

## How to solved the issue of smart Meter

### 1. Why we need connect a smart meter?

It is used for detecting how many energy generated from the solar or consumed from the home appliances.

### 2. When we need connect a smart meter?

1) If two sets of EP900 or EP800 connected in parallel ,please use the smart meter.

2) If AC coupling for the existing solar system , we need a smart meter detecting how many energy generated from the solar.

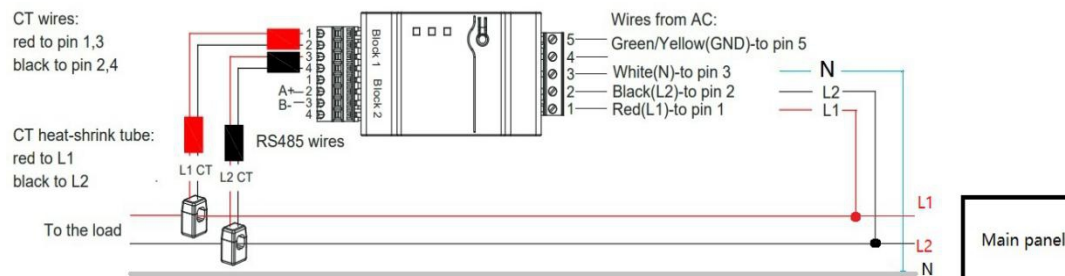
### 3. What kind of smart meter we can use.

Model: AGF-AE-D/200

CT Specification : 200A/40mA ,Ø24mm

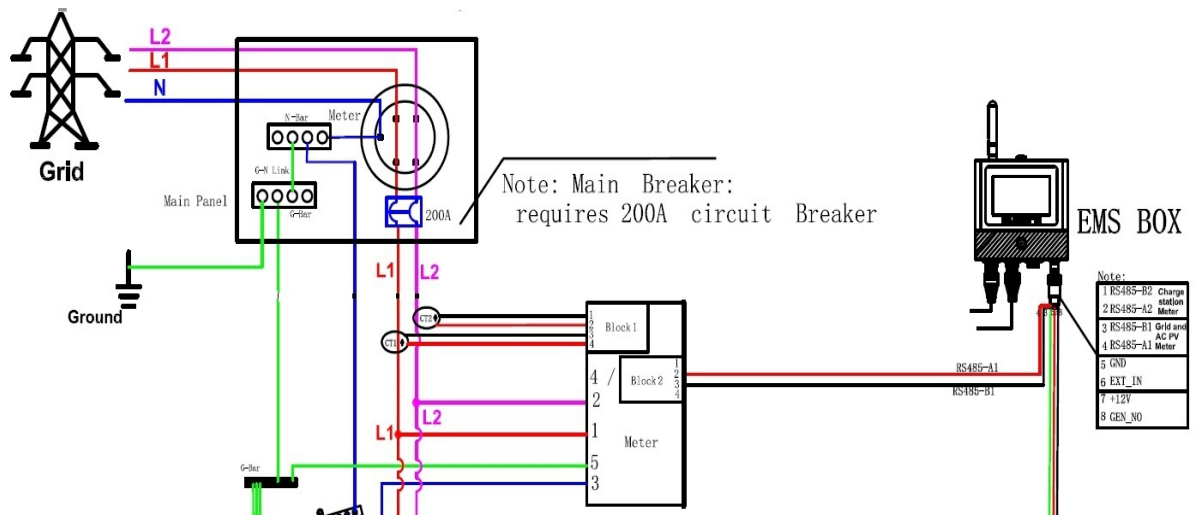


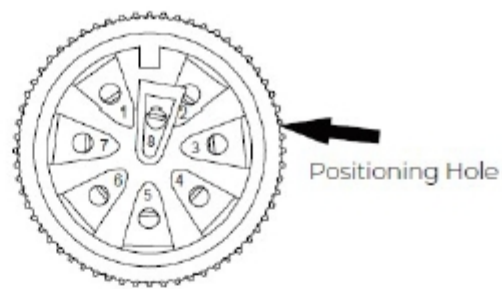
#### 4. How a smart meter should be connected?



