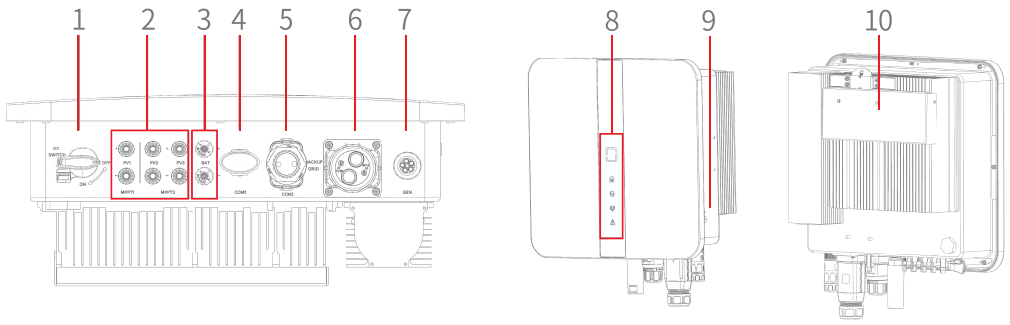
HI-3P(5-12)k-H Series Quick Guide

Ver 1.0 202308

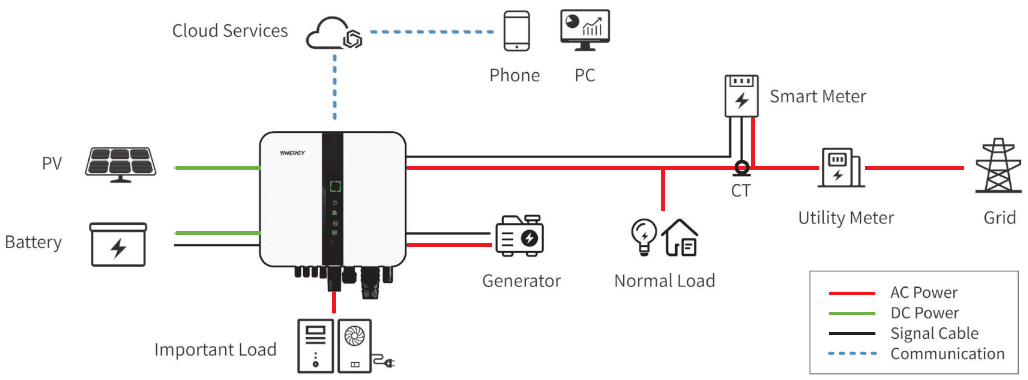
1. Overviews

Appearance:

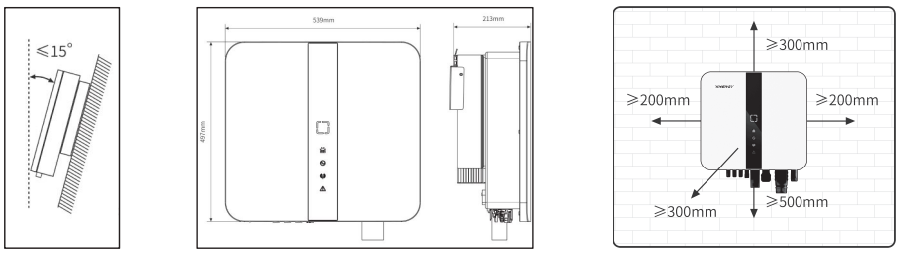


No.	Parts	No.	Parts
1	DC switch	6	AC terminals
2	PV input terminals	7	Generator
3	Battery terminals	8	LED display
4	Communication module port	9	Protective grounding terminal
5	Communication port	10	Wall mounts

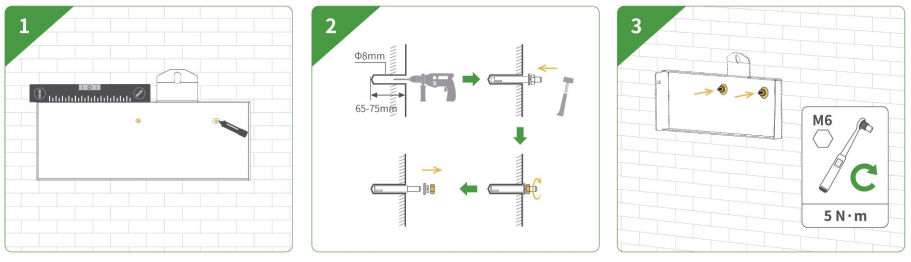
System Overview:



