE Ports	1 port supports IEEE802.3af/at/poe++/bt, max 90W PoE out 2-4 port supports IEEE802.3af/at, max 30W/port, PoE out
PoE Bridge	Max 120W
Network Protocol	IEEE 802.3; IEEE 802.3u 100BASE-TX; IEEE 802.3ab1000BASE-T; IEEE 802.3x; IEEE 802.3z 1000BASE-X; IEEE 802.3af/at; Hasidim AI PSE; IEEE 802.3ad; IEEE 802.3q IEEE 802 .3q/p; IEEE 802.1w IEEE 802. 1d IEEE 802.1S STP(Spanning Tree Protocol); RSTP/MSTP(Rapid Spanning Tree Protocol) EPPS ring network protocol; EAPS ring network protocol
Port Specification	10/ 100/ 1000BaseT(X)Auto
Transmission Mode	Store and Forward(full wire speed)
Bandwidth	56Gbps
Packet Forwarding	40.32Mpps
MAC	8K
Buffer	4.1M
Transmission Distance	10BASE-T: Cat3, 4, 5 UTP(=250 meter) 100BASE-TX: Cat5 or later UTP(=100 meter) 1000BASE-TX: Cat6 or later UTP(=1000 meter) 1000BASE-SX: 62.5µm/50µm MMF(2m~550m) 1000BASE-LX: 62.5µm/50µm MM(2m~550m) or 10µm SMF(2m~5000m) Support universal BIDI
Rate	Ethernet 10Mbps half duplex, 20Mbps full duplex Fast Ethernet 100Mbps half duplex, 200Mbps full duplex Gigabit Ethernet 2000Mbps full duplex
CPU	500MHZ
FLASH	16M
RAM	128M
Watt	Charging+full load: 300W
Switch Function Switch	PWR: Power indicator SYS: System indicator

	Network port: (network connection indicator light green) PoE indicator light: (network connection indicator light orange)
Charging LED Indicator	BT: Battery status indicator; VO: POE boost successful indicator BOUT: Battery discharge indicator; BIN: Battery charging indicator SUN: Solar energy status indicator; 25%-100%: Battery level indicator
Operating Temperature/Humidity	-20~65°C; 10%~90% RH Non coagulation
Storage Temperature/Humidity	-40~70°C; 5%~90% RH Non coagulation
Product/Packing size(L*W*H)	157*115mm*45mm 410mm*280mm*100mm
N.W/G.W(kg)	3.5/4.1kg (Other: This product does not include solar panels or batteries)
Installation	DIN rail type (with wall mounting lug)
Lightning Protection level	6KV 8/20us; 8K V E SD electrostatic protect ion IP40
Warranty	Whole device for 1 year (Accessories not included)

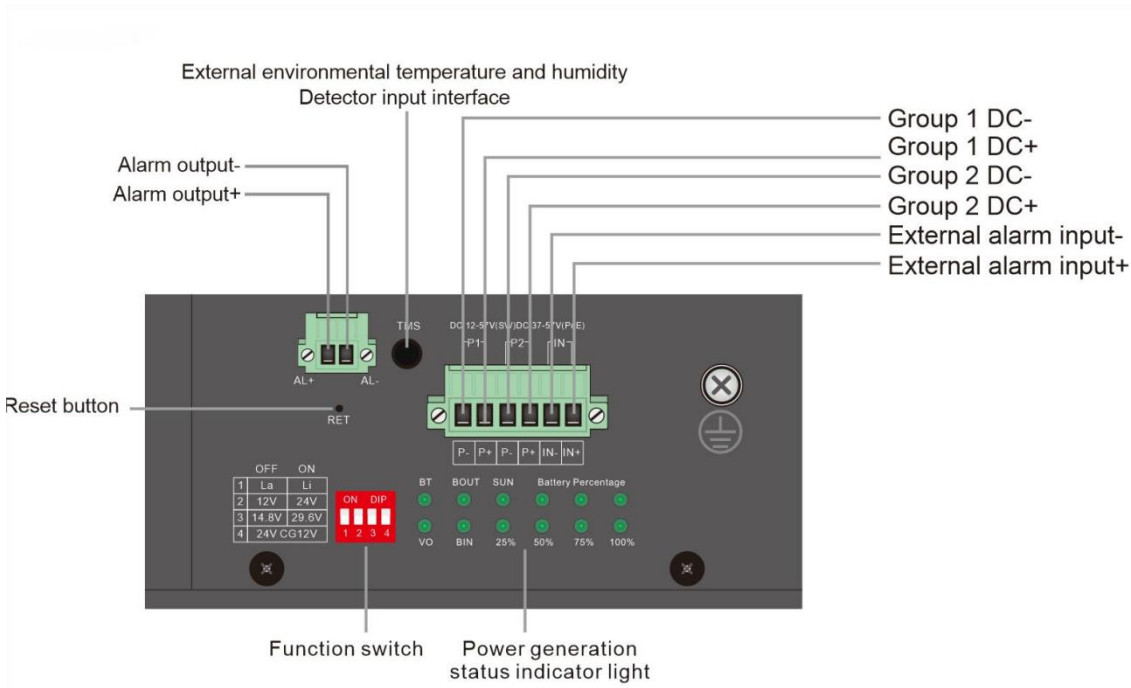
Parameters of power generation controller

