SUNGROW
Clean power for all

Quick Installation Guide

3-Phase Hybrid Inverter

SH5T / SH6T / SH8T / SH10T

SH12T / SH15T / SH20T / SH25T



SH5-25T-QIMUL-Ver18-202511

Backup Wiring Diagram (For AU / NZ)

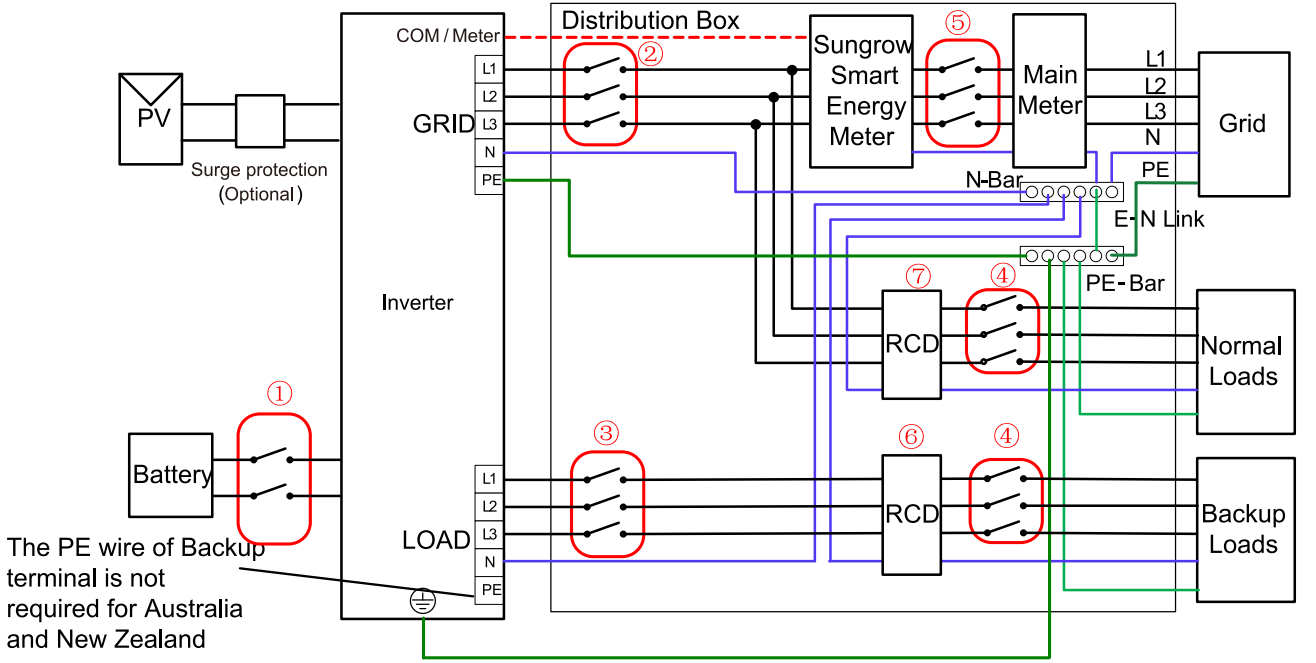
Loads Connected to the Grid：

Model	①	②	③	④	⑤	⑥ ⑦
SH5/6T SH8/10/12T SH15T SH20/25T	63A/800V DC breaker *	25-63A/400V TypeB AC breaker** 32-63A/400V TypeB AC breaker** 63A/400V TypeB AC breaker** 63A/400V TypeB AC breaker**	Depends on loads	Depends on loads	Depends on household loads and inverter capacity	30mA RCD (Comply with local regulation)

Note: * If the battery is integrated with a readily accessible internal DC breaker, no additional DC breaker is required.

Note: **Type B is recommended, and Type C is Compatible.Select an MCB with an appropriate rated current based on the actual requirements, including the overall wiring scheme, the number of loads, and the inverter's load-carrying capacity.

Note: The values in the table are recommended values and can be set to other values according to actual conditions.

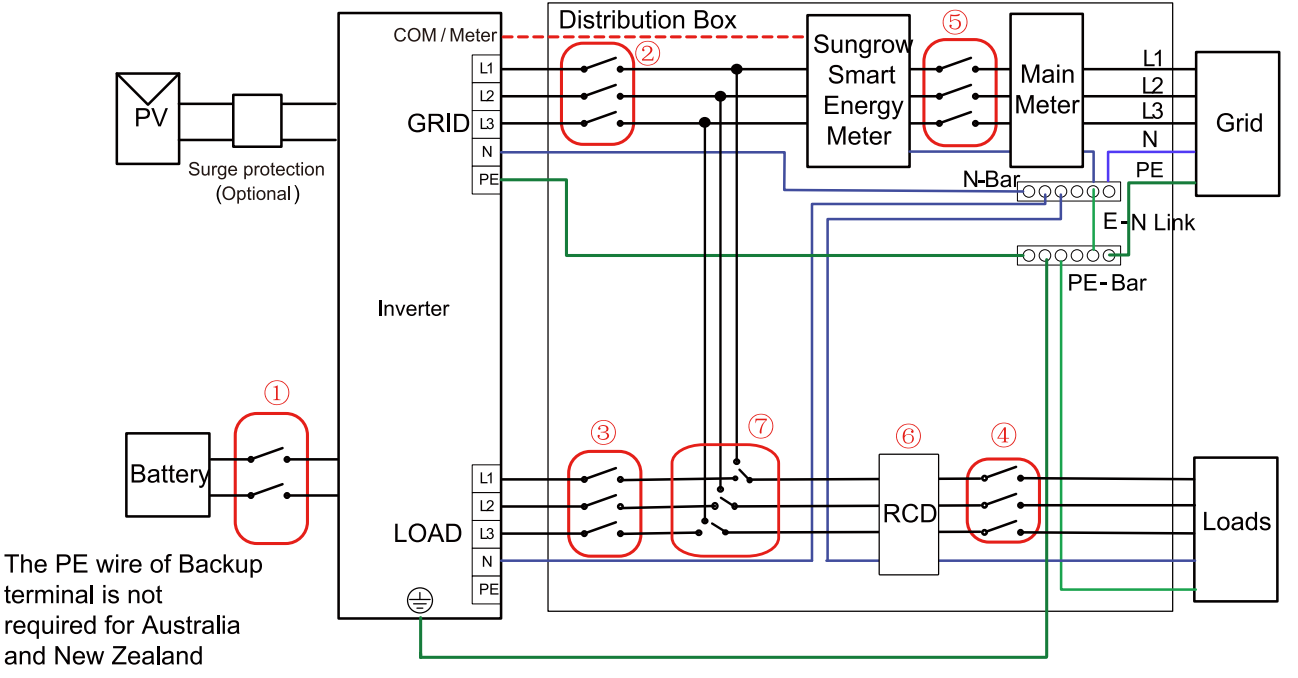


Whole Home Backup Wiring Diagram (For AU / NZ)

Loads Connected to the Inverter :

Model	①	②	③	④	⑤	⑥	⑦
SH5/6T SH8/10/12T SH15T SH20/25T	63A/800V DC breaker	63A/400V TypeB AC breaker	Depends on loads	Depends on loads	Depends on household loads and inverter capacity	30mA RCD (Comply with local regulation)	63A/230V manual changeover switch*

Note: * The manual changeover switch is included in the scope of delivery. A 63A manual changeover switch is required for the whole home backup scenario. When switching to "LOAD" using the changeover switch, household loads will be supplied by the PV installation and battery. When the inverter is faulty or undergoing maintenance, switch to "GRID" to ensure the loads can work normally.



