

0-export solution

1. Overview

Zeversolar offer Zero Export solution for the application that PV power is not allowed feed into grid. The system consist of zeversolar inverter, data logger Zevercom/Zeveermanager/Combox WiFi and Eastron energy meter. Zevercom/zeveermanager/Combox WiFi can read the current flow from smart energy meter, then limit the power generated by zeversolar inverter to make sure PV power \leq load power, thus to guarantee no power feed into grid. The power accuracy of this solution is $\pm 2\%$ of total inverter power.

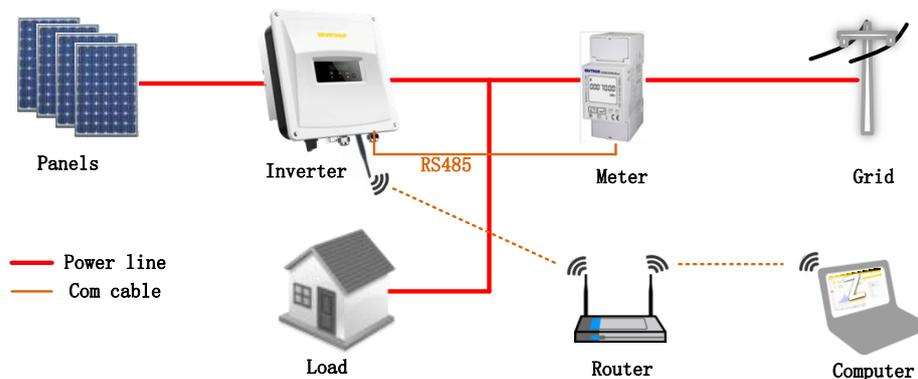
2. Combox WiFi 0-export solution

2.1 Devices required

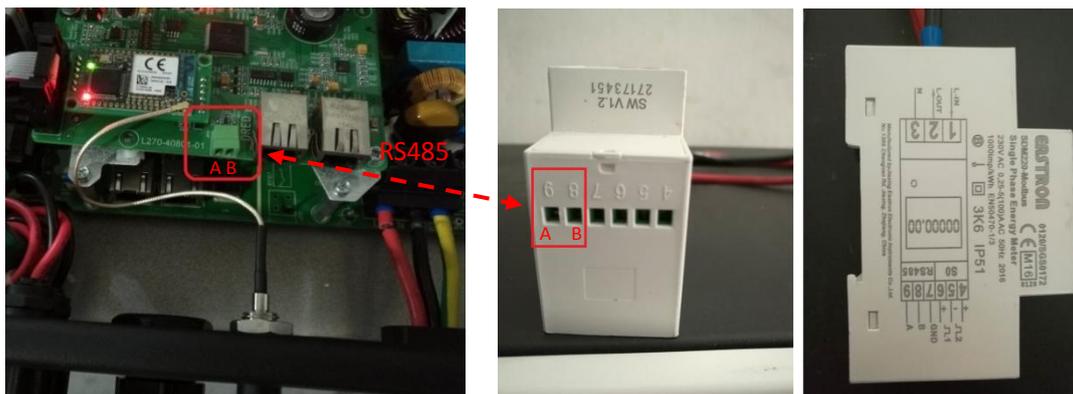
Device	Model name
Zeversolar inverter	Zevelution with Combox WiFi (1 phase, 1-5kw)
	Evershine TLC with Combox WiFi (3 phase, 4-10kw)
Eastron Modbus meter	1 phase: SDM120-Modbus*; SDM220-Modbus; SDM230-Modbus ; 3 phase: SDM630-Modbus;
Com cable	RS485
Other device for setting	Router, computer or smart phone

Note: SDM120-Modbus is not recommend due to its default setting of baud rate is 2400, this value need to be set at 9600 by manufacture for the communication with data collector.

2.2 System connection



RS485 Interface for Combox and Eastron meter(SDM220 as example)



2.3 System setup

2.3.1 Meter setting

The communication settings required for Combox WiFi is :

Modbus address: 001

Baud rate: 9600

Parity : none

Stop bits: 1

The default setting of SDM220/230/630 is OK for the communication with Combox/zevercom. If any communication parameter has been modified by someone accidentally, please refer to Eastron meter's user manual to reset them to the values we required.

