

防逆流控制器快速安装指导

Anti-Reverse Power Controller
Quick Installation Guide



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设备需求

Equipment Required

- 防逆流控制器
Anti-Reverse Power Controller, ARPC is abbreviation of the Anti-Reverse Power Controller as follows.
- 电流互感器, 精度要求 $\leq 1\%$
Current sensor, CT is abbreviation of the current sensor as follows. Appropriate CT's with rated with 1% accuracy or less
- 电压采样线缆, 线缆规格:AWG 12~18
Voltage sampling cable, cable section: AWG 12~18
- 电流互感器信号延长线缆, 推荐使用网线
CT sampling cable, we recommend using network cable to extend the wires of CT.
- 限载信号线缆, 推荐使用网线
Loading limit cable, we recommend using network cable .

设备安装

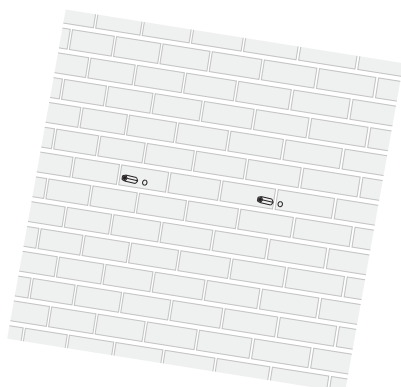
Installation

步骤一：选择合适的墙面，对准防逆流控制器的安装孔位钻两个孔，并将膨胀管敲进孔内；

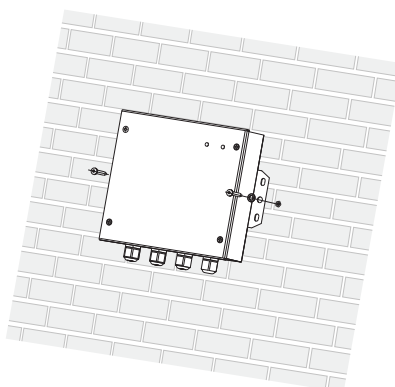
Step1: Choose the position for drilling holes, and then mark the holes position by using a marker, use the hammer drill to drill hole on the wall. Then put the rear panel on the wall.

步骤二：用自攻螺丝固定防逆流控制器。

Step2: Put the ARPC on the wall, and use the screw to fix the ARPC.



Step1



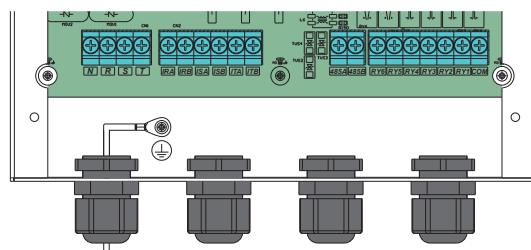
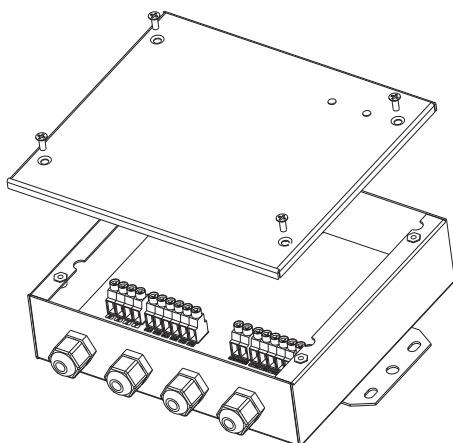
Step2