2. Installation environment requirements



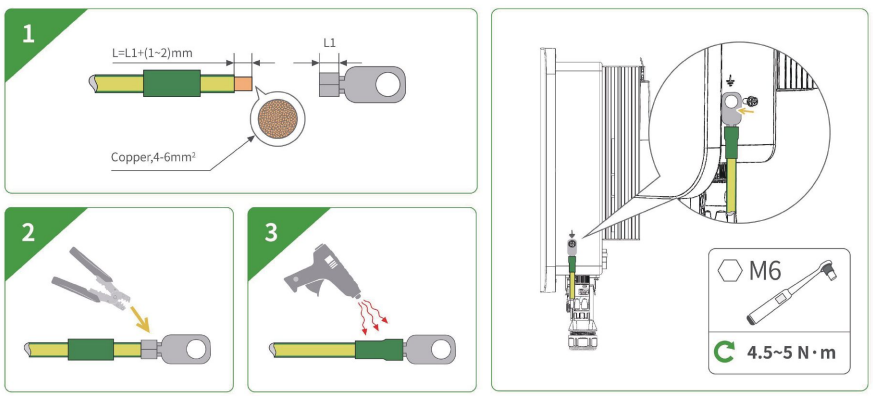
3. Install inverter



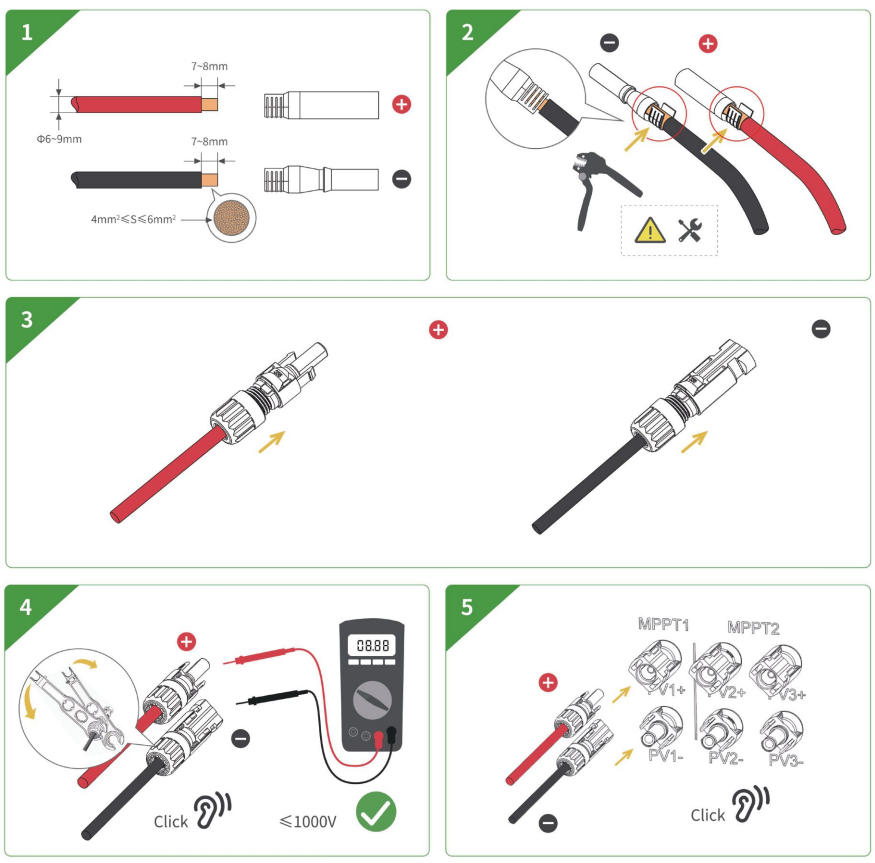
4. Connecting Cables

No.	Cable	Type		Outer Diameter	Cross Section
1	PV cable	Outdoor multi-core copper wire cable(Such as PV1-F)		6~9 mm	4~6 mm²
2	Battery cable	Complying with 1,000V and 30A standard Battery has its own power cable and communication cable ,use them directly .		6~9 mm	4~6 mm²
3	Communication cable	Shielded twisted pair		4.5~6 mm	2*(0.5~1.0) mm²
		CAT 5E		4.5~6 mm	8*0.2 mm²
4	AC cable	Grid	Outdoor multi-core copper wire cable	13~18 mm	4~6 mm²
		Backup			
		Diesel generator		14~17.5 mm	4~6 mm²
5	Grounding cable	Outdoor single-core copper wire cable		The same as that of the PE wire in the AC cable	

