

Dyness Battery + Solis Inverter quick installation guide

This is quick installation guide for Dyness Powerbox Pro + Solis S5/S6 Hybrid inverter.

Please use this guide in conjunction with:

[Dyness battery installation manual](#)



[AC couple Application](#)



[Battery installation video S5](#)



[Battery installation video S6](#)



[inverter installation manual](#)



[Meter installation manual](#)



If you have any questions, please contact Solis Service team:

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Purchase list from OSW:

1 x Dyness Powerbox Pro

1 x Solis S5-EH1P(3-6)K-L

1 x **ZJ BENY Battery DC Breaker 500V/125A 2 pole (BDW-125)**

(Optional) 1 x meter (SDM120CT) marked with ID 2 if 3rd party PV inverter is onsite

1. Installation Tips-> Single Battery Connection

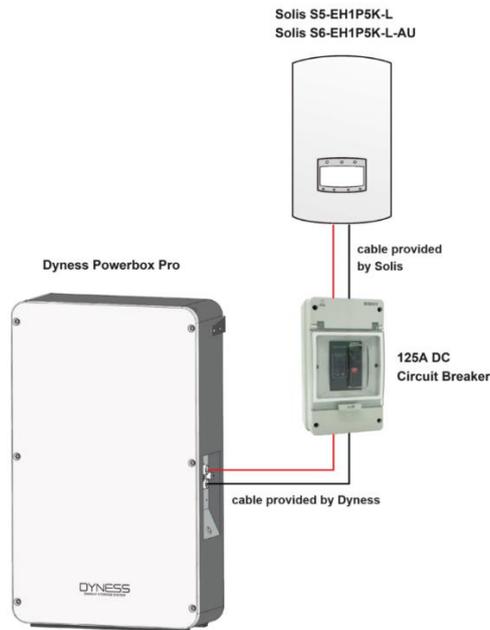
➤ Single Battery DC connection:

External 2 pole DC circuit breaker is required between battery and inverter.

Recommended beaker size is 125A for 5k and 6k inverter.

use the DC cable provided by battery to connect from battery and circuit breaker.

use the DC cable provided by inverter to connect from circuit breaker to the inverter.



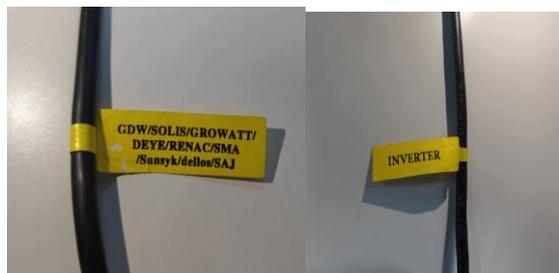
➤ Battery DIP switch setting:

❖ For single battery system: No need to change DIP switch.

➤ Battery communication connection:

Use LAN cable provided by inverter to connect from battery "CAN IN" to inverter "CAN" port

Or use the communication cable provided by battery with label marked "Solis" from battery "CAN IN" port to inverter" CAN" port.

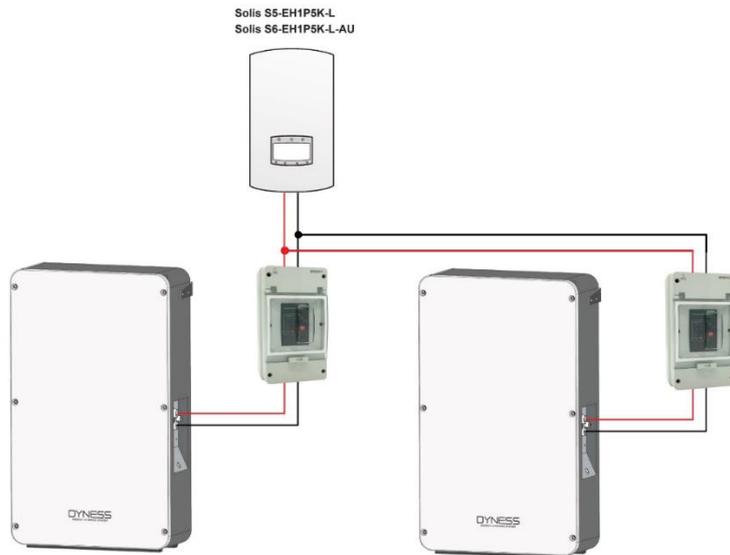


2. Installation Tips-> Dual Battery Connection

➤ Dual Battery DC connection:

External circuit breaker is required for each individual battery.