Backup Wiring Diagram (For Other Countries)

Loads Connected to the Grid：

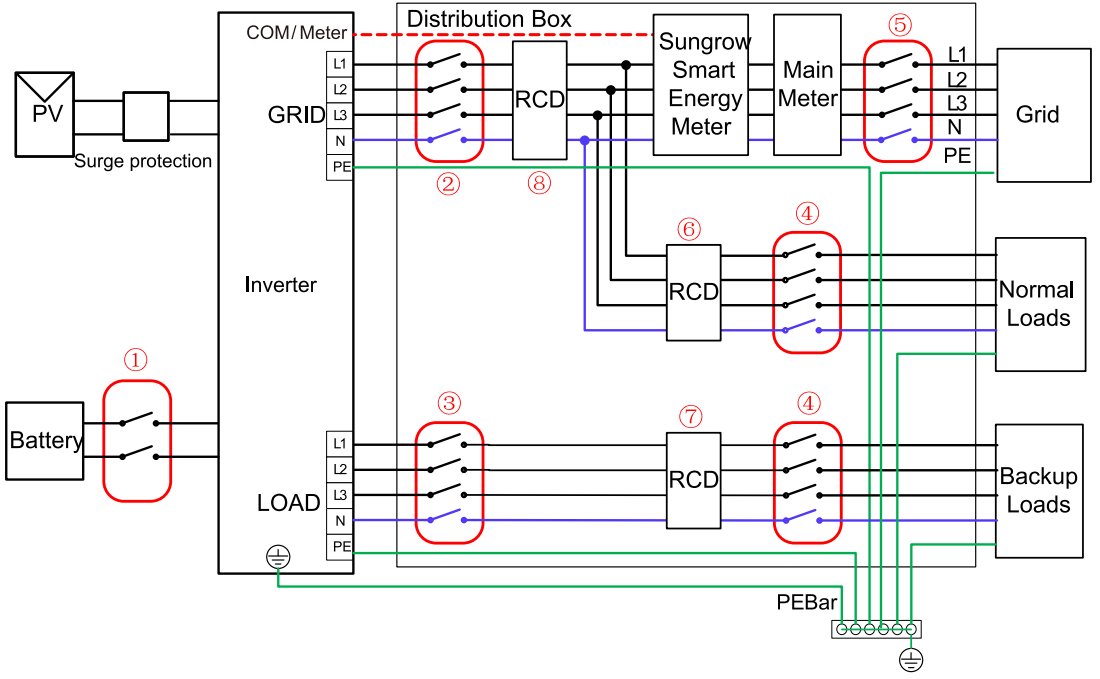
Model	①	②	③	④	⑤	⑥ ⑦	⑧
SH5/6T SH8/10/12T SH15T SH20/25T	63A/800V DC breaker *	25-63A/400V** TypeB AC breaker 32-63A/400V** TypeB AC breaker 63A/400V** TypeB AC breaker 63A/400V** TypeB AC breaker	Depends on loads	Depends on loads	Depends on household loads and inverter capacity	30mA RCD (Comply with local regulation)	300mA RCD (Comply with local regulation)

Note: * If the battery is integrated with a readily accessible internal DC breaker, no additional DC breaker is required.

Note: **Select an MCB with an appropriate rated current based on the actual requirements, including the overall wiring scheme, the number of loads, and the inverter's load-carrying capacity.

Note: The values in the table are recommended values and can be set to other values according to actual conditions.

Note: The installer is responsible to know what is additionally required in each country.



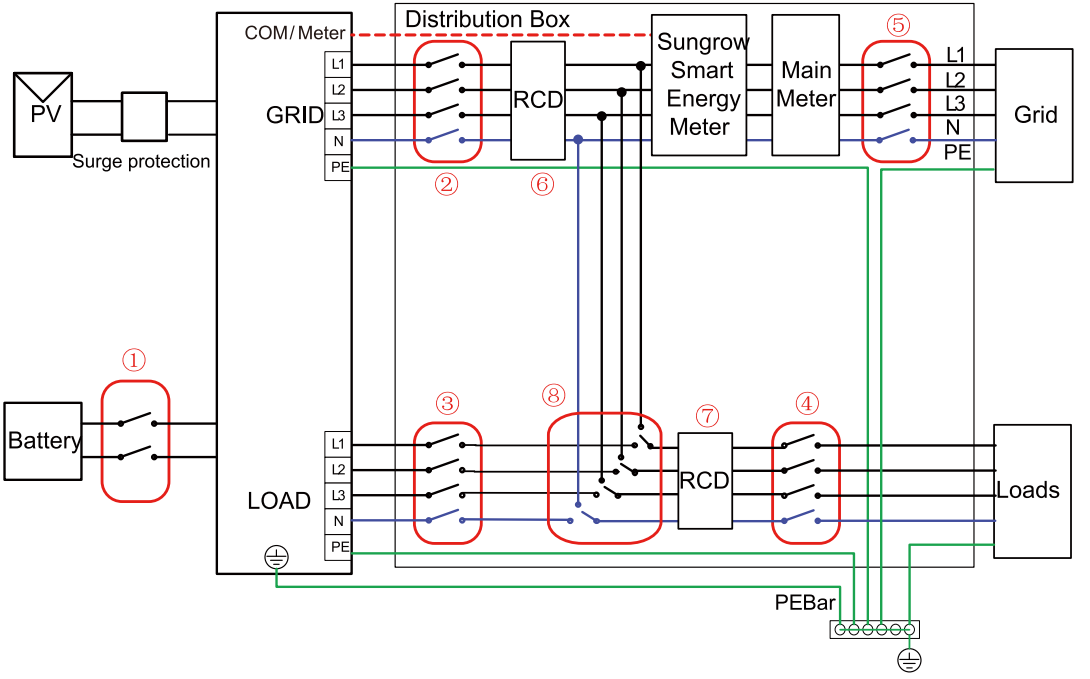
Whole Home Backup Wiring Diagram (For Other Countries)

Loads Connected to the Inverter:

Model	①	②	③④	⑤	⑥	⑦	⑧
SH5/6T SH8/10/12T SH15T SH20/25T	63A/800V DC breaker	63A/400V TypeB AC breaker	Depends on loads	Depends on household loads and inverter capacity	300mA RCD (Comply with local regulation)	30mA RCD (Comply with local regulation)	≥63A/230V manual changeover switch*

Note: *The manual changeover switch should be prepared by users separately. For the whole home backup scenario, it is recommended to use at least a 63A manual changeover switch, with 80A or 100A preferred. When switching to "LOAD" using the changeover switch, household loads will be supplied by the PV installation and battery. When the inverter is faulty or undergoing maintenance, switch to "GRID" to ensure the loads can work normally.

