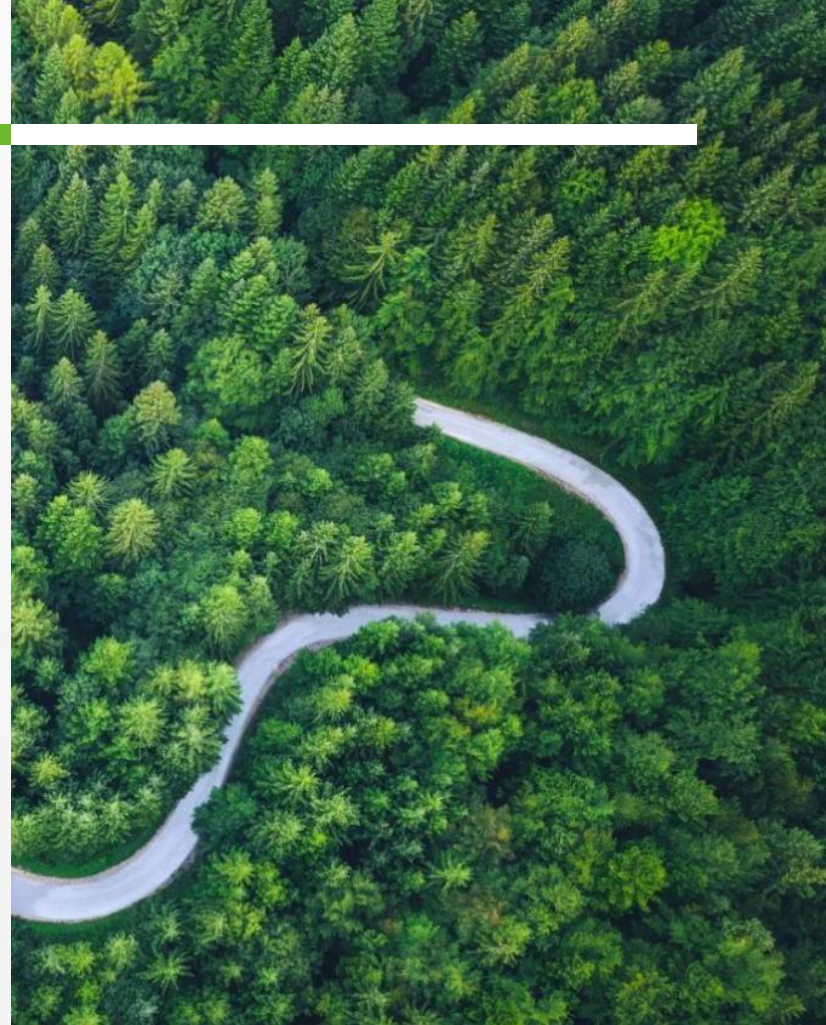


New Generation All-In-One ESS (EU)

