



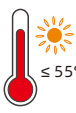
MODA 4-15KTL3-HU

Quick Guide

1. Installation requirements

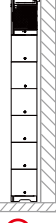
1-1

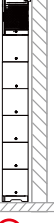
Installation environment requirements

 $\leq 55^{\circ}\text{C}$ (+131°F)

 $\geq -20^{\circ}\text{C}$ (-4°F)

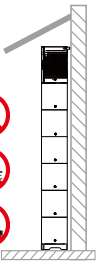
5%-95%







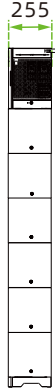




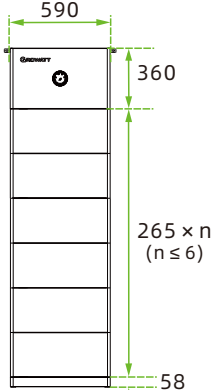
1-2

Installation space requirements

Dimensions



Right side view



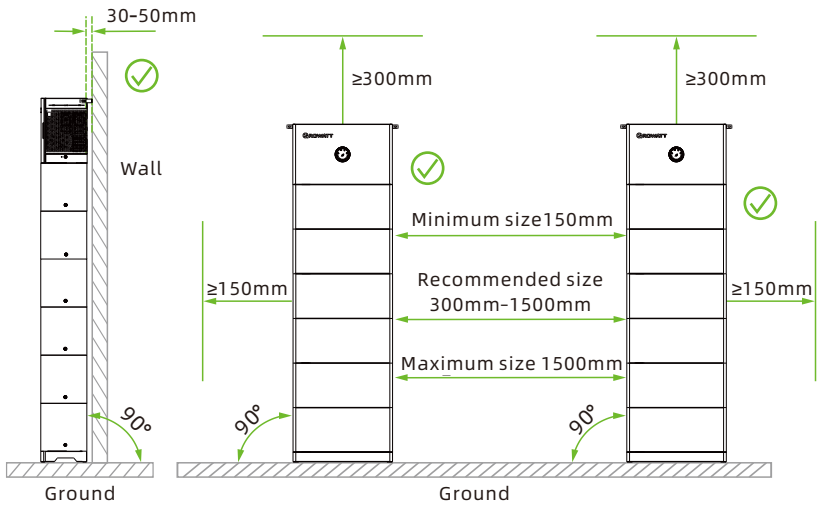
Front view

Unit: mm

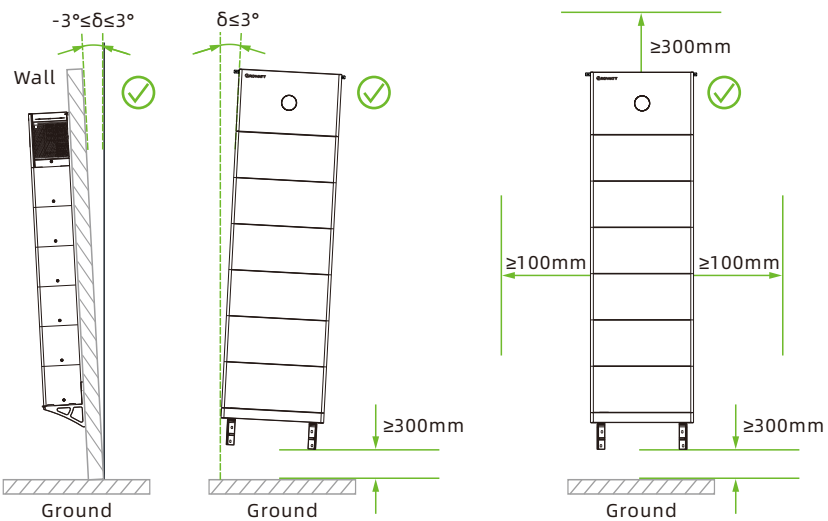
Number of battery (pcs)	1	2	3	4	5	6
Height (mm)	625	890	1155	1420	1685	1950

Installation Clearance

• Floor mounting



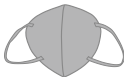
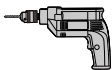
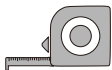
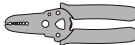
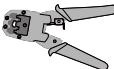
• Wall mounting



NOTE:

A single column can be configured with up to eight modules (1 inverter + 6 batteries).

2. Installation

2-1 Installation tools				
				
Safety gloves	Goggles	Mask	Safety shoes	Helmet
				
Hammer drill (Drill bit: $\Phi=10$ mm)	Hammer	Level	Measuring tape	Marker
				
Socket Wrench	Phillips screwdriver	Wire stripper	Hydraulic pliers	Tube terminal crimping tool
				
PV terminal crimping tool	Multimeter	RJ45 crimping tool		

2-2 Packing list					
Inverter					
					
Inverter × 1	Base × 1	Decorative cover × 2	M4×12 screw × 2	Anti-tipping plate × 2	Plastic tube × 2
					
Self-tapping screw × 2	1mm shim × 4	2mm shim × 4	OT terminal × 1	M6×16 screw × 1	PV terminal core (+/-) × 3