Note: The installer is responsible to know what is additionally required in each country.



Backup Wiring Diagram (For TT system)

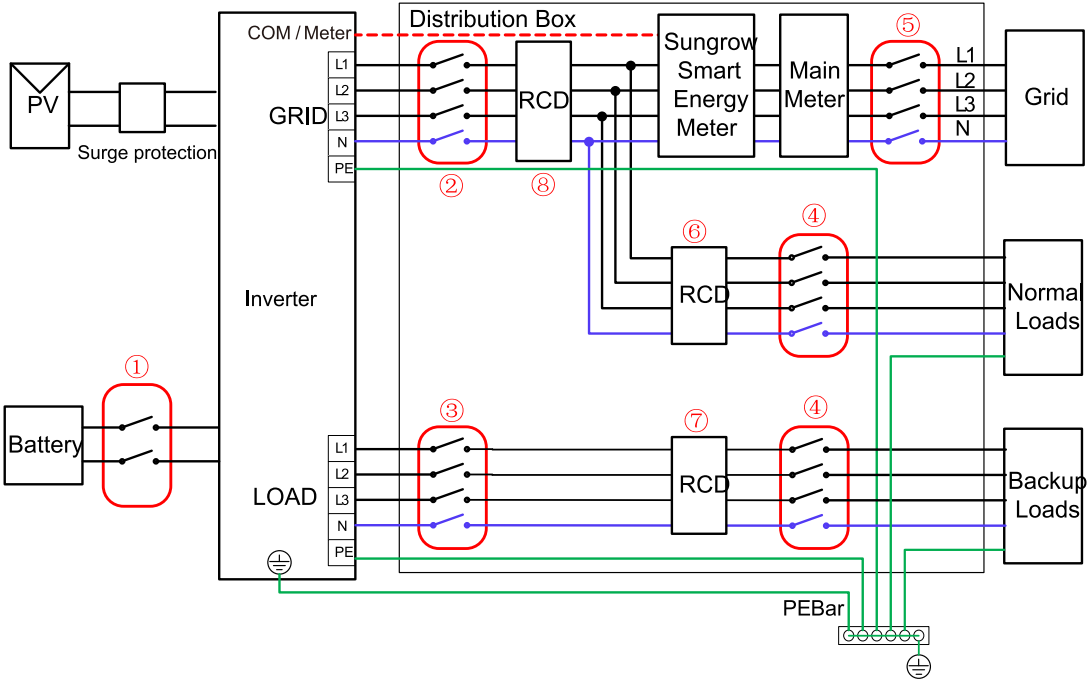
Loads Connected to the Grid：

Model	①	②	③ ④	⑤	⑥ ⑦	⑧
SH5/6T SH8/10/12T SH15T SH20/25T	63A/800V DC breaker *	25-63A/400V** TypeB AC breaker 32-63A/400V** TypeB AC breaker 63A/400V** TypeB AC breaker 63A/400V** TypeB AC breaker	Depends on loads	Depends on household loads and inverter capacity	30mA RCD (Comply with local regulation)	300mA RCD (Comply with local regulation)

Note: * If the battery is integrated with a readily accessible internal DC breaker, no additional DC breaker is required.

Note: **Select an MCB with an appropriate rated current based on the actual requirements, including the overall wiring scheme, the number of loads, and the inverter's load-carrying capacity.

Note: The values in the table are recommended values and can be set to other values according to actual conditions.

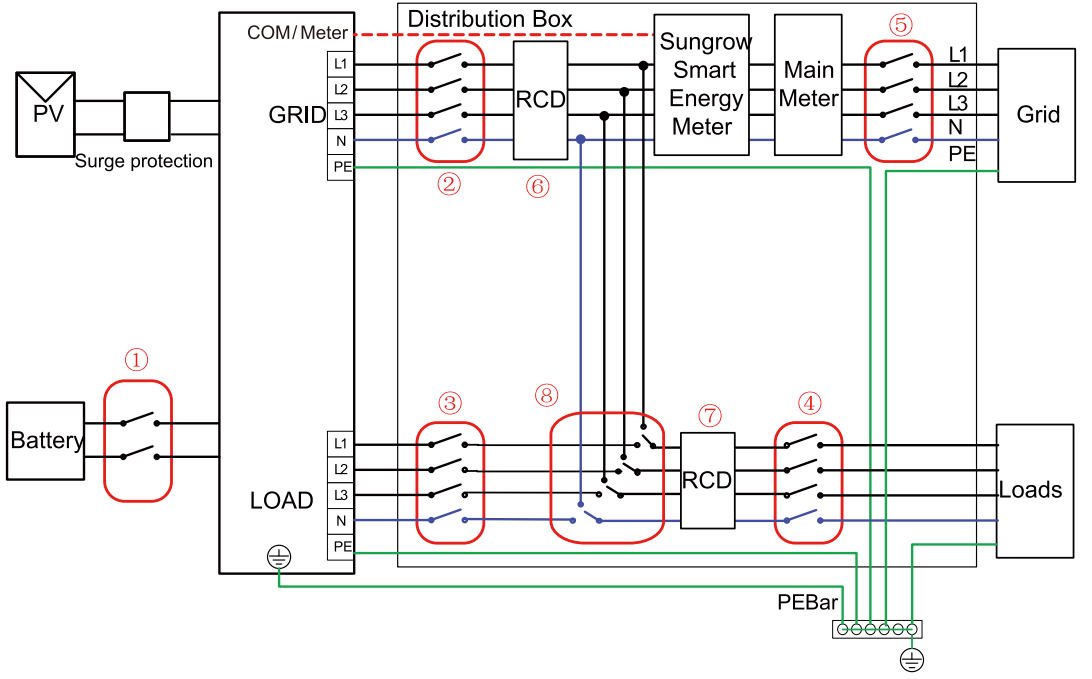


Whole Home Backup Wiring Diagram (For TT system)

Loads Connected to the Inverter:

Model	①	②	③ ④	⑤	⑥	⑦	⑧
SH5/6T SH8/10/12T SH15T SH20/25T	63A/800V DC breaker	63A/400V TypeB AC breaker	Depends on loads	Depends on household loads and inverter capacity	300mA RCD (Comply with local regulation)	30mA RCD (Comply with local regulation)	≥63A/230V manual changeover switch*

Note: * The manual changeover switch should be prepared by users separately. For the whole home backup scenario, it is recommended to use at least a 63A manual changeover switch, with 80A or 100A preferred. When switching to "LOAD" using the changeover switch, household loads will be supplied by the PV installation and battery. When the inverter is faulty or undergoing maintenance, switch to "GRID" to ensure the loads can work normally.