Battery Type	Lead Acid Battery		Lithium Battery		Lithium Iron Phosphate Battery	
Battery Voltage	12V	24V	12.6V	25.2V	14.8V	29.6V
Charging Mode	MPPT(current and voltage limiting -constant current - voltage limiting - Pressure and current limiting floating charge)		MPPT (current and voltage limiting constant current constant voltage)			
Consumable Supplement Function	Support					
Consumable Detection Voltage	<12.6V	<24.8V	<12.2V	<24.4V	<14.2V	<28.8V
Rated Charging Current	15A					
Float Current	50mA-1000mA					
Float Time	3 hours					
Charging Stop	Arrival float timing		Rated voltage and simultaneous charging current < 30mA			
Rated Discharge Current	6.5A	3.6A	8.5A	4A	6.5A	4A
PoE Output Voltage	42~57V					
PoE Output Power	Maximum 120W					
Photovoltaic Open	32V	45V	32V	45V	32V	45V

Circuit Voltage						
Photovoltaic Input	Max 57V, Max 1200W					
Maximum Charging Voltage	14.7V	29.6V	1.6V	25.2V	14.8V	29.6V
Floating Charge Voltage	13.7V	27.4V				
Discharge Cut-off Voltage	10.1V	20.2V	9V	18V	10.2V	20.4V
Type	Default 6 battery type specifications (12V battery pack*3, 24V battery pack*3) Customization battery parameters Supports up to 500AH					
Over Temperature Protection	Supports automatic shutdown of motherboard over temperature and battery over temperature (optional)					
Input Protection	Over current, over voltage, delayed start and anti connection protection					
Output Function	Over current, over voltage and short circuit					
Indicator Light	System normal operation indicator, battery lamp, input normal indicator, charge discharge indicator and multi-functional composite fault indicator					
Working Temperature	-20°C~ +65°C					

Indicator Definition

Front Indicator	state	Description
Power Indicator: PWR	on	power on
	off	power off
Port Indicator: 1-4	green on	Corresponding port network link enabled
	orange on	Corresponding port PoE power supply is turned on
	Port light flashing	Corresponding port network data exchange
SFP Indicator: 5-6	on	SFP on
	off	SFP off
DC Input Indicator: V1/V2	on	DC normal input
	off	DC not connected or abnormal



Function Switch	Description
1	Battery type switch
2	Battery voltage switch
3	Lithium iron phosphate switch
4	Wide voltage charging switch

Can be set , such as the battery type setting switch

Battery Type Selection			
Switch 1	Switch 2	Switch 3	
OFF	OFF	-	12V lead acid battery
OFF	ON	-	24V lead-acid battery pack
ON	OFF	OFF	12.6V lithium battery pack
ON	OFF	ON	14.8V lithium iron phosphate battery pack
ON	ON	OFF	25.2v lithium battery pack
ON	ON	ON	29.6v lithium iron phosphate battery pack
Switch 4	ON		Support 24V solar charging 12V battery pack