PV terminal
(+/-) x 3



PV connector
wrench x 1



Tubular
terminal x 10



COM waterproof
cover x 1



AC waterproof
cover x 2



10-pin
terminal x 1



Allen
wrench x 1



Network
cable x 1



CT x 3



AC unlocking
tool x 1



Parts list x 1



Quick guide
x 1



Warranty
card x 1



Commissioning
guide x 1

Battery



Battery x 1



Warranty
card x 1



M4x12
screw x 3

Wall bracket (optional)



Wall
bracket x 1



M8x80 expansion
bolt x 8

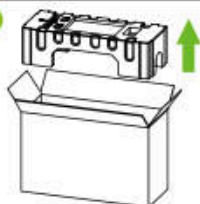


M6x20
screw x 4

2-3 Preparation work before installation

Before shipment, the inverter and base are pre-installed together. The base must first be removed. Follow these steps:

1



2



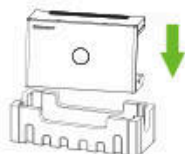
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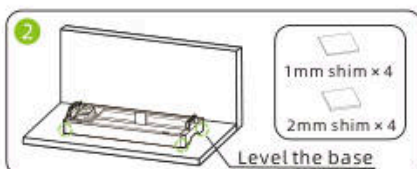
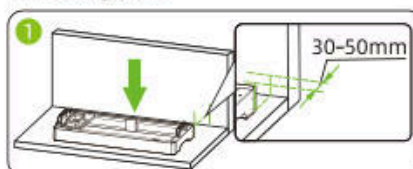


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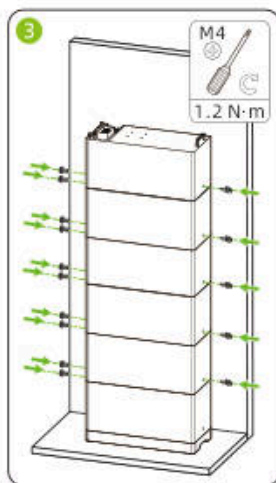
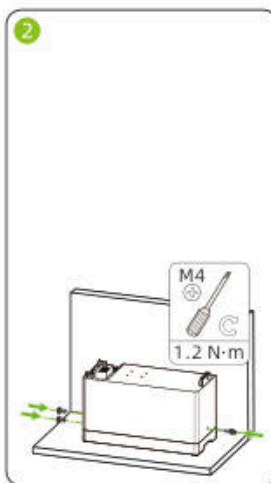
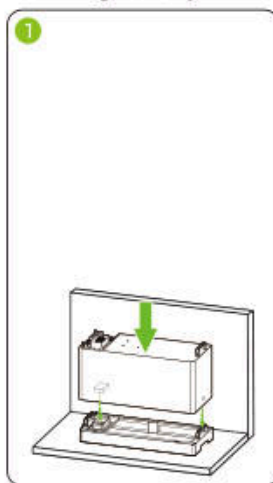


2-4 Floor-mounted installation

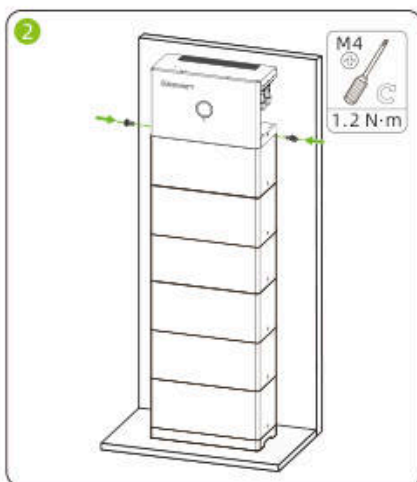
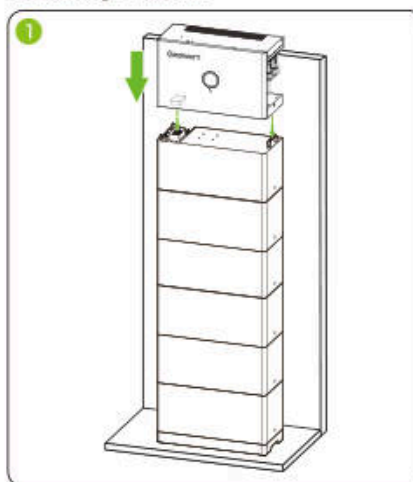
Mounting base