MINA 3-10kW / 5-30kWh / Single Phase

MODA 4-15kW / 5-30kWh / Three Phase

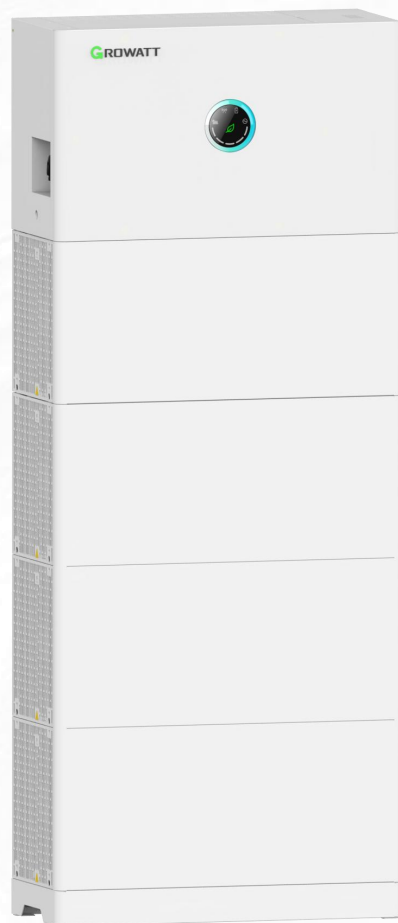


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MINA All-In-One ESS



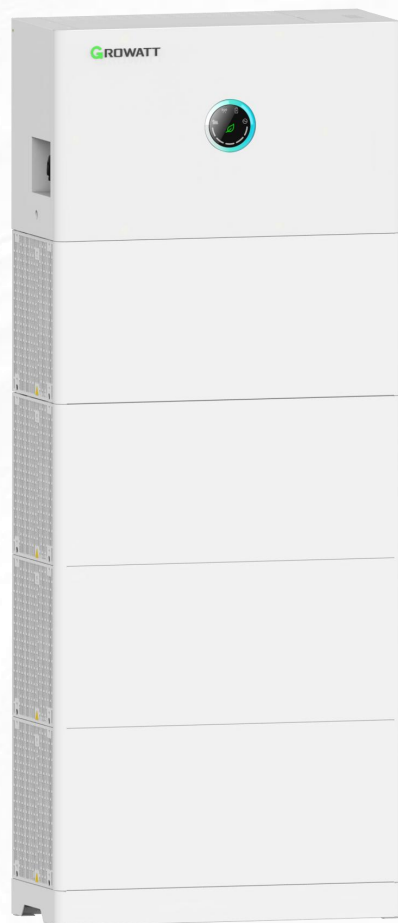
MINA Series

3-10kW | 5-30kWh | Single Phase

- Wider power range: 3 | 3.6 | 4.2 | 4.6 | 5 | 6 | 8 | 10kW
- Scalable Capacity: 1-6 pcs | 5-30kWh
- 200% PV oversizing
- 3 MPPTs for flexible rooftop adaptability
- Max. 18A per string current
- Max. 25A per string short-circuit current
- Low start-up voltage 50Vdc
- Self Consumption, TOU, peak shaving, AI smart mode

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MODA All-In-One ESS



MODA Series

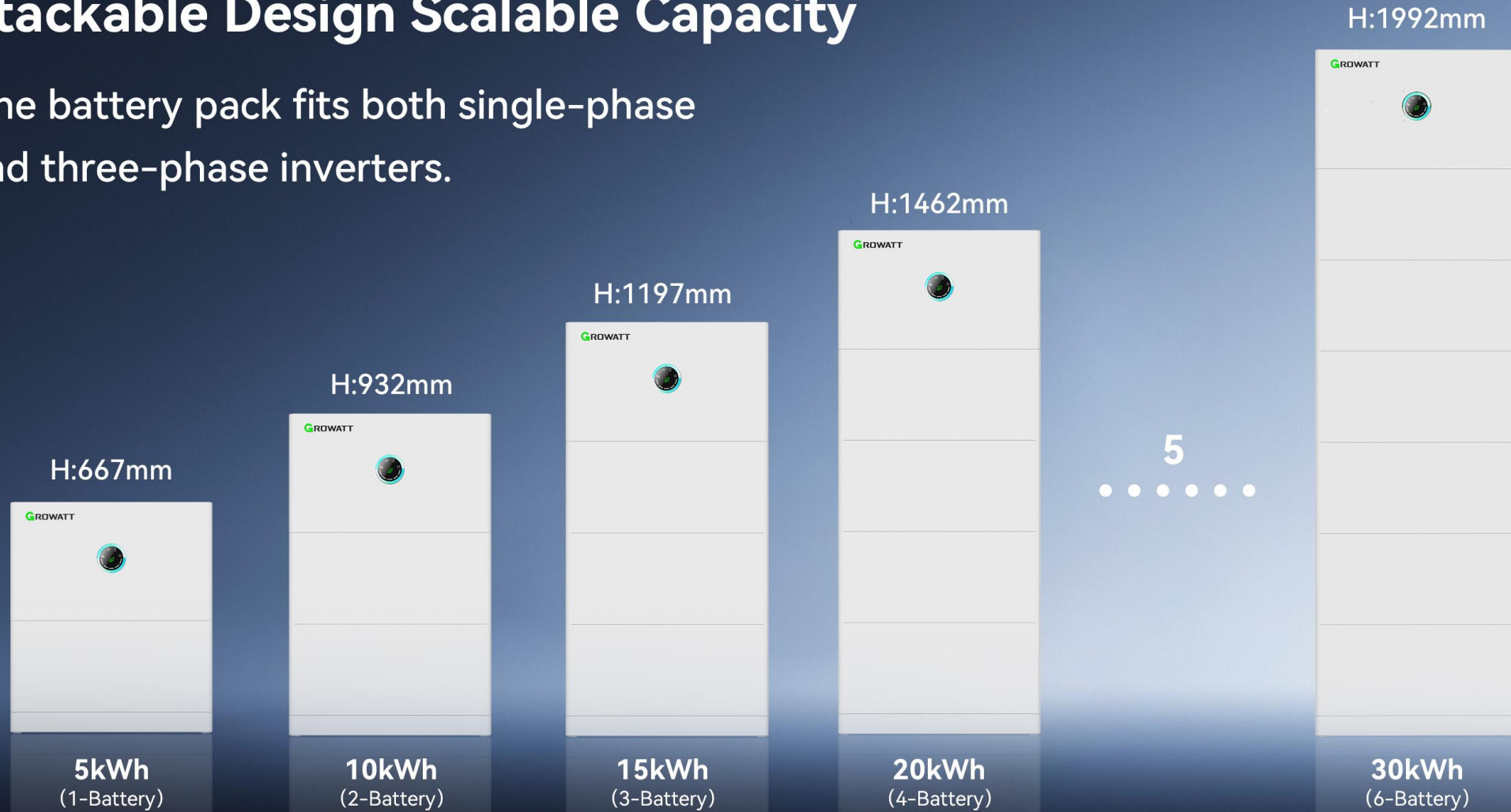
4-15kW | 5-30kWh | Three Phase

- Wider power range: 4 | 5 | 6 | 8 | 10 | 12 | 15kW
- Scalable Capacity: 1-6 pcs | 5-30kWh
- 200% PV oversizing
- 4-8kW 2 MPPTs, 10-15kW 3 MPPTs for flexible rooftop adaptability
- Max. 20A per string current
- Max. 25A per string short-circuit current
- Low start-up voltage 160Vdc
- Self Consumption, TOU, peak shaving, AI smart mode

