



Technical Parameters

Solar input	Solar battery input, <100VDC (must greater than storage battery voltage)
Battery (customer provided)	Support 48V Lithium battery
Circuit breaker	1*AC 2P 10A, 1*DC 2P 16A
DC output	DC12V output 3 channels; Support for remote control of a single channel; Can detect the single circuit voltage and the current in real time
RS485	RS485
RS232	RS232
Alarm input	3 channels, dry-connector input; The first channel is default door opening detection;
10/100 Network port	1*10/100 Base-TX
Reset Key	>5S long press: restore factory settings
Screen	5# touched screen Ratio:800*480
Battery charging controller	Battery voltage: 48V
	Input voltage: <DC100V
	efficiency: >99%
	Rated discharge current: 20A Charging current: 9A max.
Battery	DC48V lithium battery(customer provided);
Operating temperature	-20°C~70°C
Storage temperature	-40°C~85°C

Product Description

Model 03 is a fully integrated, solar-powered smart box designed for off-grid applications. Built with a durable aluminum alloy enclosure—offering enhanced protection over galvanized materials—it delivers a clean, all-in-one solution for remote power and network management.

Powered solely by solar energy, Model 03 requires only a solar panel and battery connection. During the day, solar input supplies power to both the system and the battery; at night, the battery takes over, enabling continuous, reliable operation without any grid power.

Equipped with a 16-port L2 managed PoE switch and a 5-inch LCD touchscreen, the unit allows local configuration such as DC output control and IP settings. The display provides real-time system data, including power input/output, battery and solar status, device IP, and alarms—making local management simple and efficient.

The box includes a dedicated, enclosed battery holder for a cleaner internal layout. Like other models in the series, it supports our V5 software platform for remote monitoring and system control. With an operating temperature range of -20°C to 70°C, Model 03 is ideal for rugged, off-grid environments.

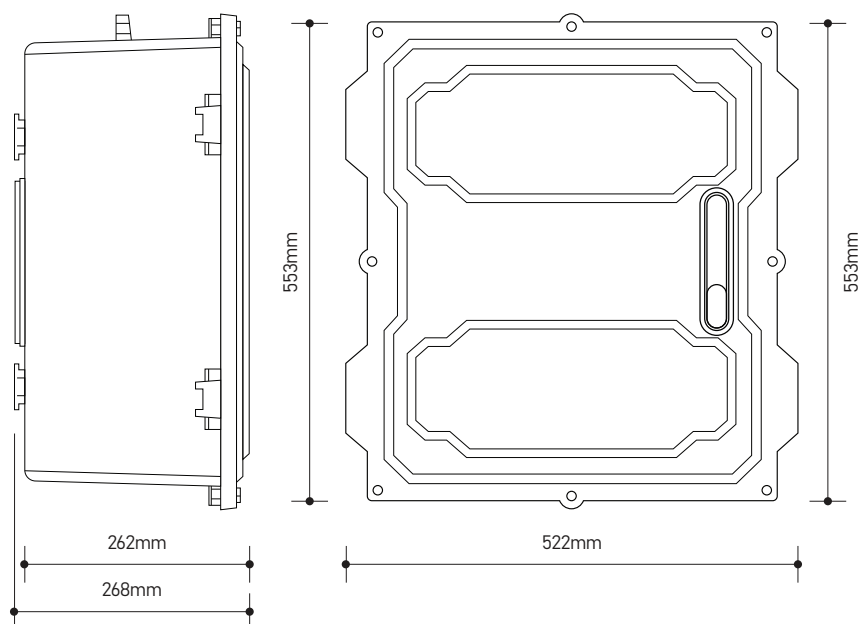


Humidity	0~95%(no condensation)
Size(H×W×D)	533mm×533mm×268mm
Material	Aluminium alloy
Colour	Gray
Net weight	20kg

Switch Specifications

Consumption	Self-consumption<5W
Ethernet ports parameter	1-16 ports: 10/100/1000M Base-T 30W PoE RJ45(IEEE802.3af, IEEE802.3at PSE) 17-18 ports: 10/100/1000M Base-T 19*20 ports: 1000Base-X SFP slots
Console port	RJ45 to serial port (38400,8,N,1)
Standard	IEEE802.3, IEEE802.3u, IEEE802.3z
Switch fabric	40Gbps
Throughput	29.76Mpps
Buffer	12K
MAC address table	4K
Indicator	Power: 1 *red; 1-16: PoE and link indicator 17-20: link indicator

