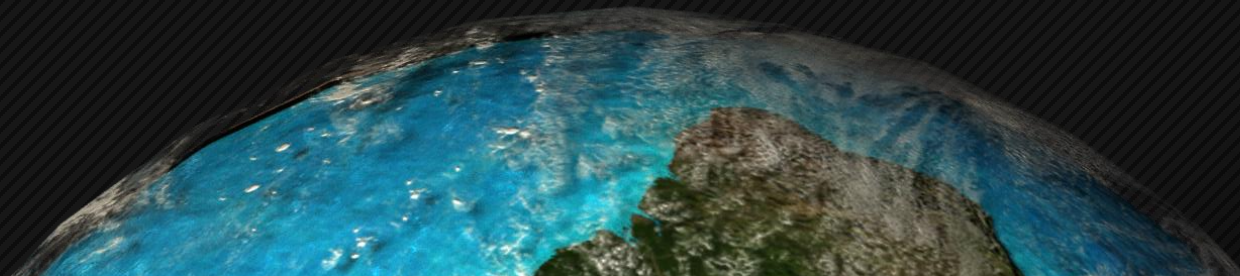




American ESS split- phase inverter (battery voltage:48V)  
installation instructions video

Shenzhen Megarevo Technology Co., Ltd



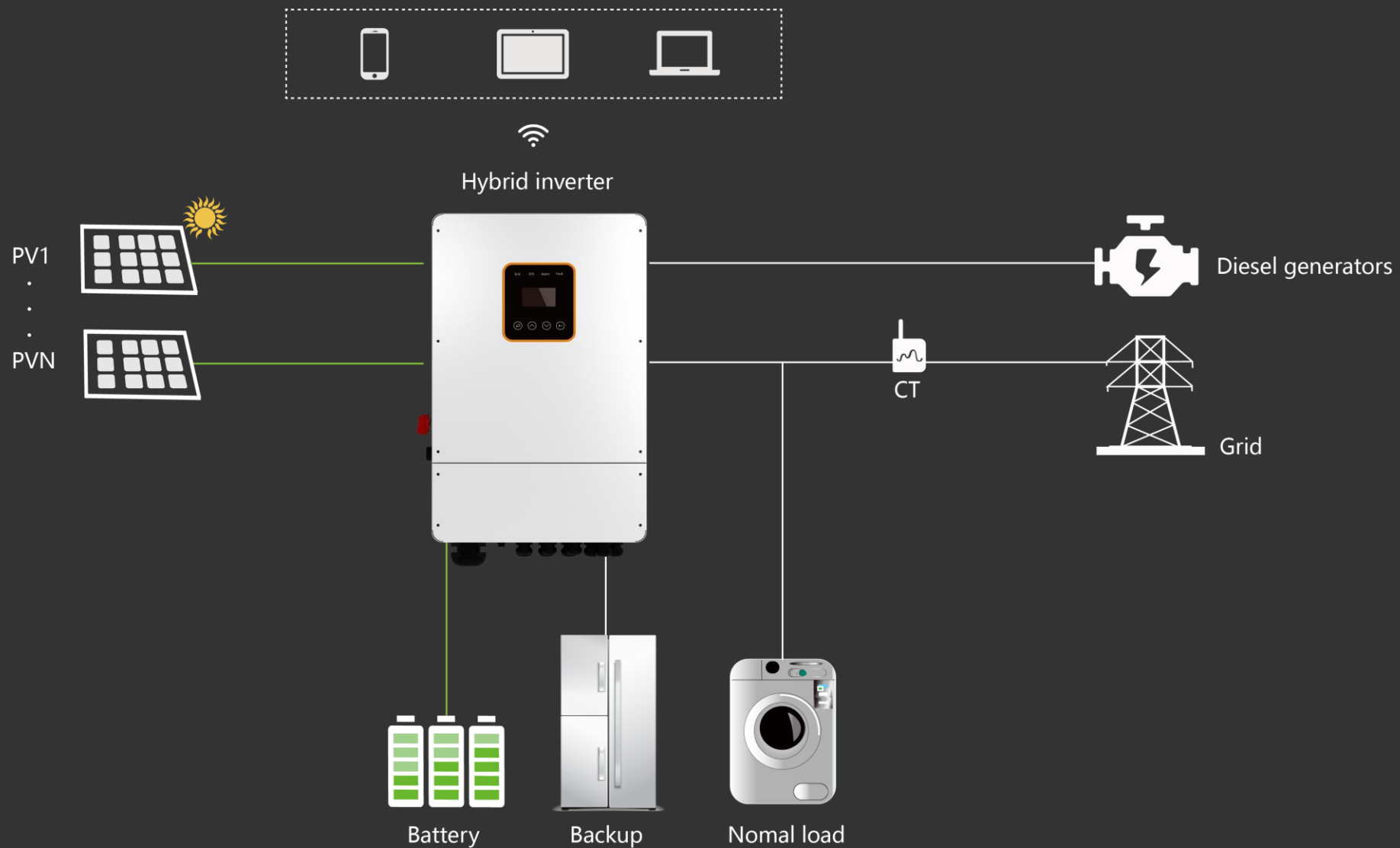


- 1 Product Introduction & presentation
- 2 Tools overview & Check accessories
- 3 Wall-mounted bracket installation
- 4 PV connection
- 5 Grid connection
- 6 Back-up connection
- 7 Battery connection
- 8 Network connection
- 9 System settings

1

# Product Introduction & presentation

# Product Introduction



48V低压裂相逆变器，是迈格瑞能专为北美市场设计，该产品已经通过了 UL 1741:2021, IEEE 1547.1, UL1699B, South Africa NRS097-2-1:2017 test certification; 可广泛应用于各种家庭储能应用环境，能够非常友好地与光伏，电池，柴油发电机进行协同工作。结合智能显示，使操作和维护更容易。

## Product Features



- ✓ Support multi-machine parallel connection, the maximum parallel connection can reach 8;
- ✓ Single-machine load capacity 100A;
- ✓ Support 100% unbalanced load capacity;
- ✓ Compatible with lead-acid and lithium ion batteries ;
- ✓ Input power source priority can be set by users;

## Product display



1.展示产品的尺寸：430\*220\*710 (WDH)

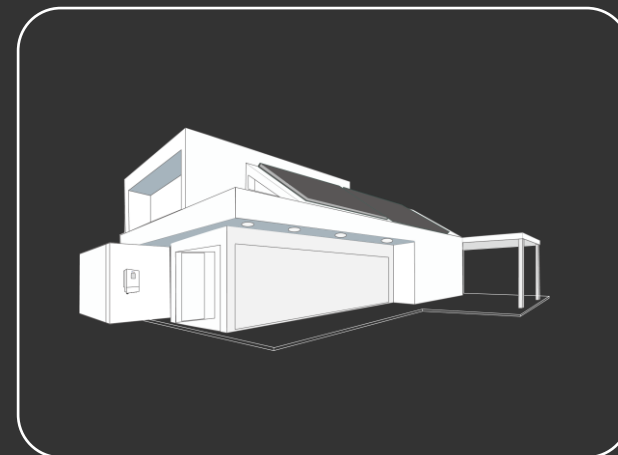
## Product display



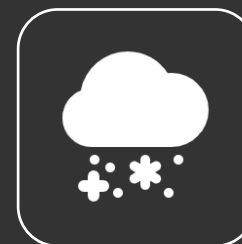
2. 搭配人性化HIMI操作界面,产品右侧为:PV switch,RSD Button开关,方便操作