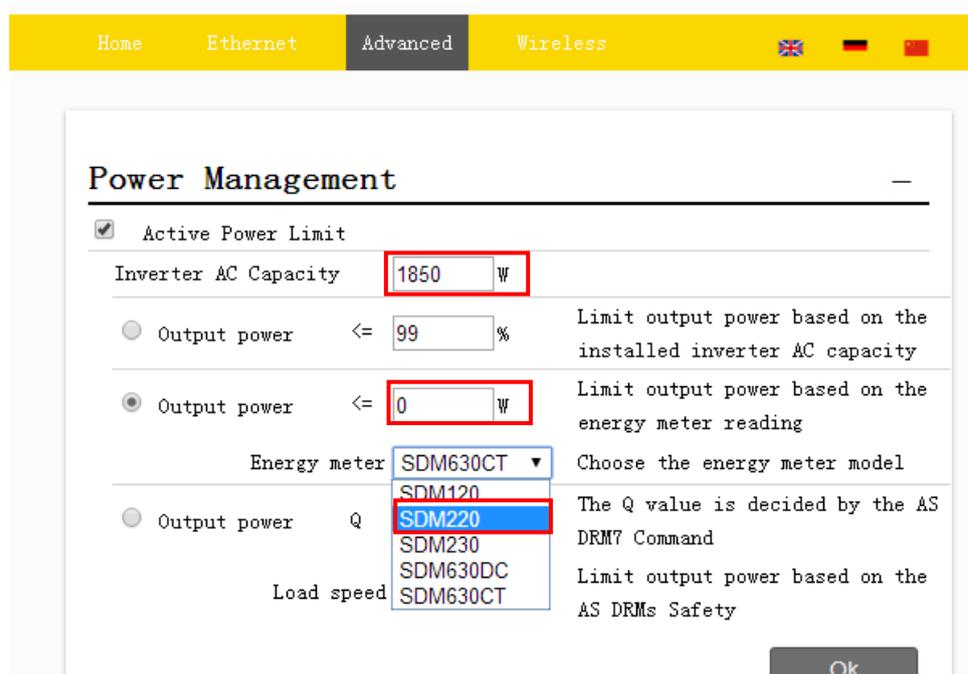
The default Baud rate of SDM120 is 2400, this setting cannot be modified by customer manually, please ask the manufacture to preset this value before shipping to customer.

2.3.2 0-export setting for Combox WiFi

- 1) Power on the DC side of inverter
- 2) Open the mobile device or laptop's WLAN page. Find access point called "ZEVER SOLAR-XXXX", connect to this access point with password "zeversolar"
- 3) Open the web browser and go to <http://160.190.0.1>, the internal website will be opened.



- 3) Open the "Advanced" page, go to "Power Management", enable "active power limit", fill in total inverter AC capacity, select "limit output power based on energy meter reading", fill in 0 W. Select the right meter then Click OK.