Scope of Delivery / Lieferumfang / Contenuto della fornitura / Contenu de la livraison / Leveringsomvang / Zakres dostawy / Contenido suministrado / Âmbito de entrega / Leveransens innehåll


Inverter

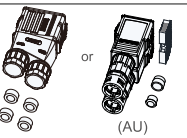

Wall-mounting bracket *


Expansion plug set x 4

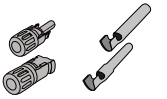

M5×12 screw set x 2


COM2 connector set x 1

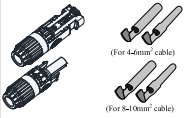

COM1 connector set x 1



AC connector set x 1****

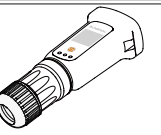

PV connector×5

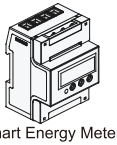

OT terminal *



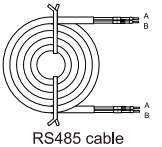
Battery connector* x 1


Cord end terminal *


WiNet-S2 module


Smart Energy Meter


Current Transformer(CT) x 1 set (3 pcs) or 2 sets (6 pcs)**

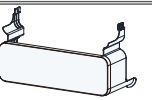


RS485 cable


Bottom bracket


120Ω resistor x 2


Manual Changeover Switch (63A)***


Protective Cover***


Documents

* The images shown here are for reference. The actual product and quantity are based on delivery.

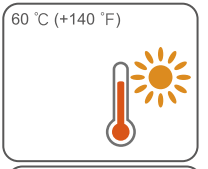
**The Australia and New Zealand region is equipped with 6 x 100A/0.333V CT as standard, and the other areas are equipped with 3 x 100A/0.333V CT as standard.

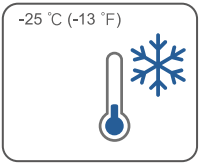
*** These accessories are included in the scope of delivery only in Australia currently.

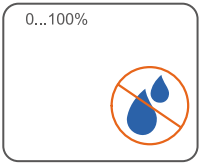
**** AC connector sets are different in Australia and other countries.

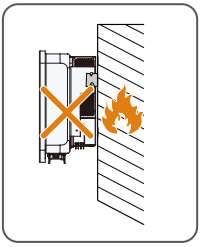
Mounting location / Montageort / Luogo di montaggio / Lieu de montage / Montagelocatie / Miejsce montażu / Ubicación del montaje / Localização na parede / Monteringsplats

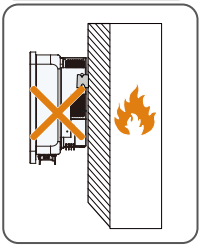


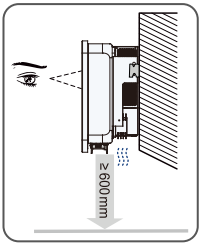


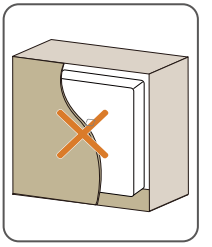


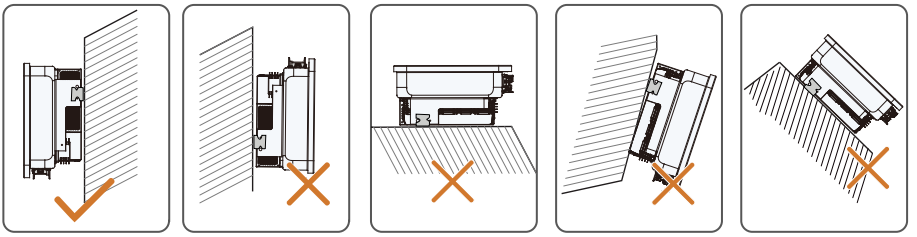


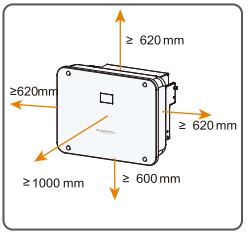


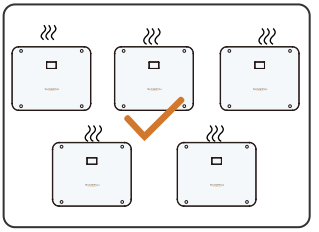


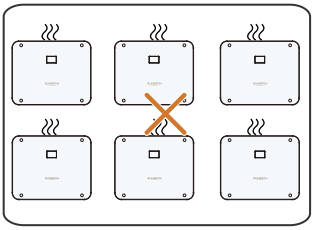


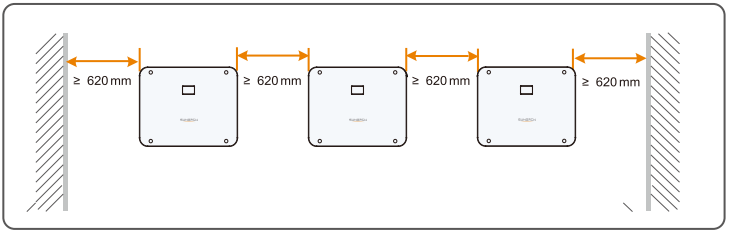


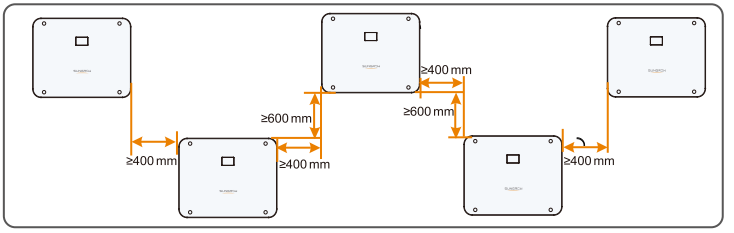






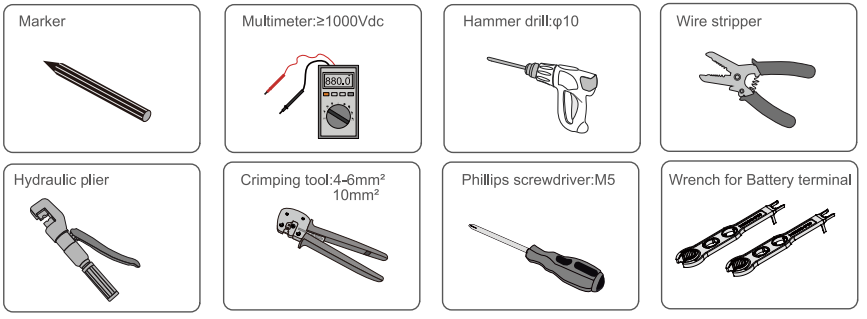


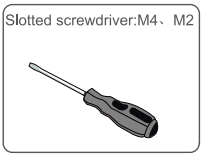


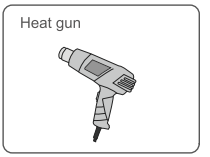


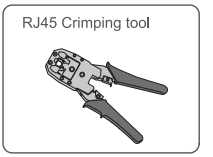
For more information about mounting location, please contact SUNGROW.