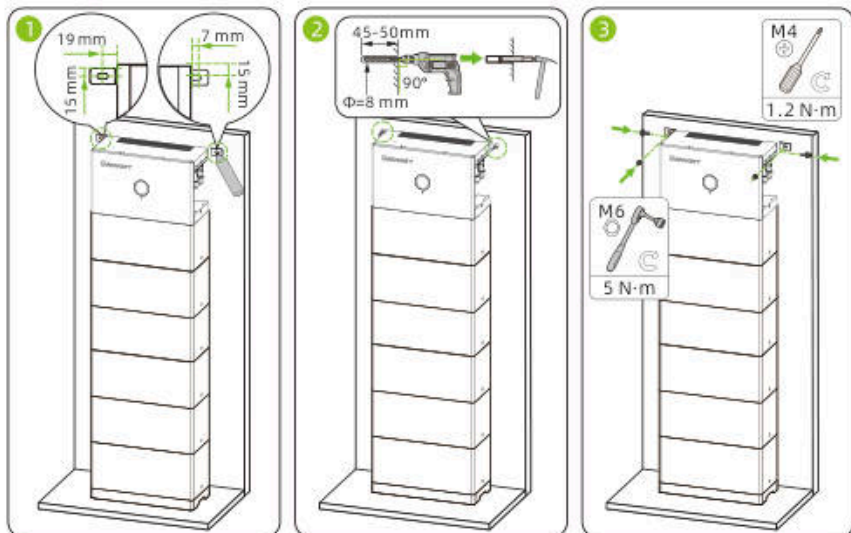
Mounting battery



Mounting inverter

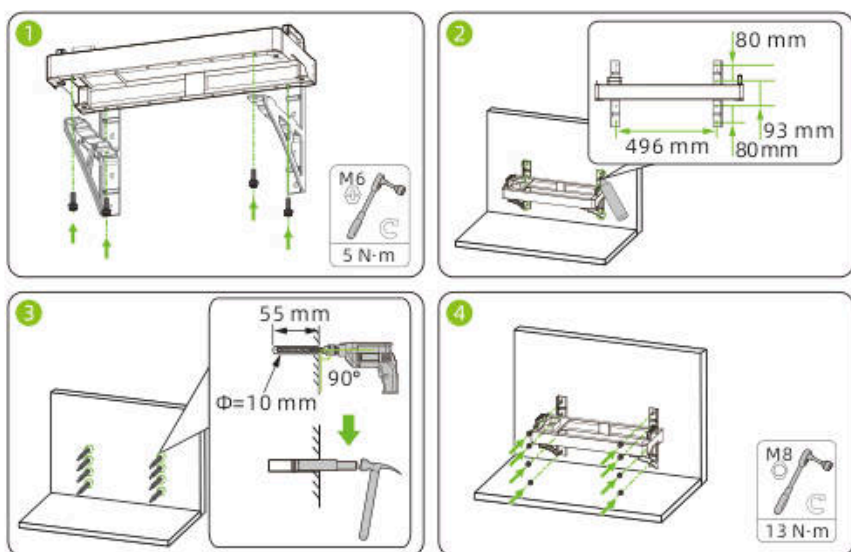


Mounting Anti-tipping plates

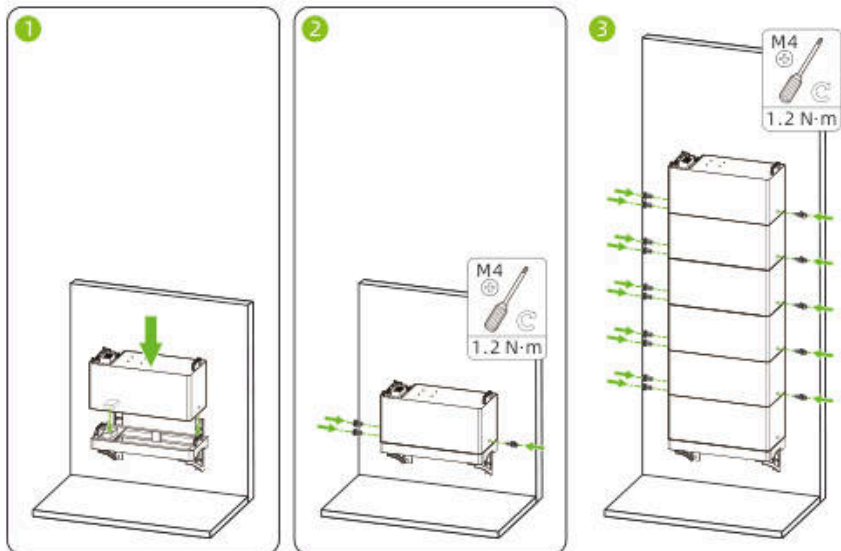


2-5 Wall-mounted installation

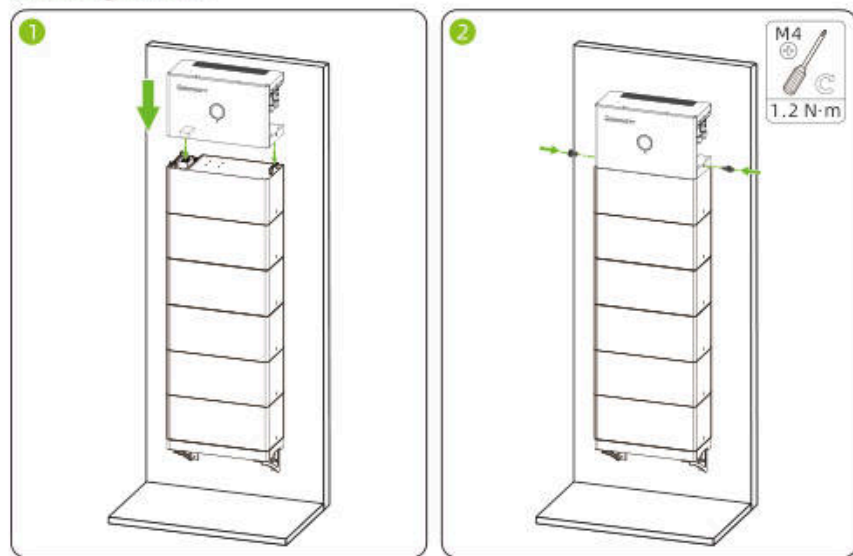
Install the wall bracket