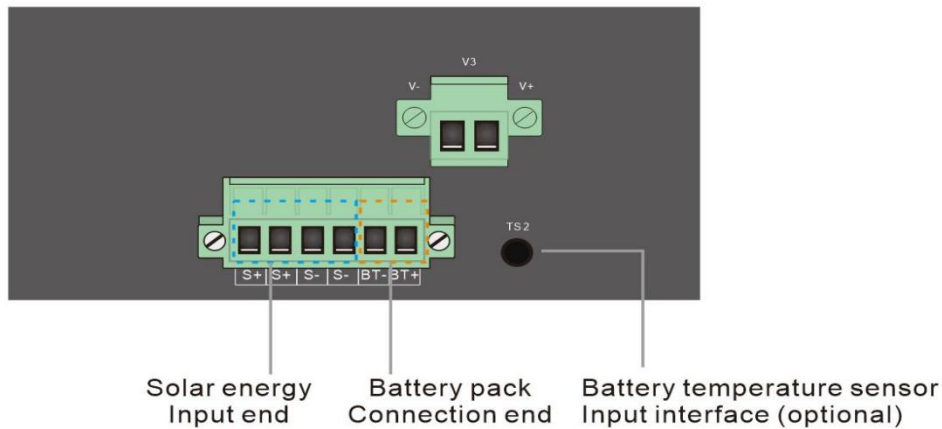
Warning: The battery type switch is invalid when configuring battery types using a switch.

When configuring the battery, please ensure that the device power is turned off;

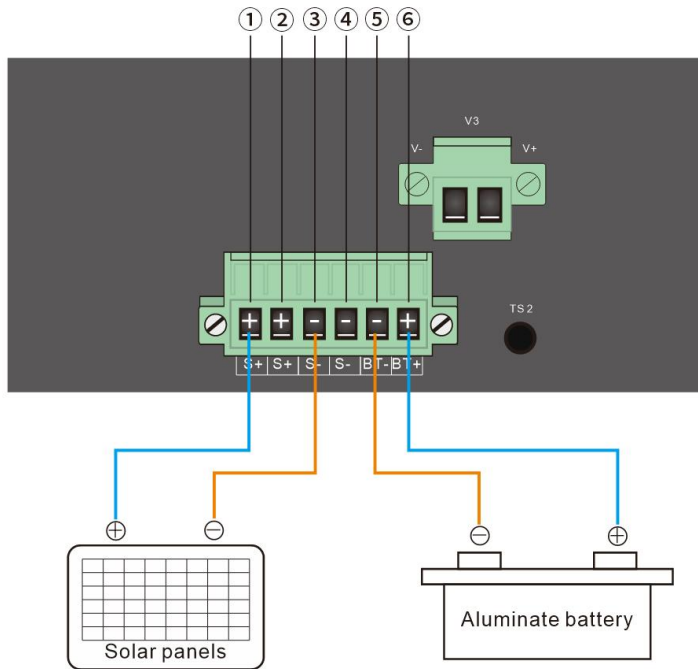
Turn on the device power again after the configuration is completed.

Function indicator(Side)	State	Description	Function indicator (Side)	State	Description
BT: Battery Status Indicator Light	on	Battery is normal	VO: POE boost successful indicator	on	PoE boost normal
	off	Battery abnormality		off	PoE boost abnormality
	1/8S flash	Battery abnormality			
BOUT: Discharge Indicator	Always on	During battery discharge	Bin: Charging indicator	Always on	Charging and power < 98%
	Always off	End of battery discharge or no discharge		Always off	End of battery charging or no charging
	Blink	1 / 2S flashing power < 15%		Blink	When the battery is charged or not charged, it will be fully charged, and the power is $\geq 98\%$
SUN: Solar Energy Status Indicator	Always on	Solar energy status is normal	25%-100%: battery indicator	on	Corresponding charging capacity
	Always off	Abnormal solar energy status			

BOT and BIN lights are off at the same time and the equipment works normally: charging has been completed



Terminal Connection Instructions



Notes

- ① S+ The first group of solar positive electrodes
- ② S+ Second group of solar positive electrodes
- ③ S- The first group of solar negative electrodes
- ④ S- Second group of solar negative electrodes
- ⑤ B- Battery negative electrode
- ⑥ B+ Battery positive