# Product display

3.IP65/NEMA 3R防护等级设计，可在室内或室外安装；



4.运行的环境温度：-25℃ ~ 60℃；



-25℃



-60℃



## 5.Product connectors introduction



# 2

## Tools overview & Check accessories

## Tools need when installing the three phase PV + ESS hybrid inverter

wire stripping pliers



electric drill



cross screwdriver



straight screwdriver



Manual crimping pliers



Tool knife



## Product unpacking



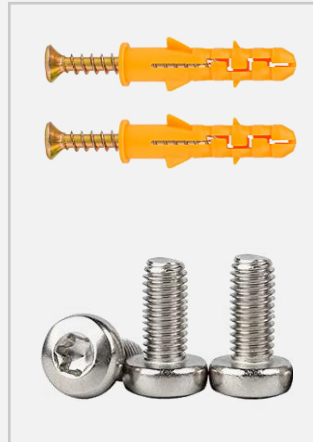
## List of product accessories



Hybrid inverter



user 's manual



Expansion screws  
& pan-head screws



Current  
transformer\*2



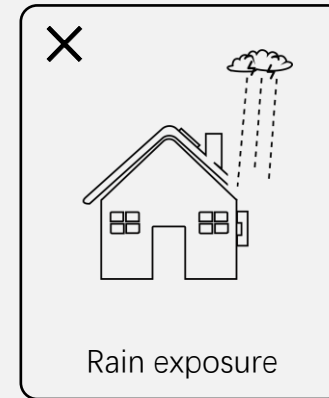
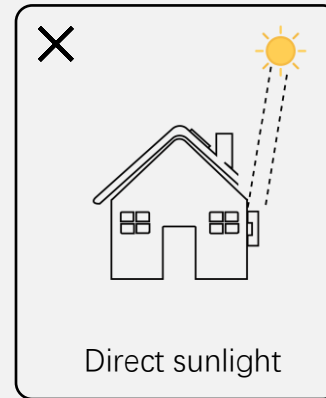
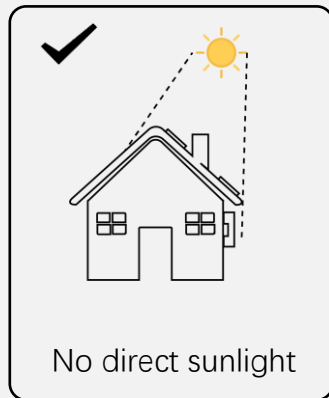
WiFi & GPRS  
module (optional)

# 3

## Wall-mounted bracket installation

## Installation Precaution

Please AVOIDE direct sunlight, rain exposure, snow laying up during installation and operation.



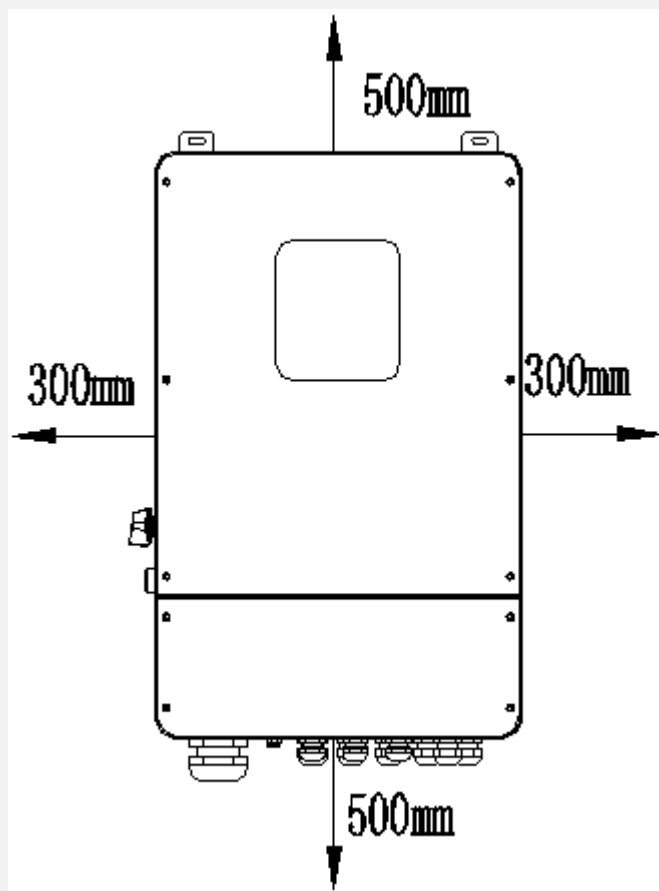
## Installation environment requirements



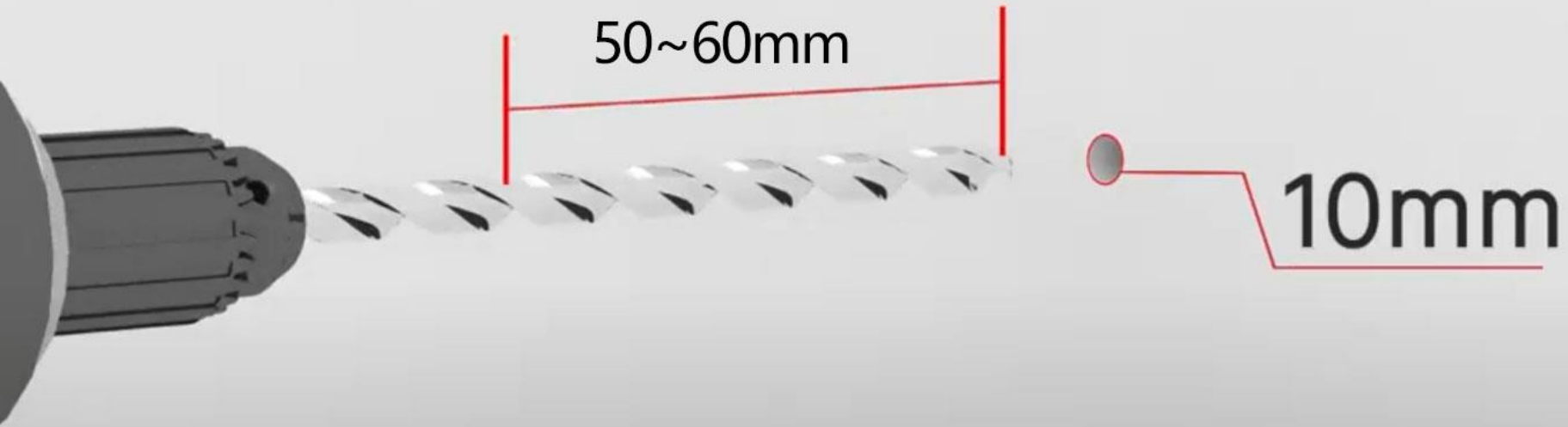
1. 挑选一个效果比较好的住宅，住宅中能看到有明显的负载，光伏，室内暖色灯光，
2. 给住宅一个全景然后再到墙面局部特写，



## Installation environment requirements

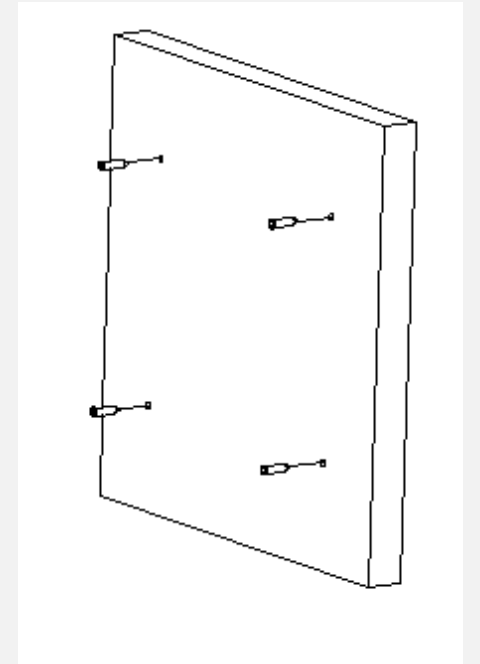


## Installation environment requirements



Step 1: Drill 4 holes in the wall according to the following distance dimensions, 50~60mm depth. Then use a proper hammer to fit the expansion bolt into the holes.

