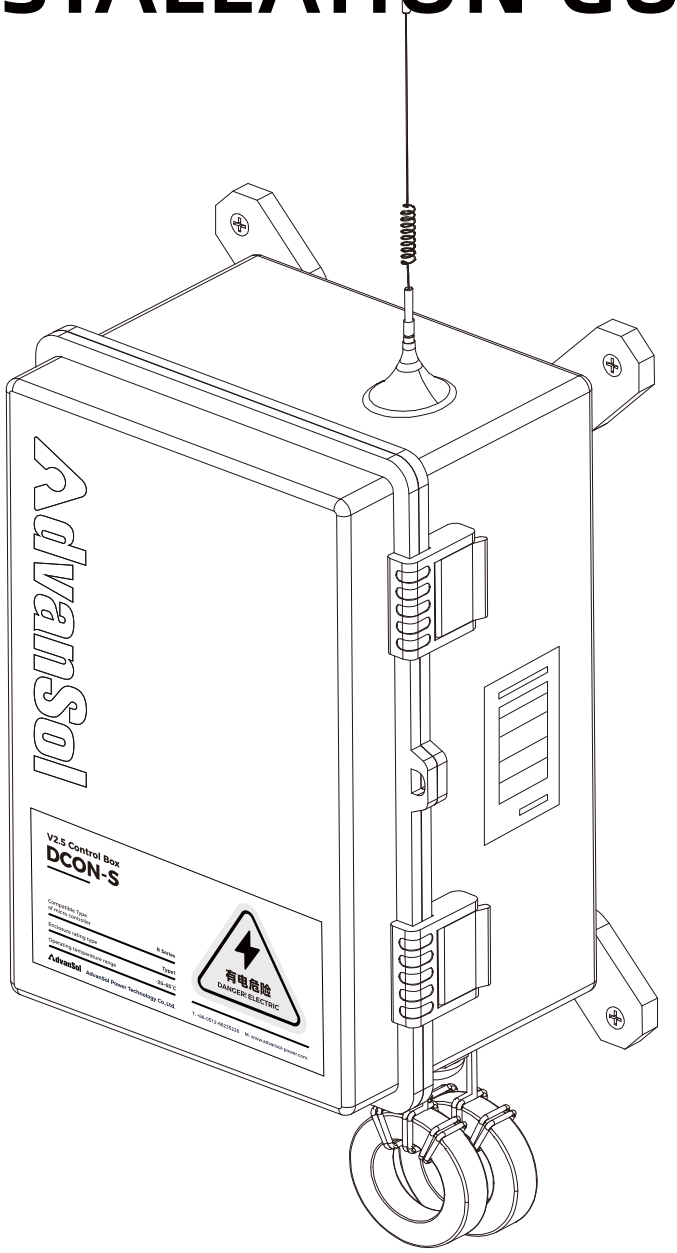
Version：AD-JF-01　　Date：2024/12/3

AdvanSol

V2.5 Control Box DCON-S

INSTALLATION GUIDE



The Installation and Verification of V2.5 system control (Solution R)