电气连接

Wiring

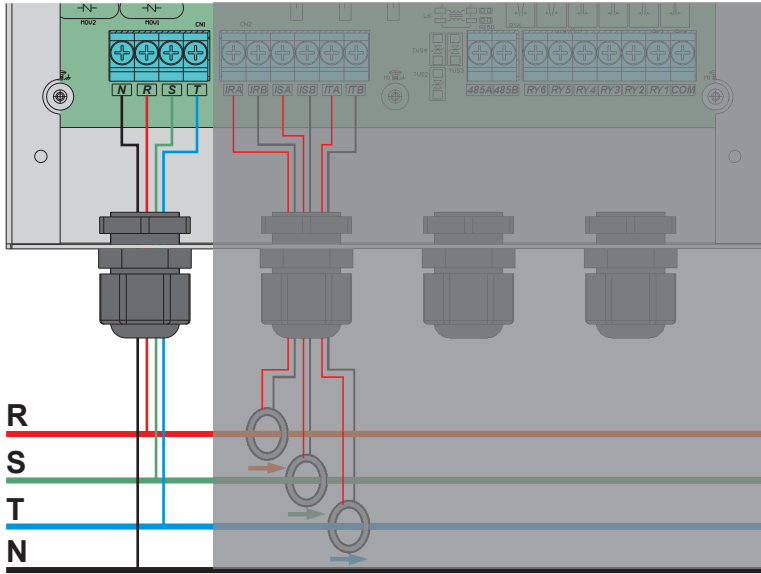
1. 打开控制器的上盖,安装地线

Open the cover, connect the PE wire using OT terminal



2. 连接电压采样信号 (80-270Vrms) Connect Voltage References

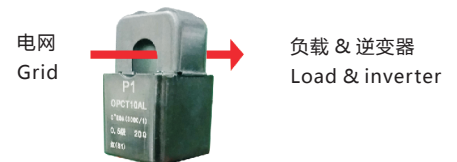
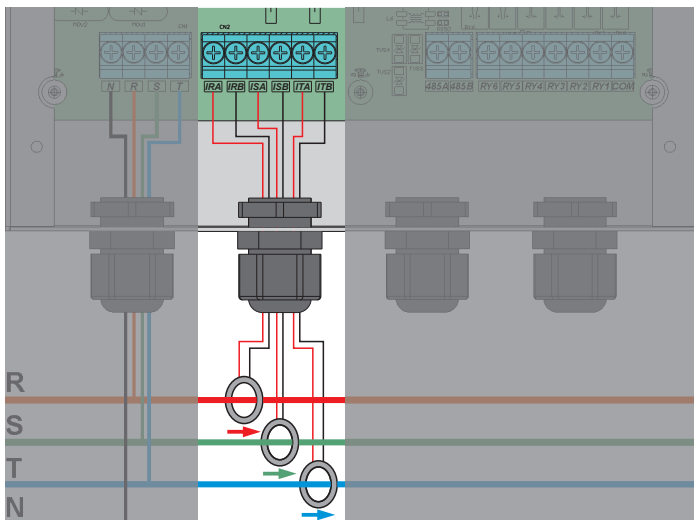
- 连接N线
Connect Neutral to Inputs Grid N
- 连接相线R, S, T
Connect Voltage References to Inputs Grid R,S,T
- 若是单相逆变器, 仅需接R相(火线L), 及N线(零线N)
If one-phase inverter, only connect R phase (or L line) and Grid N
- ★ 提示1: 不能将火线和零线接反。
NOTE1: Don't reverse the R phase line (or L line) to Grid N.



3. 连接电流互感器

Connect CT Sensors Grid (Inputs Grid PHA,PHB,PHC)

- CT 方向由电网到负载
Make sure the CT is installed in the right direction: The arrow on the CT must be form grid to load.
- CT采样线按表格1连接到防逆流控制器, 使用网线的其中四根延长CT的红色线,其他四根延长CT的黑色线, 必须保证R相的CT接 IR, S相的CT接IS, T相的CT接IT。
Wiring the signal wires of the CT as Table 1, there're 8 wires in the network cable, so please use 4 wires to extend the RED wire of CT. Use the other 4 wires to extend the BLACK wire of CT. Make sure that the CT which place the R phase line, the signal wire of this CT must be connected to IRA / IRB of the ARPC. Don't be in ISA/ISB or ITA/ITB.
- 如果是单相逆变器, CT只能接R相(火线L)
If connect to one-phase inverter, place the CT around the phase wire L to which the inverter is connected, and the signal wire of this CT only connect to IRA/IRB of ARPC



表格1/Table 1

CT 信号线 CT signal	延长线 (网线) extending wire (network cable)	防逆流控制器 ARPC
红色 Red	橙/白橙 & 绿/白绿 orange/white-orange green/white-green	IRA/ISA/ITA
黑色 Black	蓝/白蓝 & 棕/白棕 blue/white-blue brown/white-brown	IRB/ISB/ITB