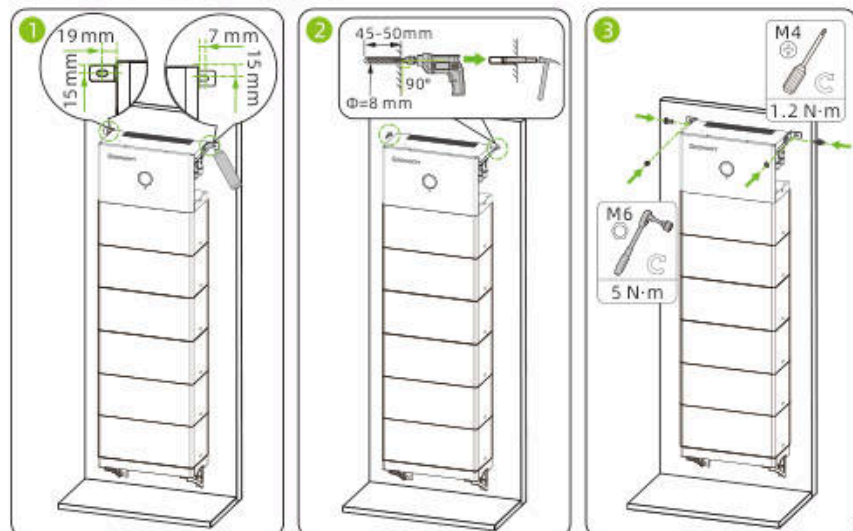
Mounting battery



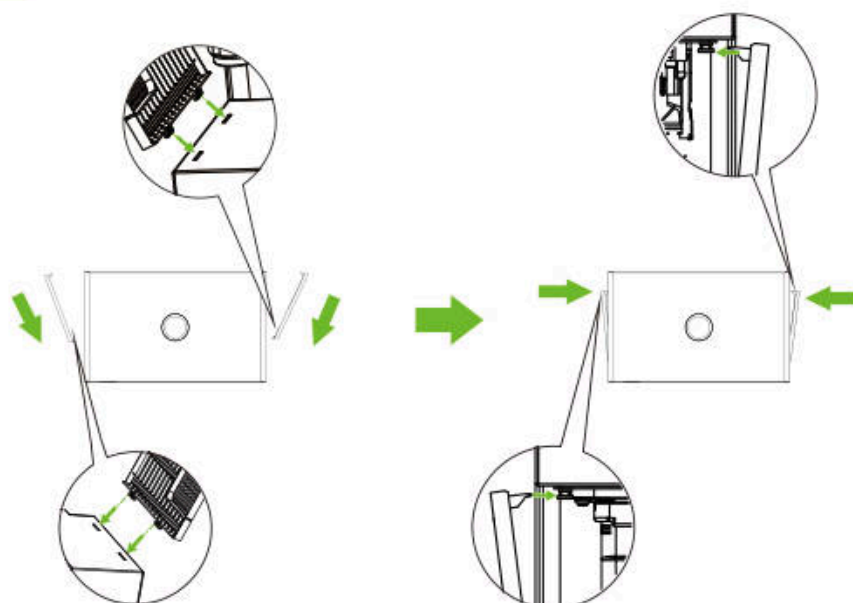
Mounting inverter



Mounting Anti-tipping plates



2-6 Protective cover installation



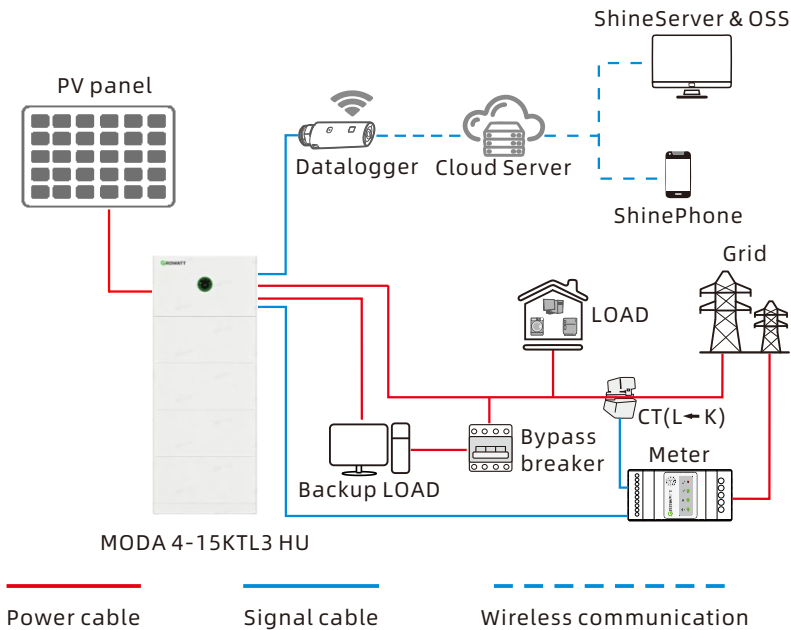
3. Electrical connection

3-1 Wiring diagram

Partial backup

⚠ NOTE:

