

Isuna Hybrid Inverter anti reverse introduction

1、Logic of anti-reverse

The anti-reverse function is enabled by the meter, and the mounting position of the meter and CT will affect the anti-reverse function.

There are two types of meters and installation positions for Isuna series.

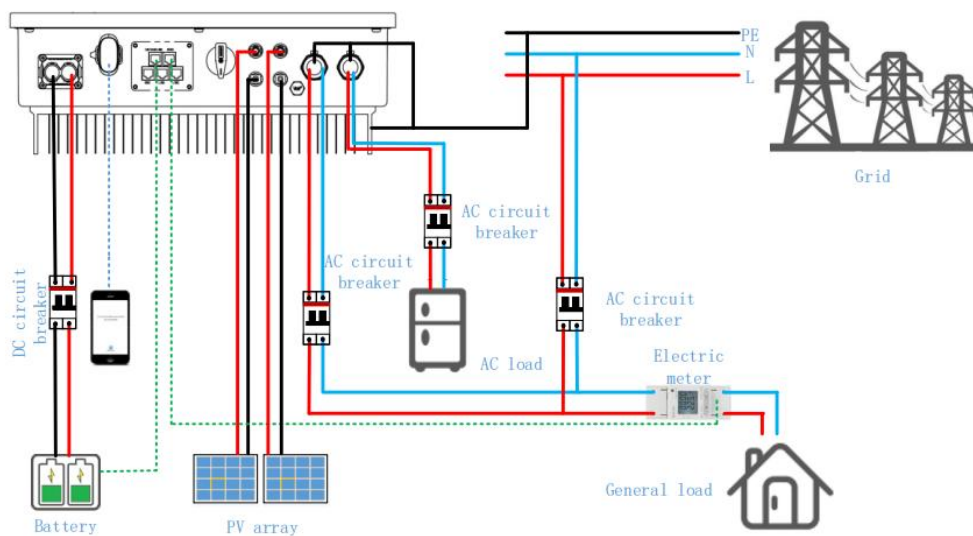
1、General load side, when the meter is installed on the general load side and the meter type is ADL 200, the APP setting items are as follows

Meter

Electricity Meter Access Enable
Meter Access Method
Electricity Meter Model
Meter Detection

Enable
Normal Load Side
ADL200
Testing

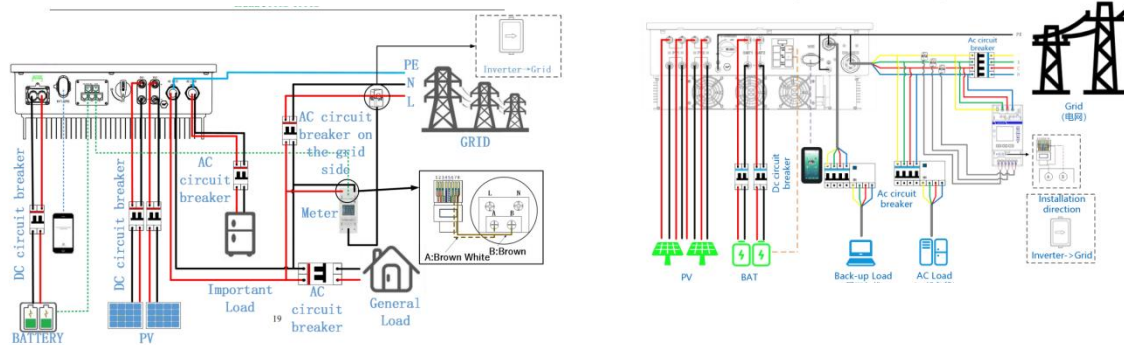
The installation location of the meter is shown below



At this time, the logic is $\text{grid power} = \text{inverter power} - \text{general load power (meter power)} - \text{back up load power}$, to control the grid power to 0 to achieve the effect of anti-reverse.

2、On grid side, when the meter is installed on the grid side and the meter type is ADL 200-CT, ADL400N-CT, or ACR10R, the wiring diagram is shown below

(single-phase on the left, three-phase on the right).

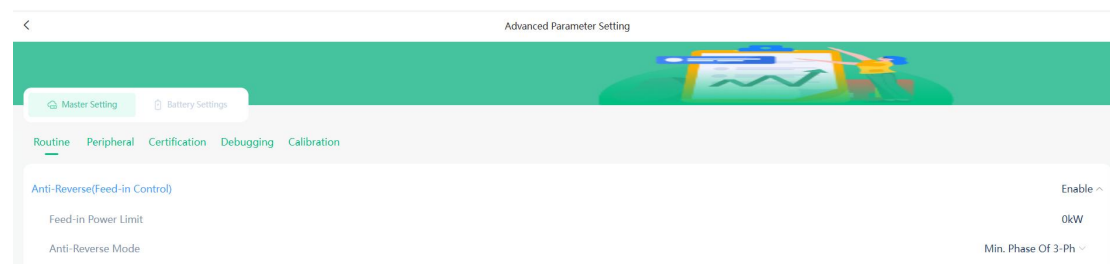


At this time, the logic is grid power = meter power, control meter power to 0 to achieve the effect of anti-reverse. When the meter detects that the grid is supplying power to the general loads, the inverter will output the same power to the general loads to achieve the purpose of not using power from the grid and not feeding power to the grid.

2、How to set up anti-reverse on APP

APP>Admin.>Set up>Advanced Settings>Anti-Reverse>Anti-Reverse Enable, the power is defaulted to 0 (no power output to the grid).