*Additional Terminal block is recommended for combining the DC from two batteries before entering inverter.



➤ Battery communication connection:

Battery to battery parallel communication cable:

Please connect two batteries with Standard LAN communication cable (not provided)

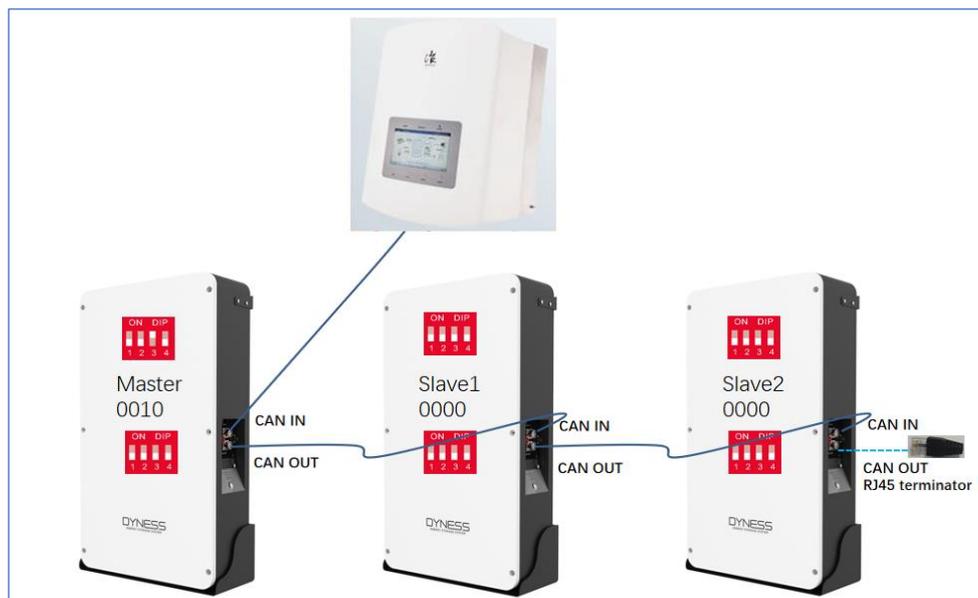
➤ Battery DIP switch setting:

For dual battery application, battery dip switch need to be changed.

open Battery front cover, you will see two DIP switches

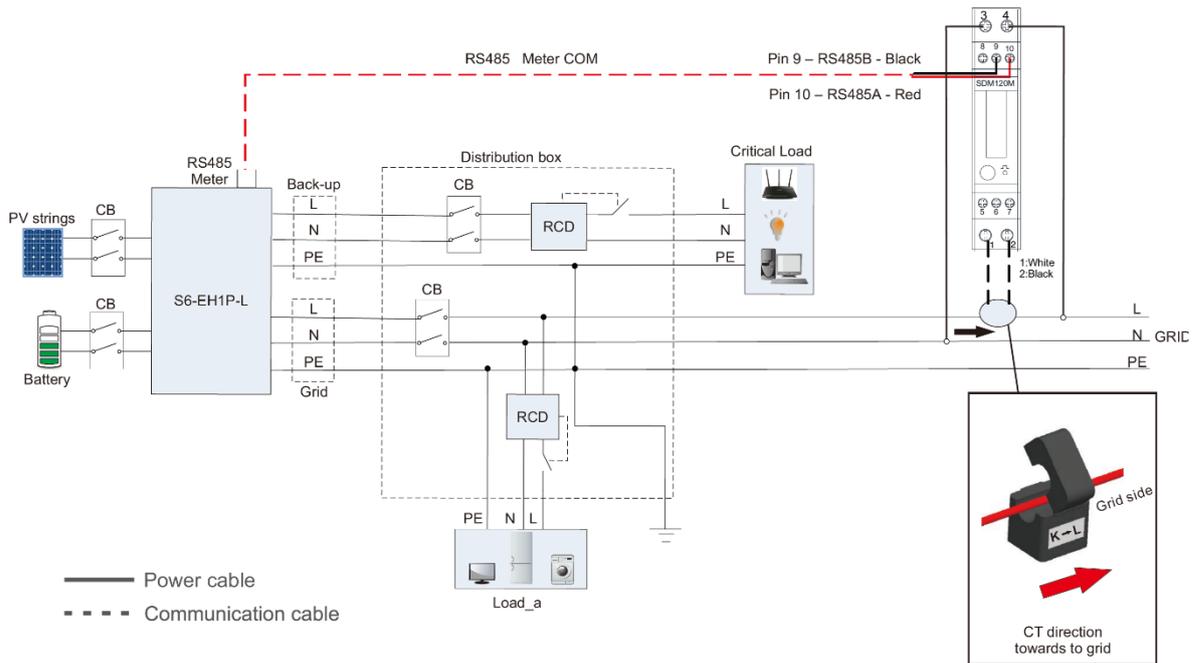
by default: **0010 on Master BMS(top one), 0000 on slave BMS(bottom one)**