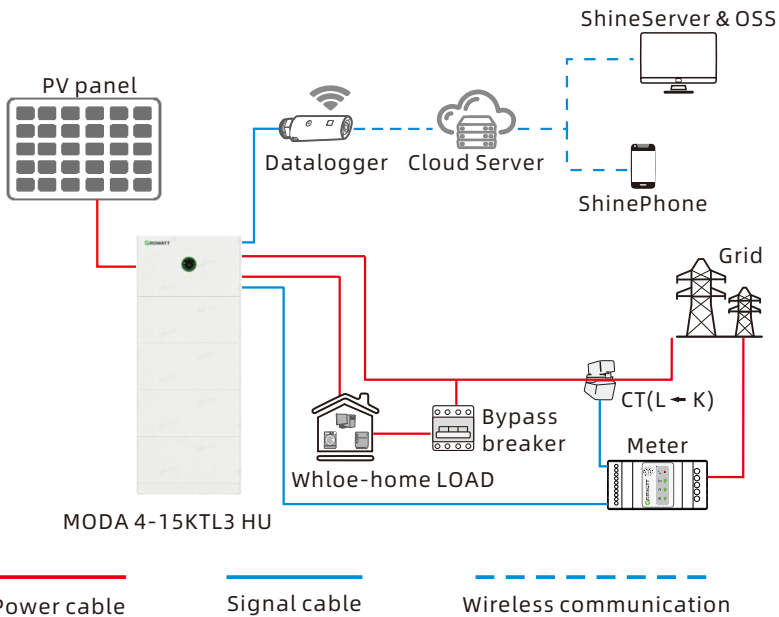
- Due to the power limitations of the battery and the inverter, not all the electrical appliances can be powered when the system goes off-grid. You can configure the partial back-up function with the essential loads connected to the LOAD port on the inverter and other loads to the grid.
- It is recommended that an external manual bypass breaker be added, as shown in the figure below, to avoid disconnecting the load in the event of a machine bypass operation failure.



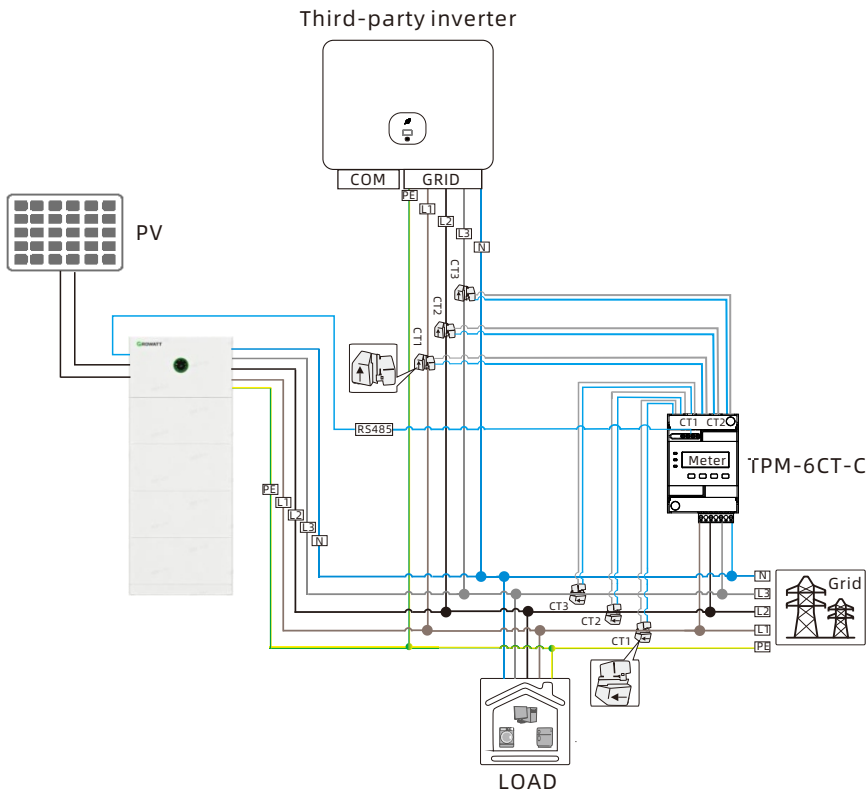
Whole-home backup

⚠ NOTE:

- When the maximum power output capacity of the system in the off-grid state surpasses the total power demand of the electrical appliances, you can configure the system for a whole-home backup setup. In this case, you can connect all loads to the LOAD port of the inverter.
- It is not recommended to connect a load greater than the rated power of the inverter.



AC Couple



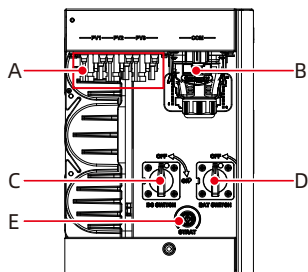
⚠ NOTE:

For AC-coupled systems, the TPM-6CT-C energy meter is required as a separate purchase in the European region.