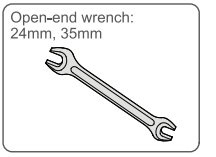
Installation tools / Werkzeug zur Installation /Strumenti di installazione/ Outils d'installation/ Montagegereedschap / Narzędzia montażowe / Herramientas de instalación / Ferramentas de instalação / Installationsverktyg

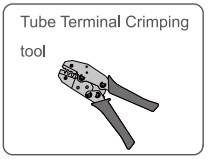




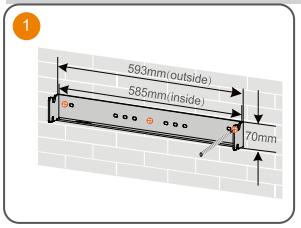


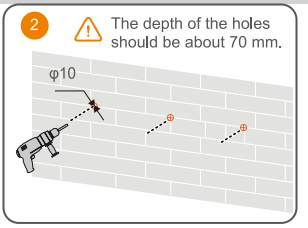


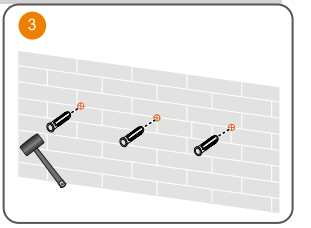


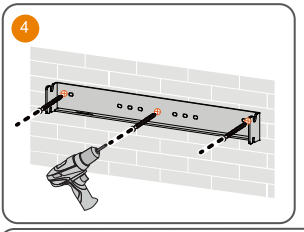


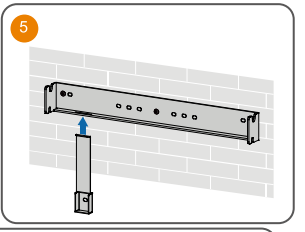
Mounting / Montage / Montaggio / Montage / Montage / Montaż / Montaje / Montagem / Montering

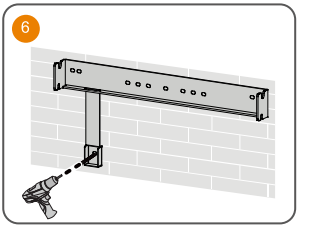


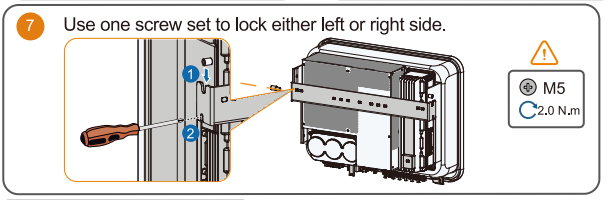




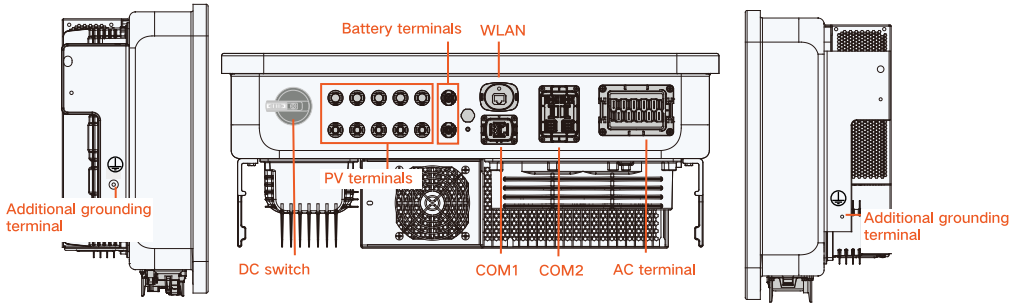








Terminal Description

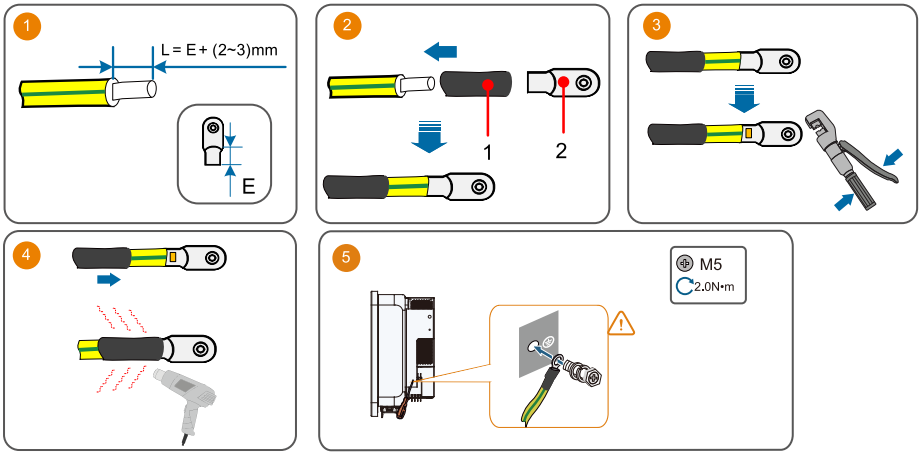


*AC terminals are different in Australia and other countries.

Terminal					
	1.3mm	1.6mm	5.05mm	6.16mm	6.16mm
Cross section(mm²)	0.5mm²	0.75mm²	10mm²	16mm²	16mm²
Cable	Communication cable		AC cable	AC cable	AC cable

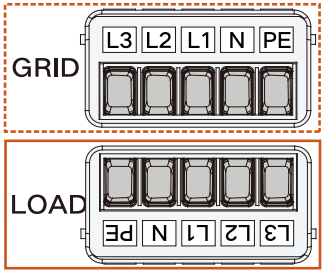
For a 16mm² cable, if the on-site installation utilizes a rigid copper cable with a low strand count (<10 strands) and individual strand diameters exceeding 1.7mm, it is recommended practice to terminate the conductor directly to the terminal after stripping the insulation layer.

PE / Erdung / messa a terra / Mise à la terre / Aarding / PE / PE / EP / Skyddsjord



- The cable specification must comply with local regulations (if available). Otherwise, keep it consistent with the PE wire in the AC cable.
- If mishandled, it may cause a 106 fault. Detailed troubleshooting procedures are outlined below.