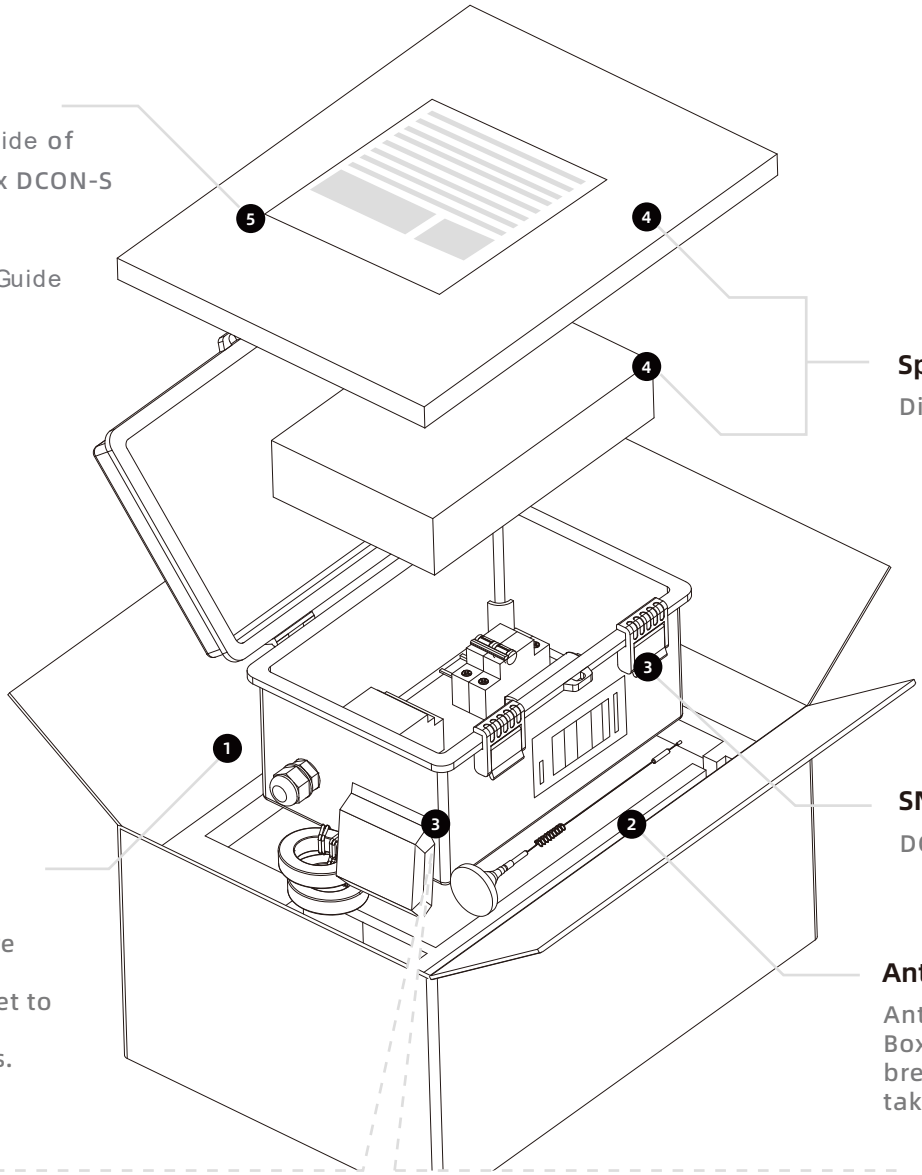
Installation and Verification of R Series Micro Controller　>　**Installation and Verification of V2.5 Control Box DCON-S**　>　Solution R System Setting

Note：Please strictly follow this guide for installation and operation, otherwise the performance and warranty may be affected by some wrong operations.

1. Packing List

Guidelines

1. Installation Guide of V2.5 Control Box DCON-S
2. Solution R System Setting Guide



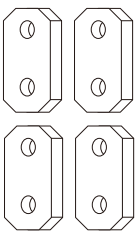
Sponge
Disposable

SN Label
DCON_SN QR code

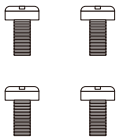
Antenna
Antenna and Control Box are wired. Don't break the wiring when take out the box.

V2.5 Control Box DCON-S

Control box and magnetic rings are assembled.
Please don't forget to take out the rings from sponge slots.