## Installation environment requirements



Step 2: Lift up the inverter and align the hole of the inverter with the expansion bolt, Fix the inverter on the wall.

## Install the machine



**Step 4:** Remove the cover screws and remove the cover

# 4

## PV connection

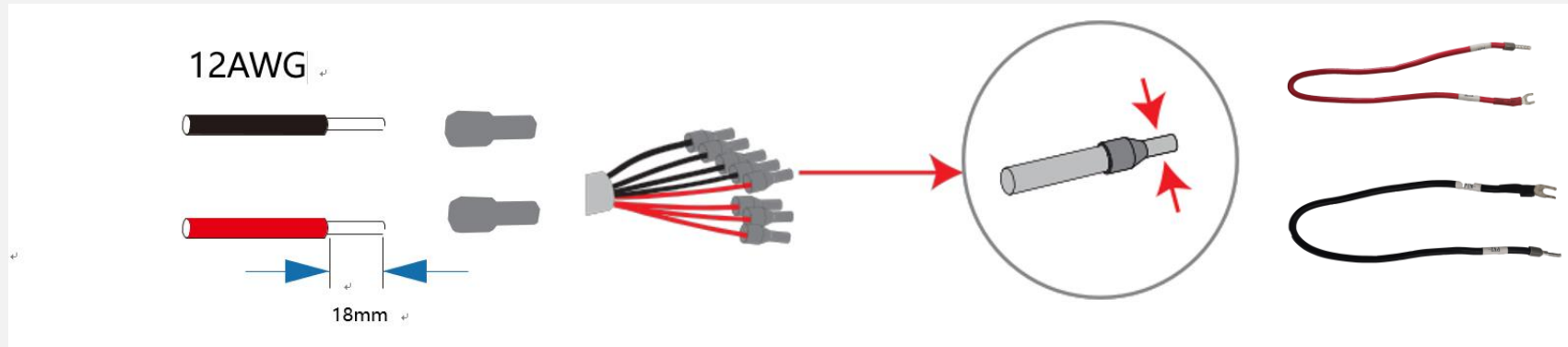
## Accessories required for PV connection



PV module voltage is very high, please comply with electric safety rules when connecting.  
Please do not make PV positive or negative ground!

## Accessories required for PV connection

Step1. make wiring.



- 1.1 Choose the 12 AWG wire to connect with the cold-pressed terminal.
- 1.2 Remove 18mm of insulation from the end of wire.
- 1.3 Make 4 red pv+ wires and 4 black pv- wires respectively

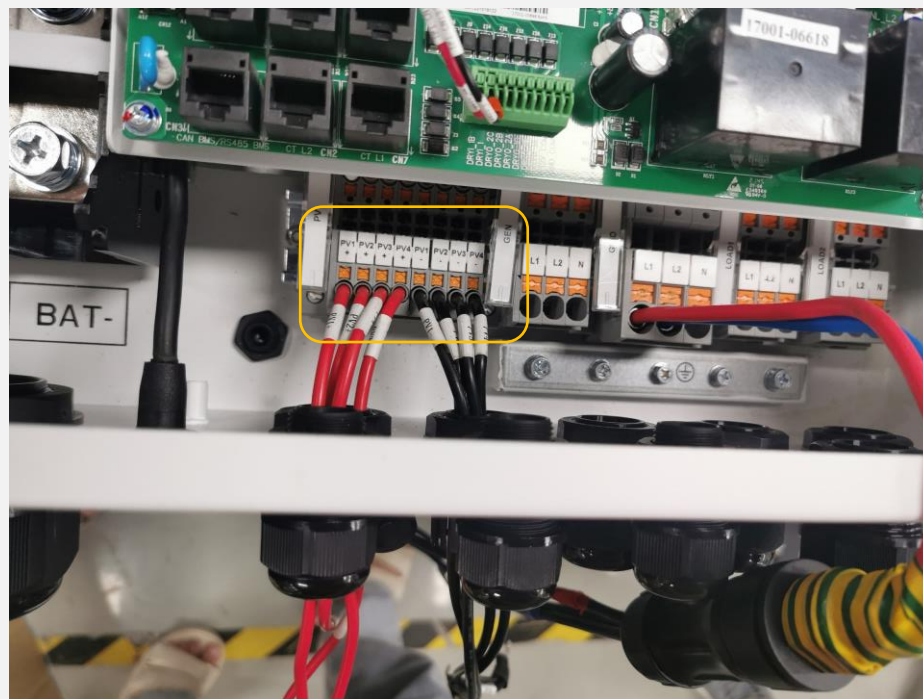
## Accessories required for PV connection

Step2. Rotate the pv+ and pv- waterproof terminals on the device





## Install the machine



Step3. 将4根PV+线和4根PV-线缆通过PV+和PV-接口分别按照顺序接入PV端子排，另外一端连接至光伏。

## PV connection process display



Connect the PV Modules



5

# Grid connection

## Accessories required for Grid connection



Step1. Check the grid voltage.

1.1 Check the grid voltage and compare with the permissive voltage range.

1.2 Disconnect the circuit board from all the phases and secure against re-connection.

## Accessories required for Grid connection

Step2. Grid cables choose, 请参照以下提示选择合适的线缆

Model	R5KLNA	R6KLNA	R7K6LNA	R8KLNA
Cable	12AWG		10AWG	



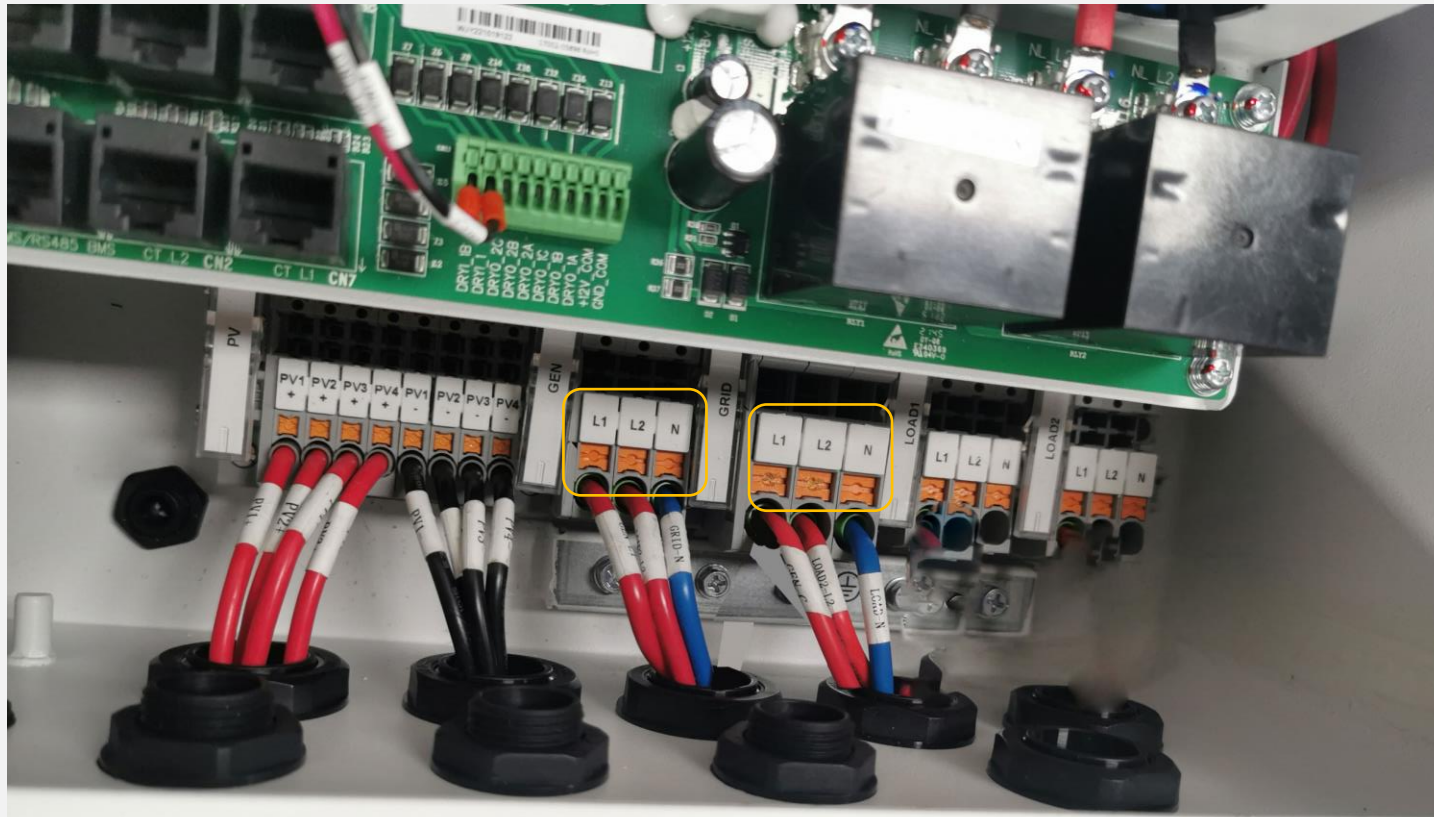
1. 选择好适合的线缆后，使用附件箱中的针脚端子安装在线缆的一端；
2. 在线缆的另一端（冷压端子侧）移除18mm的绝缘层；
3. 分别制作2根红色的GEN火线，1根蓝色的GEN零线和2根红色的Grid火线，1根蓝色的Grid零线；