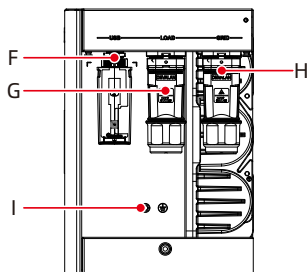
3-2 Cable dimensions

No.	Cable	Recommended Specifications	
		MODA 4-8KTL3-HU	MODA 10-15KTL3-HU
1	Ground cable	12-16mm ²	
2	AC output cable		
3	PV input cable	4-6 mm ²	6-8 mm ²
4	Communication cable	0.32-0.52 mm ²	

3-3 Connection area and terminal introduction



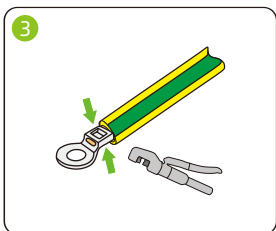
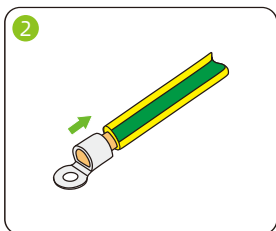
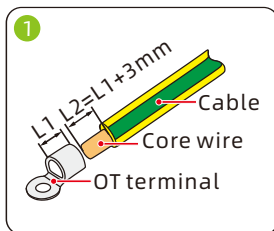
Left side view



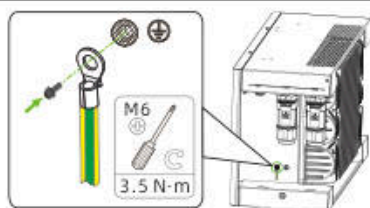
Right side view

- (A) PV connector (B) Communication connector (C) DC switch
 (D) BAT switch (E) Black start button (F) USB
 (G) Load AC connector (H) Grid AC connector (I) Safety grounding

3-4 Safety grounding connection



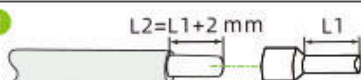
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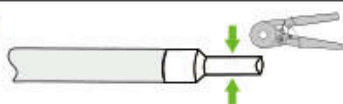
3-5 AC connection

Install

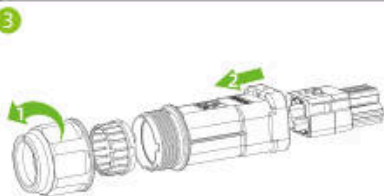
1



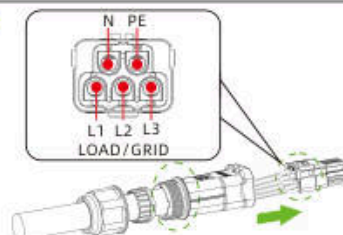
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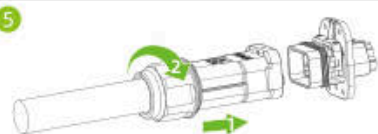
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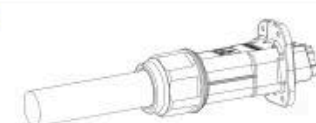
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5

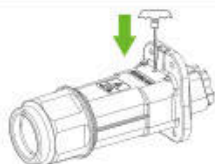


6

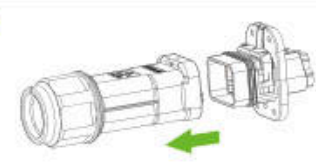


Remove

1



2



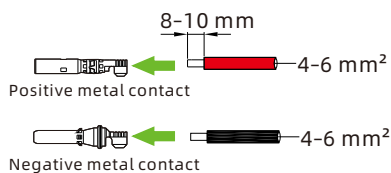
⚠ NOTE:

The inverter's GRID and LOAD ports share the same wiring method, but the GRID and LOAD connectors (cable end ↔ equipment end) are keyed so that they cannot be mated incorrectly.

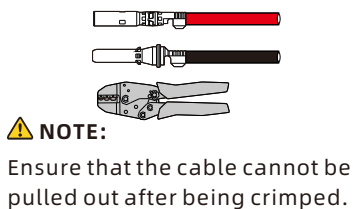
3-6 PV connection

Install

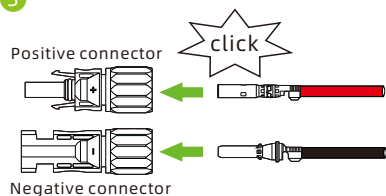
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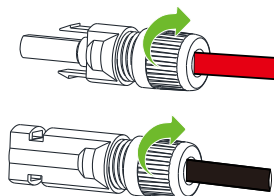
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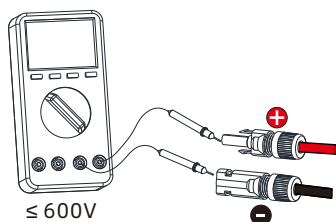
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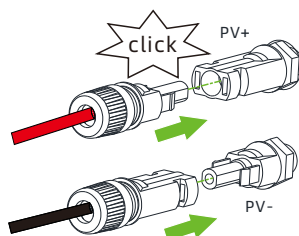
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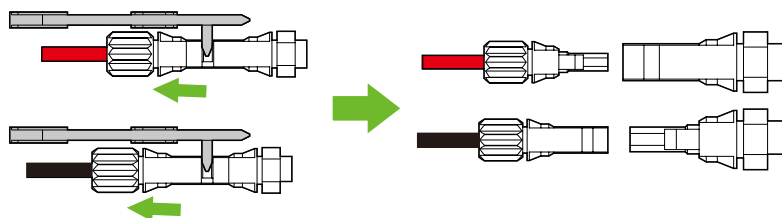
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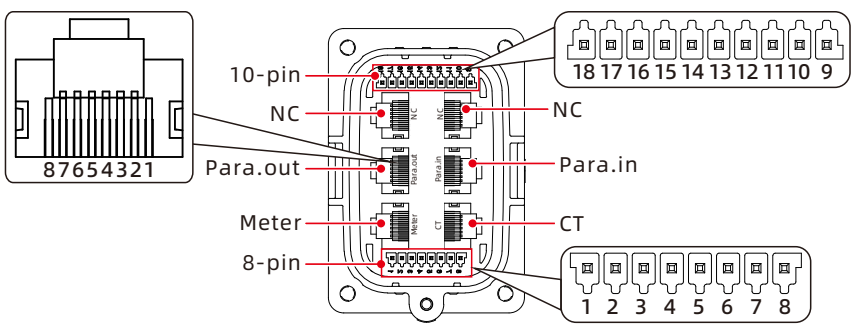