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Stackable Design Scalable Capacity

One battery pack fits both single-phase and three-phase inverters.





Reliable Whole House Backup

63A

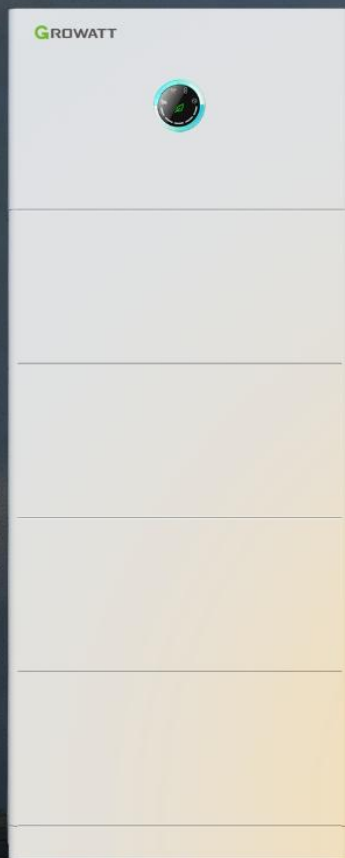
Whole-home Support

<10ms

Switchover

150%

Peak Output Power



Fast Installation

10-min
unboxing & stacking



Handle for
easy carrying



Fast plug & play
connection



Two-way DC Charger V2G Coming Soon



Leading Advantage

Battery

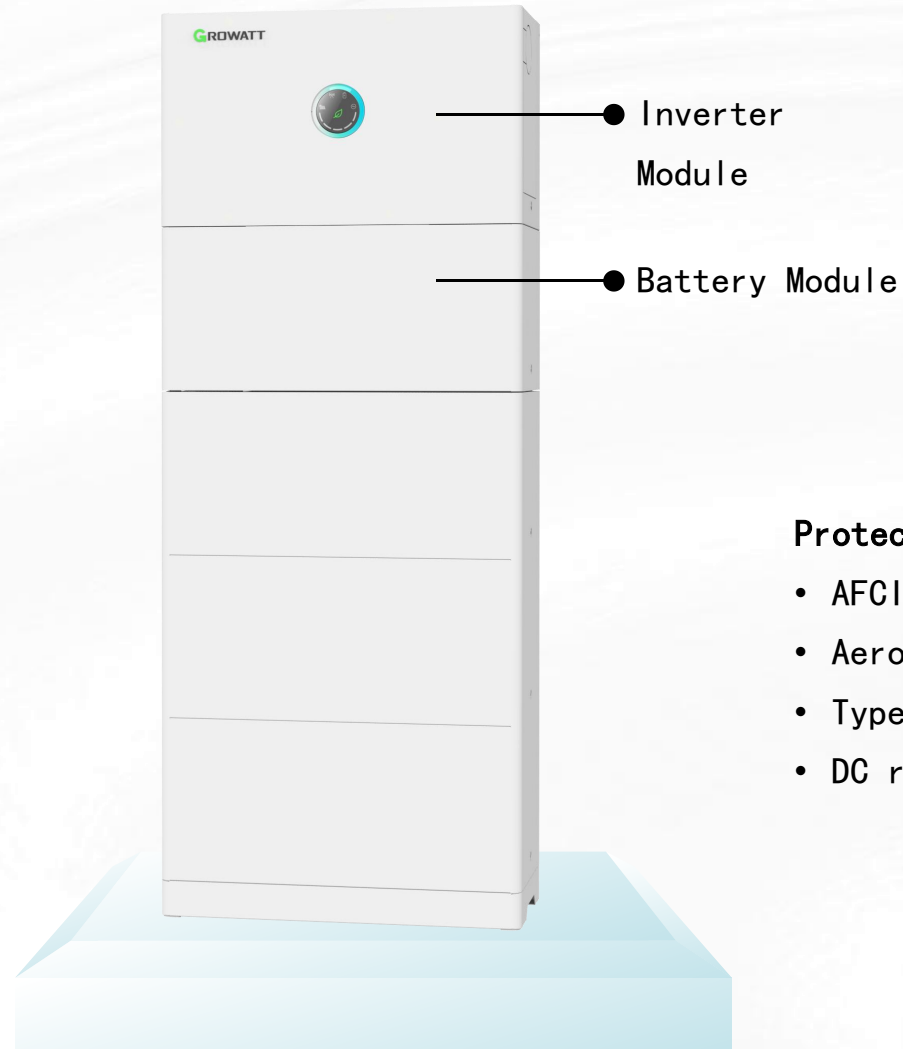
- Integrated battery optimizer with 100% DoD
- Mix old & new batteries with ease
- Redundant design
- Empowers performance & longer lifespan