## Connection steps

Step3. 分别旋转取下产品底部GEN和Grid的防水接口

**Step4.** 将GEN的2根火线和1根零线通过GEN端口按照顺序接入GEN端子排

**Step5.** 将Grid的2根火线和1根零线通过Grid端口按照顺序接入Grid N端子排



## Connection steps

**Step5.** 将电缆的另外一端连接至配电箱

# 6

## Back-up connection



## Accessories required for Back-up connection



请根据产品型号选择合适的离网交流断路器

Model	R5KLNA	R6KLNA	R7K6LNA	R8KLNA
Micro-breaker	32A		40A	

When using the off grid function, please add off grid AC breaker in off grid output cable to ensure safety.  
The absence of AC breaker on back-up side will lead to inverter damage if an electrical short circuit happens on back-up side.



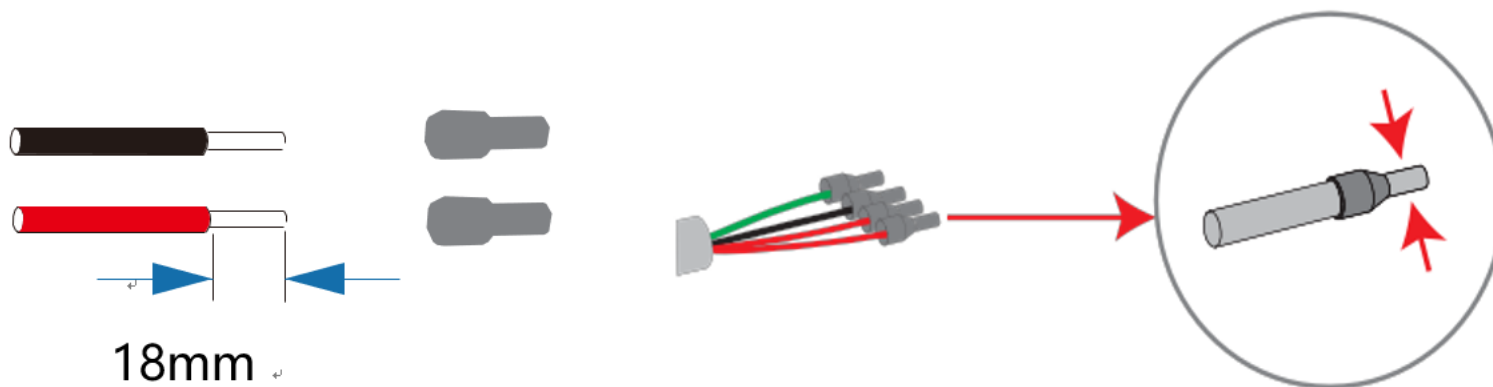
## Connection steps

**Step1.** Make BACK-UP wires.

根据产品的型号选择合适的线缆进行制作

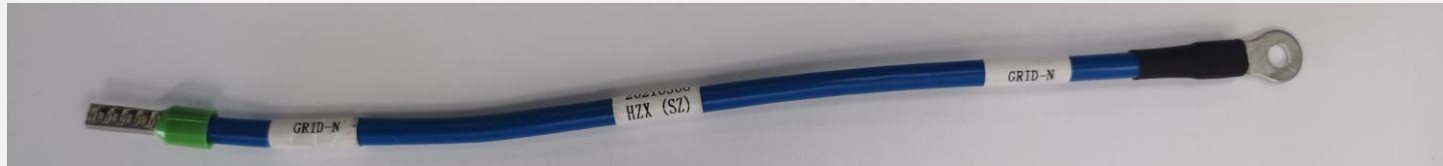
将线缆的一端移除18mm的绝缘层，并安装针脚端子。

Model	R5KLNA	R6KLNA	R7K6LNA	R8KLNA
Cable	12AWG		10AWG	



## Connection steps

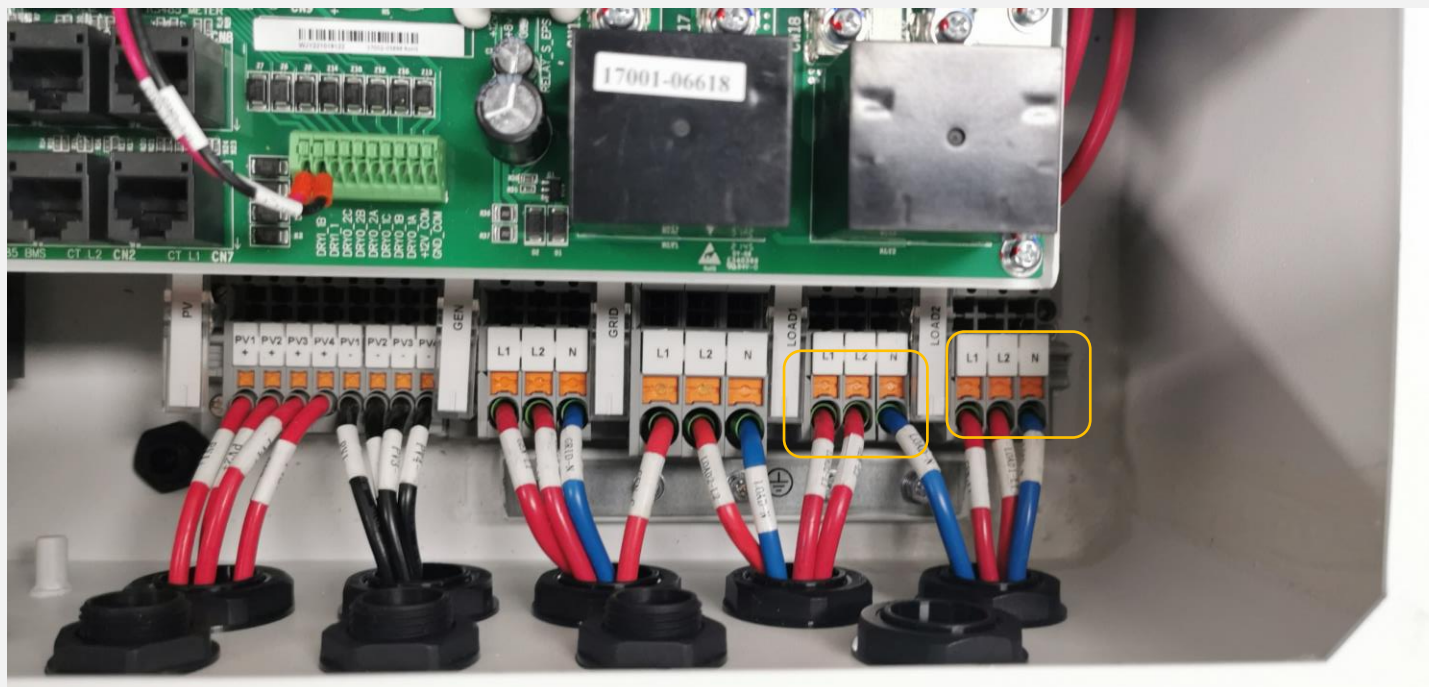
**Step2.**制作4根load火线和2根load零线



## Connection steps

Step3.分别旋转取下产品底部Load1和Load2的防水接口

Step4. 通过load1和load2接口分别接入2根火线和1根零线到load1和load2端子排。



## Connection steps

Step5. 线缆另外一端连接至配电箱中的负载插排。

7

# Battery connection

## Connection steps



Step1. Before connecting to battery, please install a no-polarized DC breaker to make sure inverter can be securely disconnected during maintenance.

请根据产品型号选择合适的离网交流断路器

Model	R5KLNA	R6KLNA	R7K6LNA	R8KLNA
Current(A)	160A		250A	



Before choosing battery, please note the maximum voltage of battery can not exceed 60V!  
When using RS485 protocol, please note that PIN2 must be disconnected!

## Connection steps

Step2: Making connecting cable

Choose the 2 AWG wire and strip the cable to 15mm. Select two O-terminals with an aperture of M8. Insert the stripping line into the O-terminal and clamp it with a crimping clamp.