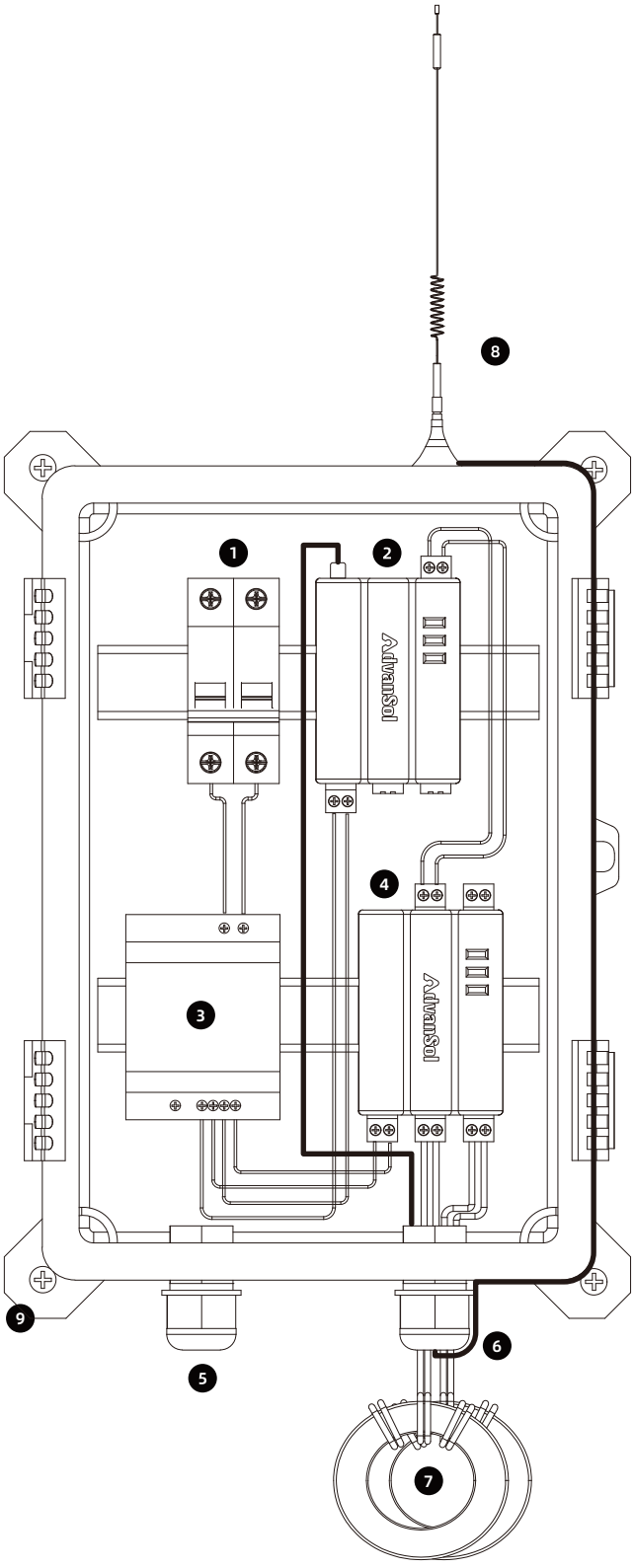


Fastener*4



Screw*4

2. Product Instruction



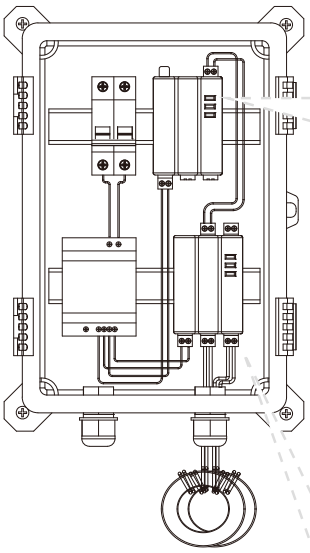
Please check whether the internal wiring and accessories of the control box are well fixed and intact

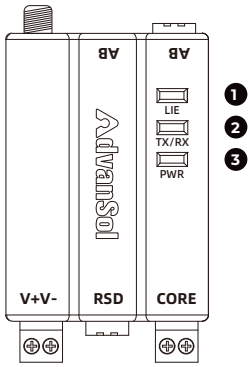
1. **Breaker*1**
   EA9AN2C16
2. **DCON-WIFI*1**
   APT-DCON-WIFI
3. **12V Switching Power Supply*1**
   MDR-60-12
4. **DCON-S*1**
   APT-DCON-S
5. **Waterproof Joint A**
6. **Waterproof Joint B**
7. **Magnetic Rings*2**
   T58
8. **Antenna*1**
9. **Fastener*4**

3.Installation Requirements

1. Please install V2.5 Control Box after installing the Micro Controllers;

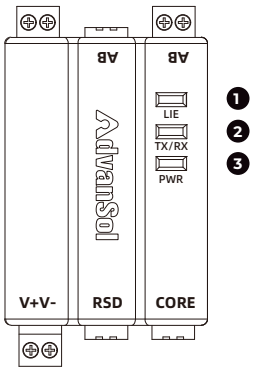
2. When the system is running correctly, the PWR and TX/RX lights are on and the LIE light is flashing;





APT-DCON-WIFI

No.	1	2	3
Type	WIFI	PLC	Power
Color	Blue	Green	Red
On	/	On	Power up
Off	Disconnected	Off	Power off
Flash	Connected	/	/



APT-DCON-S

No.	1	2	3
Type	Synchro light	Signal indicator	Power
Color	Blue	Green	Red
ON	Synchronized	On	Power up
OFF	Desynchronized	Off	Power off
Flash	Auto-sync master	/	/

3. Maximum input strings per magnetic ring: 6 strings; Maximum input current per magnetic ring: 200A;

4. Only one DCON-S control box can be installed under a single inverter (contact service personnel if the number of strings exceeds 12 per inverter);

5. Communication distance between V2.5 data control box and the farthest micro-controller: One-way cable length ≤400 meters;