Backup

- Seamless switching
- 63A for whole home backup
- 150% peak output power for 10s

Multi-applications

- VPP-ready for intelligent energy
- Two-way DC Charger V2G – Coming soon



Protection

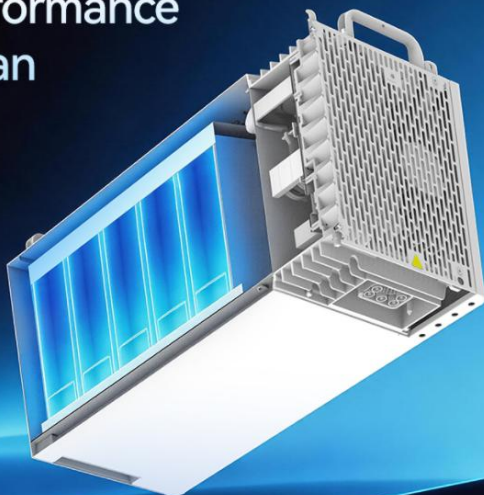
- AFCI
- Aerosol
- Type II SPD
- DC reverse polarity protection

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APX HV Battery Module 2.0

Built-in Optimaizer

empowers performance
& longer lifespan



GROWATT

Fast Installation

- Self-aligning connector
- Cable-free stacking
- handle for easy carrying

One-Fits-All

- One battery pack for both MINA & MODA
- Flexible for separate and all-in-one configurations

Flexible Expansion Design

- 5kWh-30kWh scalable energy capacity
- Max. 15kW charge/discharge power one cluster

Harsh Environment Adaptability

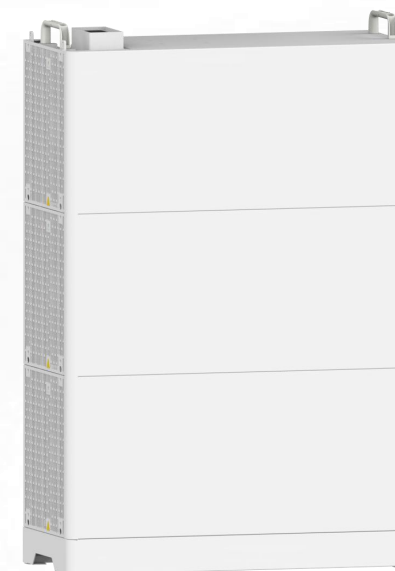
- Wide temperature range of -20°C - 50°C
- IP 66 Design

Modular Energy Optimization

- Modular level energy optimizer to guarantee each pack can be fully charged/discharged always
- The new and old battery can be mixed at any time

Safe and Reliable

- 314Ah, LFP battery cell
- Redundancy design
- Built-in Heating Film and Aerosol
- Soft-parallel technology enables longer battery life



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Energy Storage System Working Mode

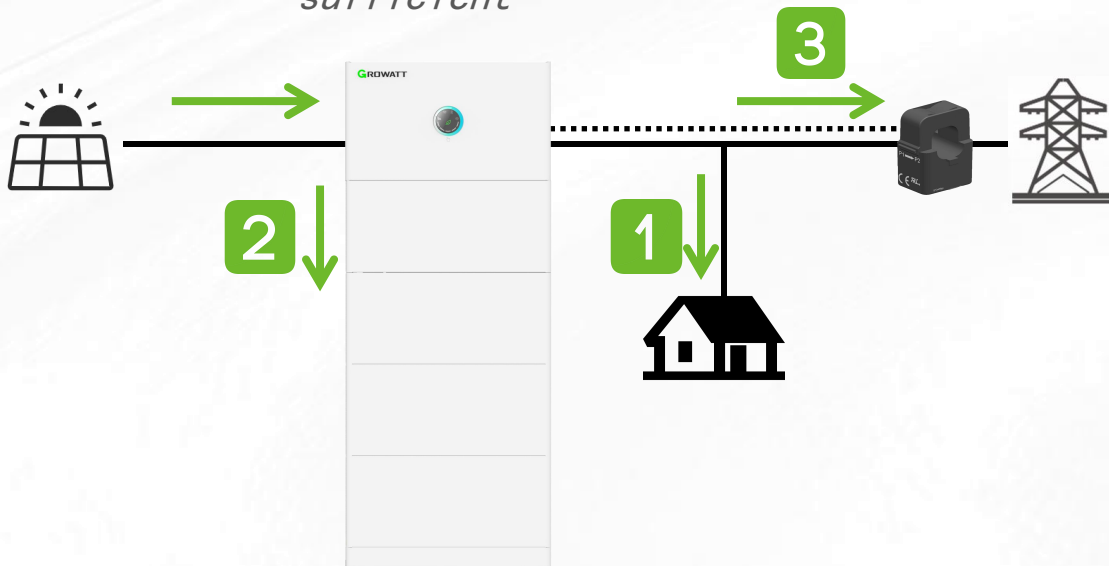
Self-Consumption Mode (Load First)