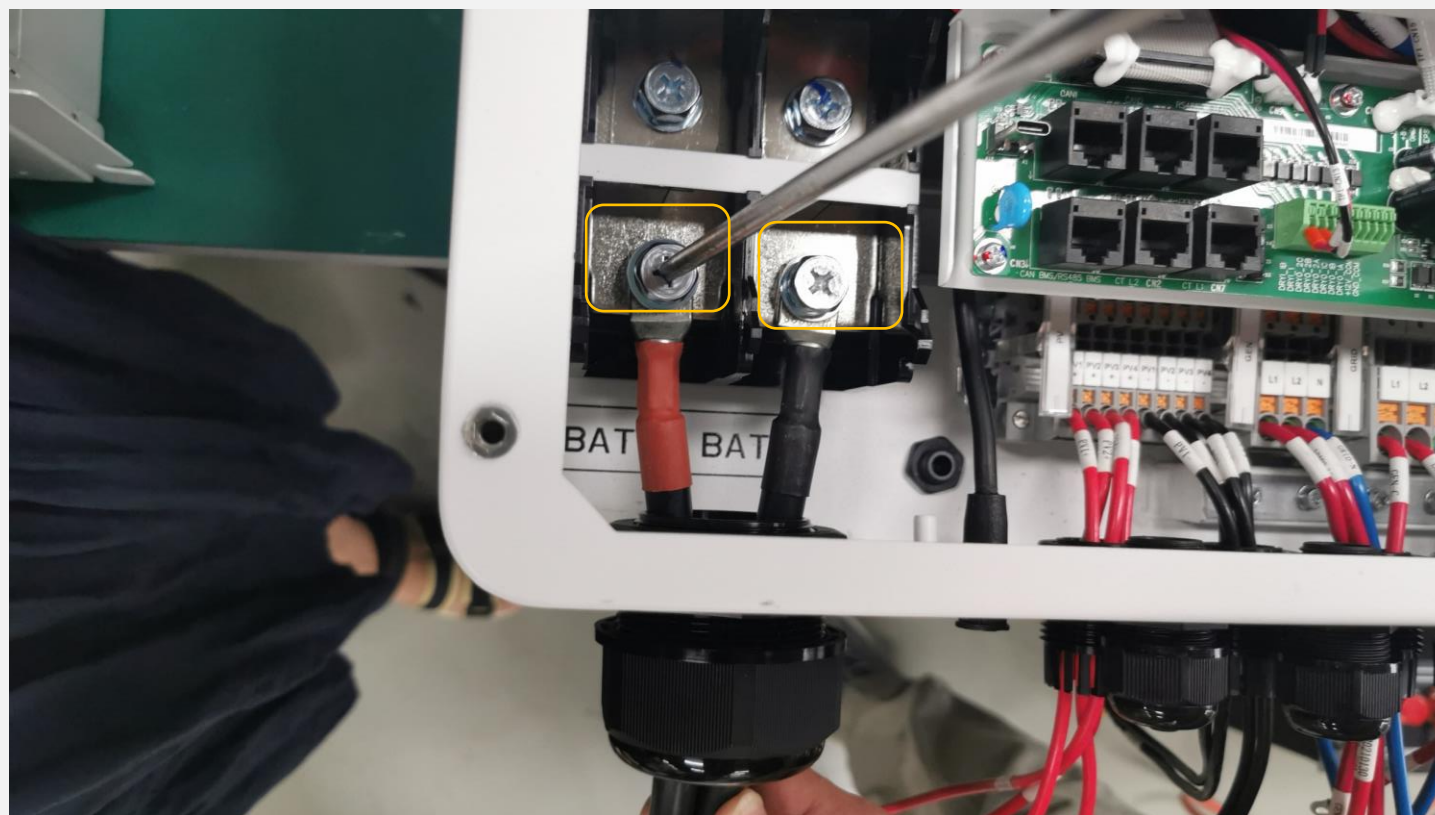


## Connection steps

Step3:旋转取下产品底部BAT+和BAT-的防水接口

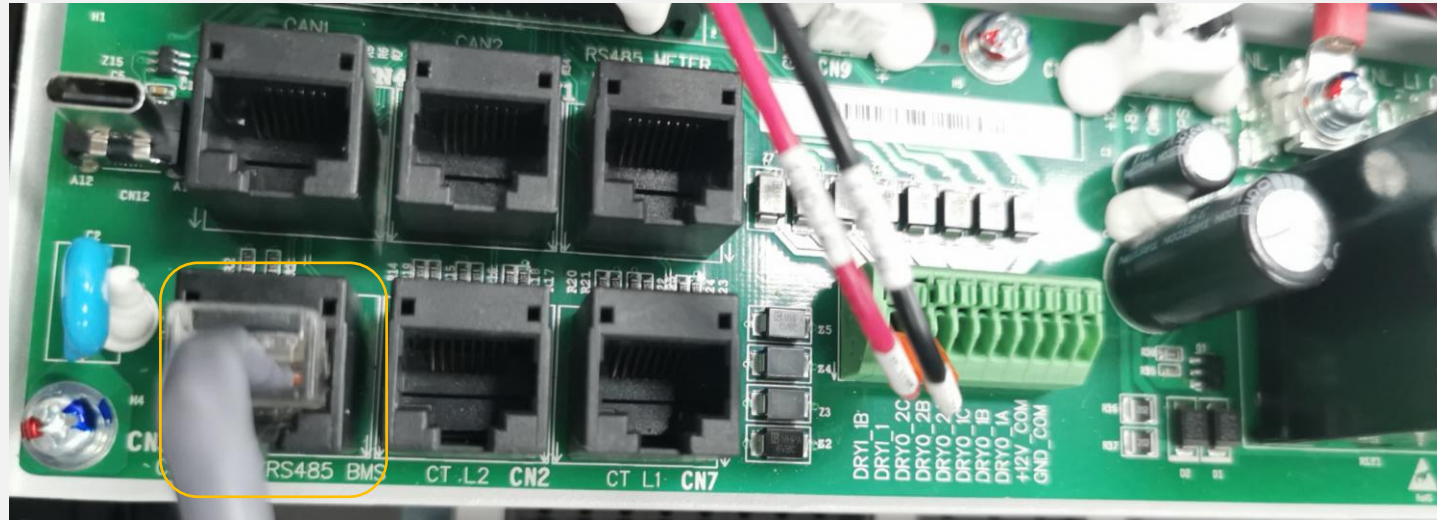
Step4:将电池线缆的B+和B-接头分别穿过BAT+和BAT-接口

Step5:用螺丝刀取下BAT+和BAT-的螺丝，将电池线缆接头对照安装，完成后扭紧螺丝进行固定。



## Connection steps

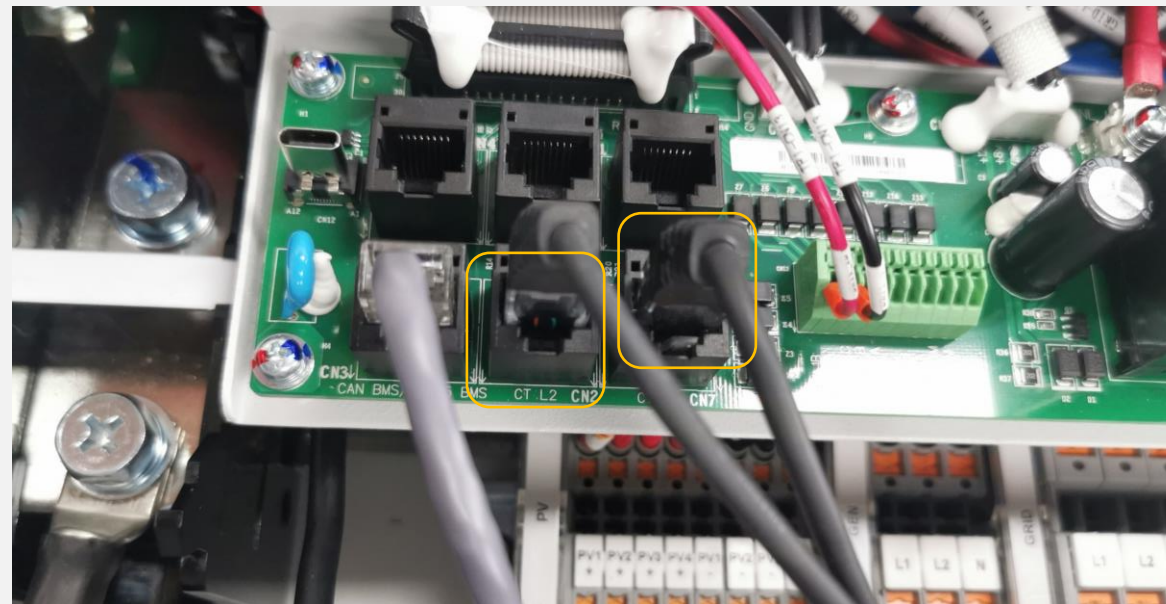
Step6:连接BMS通信线缆



The battery communication can only work when the battery BMS is compatible with the inverter.  
When using RS485 protocol, please note that PIN2 must be disconnected!  
This step is not required for lead-acid batteries!