change the slave battery DIP switch all to 0000 as per below



➤ Meter connection

❖ use the meter that comes with the inverter at grid side to measure import/export power.



❖ 2nd meter is only required when 3rd party inverter is onsite, please refer to “AC Couple Application” for more details.

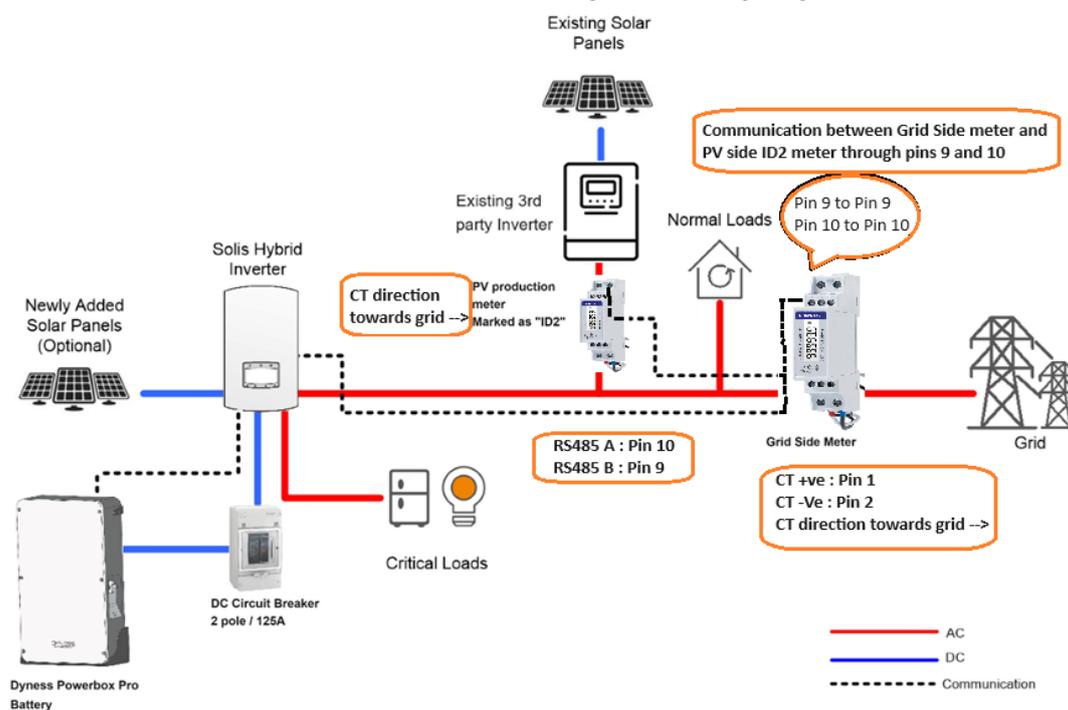
Note: please purchase 3 phase meter (part number: SDM630MCT) for 3 phase property

3. Dual Meter connection for AC couple application

In this system, the Solis hybrid inverter can dynamically charge/discharge the battery based on the overall measurement data at the Smart Meter 1 location and achieve self-use logic considering the operation condition of both it and the existing PV inverter. And the Smart Meter 2 will collect the generation data of the existing PV inverter and present on Solis monitoring system.