AC CableConnection(For AU)



AC Cable

SH5-12T: 14.4-23mm

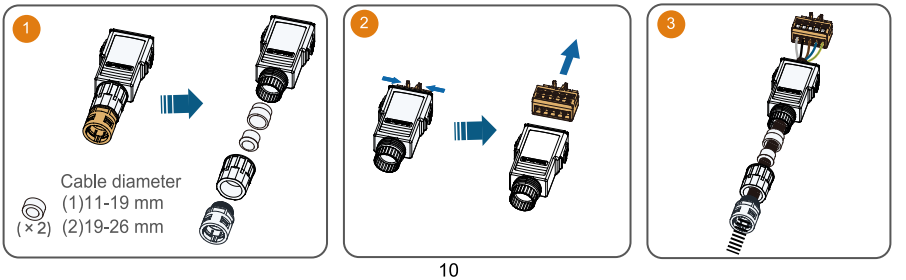
SH15-25T: 21-27.5mm

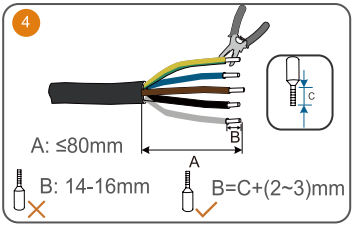


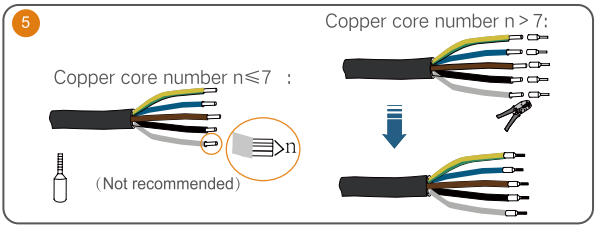
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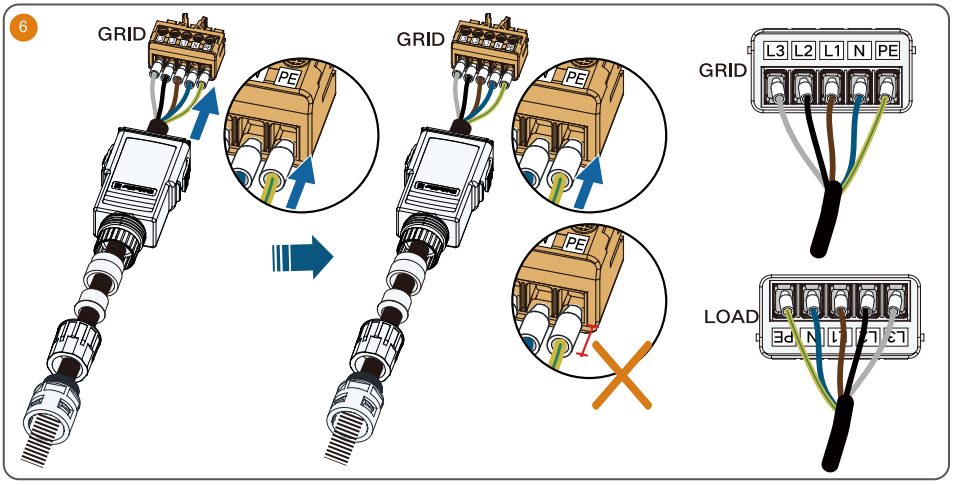
SH5-12T: 6-10mm²(10-7AWG)

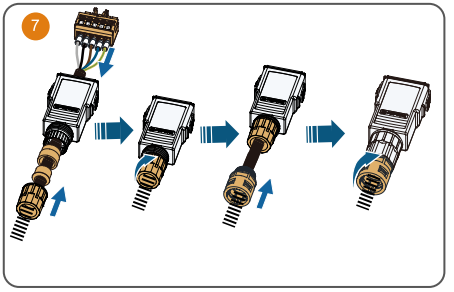
SH15-25T: 10-16mm²(7-5AWG)

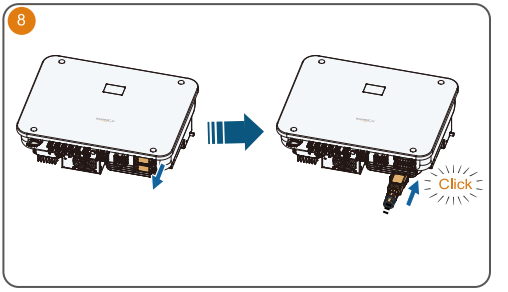


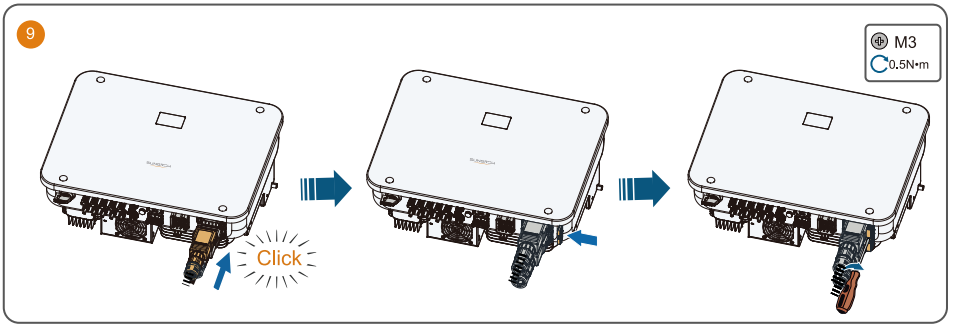

4
A: ≤80mm
B: 14-16mm
B=C+(2~3)mm
A
B
C


5
Copper core number n ≤ 7 :
(Not recommended)
n
Copper core number n > 7:

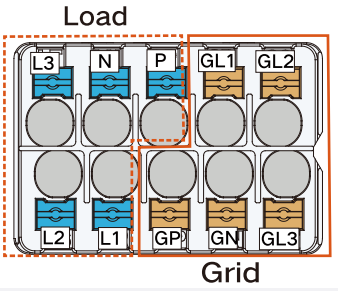

6
GRID
PE
GRID
PE
PE
GRID
L3
L2
L1
N
PE
LOAD


7


8
Click


9
M3
0.5N•m
Click

AC Cable Connection(For other countries)



AC Cable

SH5-12T: 14.4-23mm

SH15-25T: 21-27.5mm

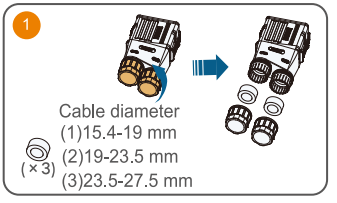


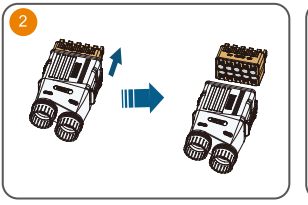
Cross section:

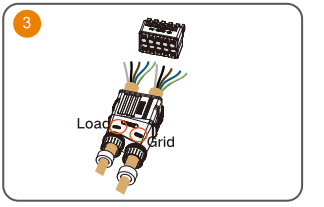
SH5-12T: 6-10mm²(10-7AWG)