Structure



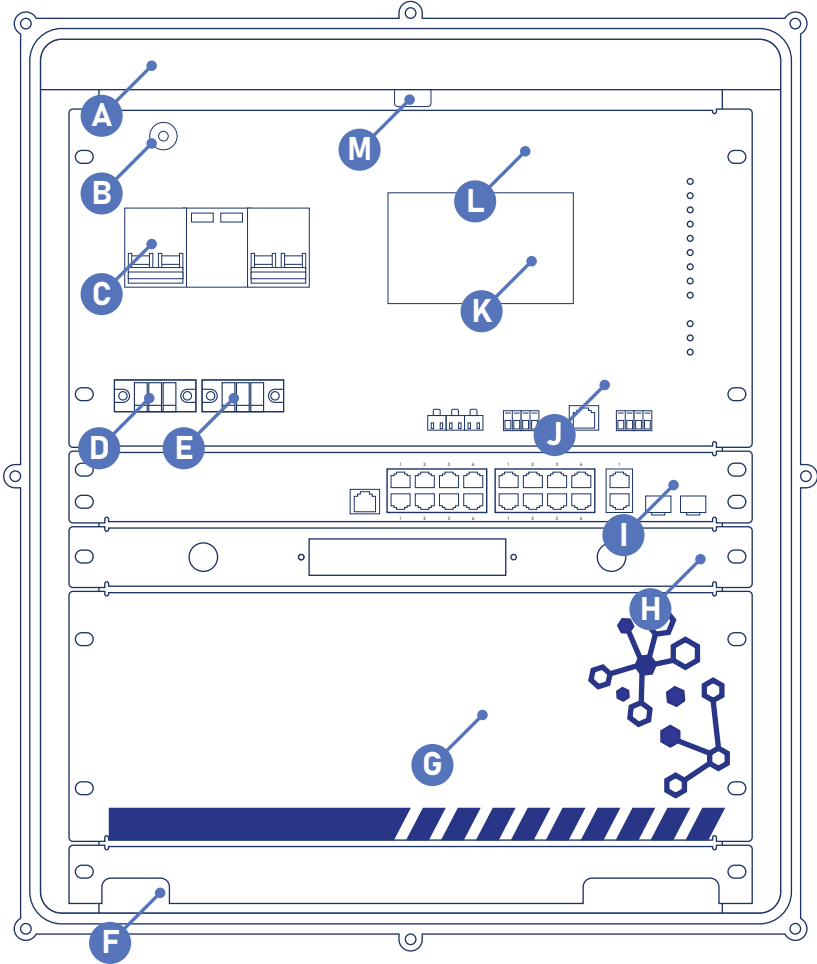
Features & Benefits

- The material is Aluminium alloy, different from Galvanized.
- All in one solution
- Smart control card with software
- Support our V5 software platform for customers to monitor and managed the outdoor boxes, check the outdoor box working status.
- Solar input, customer only need to connect with solar panel and battery, then can used in the no power application; At the day time, the solar will power for the whole box and battery. At the night time, the battery will power for the whole box.
- Integrated the 16 ports L2 managed PoE switch inside.
- Integrated the 5 inch LCD touch screen inside, for the touch screen, you can do some simple setting in the screen with your finger, like open/close DC output, revise the IP address. In the screen, it will display box information on it, like box IP address, serial number, solar input information, battery information, input and output, alarm information.
- From the LCD screen, you can get the box information more easier and convenient.
- At the bottom of box, we design a battery holder, and do a panel to cover the battery, it will be more tidy.
- The working temperature is about -20 to 70 degree.

Applicable scenarios

- CCTV, Security, Telecom, Street light, Transportation, Smart City, Base station, Fire alarm, Network solution, Desert, Forest, Subway, Garden, Highway, Access control and so on projects.

Technical Diagram



A	Fan
B	Door Open Detector
C	AC 2P Circuit Breaker
D	Solar Input
E	Battery Input
F	Grounding Array
G	Battery Compartment
H	Fibre Tray 4* SC
I	20 ports PoE Switch
J	Control Unit
K	5 Screen
L	MPPT
M	Lamp



Example Part Number

Description

Solar Powered Smart Box Series - 5 inch screen 553mm×522mm×268mm - Model 03

Part Number