6. Unauthorized modification of the magnetic ring position or cable length is strictly prohibited;

7. Strings under the same MPPT of an inverter should be connected to the same magnetic ring

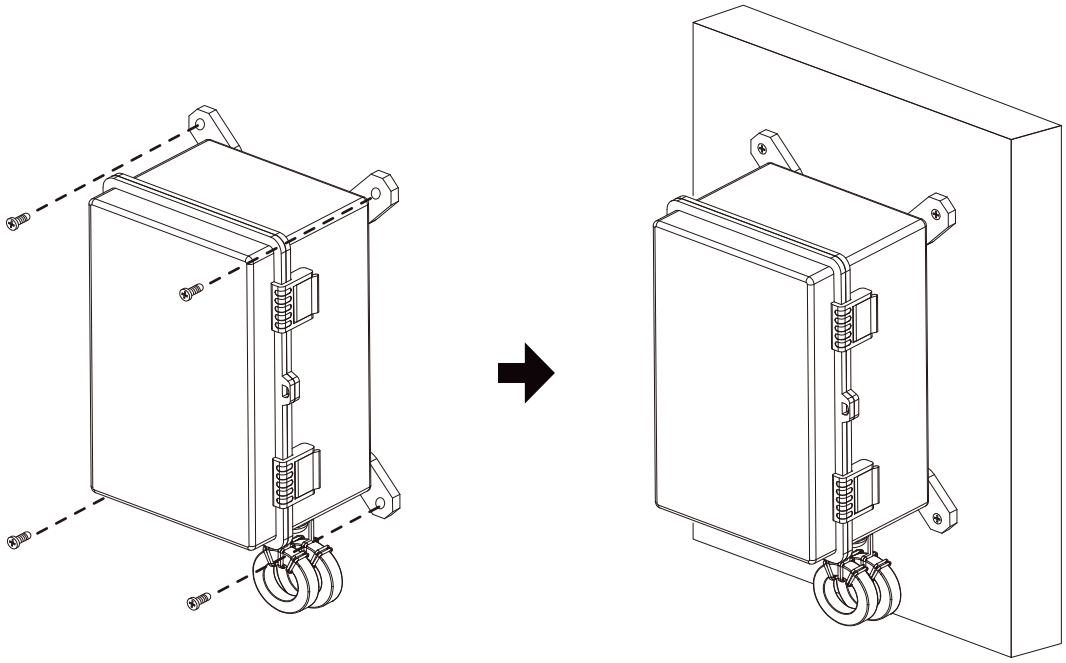
8. Handle devices inside the V2.5 data control box with care to avoid human-induced damage;

9. Implement protective measures before commencing installation work;

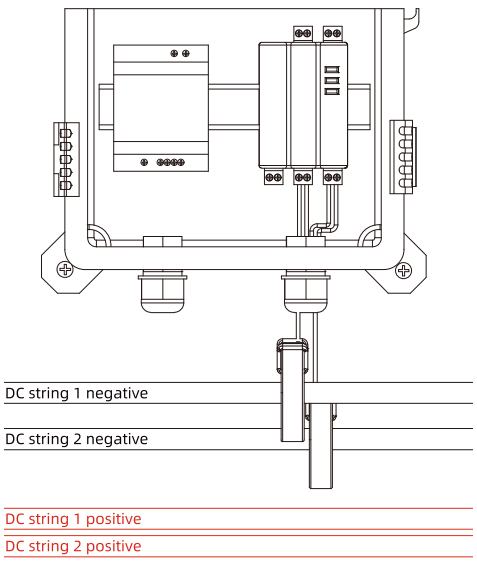
10. De-energize the control box when the inverter is not grid-connected;

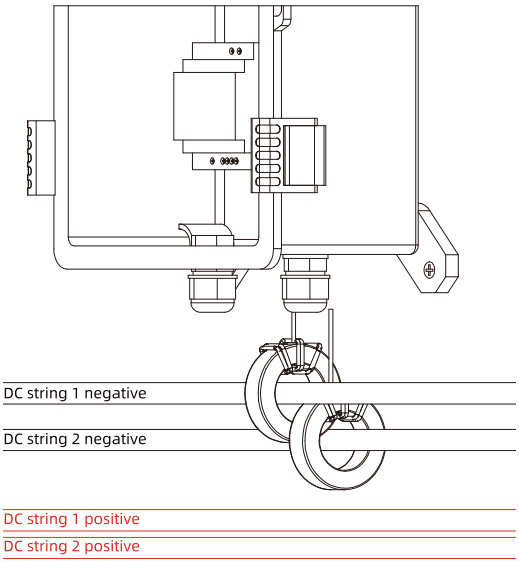
4. Fastening Method

❷ Fix the Control Box on the wall or bracket with fasteners and screws.