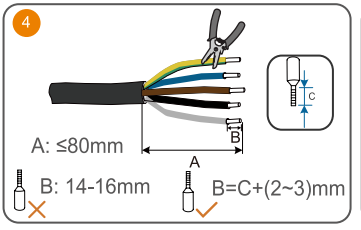
SH15-25T: 10-16mm²(7-5AWG)

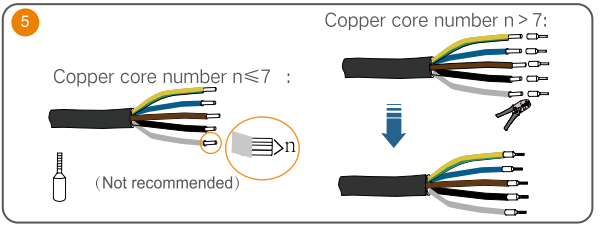
- There are two different markings for the AC wiring terminals, one is the combination of GR, GS, GT, LR, LS, and LT, and the other is the combination of GL1, GL2, GL3, L1, L2, and L3 (as shown above). The actual product should take precedence.

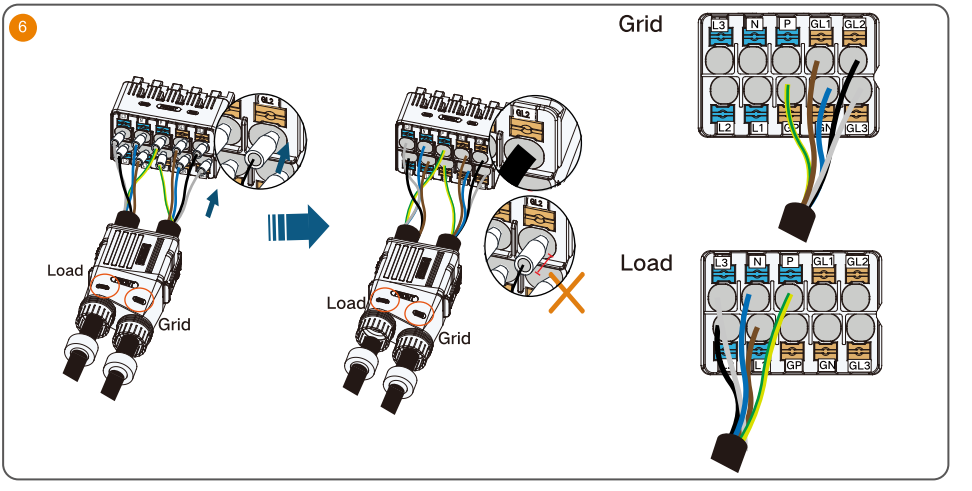


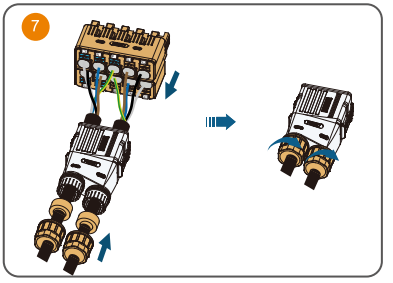


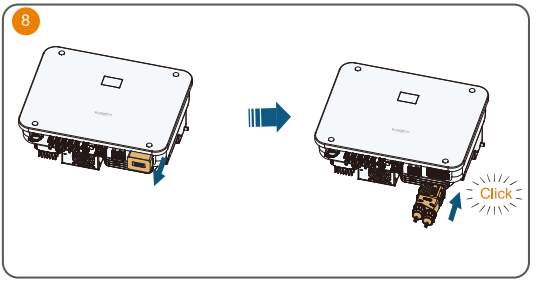


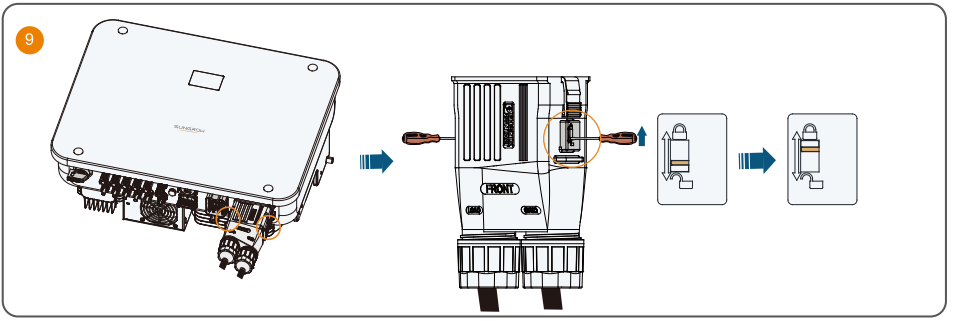




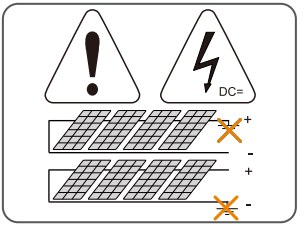


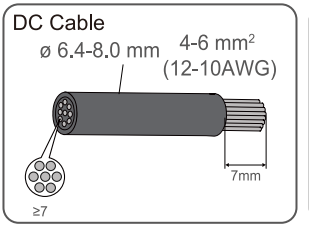


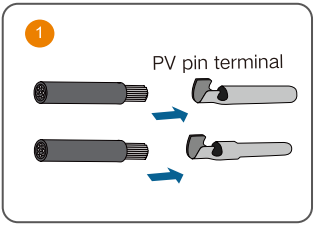


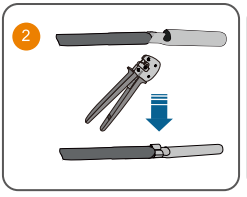


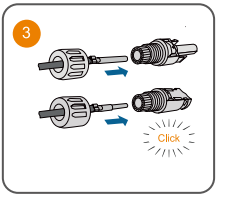
DC Cable Connection

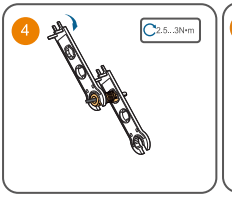


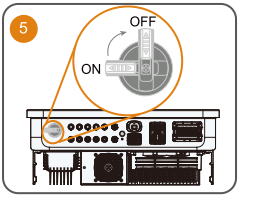


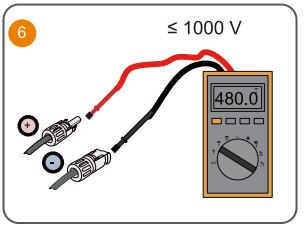


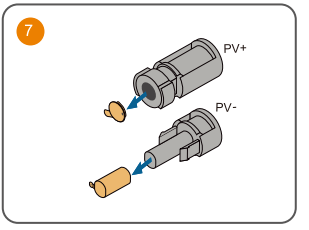


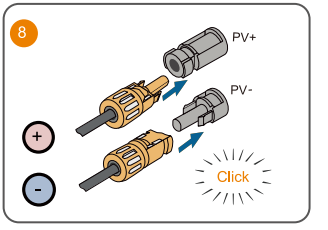




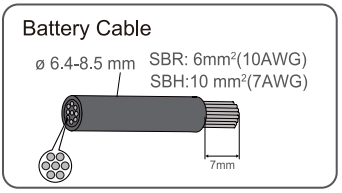


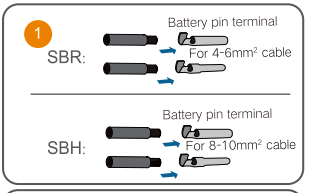