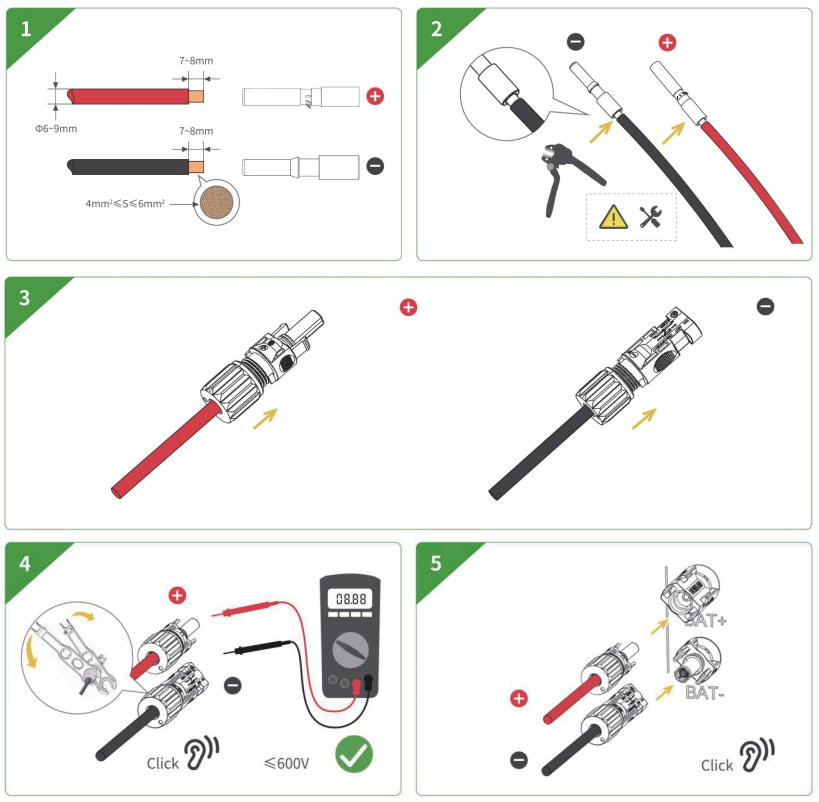
5. Grounding Connection



6. PV Connection

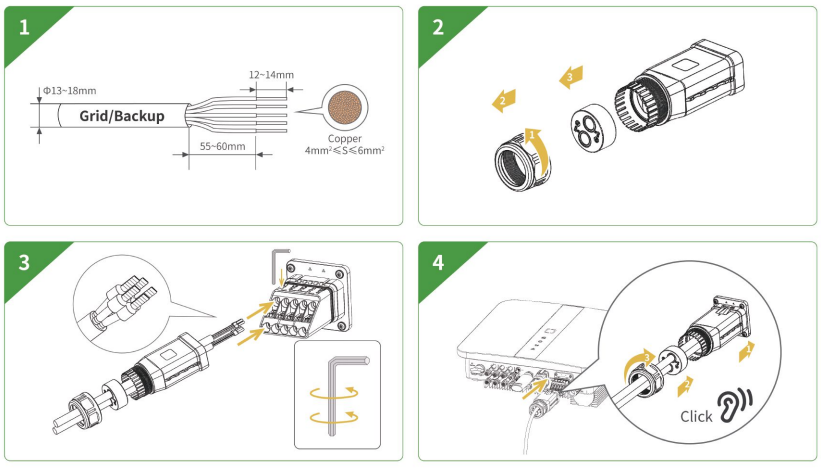


7. Battery Connection

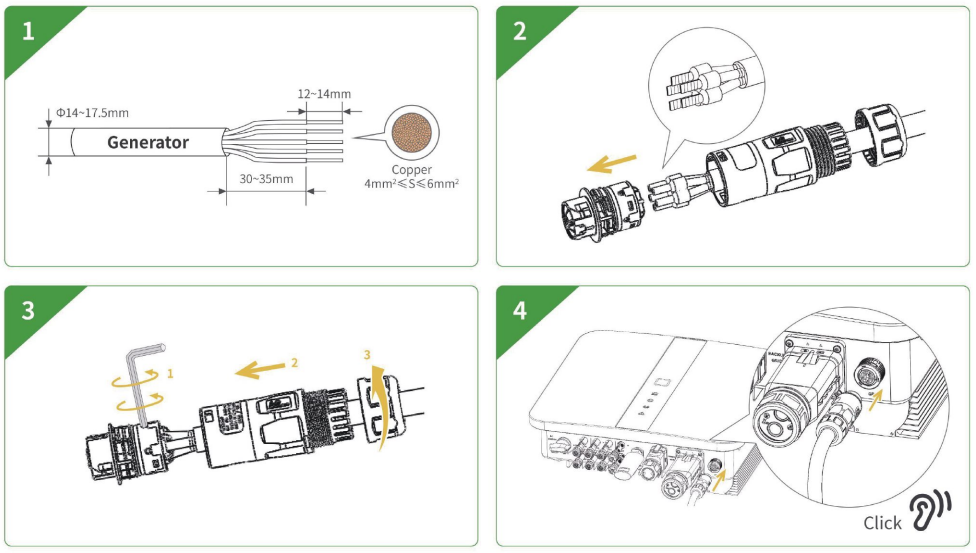


If Lithium Battery has its own power cable and communication cable ,please use them directly .