- a. Only use the Eastron meters – kindly request your supplier for ID2 meter
- b. On the Solis Hybrid inverter Adv settings, select:
meter type as Eastron 1P meter (or 3P meter)
meter location as meter in grid + PV
- c. Solis WIFI logger and inverter needs to be updated to latest firmware to support this setup.

Please connect the 2nd meter marked as ID2 according to the wiring diagram shown below.



Note: second meter is not required for Solis Hybrid inverter + Solis Grid tie inverter. Just bring all Solis inverters online and make sure all Solis inverters belonged to one monitoring site, then the monitoring app will show total solar production and calculate correct consumption. Additional meter is not required here.

4. 10kw energy storage solution

Purchase list from OSW:

2 x Dyness Powerbox Pro

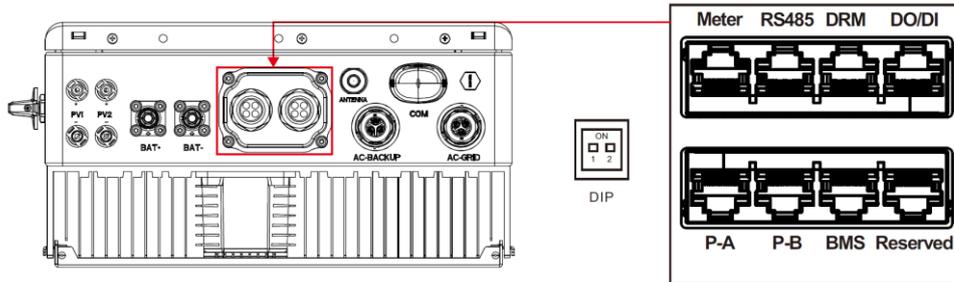
2 x Solis S6-EH1P(3-6)K-L-AU

2 x **ZJ BENY Battery DC Breaker 500V/125A 2 pole (BDW-125)**

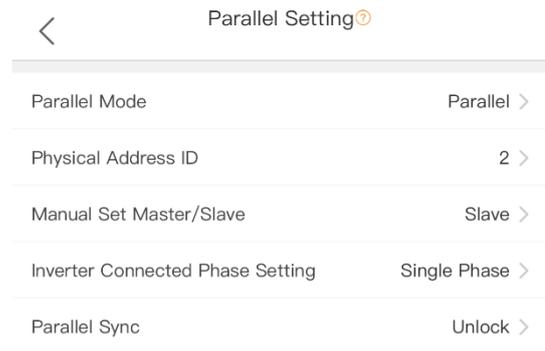
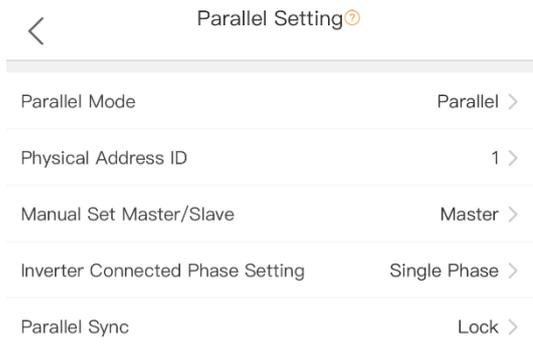
(Optional) 1 x meter (SDM120CT) marked with ID 2 if 3rd party PV inverter is onsite

➤ Inverter Master Slave Connection and configuration:

- 1- connect Master inverter P-A to Slave inverter P-B with a standard LAN cable(not provided)
- 2- push both dip switch to enable for both inverters
- 3- connect meter, battery Communication and Wifi Dongle to master inverter only