Reference instructions for supporting battery and solar panel

①

12V lithium battery 12V solar panel

12V 400W solar panel + 12V 50AH lithium battery are used together. When the light is good, the charging time is about 5 hours; The endurance is 20 hours (30W load) and 5 hours (120W load) respectively

②

12V lead acid battery 12V solar panel

12V 400W solar panel + 12V 50AH lead-acid battery When in use, when the light is good, the charging time is about 5 hours; Endurance points 20 hours (30W load) and 5 hours (120W load)

Note: the maximum reference open circuit voltage is 32V, and the working voltage is 18.5V, SUN input withstand voltage up to 60V (please configure the solar panel power according to the actual conditions)

③

24V lithium battery 24V solar panel

24V 400W solar panel + 25.2V 50AH lithium battery When the light is good, the charging time is about 5 hours; Endurance respectively 42 hours (30W load), 10 hours (120W load)

④

24V lead acid battery 24V solar panel

24V 400W solar panel + 24V 50AH lead-acid battery When the light is good, the charging time is about 5 hours; Endurance respectively 42 hours (30W load), 10 hours (120W load)

Note

The maximum reference open circuit voltage is 57V and the working voltage is 33V(please configure the solar panel power according to the actual conditions) Charging time reference formula = = battery ampere hour ah (solar panel short-circuit current a*0.55) = charging hours

Discharge time reference formula = = (battery rated voltage*battery ampere hour ah) battery capacity watt hour / actual discharge power

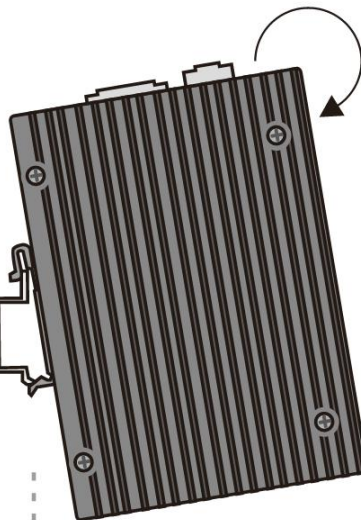
The above calculation results are only used as a reference for selection and installation. Please comprehensively consider the specific use according to the local environment, light, weather and other factors.

Installation

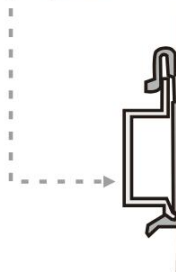
- ① Insert the top of DIN guide rail into the groove at the bottom of rigid metallic spring.