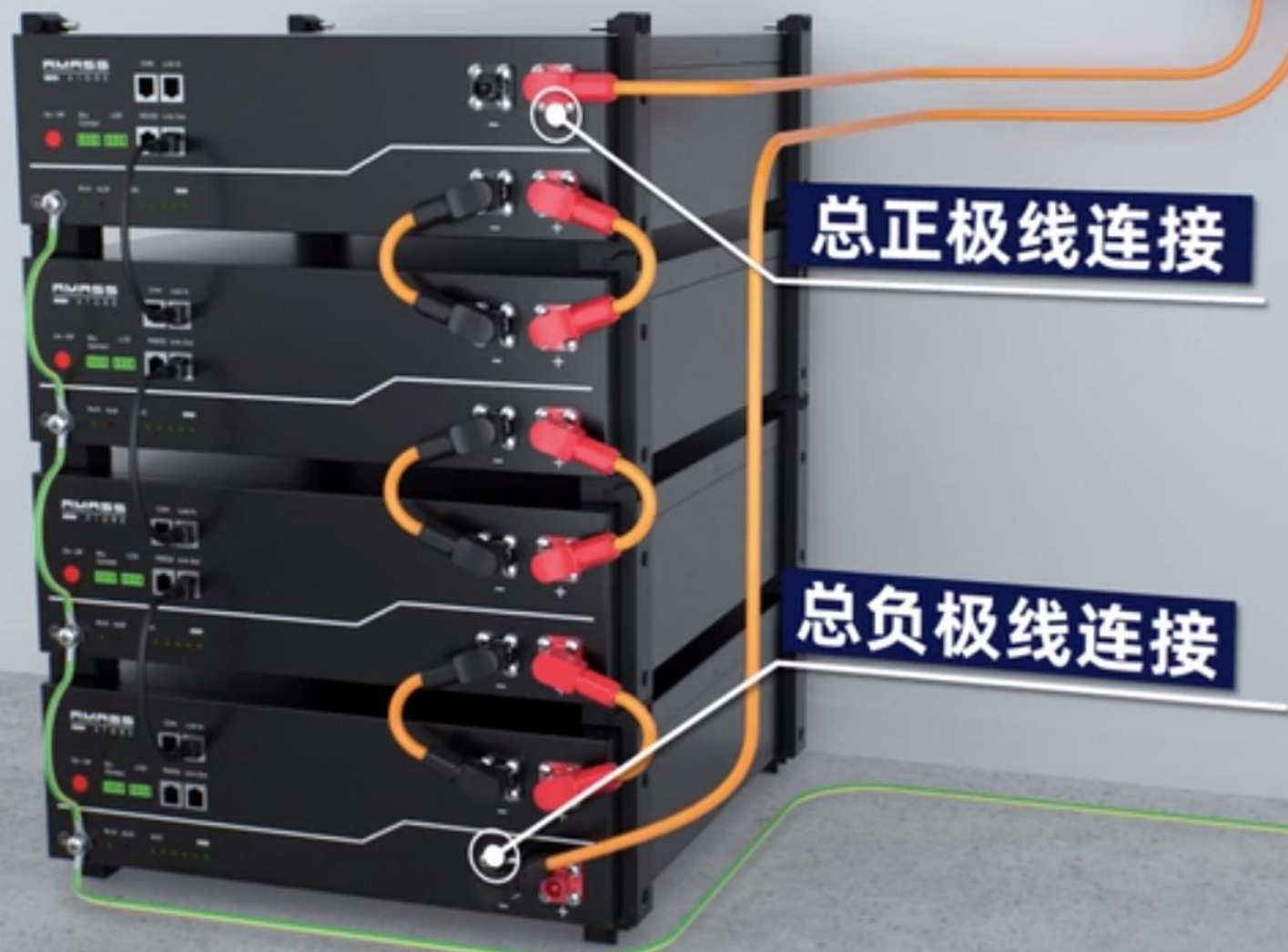


Step7:连接CT线缆检测并网电流





# 首航新能源储能逆变器与电池快速安装指导视频

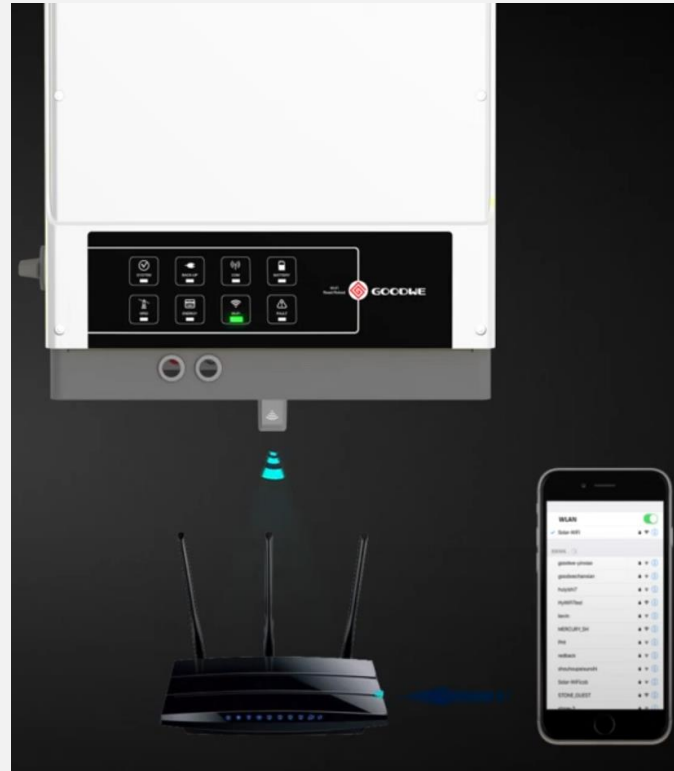


# 8

# Network Connection

## WiFi Connection (optional) step

- Step1. Plug WiFi into “WiFi” port at the bottom of the inverter.
- Step2. Build the connection between the inverter and router.
- Step3. Create a user account online.( Please check the WiFi user manual for more details).

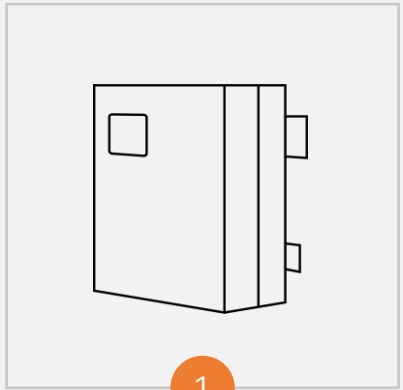


## GPRS Connection (optional) steps



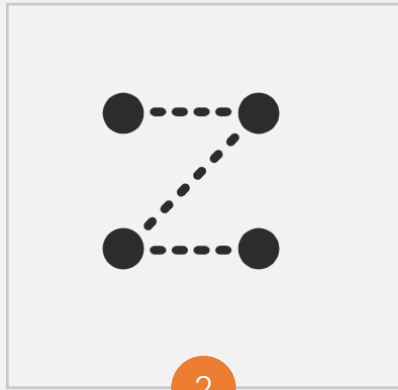
Hybrid inverter provides a GPRS( radio frequency) interface which control the switch time of a designated load via an external Smart Plug