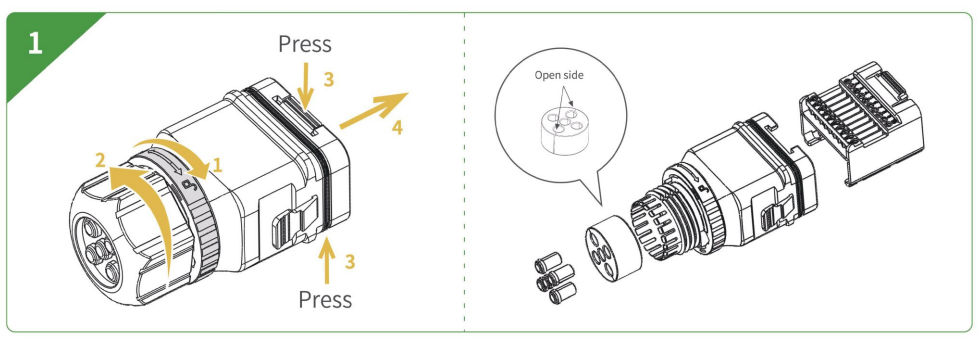
8. AC Connection



9. Generator Connection(Optional)



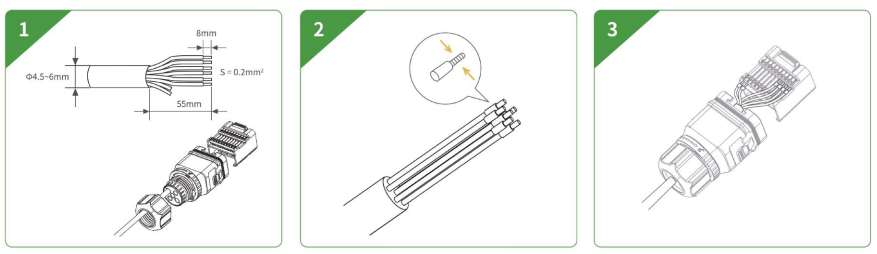
9.1 Communication port definition



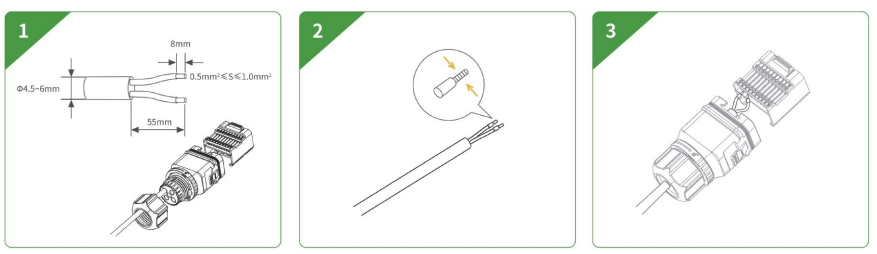
No.	Pin definition	Function	No.	Pin definition	Function
1	DO1+	Dry contact	13	CAN_L	CAN
2	DO1-		14	CAN_L	
3	DO2+	Dry contact	15	CAN_H	
4	DO2-		16	CAN_H	
5	FB_CTR_B	Dry contact	17	RS485_A	RS485
6	FB_CTR_A		18	RS485_A	
7	DRM1/5	DRED	19	RS485_B	
8	DRM2/6		20	RS485_B	
9	DRM3/7			METER	RS485
10	DRM4/8			BMS	CAN
11	DRM0				
12	REF/GEN				