DIN Guide Rail

Metal Spring
DIN Guide Rail

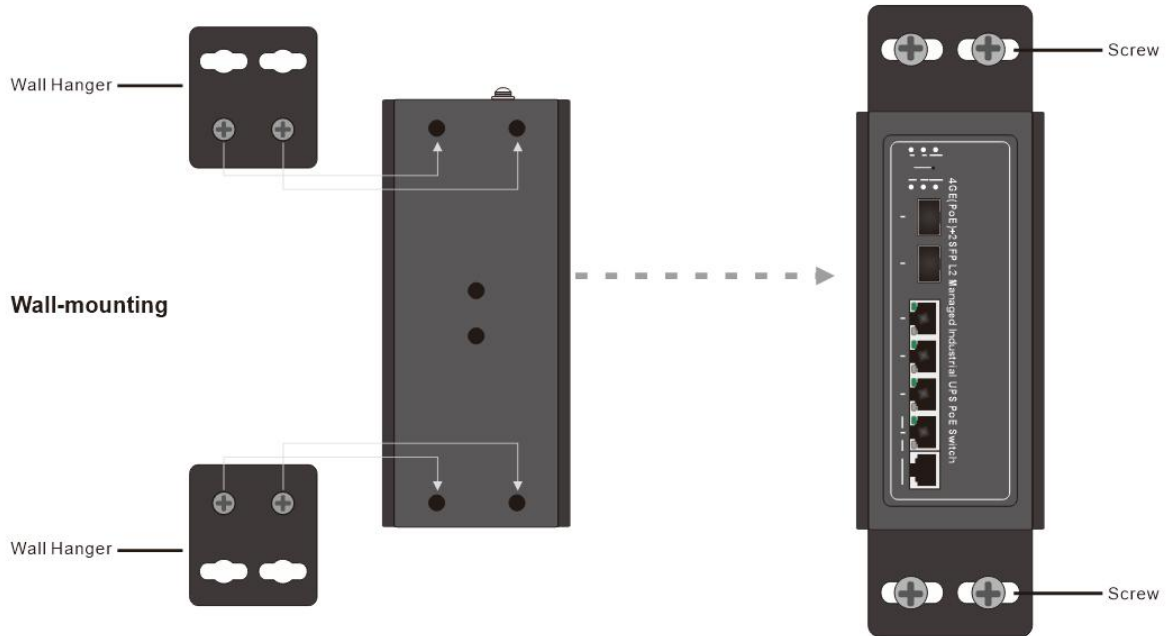


- ② Install DIN guide rail base unit as shown in the pictures



① Install the wall hangers onto the switch.

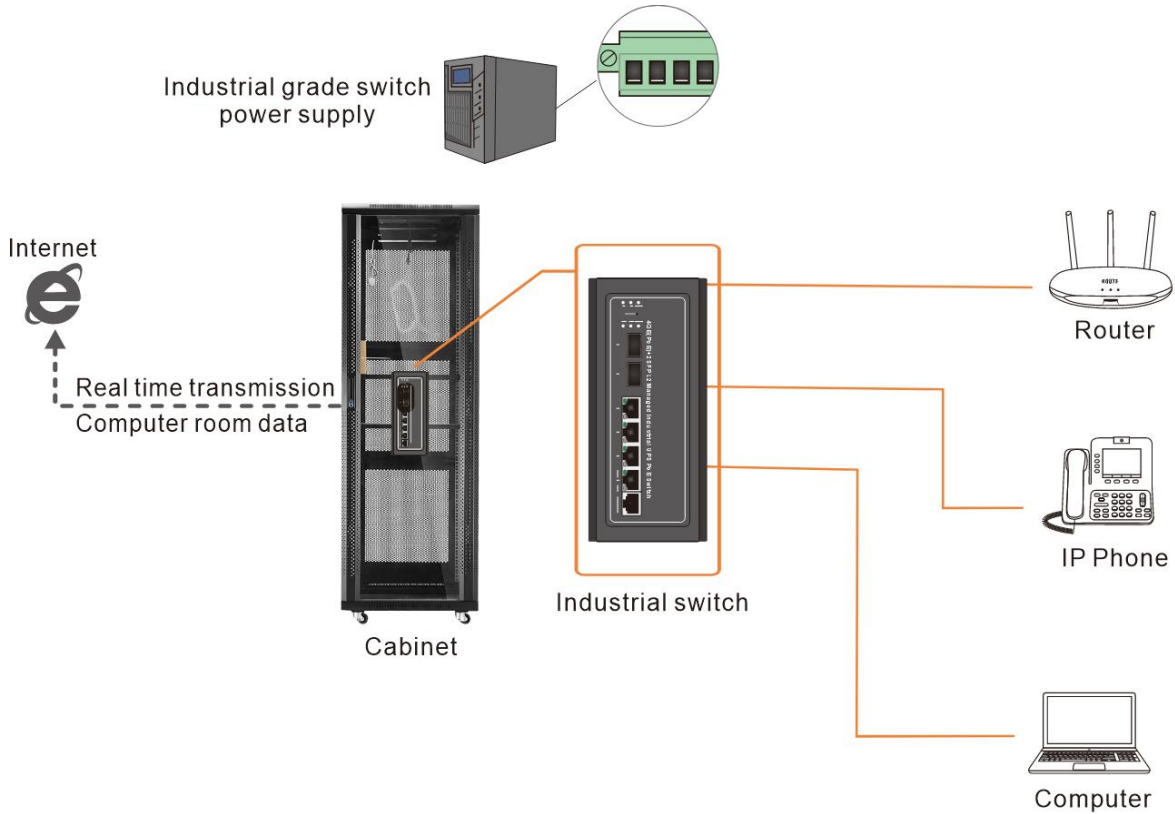
② Secure the switch length onto the wall by using screws.