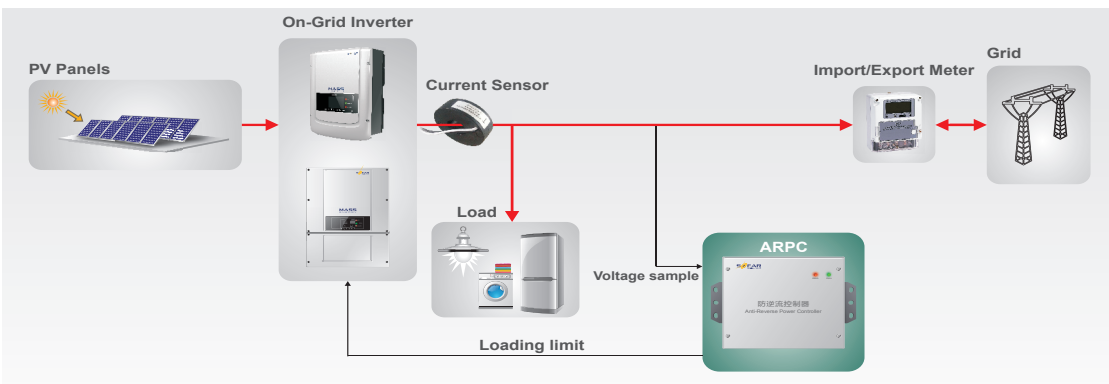
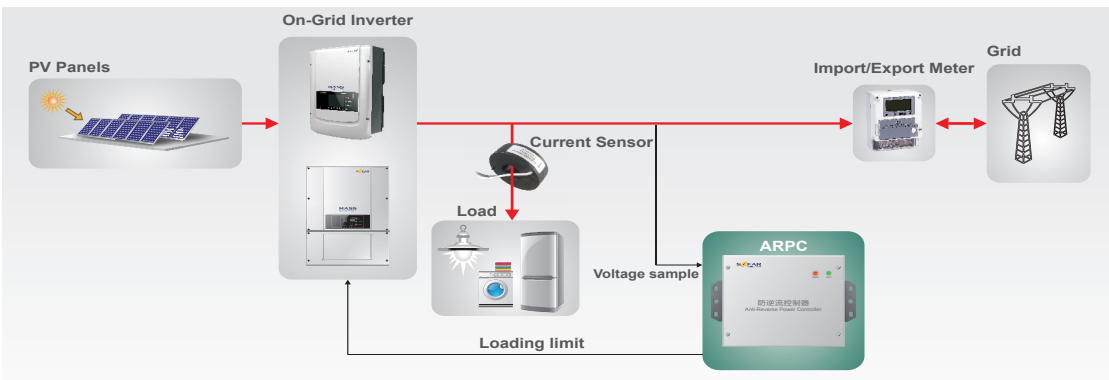
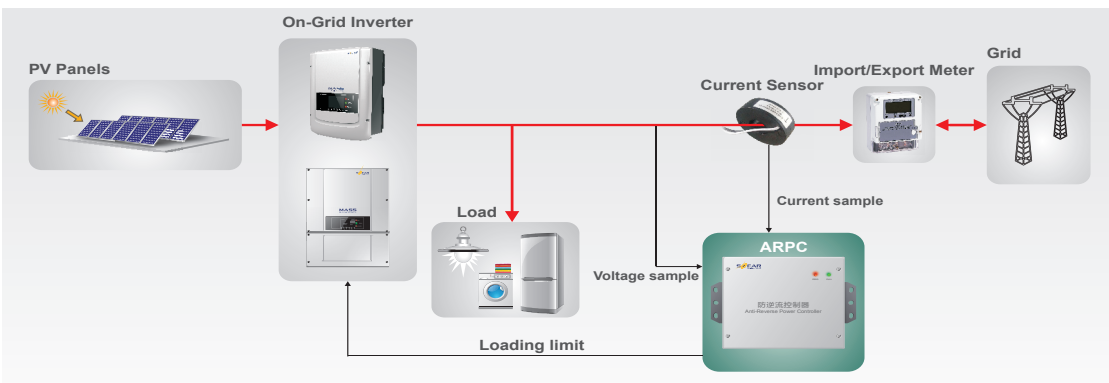
★ CT 信号线延长方法如图所示

CT Signal wire extending method as shown in the figure



★ 提示2: 正确的CT位置放置如下图

NOTE2: The correct CT position is placed as the following



★ 提示3: CT不能放到N线和地线上

NOTE3: Don't place the sensor on the N wire or the earth wire

★ 提示4: CT不能同时穿过L线和N线

NOTE4: Don't place the sensor on the N and L wire simultaneously.