Start the inverter after checking all the following steps



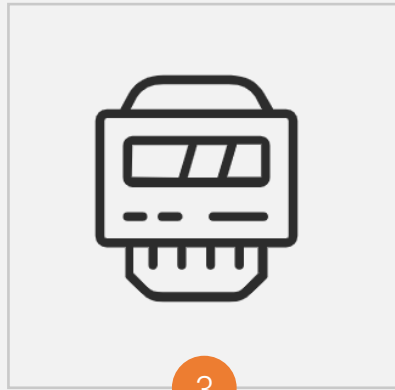
1

Ensure that the inverter is firmly fixed to the wall.



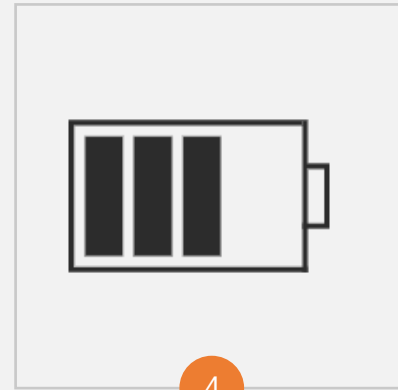
2

Ensure that all DC and AC lines are connected



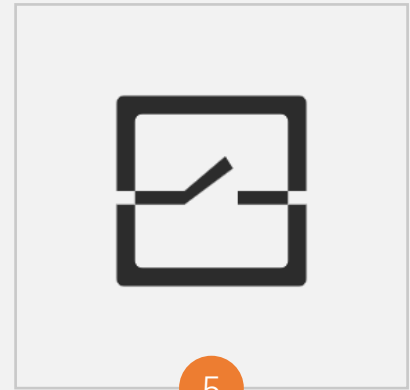
3

Ensure that the instrument is well connected



4

Make sure the battery is well connected



5

Turn on the photovoltaic switch and battery switch.



# 9

## System settings

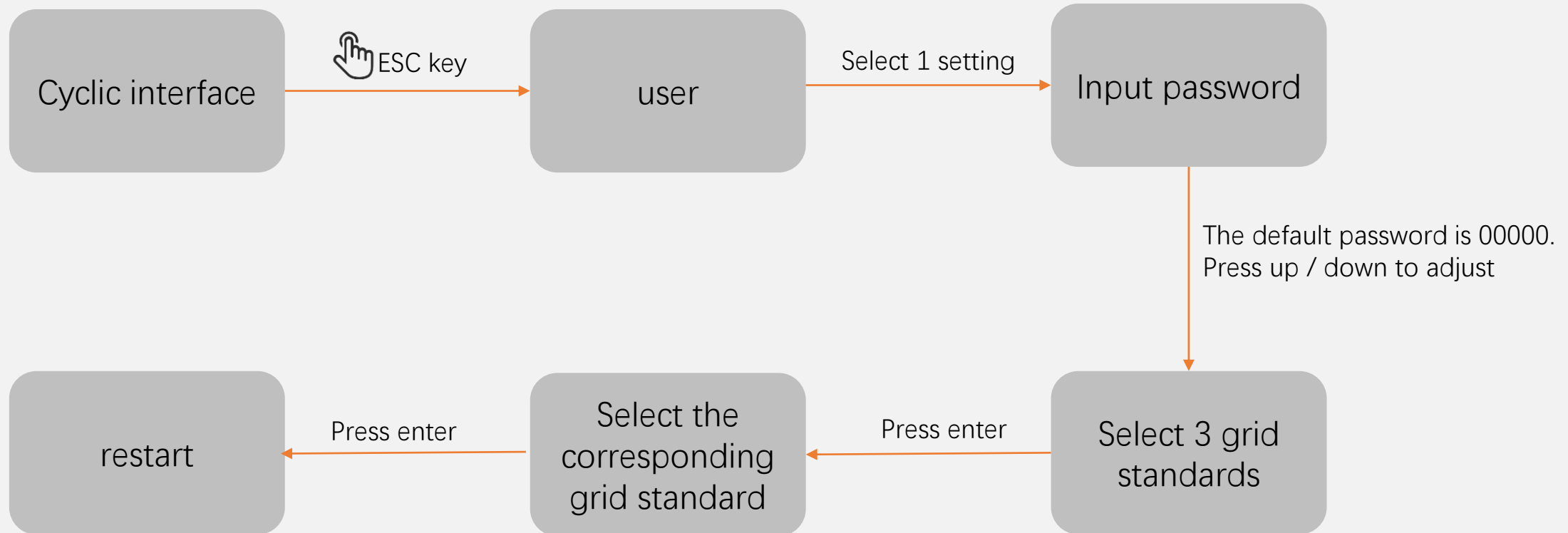
control panel 该页面采用3D动画展示，不在PPT中做动画，效果不好