9.2 Other devices connection (Optional)

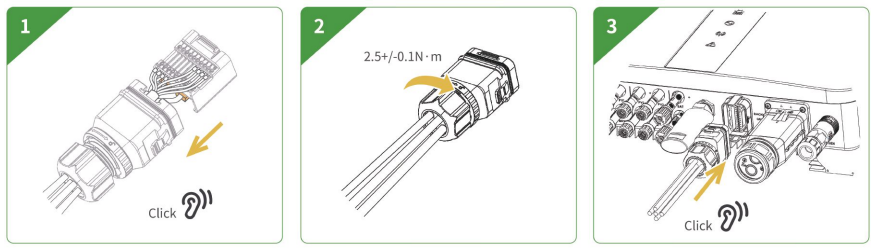
■ **Connect the DRM connection**



■ **Connect other cables**

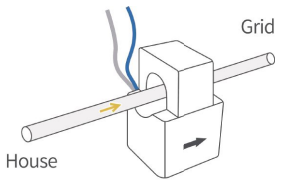


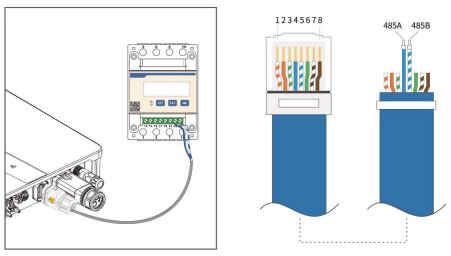
9.3 Communication port installation



9.4 Smart meter and CT connection

■ **RJ45 terminals definition (to inverter)**



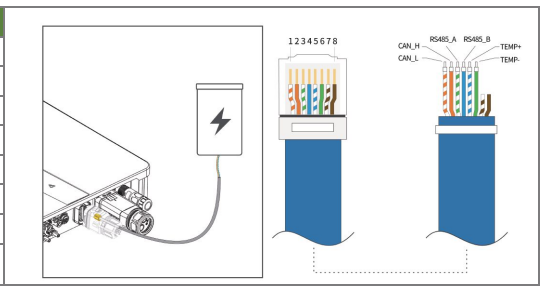


PIN	Color	Pin definition
1	Orange White	NC
2	Orange	
3	Green White	
4	Blue	RS485_A
5	Blue White	RS485_B
6	Green	NC
7	Brown White	
8	Brown	

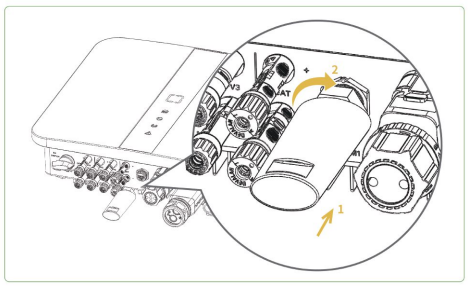
9.5 BMS port connection

■ **RJ45 terminals definition (to inverter)**

PIN	Color	Pin definition
1	Orange White	TEMP+
2	Orange	NC
3	Green White	TEMP-
4	Blue	CAN_H
5	Blue White	CAN_L
6	Green	NC
7	Brown White	RS485_A
8	Brown	RS485_B



10. Communication Module Connection (Optional)



11. Checking Before Operation

No.	Check Items
1	The inverter installed firmly that easily for operation and maintenance.
2	All lines, including PE, PV, Battery, AC and communication, are connected correctly and firmly.
3	The cable bundling complies with the wiring requirements, is properly distributed, and free from damage.
4	Ensure that a waterproof cover is installed for unused wire holes
5	Ensure that the used wire holes have been sealed
6	Verify that the voltage and frequency of installed location meet the grid-tied requirement

12. System Power On/Off

Before turning on the AC switch between the inverter and the grid, use a multimeter to check that the AC voltage is within the allowed range.
Step 1: Turn on the AC circuit breaker on the ON-GRID side of the inverter.
Step 2: Turn on the AC circuit breaker on the BACK-UP side of the inverter.
Step 3: Turn on the energy storage circuit breaker between the inverter and the battery.
Step 4: Turn on the DC switch of the inverter.
Step 5: Send a system check command on the APP (optional).
Step 6: Observe the LEDs to check the inverter operating status.
To shutdown steps are opposite to the above order.

LED	Status	Description			
Fault	Red LED indicator on	A fault has occurred	COM	LED indicator on	BMS and meter communication are ok
	Red LED indicator on blink 1	RCM OR IRD fault		LED indicator blink1/blink2	BMS or meter communication fails
	Off	No fault		LED indicator off	Both BMS and meter communications are fails
PV	LED indicator on/blink1	PV is generating power	SOC	Full LED indicators on	Each indicator means Battery SOC is 25%
	LED indicator off	PV is not working		One LED indicator blink1	Battery SOC is below 10%
AC	LED indicator on	Grid is active and connected		Full LED indicators off	Battery is disconnected / not active
	LED indicator blink1	Grid is disconnected but EPS is on			
	LED indicator off	Grid is disconnected and EPS is off			

13. Service and contact

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Tel:+86-400-103-7723
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YI Energy Technology (Zhejiang) Co., Ltd.