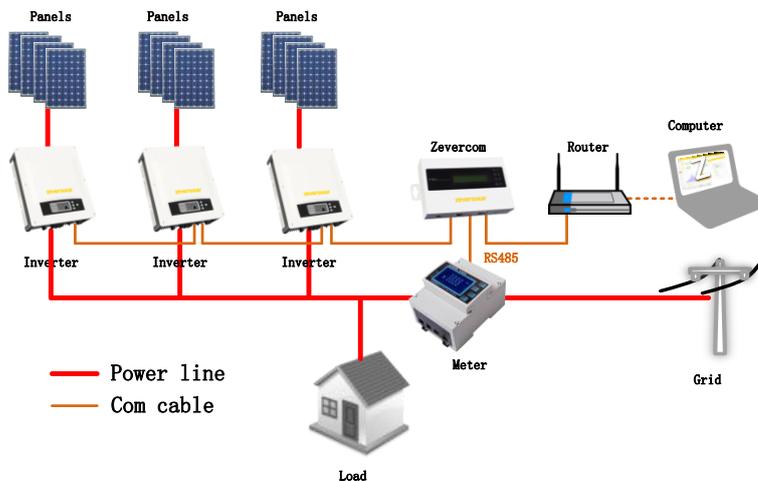


3. Zevercom/Zevermanager O-export solution

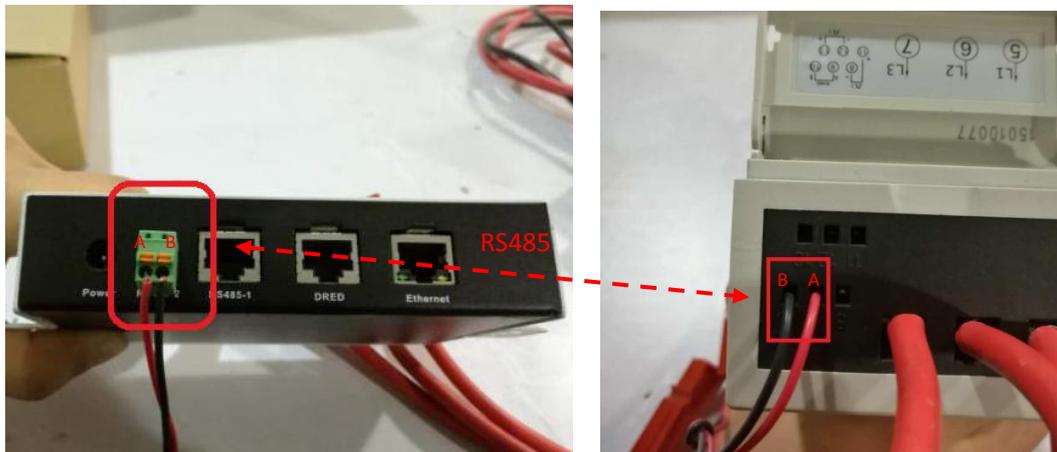
3.1 Devices required

Device	Model name
Zeversolar inverter	Zeversolar three phase inverters (4-33KW)
Data collector	Zevercom WiFi/Zevercom/Zevermanager
Eastron Modbus meter	SDM630-Modbus; SDM630M CT
Com cable	RS485
Other device for setting	Router, computer or smart phone

3.2 System diagram



RS485 Interface for Zevercom and Eastron meter(SDM630 as example)



3.3 System setup

3.3.1 Meter setting

The communication settings required for Zevercom/Zevermanager is :

Modbus address: 001

Baud rate: 9600

Parity : none

Stop bits: 1

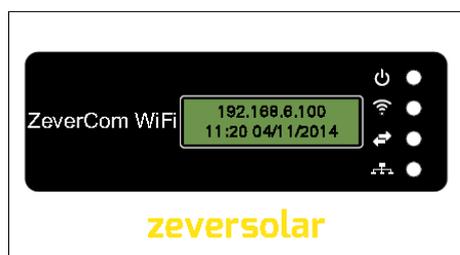
The default setting of SDM630 is OK for the communication with Zevercom/Zevermanager. If any communication parameter has been modified by someone accidentally, please refer to Eastron meter's usermanual to reset them to the

values we required.

3.3.2 0-export setting for Zevercom WiFi/Zevercom/zevermanager

1) Connect Zevercom WiFi/zevercom/zevermanager with router via Ethernet cable, for the details please refer to the manual of Zevercom WiFi/zevercom/zevermanager.