Remove



3-7 Communication connection

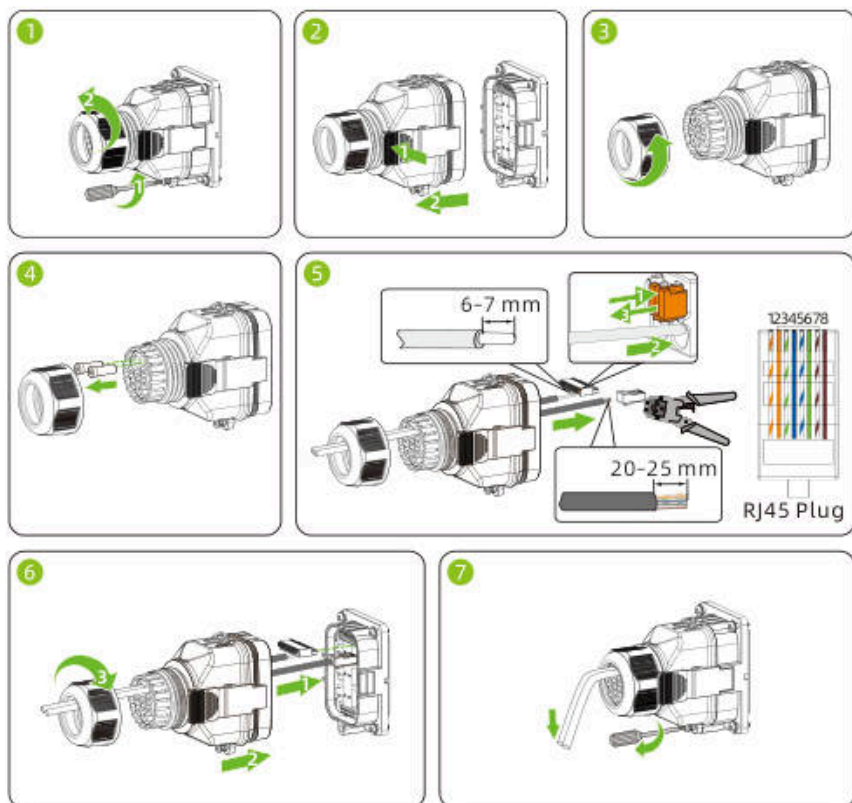
Terminal Definition



Port	Pin	Signal	Function
Para.out	1	485-1_B	External communication
	5	485-1_A	
	2	Sc_A/H	Inverter parallel
	3	PL CANH (DSP_2)	
	4	Sc_B/L	
	6	PL CANL (DSP_2)	
	7	BAT1 CAN H (M3_2)	
	8	BAT1 CAN L (M3_2)	
Para.in	1	485-1_B	External communication
	5	485-1_A	
	2	Sc_A/H	Inverter parallel
	3	PL CANH (DSP_2)	
	4	Sc_B/L	
	6	PL CANL (DSP_2)	
	7	BAT1 CAN H (M3_2)	
	8	BAT1 CAN L (M3_2)	

Port	Pin	Signal	Function
Meter	4	NC	/
	1	485-2_B	Meter communication
	2	GND.S	
	3	5V.S	
	5	485-2_A	
	6	GND.S	
	7	RS485_3B	
	8	RS485_3A	
CT	1	I_Load.P3	AC current sampling
	2	I_Load.N3	
	3	I_Load.P2	
	4	I_Load.P1	
	5	I_Load.N1	
	6	I_Load.N2	
	7/8	NC	/
10-pin terminal	11	12V.S	Dry contact: the power supply should not be greater than 2 W
	12	DRY.G	
	13	DRM1/5	DRMS connection
	14	DRM2/6	
	15	DRM3/7	
	16	DRM4/8	
	17	REF	
	18	COM	

Install



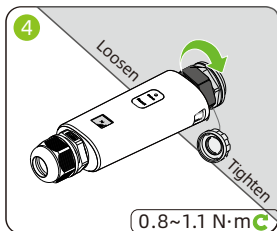
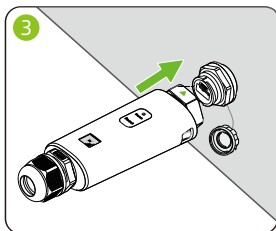
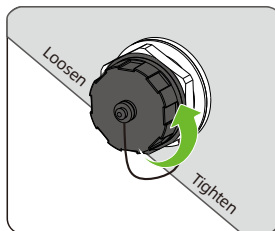
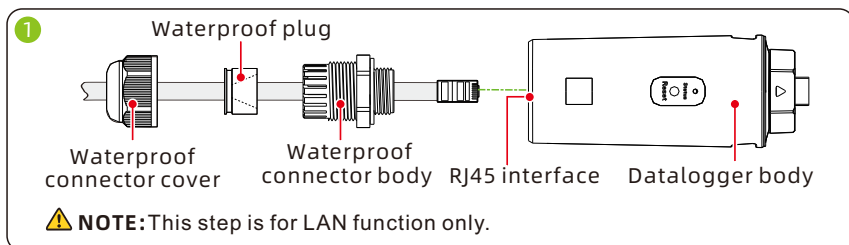
DRMS connection