- 4- config master slave via SolisCloud APP to both inverters as shown below

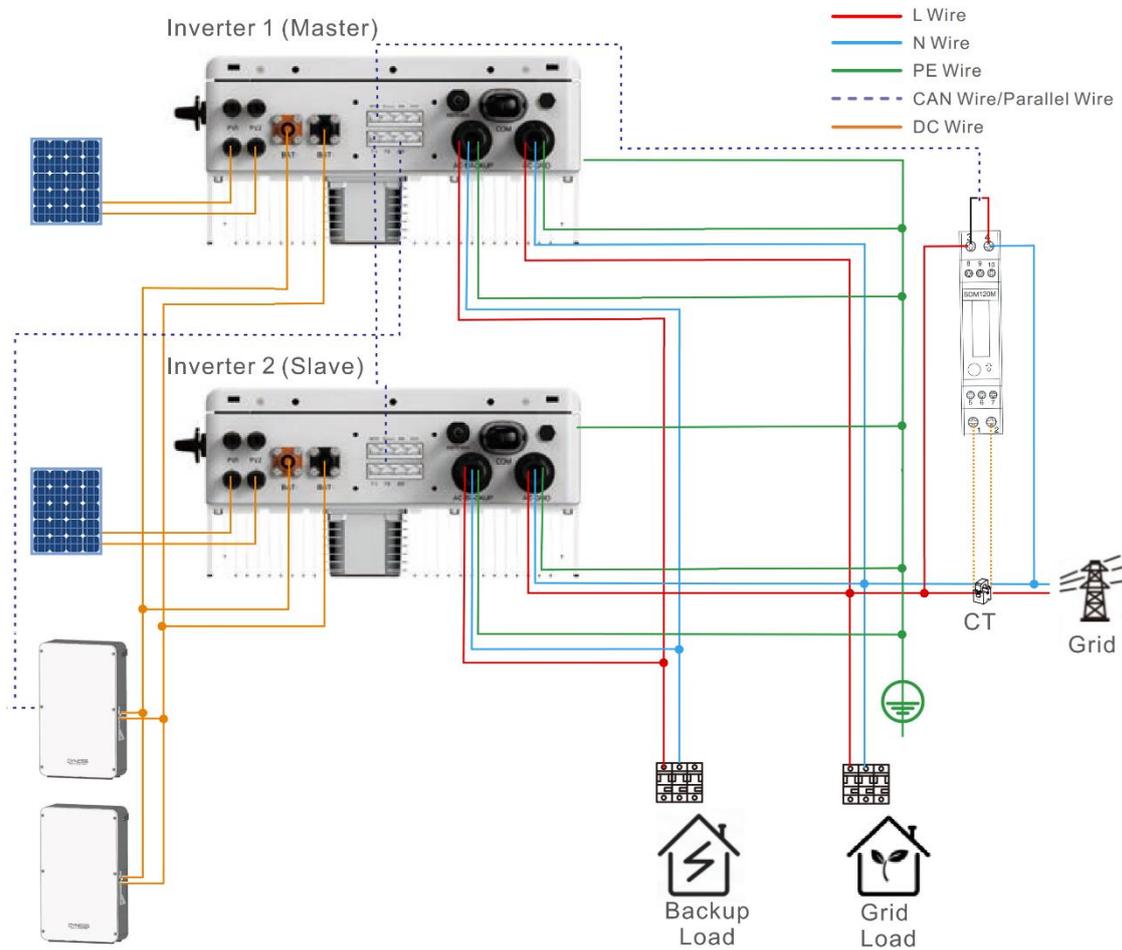


➤ Battery Master Slave Connection and configuration:

Please refer to “Dual Battery DC connection” section to link two batteries as master-slave

Connect only the master battery communication to the master inverter

Parallel two battery DC together and then share to both inverters as shown below



➤ Dual Meter connection for AC couple application

Please refer to previews section to daisy chain the second meter for external PV production monitoring.

➤ note:

- only Solis S6 inverter support master-slave configuration
- inverter master-slave configuration only single phase site