Default mode to maximize the solar energy, reduce the power imported from grid

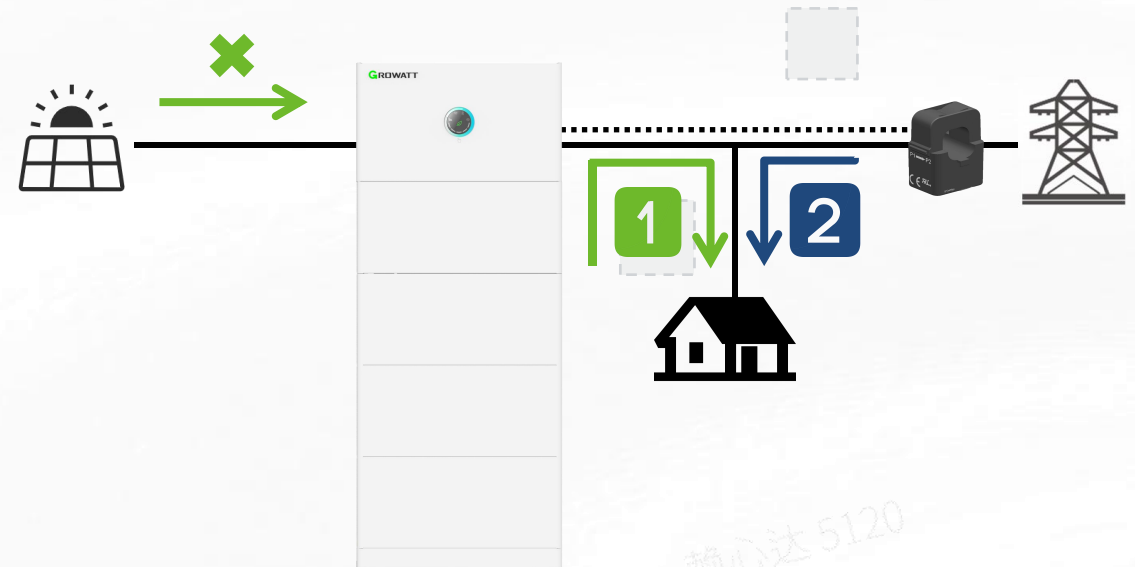
Priority: Load > Battery > Grid

How it works?

*solar power is
sufficient*



solar power is insufficient



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Energy Storage System Working Mode

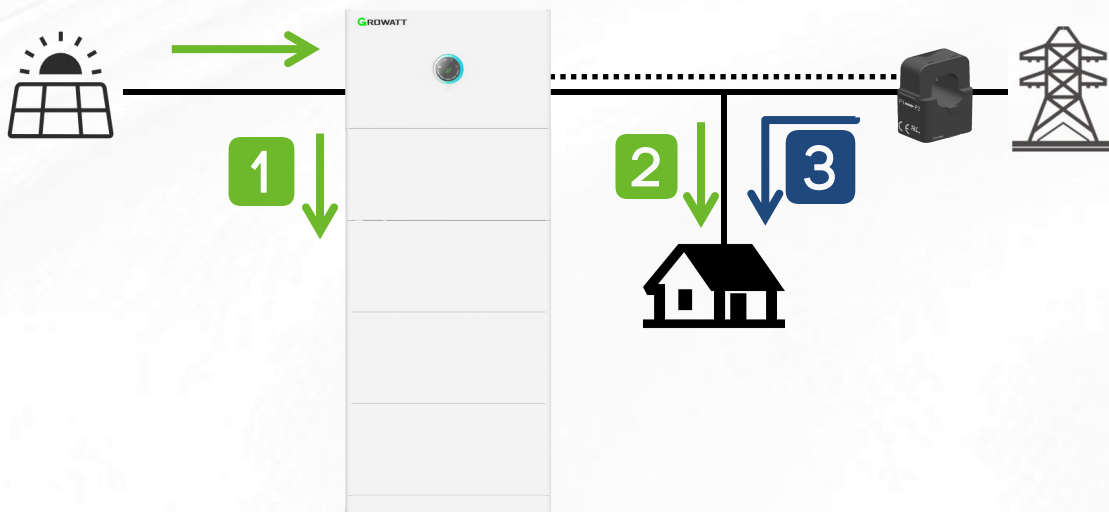
TOU Charging Mode (Battery First)