Mode	Switches on DRE		Function
DRM 0	S0	S9	- When switches S0 and S9 are turned on, the inverter will shut down - When switch S0 is turned off and S9 is turned on, the inverter will be grid-tied
DRM 1	S1	S9	Do not consume power
DRM 2	S2	S9	Do not consume at more than 48% of rated power
DRM 3	S3	S9	Do not consume at more than 73% of rated power. Generates maximum inductive reactive power.

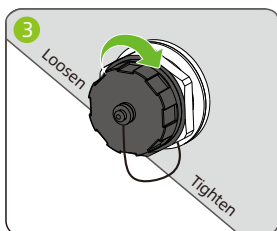
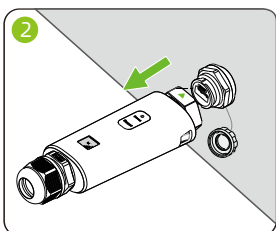
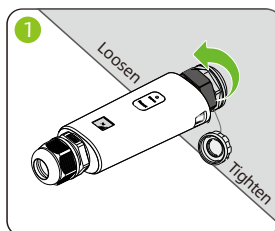
Mode	Switches on DRE		Function
DRM 4	S4	S9	Increase power consumption
DRM 5	S5	S9	Do not generate power
DRM 6	S6	S9	Do not generate at more than 48% of rated power
DRM 7	S7	S9	Do not generate at more than 73% of rated power. Generates maximum capacitive reactive power
DRM 8	S8	S9	Increase power generation (subject to constraints from other active DRMS)

3-8 Datalogger connection

Install



Remove



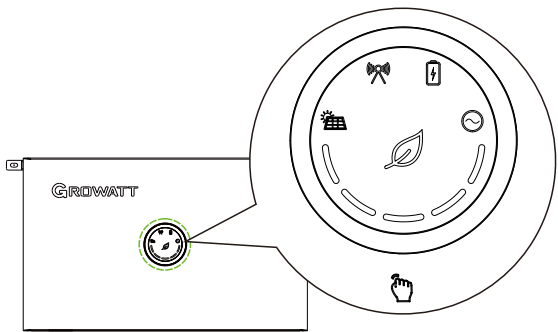
4. Power on/off the system

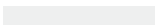
4-1 Power on

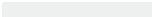
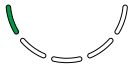
1. Check if all cables are properly connected as required.
2. Check if the PV and grid voltage are within the specified range.
3. Turn on the BAT switch, then turn on the PV switch.
4. Turn on the ON-GRID circuit breaker, then turn on the Backup circuit breaker.
5. When MODA 4-15kTL3-HU indicator is green, it indicates that the system is powered on successfully.

Indicator

- Inverter

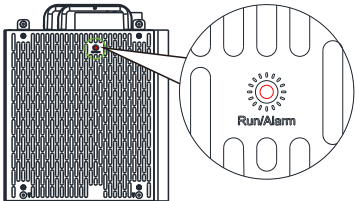


Indicator	Color	Status	Description
		Off	PV disconnected
		On	PV normal operation
		Flash	PV reverse polarity
		On	PV side fault
		On	Communication normal
		On	Cloud platform disconnected
		Off	Datalogger disconnected
		On	Battery normal
		On	Battery hibernation
		Flash	Partial battery fault
		On	All battery fault

Indicator	Color	Status	Description
		Off	Grid disconnected
		On	Grid connected standby
		On	Grid connected running
		On	Off-grid running
		Flash	Off-grid overload
		Flash	Grid abnormality
		On	Inverter AC side fault
		Off	Battery has no power
		ON or Flash	• $0\% < SOC \leq 20\%$ • Battery neither charging nor discharging is ON/Battery charging and discharging is flashing
		ON or Flash	• $20\% < SOC \leq 40\%$ • Battery neither charging nor discharging is ON/Battery charging and discharging is flashing
		ON or Flash	• $40\% < SOC \leq 60\%$ • Battery neither charging nor discharging is ON/Battery charging and discharging is flashing
		ON or Flash	• $60\% < SOC \leq 80\%$ • Battery neither charging nor discharging is ON/Battery charging and discharging is flashing
		ON or Flash	• $80\% < SOC \leq 100\%$ • Battery neither charging nor discharging is ON/Battery charging and discharging is flashing
		On	System normal
	/	/	/

Indicator	Color	Status	Description
		Light up clockwise	System upgrade
		On	System failure
	/	Color rotation	Power on init
	/	/	Wake indicator

• Battery



Indicator	Color	Status	Description
		On	Normal
		Flash	Upgrade
		On	Fault
		Off	Hibernation

4-2 Power off

1. Turn off the Backup circuit breaker, then turn off the ON-GRID circuit breaker.
2. Turn off the PV switch, then turn off the BAT switch.



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