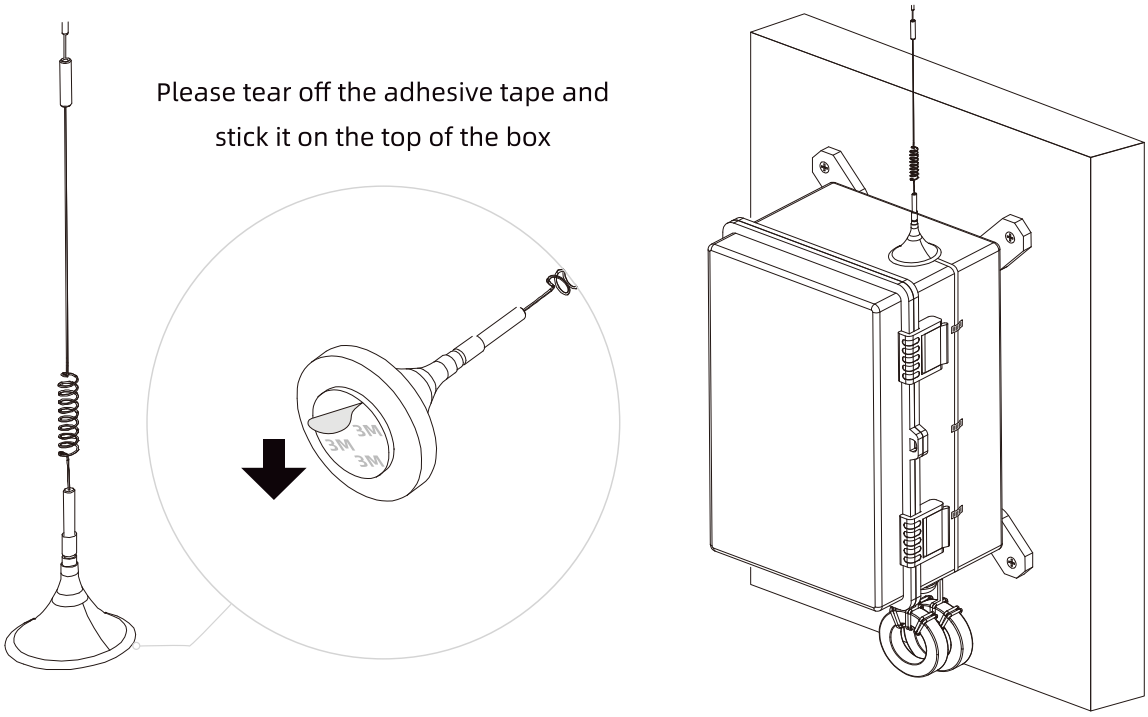


❸ Match each magnetic ring to its corresponding string.
Connect the DC bus positive pole directly to the inverter, while routing the DC bus negative pole through the magnetic ring before connecting it to the inverter.