High priority to charge the battery being used in the application of TOU tariff

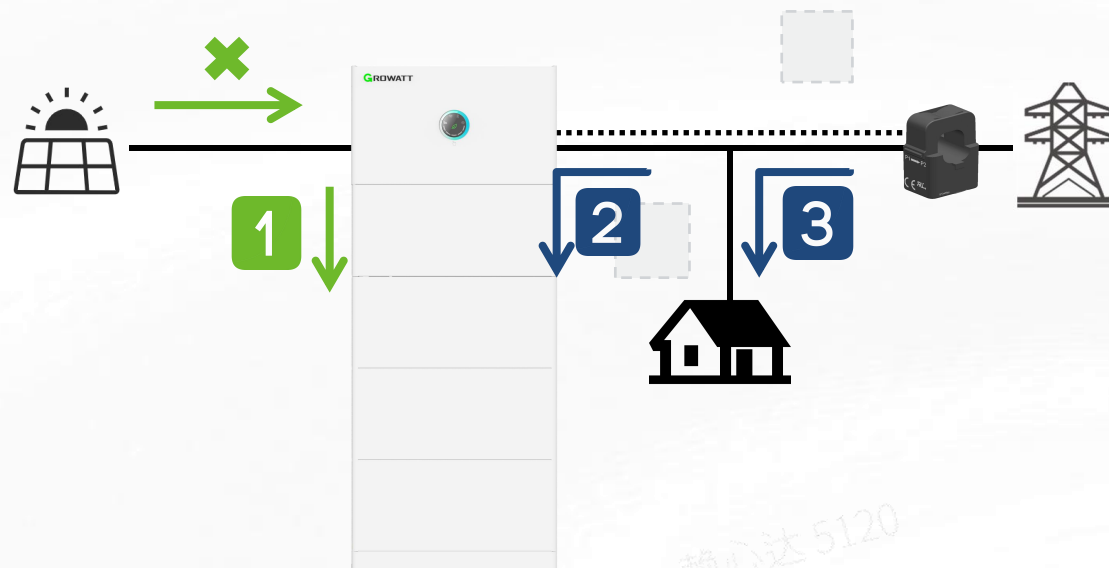
Priority: Battery > Load > Grid

How it works?

*solar power is
sufficient*



solar power is insufficient



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Energy Storage System Working Mode

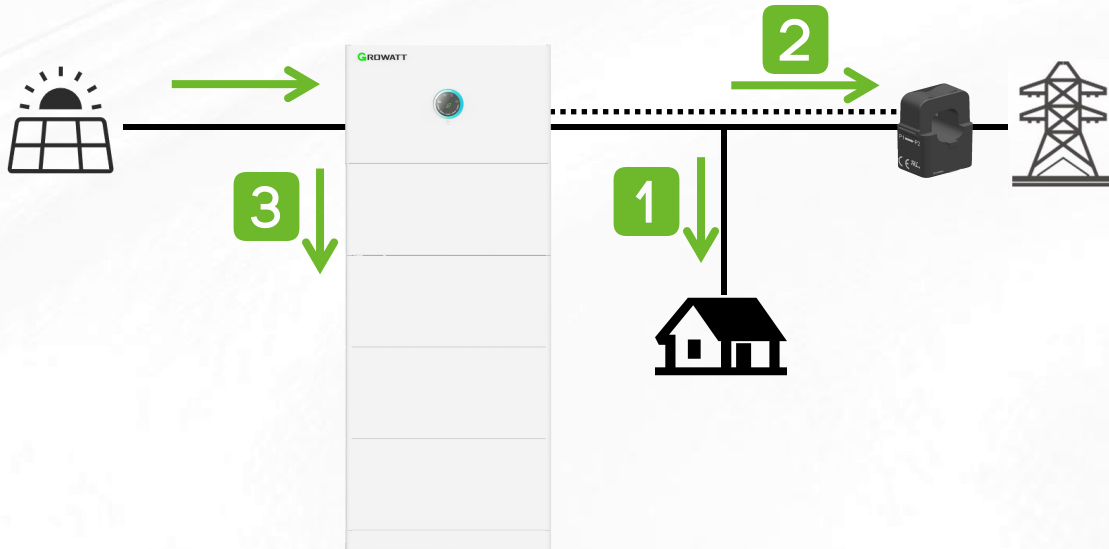
TOU Dis-Charging Mode (Grid First)