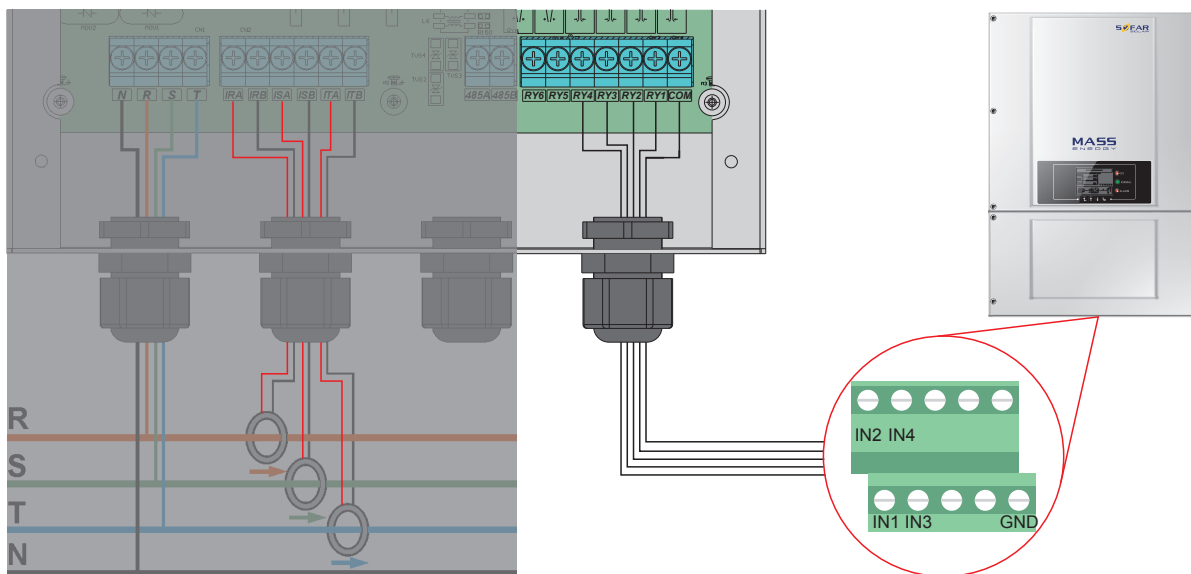
★ 提示5: CT延长线不能超过100米

NOTE5: The length of CT's cable cannot over 100m.

4. 连接限载信号线

Connect the loading limit signal wires

- 连接ARPC COM到逆变器能量管理模块的GND.
Connect ARPC' S COM to the GND pin of the Inverter Power Control Module.
- 连接 ARPC RY1到逆变器能量管理模块的IN1.
Connect ARPC' S RY1 to the IN1 of the Inverter Power Control Module.
- 连接 ARPC RY2到逆变器能量管理模块的IN2.
Connect ARPC' S RY2 to the IN2 of the Inverter Power Control Module.
- 连接 ARPC RY3到逆变器能量管理模块的IN3.
Connect ARPC' S RY3 to the IN3 of the Inverter Power Control Module.
- 连接 ARPC RY4到逆变器能量管理模块的IN4.
Connect ARPC' S RY4 to the IN4 of the Inverter Power Control Module.



三相逆变器连接说明

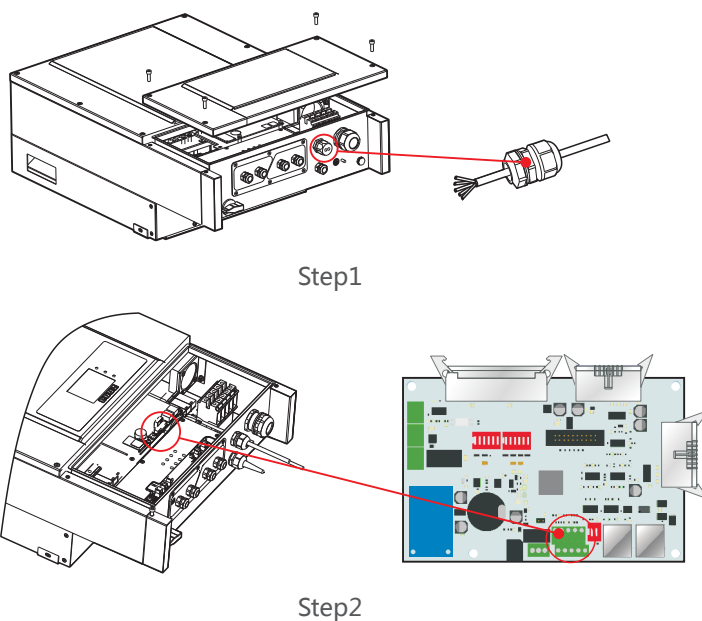
three-phase inverter wiring

步骤一：打开下盖，限载信号线穿过防水接头；

Step1: Open the bottom cover, and insert the wires through the cable gland as picture.

步骤二：连接限载信号线。

Step2: Wiring the loading limit signal wires as picture.