2) Get the IP address on the screen of Zevercom WiFi/zevercom/zevermanager



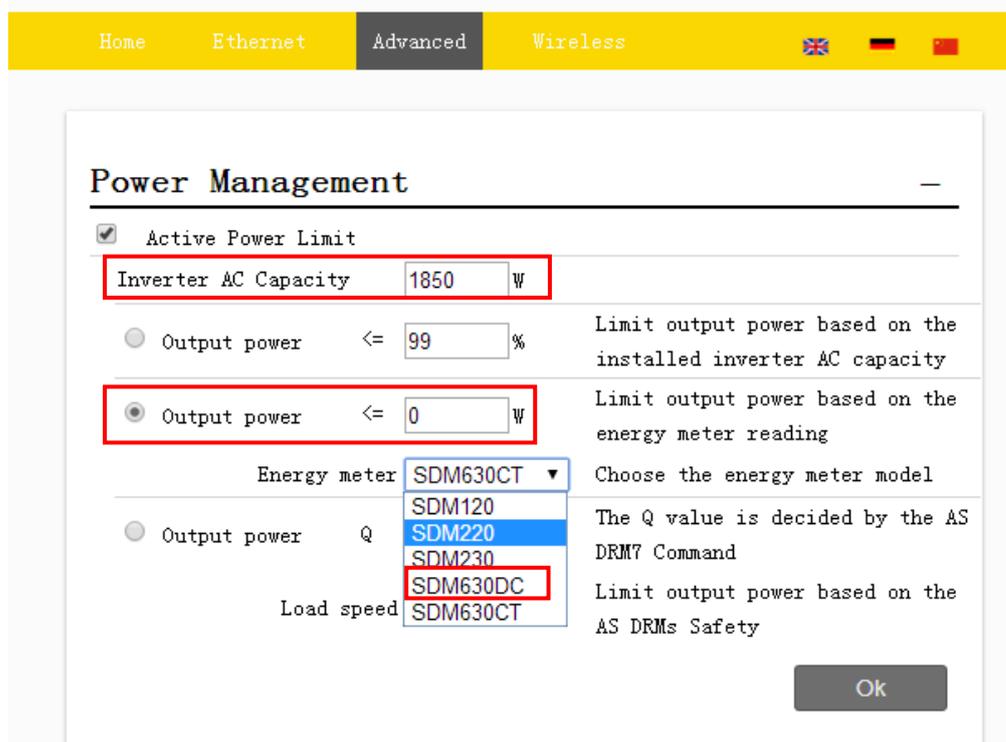
3) Open the mobile device or laptop's WLAN page. Connect to the same router which zevercom connected with.

4) Open the web browser and enter the IP address of inverter to open the web server of zevercom.

5) Open the advanced page



6) Open the "Advanced" page, go to "Power Management", enable "active power limit", fill in total inverter AC capacity, select "limit output power based on energy meter reading", fill in 0 W. Select the right meter then Click OK..



3.3.3 0-export setting for Zevercom WiFi without router

0-export function can be set on zevercom WiFi by direct connection with mobile device or laptop, the steps is the same with “[2.3.2 0-export setting for Combox WiFi](#)”. User can try this way if there is no router on hand.

Reference information:

1. User manual of zevercom/Zevermanager:

Zeevercom:

https://www.zeversolar.com/fileadmin/user_upload/pdf/usermanuals_en/zevercom_user_manual_en.pdf

Zeevermanager:

https://www.zeversolar.com/fileadmin/user_upload/pdf/usermanuals_en/zevermanager_user_manual_en.pdf

2. Website of Eastron:

www.eastrongroup.com

3. Usermanual of Eastron meter:

SMD120-Modbus:

http://eastrongroupco.hk02.057321.com/data/uploads/Eastron_SDM120-Modbus_user_manual_2016_V2_6.pdf

SMD220-Modbus:

http://eastrongroupco.hk02.057321.com/data/uploads/Eastron_SDM220-Modbus_user_manual_V1_9.pdf

SMD230-Modbus:

http://eastrongroupco.hk02.057321.com/data/uploads/Eastron_SDM230-Modbus_user_manual_V1_4_2015.pdf

SMD630-Modbus:

http://eastrongroupco.hk02.057321.com/data/uploads/Eastron_SDM630-Modbus_protocol_V1_5.pdf

SMD630-MCT:

http://eastrongroupco.hk02.057321.com/data/uploads/Eastron_SDM630MCT-V_2_Series_user_manual_V4_4.pdf