Export the energy into grid in response to the grid scheduling

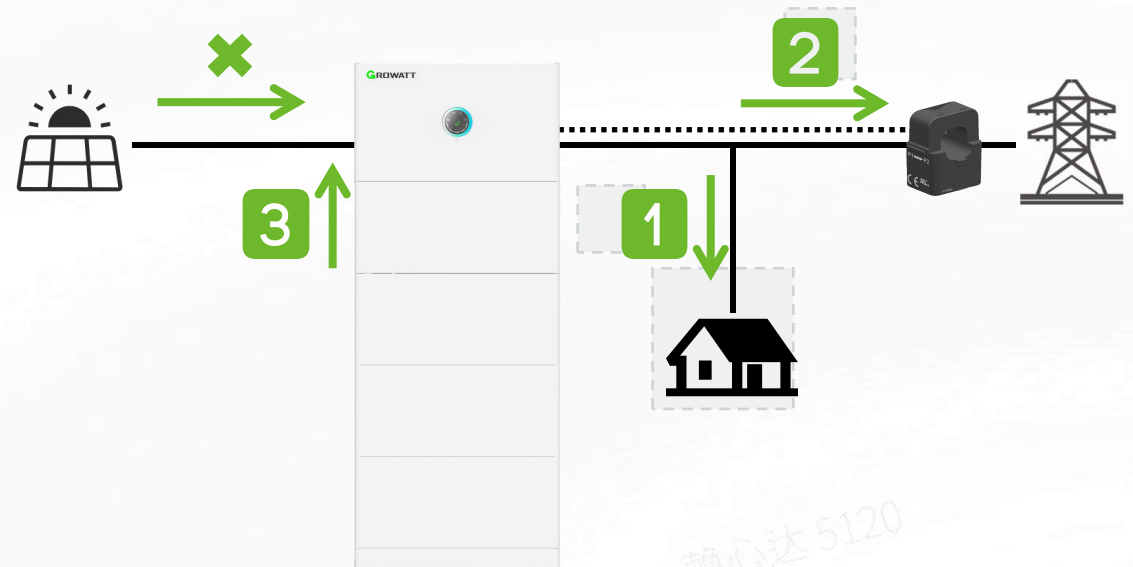
Priority: Load > Grid > Battery

How it works?

*solar power is
sufficient*



solar power is insufficient

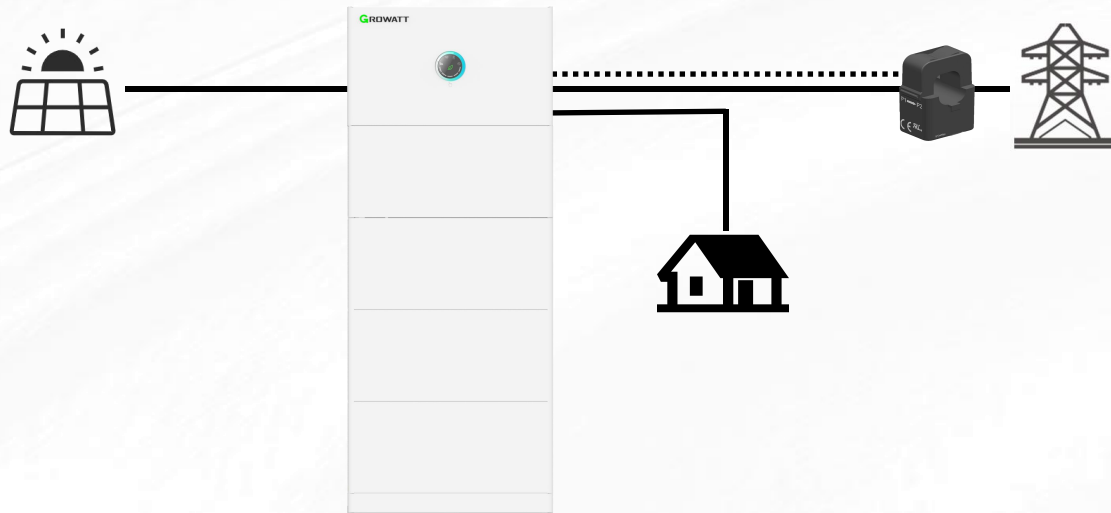


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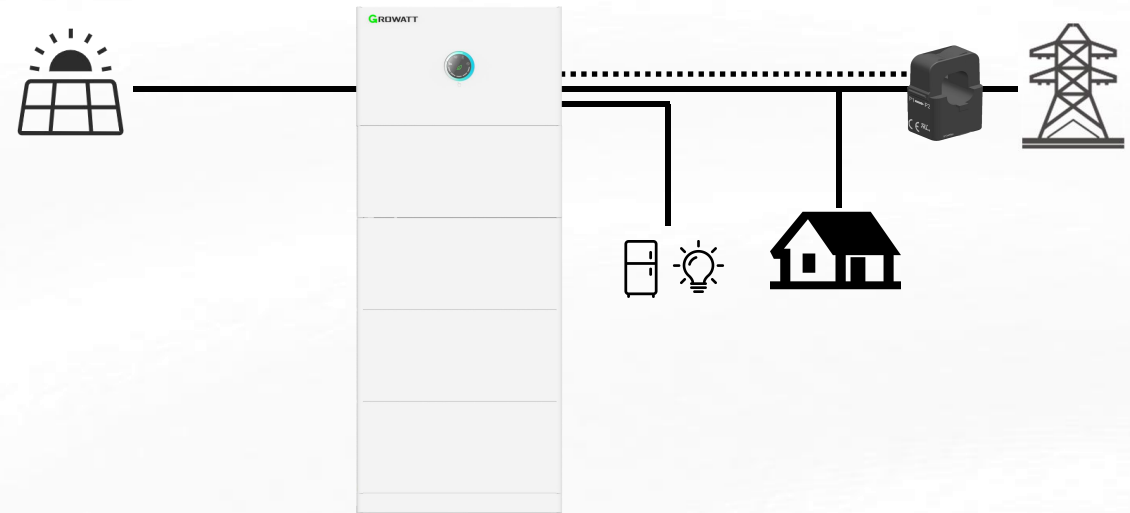
Backup Function