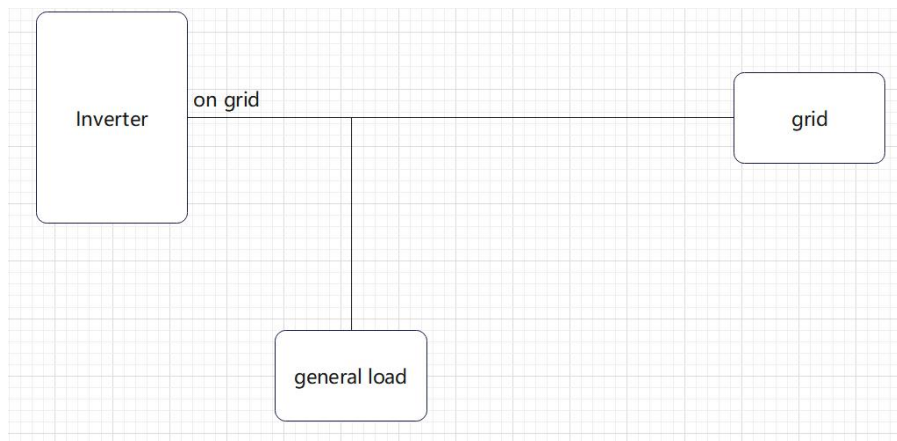
Note: When the anti-reverse enable is set and the anti-reverse current power is set to 'X' kW, then the inverter is allowed to feed 'X' kW of power to the grid.



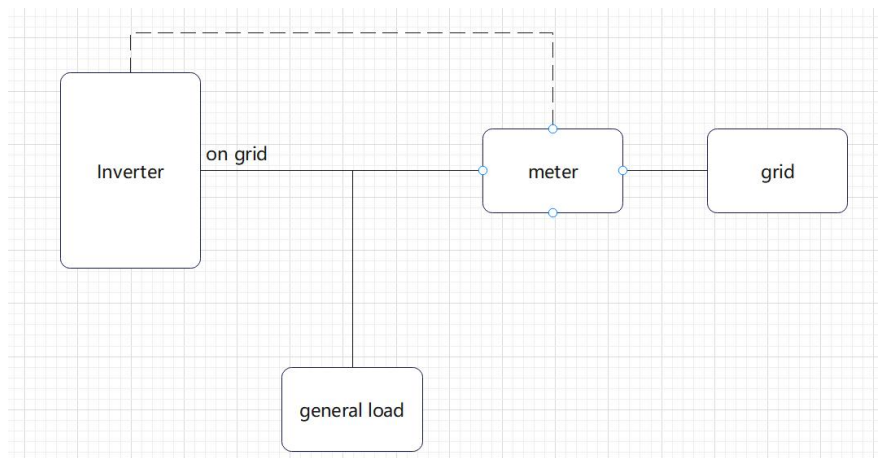
3、Description of anti-reverse in 3 situations

1、Anti-reverse current without connecting general load: In this case, you can not connect the meter, APP set anti-reverse current enable, at this time the inverter will

not output power to the grid.



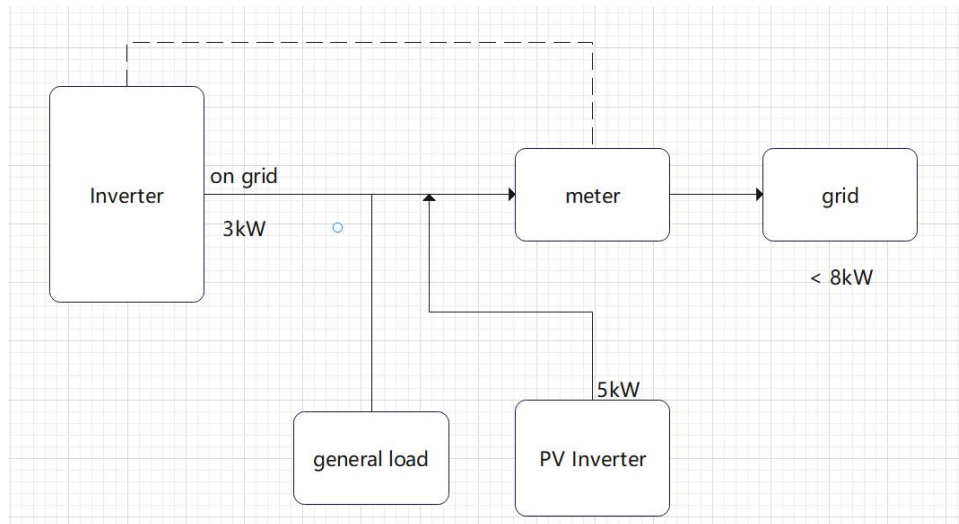
2、 Anti reverse connect with general load: In this case, you need to set up the meter position and type of meter on APP, and pay attention to the position of meter and CT and the direction of CT (pointing to the grid) when installing the meter. The general load should be connected between CT and inverter.



3、 Anti-reverse current in AC COUPLE mode: In this case the PV inverter needs to be connected between the storage inverter and the meter, but the anti-reverse effect needs to be analysed according to the actual situation, the following are two examples.

When the maximum output power of the PV inverter is 5kW and it is allowed to output 8kW power to the grid, set the anti-reverse current enable on the APP, and

the anti-reverse current power is 8kW. At this time, the energy storage inverter will output at most $8\text{kW} - 5\text{kW} = 3\text{kW}$ power to the grid, in order to achieve the effect of anti-reverse.



When the maximum output power of the PV inverter is 5kW, but it is only allowed to output 4kW power to the grid, the APP is set to set the anti-reverse current to 0. At this time, the storage inverter will not output power to the grid, but it is not possible to control the output of the PV inverter to 5kW to the grid.