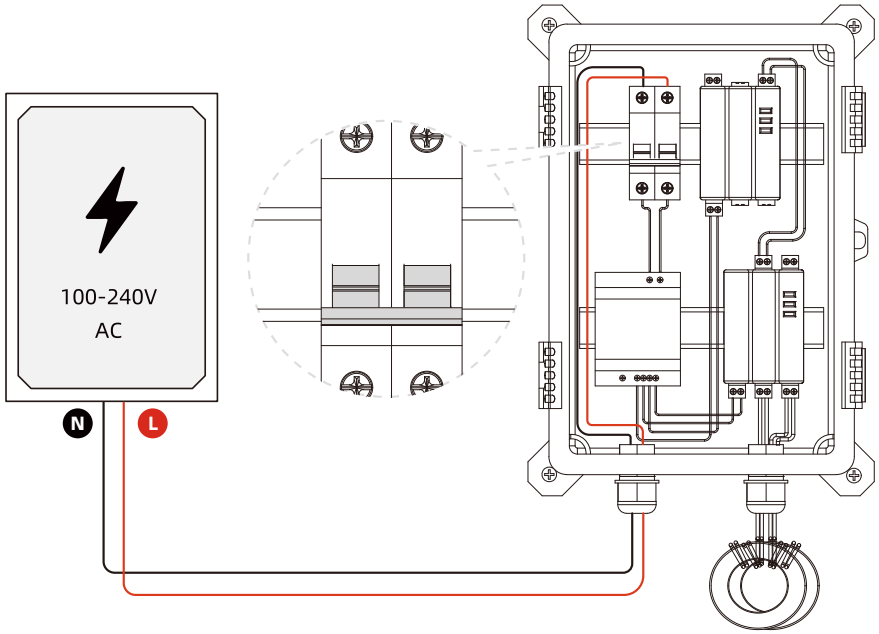


❹ Please fix the antenna in an appropriate position

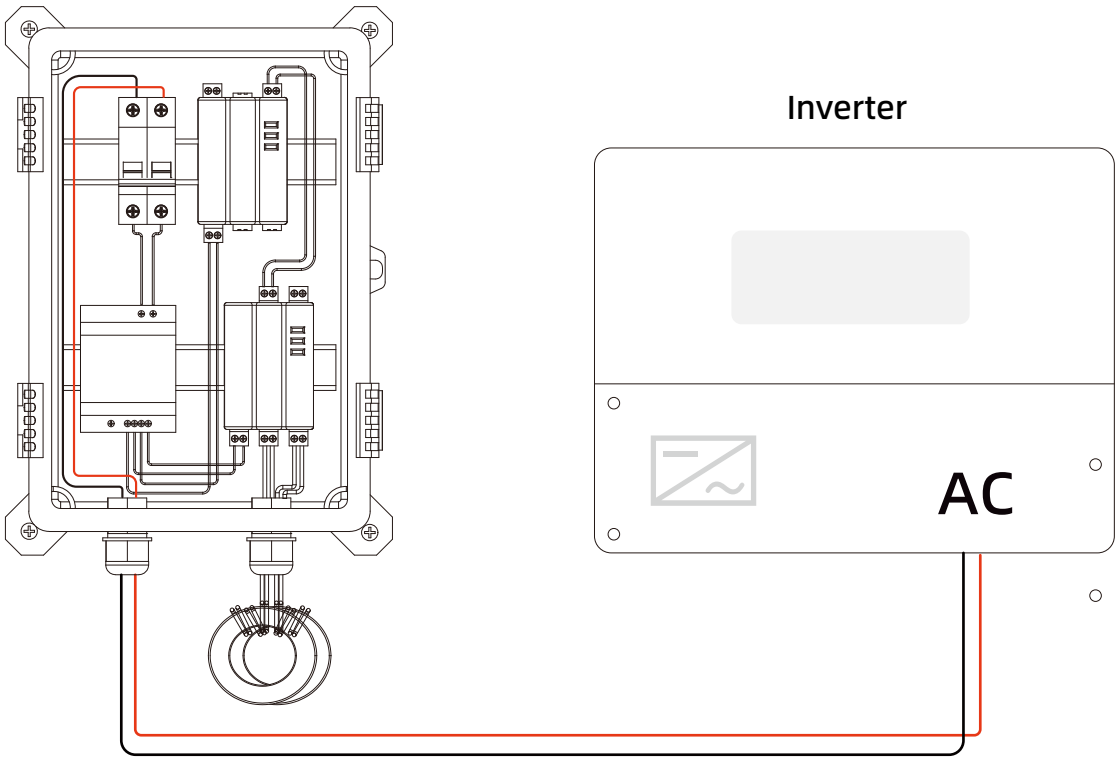


5 Make sure the breaker is off, connect the 100-240V AC power through the waterproof joint A and to the upper end of the breaker.

Note: If the Emergence Button Kit is installed, please connect the AC power supply to the emergency button. Please refer to the Installation Guide for Emergency Button Kit for detailed steps.



Suggestion: Please prioritize using the inverter's AC side power supply to power the V2.5 control box