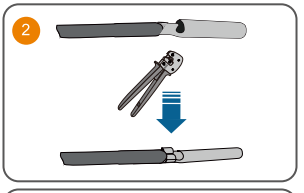


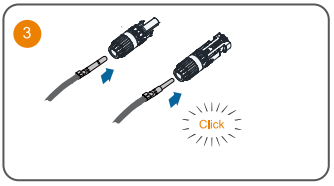


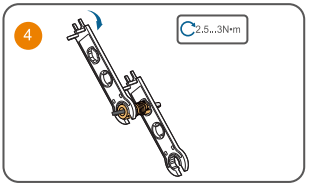
Battery (Power)

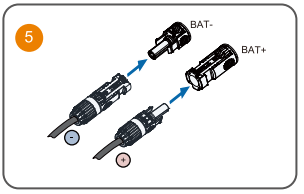


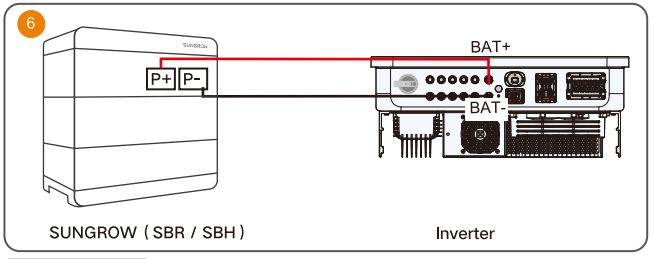






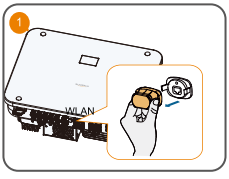


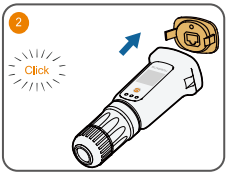




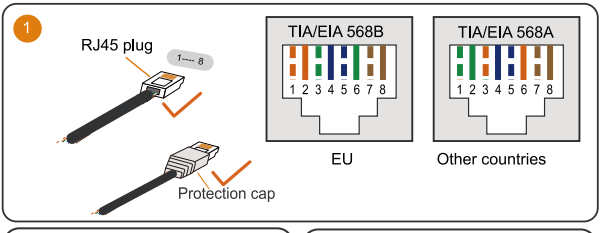
WiNet-S2

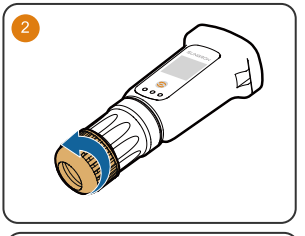
Installation with WLAN communication

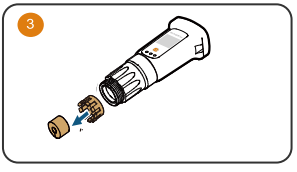


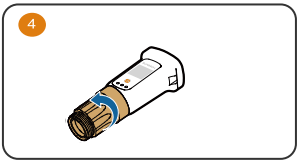


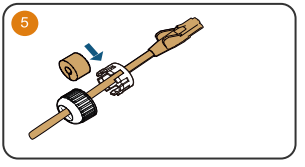
Ethernet

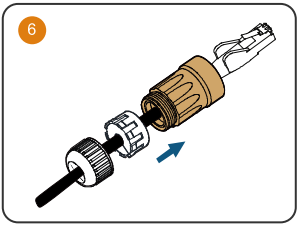


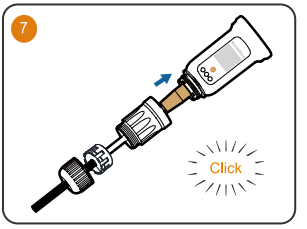


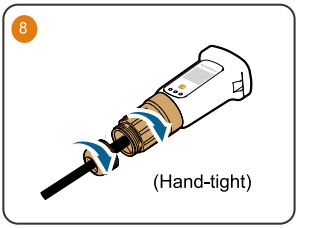


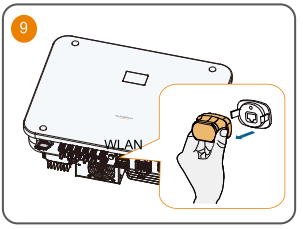


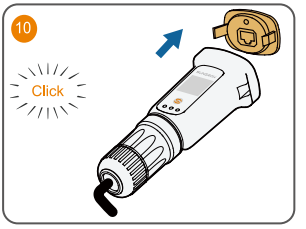




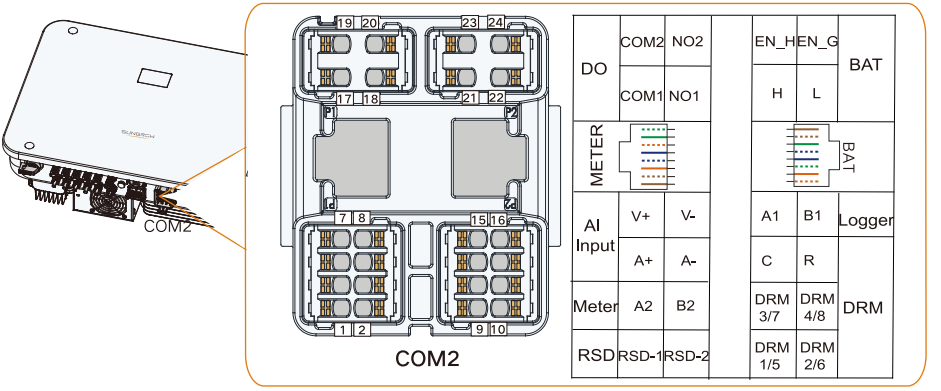








COM2 Terminal Communication Connection



METER 8 7 6 5 4 3 2 1 NC NC B2 NC NC A2 NC NC	RJ45-METER							
	NC	NC	B2	NC	NC	A2	NC	NC
	8	7	6	5	4	3	2	1
BAT 8 7 6 5 4 3 2 1 NC NC NC NC NC NC L H	RJ45-BAT							
	NC	NC	NC	NC	NC	NC	L	H
	8	7	6	5	4	3	2	1