**Note: The L1 and L2 need to connect to 15A 2P breakers in panel.**

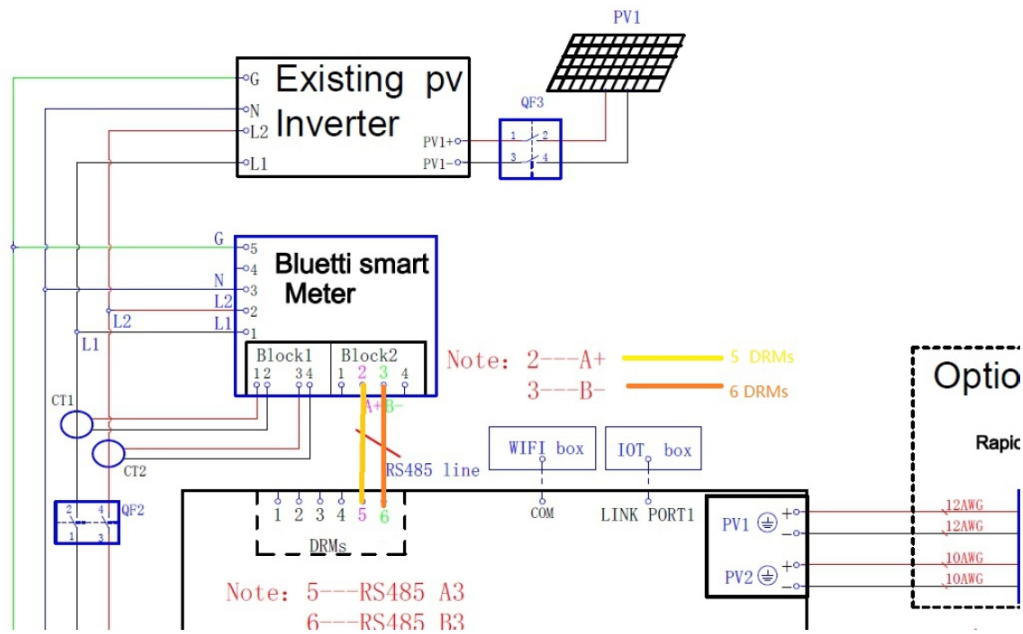
**4.1 If two sets of EP900 or EP800 connected in parallel, we should use the smart meter to detect how many energy consumed from the home appliances.**





Connector	Function	Description	Note	Reference Diagram
1	RS485-B2	Charging station	Connects to RS485-B-	
2	RS485-A2	RS485 communication	Connects to RS485-A+	
3	RS485-B1	Meter RS485 communication	Connects to grid meter and ACPV meter RS485-B-	
4	RS485-A1	communication	Connects to grid meter and ACPV meter RS485-A+	
5	GND	I/O reference ground	For both 12V output and DRMs input	
6	EXT_IN	DRMs input	Signal input	
7	12V	12V output	Power supply for ATS	

**4.2 For AC coupling for the existing solar system, we connect the smart meter on the output side of solar PV inverter.**



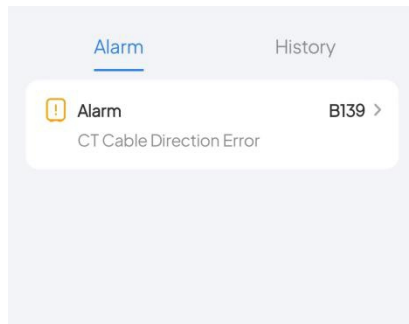
7.9.2 DRMs Port (Generator + Meter) Table 7-4

PIN	Category	Definition	Specifications
1	GEN COM (Red)	Single-pole & double-throw relay common terminal	External DC input limit: 30VDC / 3A. (For generator input)
2	GEN NC (Black)	Single-pole & double-throw relay normally closed output	
3	GEN NO (Green)	Single-pole & double-throw relay normally open output	
4	INS GND (White)	Signal ground	/
5	485-A3 (Yellow)	A: RS485 differential signal +	Connect to meter A2
6	485-B3 (Orange)	B: RS485 differential signal -	Connect to meter B2

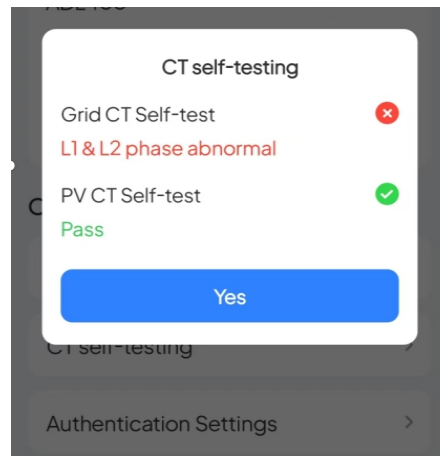
Note: Pin 4, 5, and 6 are for communication with the electric meter. Refer to the meter's user manual for wiring details..

## 5. Trouble shooting

- a. If alarm B139 happened, and CT self- testing in the APP Pro mode, shows L1&L2 phase abnormal.



and



Solution options:

- 1) Check the direction in the CT towards to the grid side.
- 2) Check the connection of CTs, red wire to CT+, black wire connect to L1 or L2 , as following



- 3) Swap the CT1 with CT2 and CT2 to CT1;

4) Swap the L1 wire to L2 ,and L2 to L1, which are connected to the smart meter from the circuit breakers.

Result: if the Run LED is green , L1 and L2 LED are red and the charging power is the same as setting in the APP , we did it.