## LED indicator status description

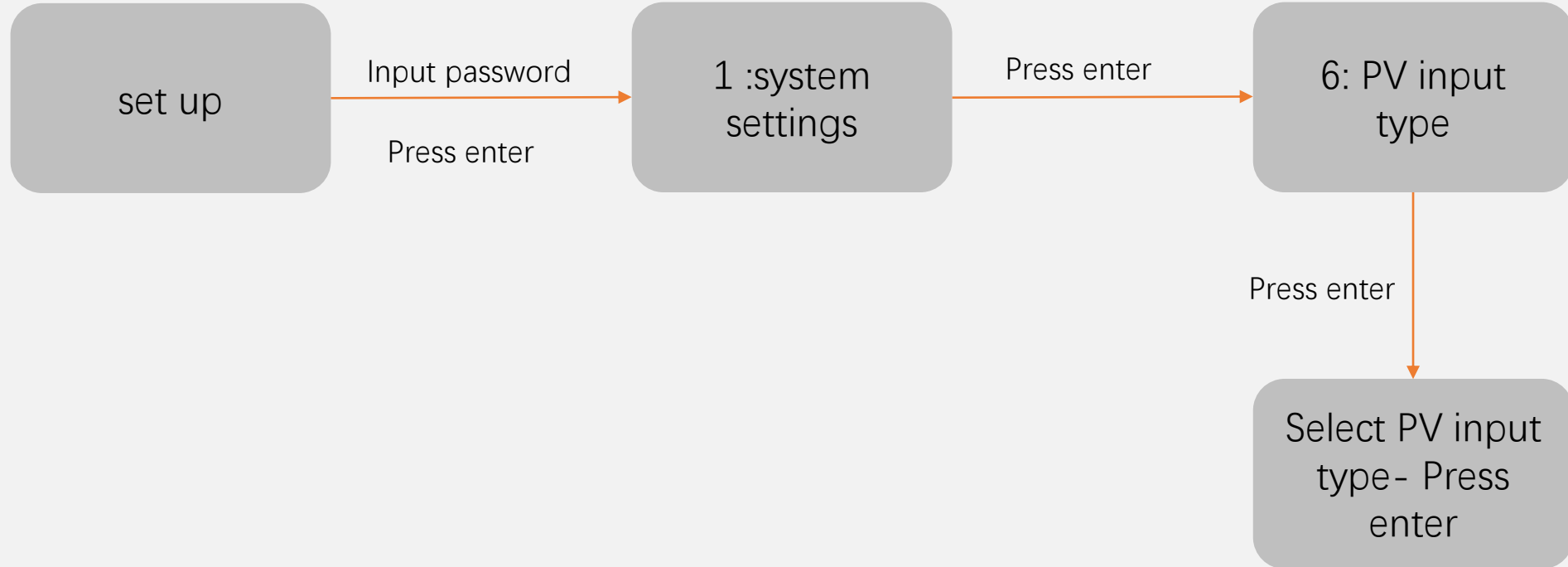
Equipment status	Grid (green)	EPS (green)	Alarm (yellow)	Fault (red)
initialization	Extinguish	Extinguish	Extinguish	Extinguish
Standby	Extinguish	Extinguish	Extinguish	Extinguish
ON-grid	Light up	Extinguish	Extinguish	Extinguish
OfF-grid	Extinguish	Light up	Extinguish	Extinguish
bypass	Extinguish	Light up	Light up	Extinguish
Fault	Extinguish	Extinguish	Extinguish	Light up

## Quick setup Guide 实拍



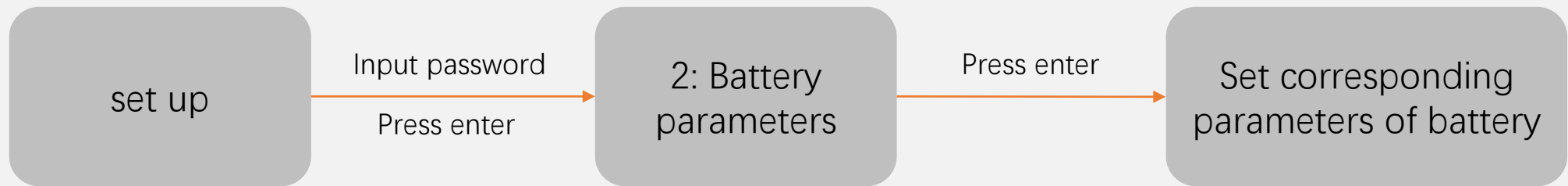
First, set the corresponding grid standard

## Quick setup Guide 实拍



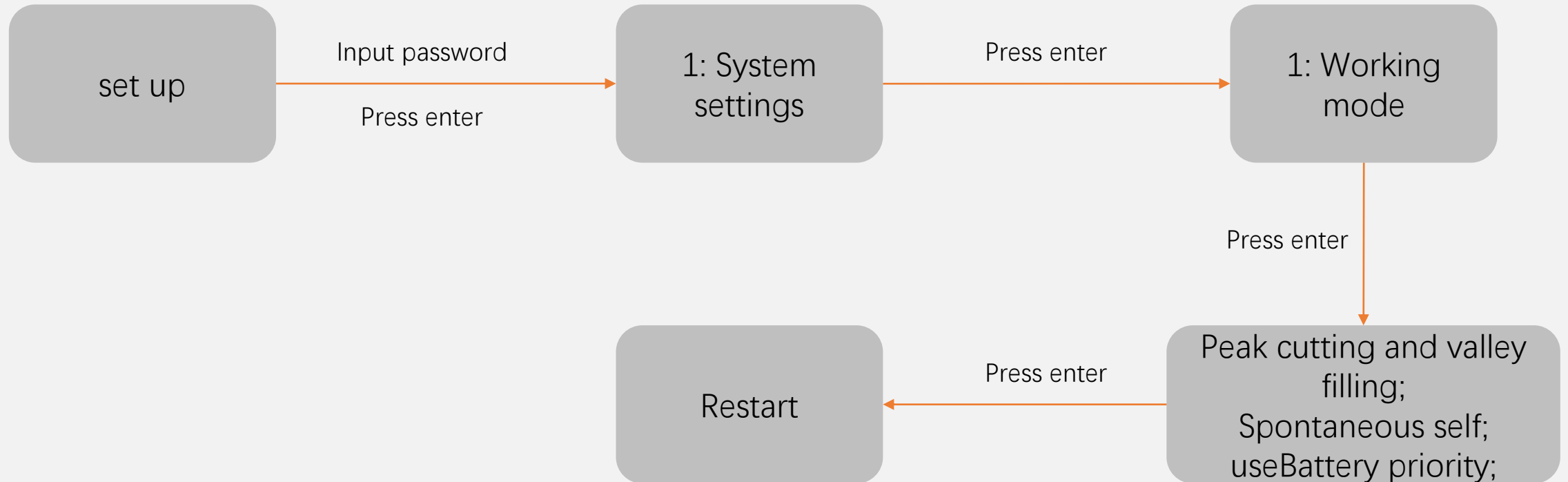
Next, Set PV input type

## Quick setup Guide 实拍



Next, Set battery parameters

## Quick setup Guide 实拍



Finally, set the system operation mode,其他运行模式, 详情请参照产品用户手册。



Finally, After setting up, the system starts to work, bringing you economical and clean energyt the system operation mode,

最终回归住在全景，给一个光伏和储能给家庭负载供电的近景镜头，然后转向家庭人员正在享受负荷全景镜头（比如开空调，看电视，在家办公，给汽车充电等）。





MAKEING ENERGY CLEANER AND MORE EFFICIENT

Shenzhen Megarevo Technology Co., Ltd.