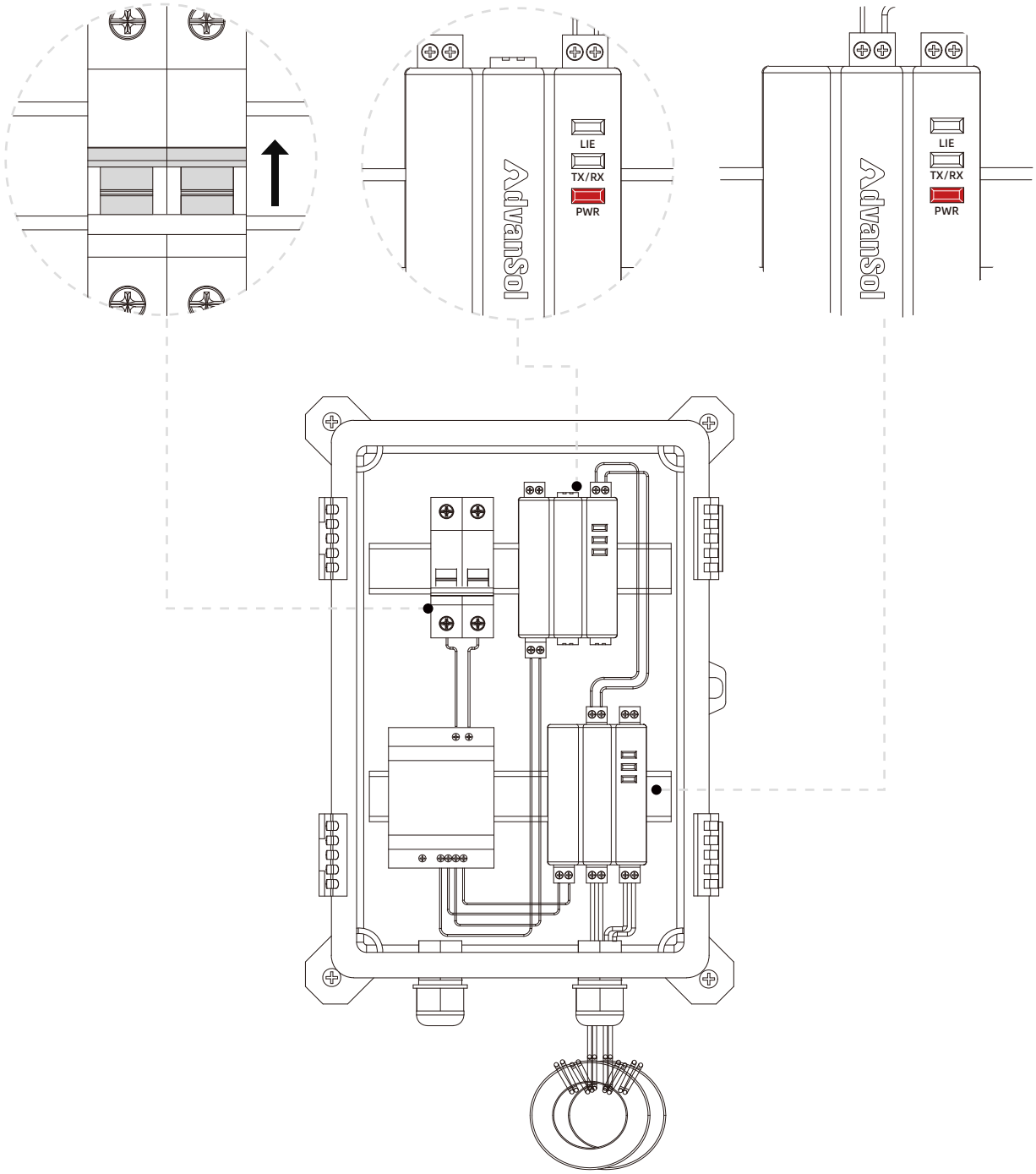


Please ensure that the V2.5 data control box enclosure and all components are securely fastened.

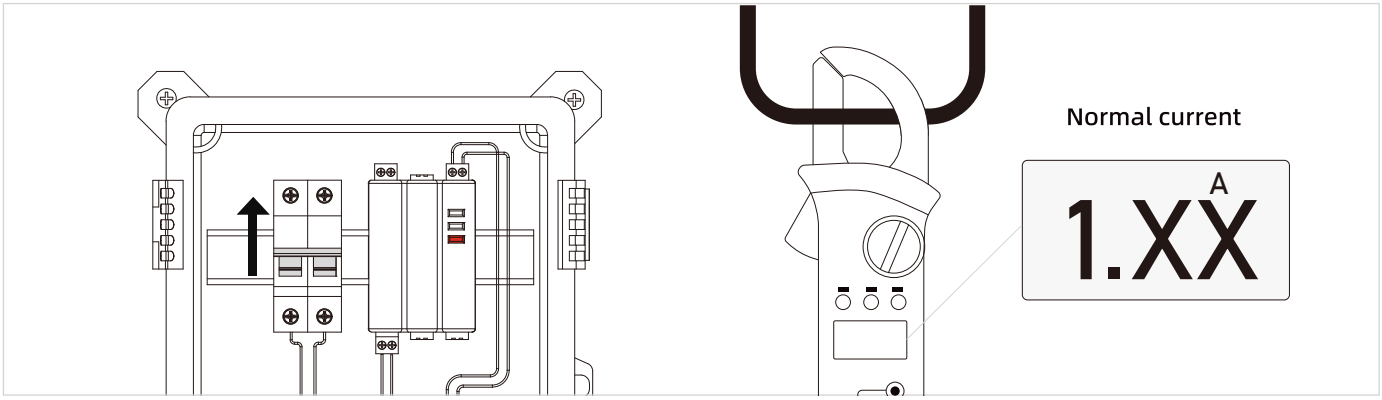
5.Verification of installation

Note: During testing, ensure the inverter is grid-connected (keep DC/AC switches ON). If the inverter cannot be grid-connected temporarily, perform the inspection once grid connection is available.