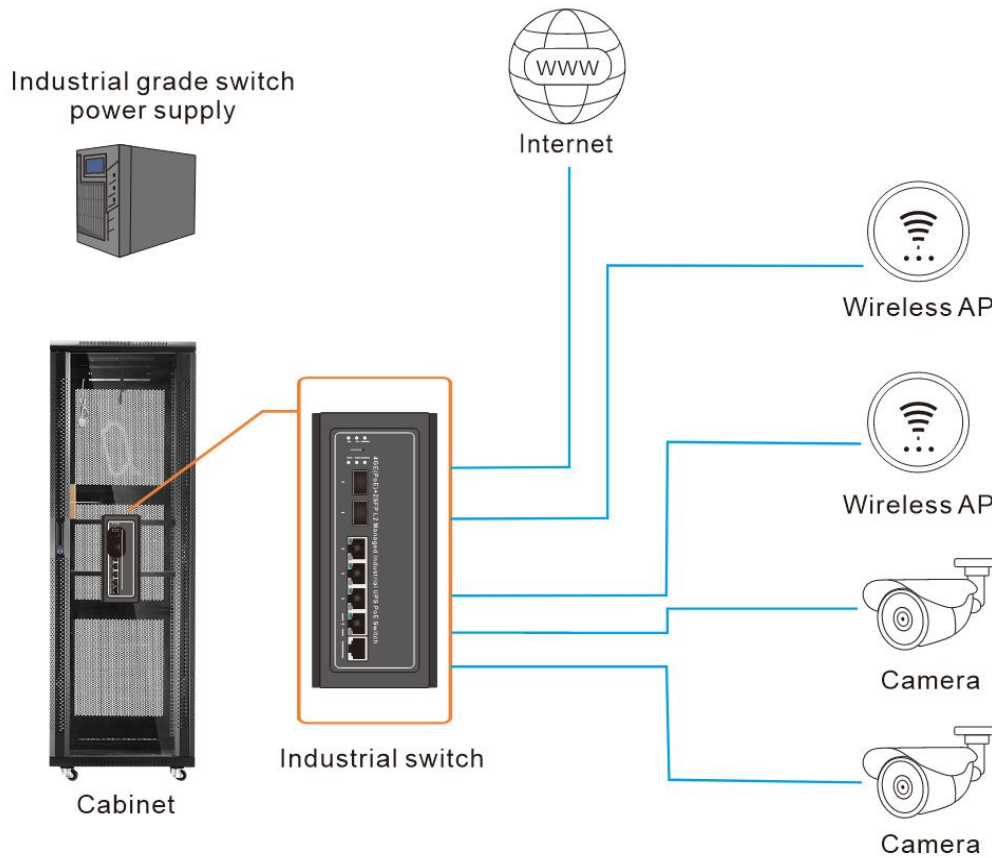


Application

Computer room applications

Not only the switch , but also a good helper for data center management





Attention


To avoid equipment damage and personal injury caused by improper use, please follow the following precautions:

- During installation, keep the power off, wear anti-static wrist, and ensure that the anti-static wrist is in good contact with the skin to avoid potential damage Potential safety hazards in;
- The switch can work normally only under the correct power supply. Please confirm that the power supply voltage is consistent with the voltage marked by the switch;
- Before the switch is powered on, please make sure that the power circuit will not be overloaded, so as not to affect the normal operation of the switch or even cause unnecessary damage;
- In order to avoid the risk of electric shock, do not open the shell when the switch is working, and do not open it by yourself even when it is not charged;
- Before cleaning the switch, pull out the power plug of the switch. Do not wipe it with wet fabric or clean it with liquid;
- The equipment installed in the rack is generally from bottom to top to avoid overload installation; Avoid placing other heavy objects on the surface of the switch to avoid accidents.

Ordering Information

PART NO	DESCRIPTION
IDSSL3LR-02S04GP-D15A-S	2+4 High-Power Managed Solar PoE Industrial Switch



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