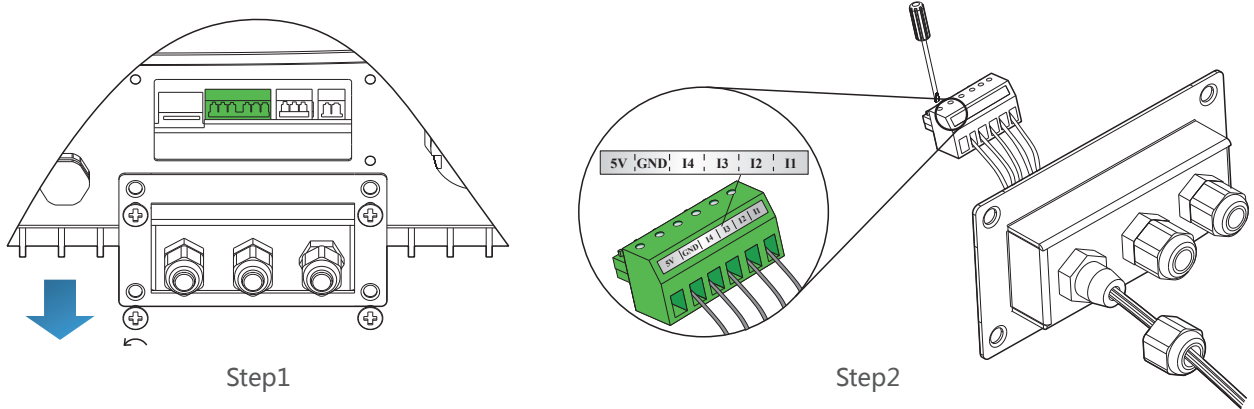
单相逆变器连接说明 one-phase inverter wiring

步骤一：打开下盖，限载信号线穿过防水接头；

Step1: Open the bottom cover, and insert the wires through the cable gland as picture.

步骤二：连接限载信号线。

Step2: Wiring the loading limit signal wires as picture.



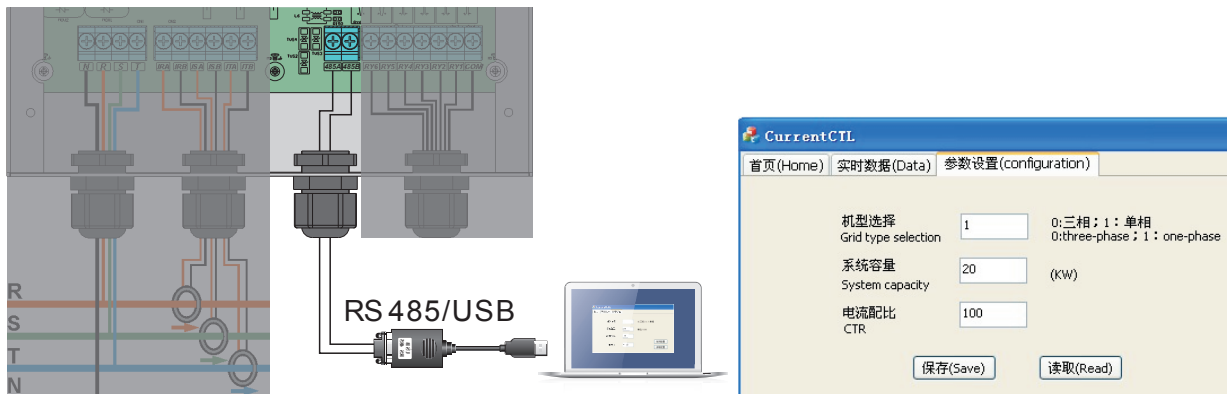
5. 系统上电 Power to Unit

6. 设置和配置 Configuration

★ 提示6: 通常情况下，ARPC软件出厂已根据客户要求配置完成，用户无需操作

NOTE6: Usually, the electrical parameter of the ARPC is configured ex-factory according to customer requirements. Users do not need to operate.

- 通过RS485转USB线缆，将防逆流控制器和笔记本电脑连接
Connect PC to ARPC with RS485---USB
- 打开浏览器登录 <http://www.sofarsolar.com> 下载ARPC_configuration.exe
Open web browser and simply type <http://www.sofarsolar.com> download ARPC_configuration.exe
- 配置机型、电流互感器、系统容量
Go to configuration to set up electrical parameters of the device.



7. 显示说明 Operation Indicators

绿灯常亮 Green LED On	控制器上电 Power to ARPC
红灯闪烁 Red LED Flicker	系统降载 Generation Available
红灯常亮 Red LED On	电网电压采样与互感器采样相位不对应 The phase of grid voltage sampling is not corresponding to the CT sampling