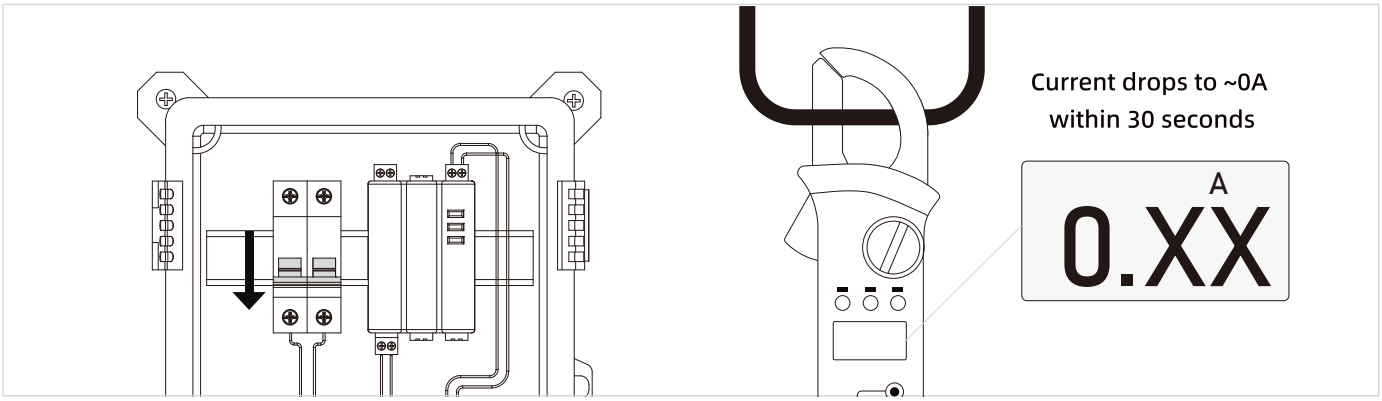
❶ Open the circuit breaker and verify that the PWR indicator (red light) on both the APT-DCON-5 and APT-DCON-WIFI remains steadily lit.



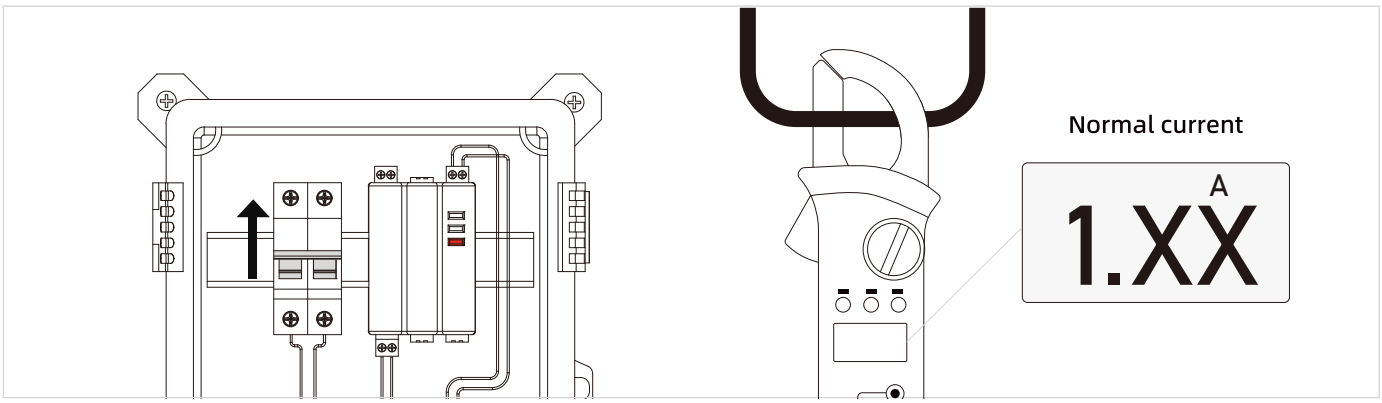
❶ Use a clamp meter to measure the current of each string and confirm normal current values.



❷ Activate the emergency stop switch or turn off the circuit breaker of the data control box (de-energizing the box).
Observe the currents of all strings under this data control box using the clamp meter.
The currents should drop to approximately 0A within 30 seconds.



❸ Restore power to the data control box. Use the clamp meter to confirm that the current of each string returns to normal.
Check the inverter's operating status to ensure no alarms or faults are present.



The installation and inspection of the V2.5 data control box are now complete.

Contact us

If you have any technical questions on AdvanSol products, or need other language files, please contact us for help.

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