MINA & MODA series are with backup function integrated. There are 2 application scenarios:

- 1) Whole-home backup.
- 2) Backup for partial loads.



Backup for Whole-home



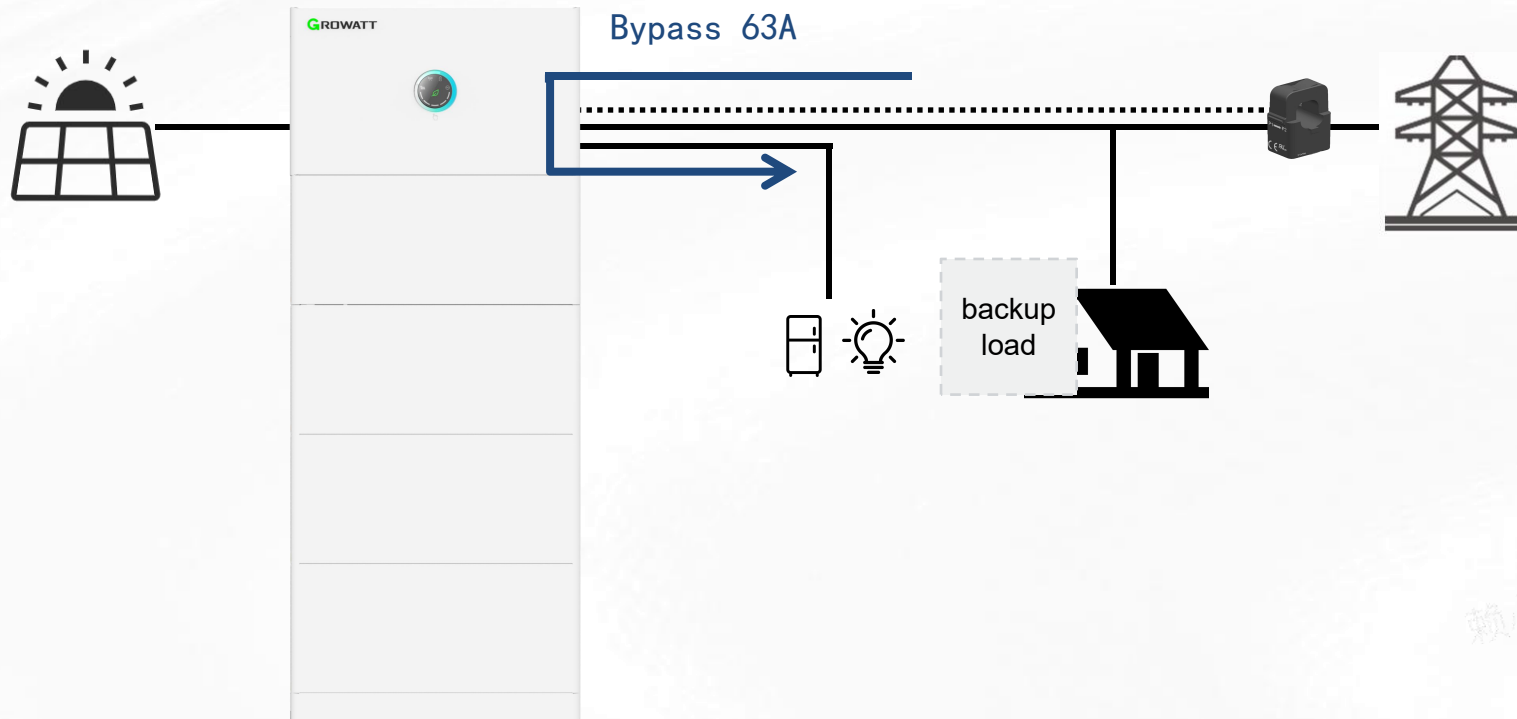
Backup for partial loads

Note: The maximum power of the system in off-grid mode depends on the ESS capacity and the inverter off-grid power. If load excess the maimum off-grid power, the system will shut down due to overload.

Bypass Function

The MINA & MODA series integrate a 63A bypass, enabling backup loads to be supplied directly by the grid when required.

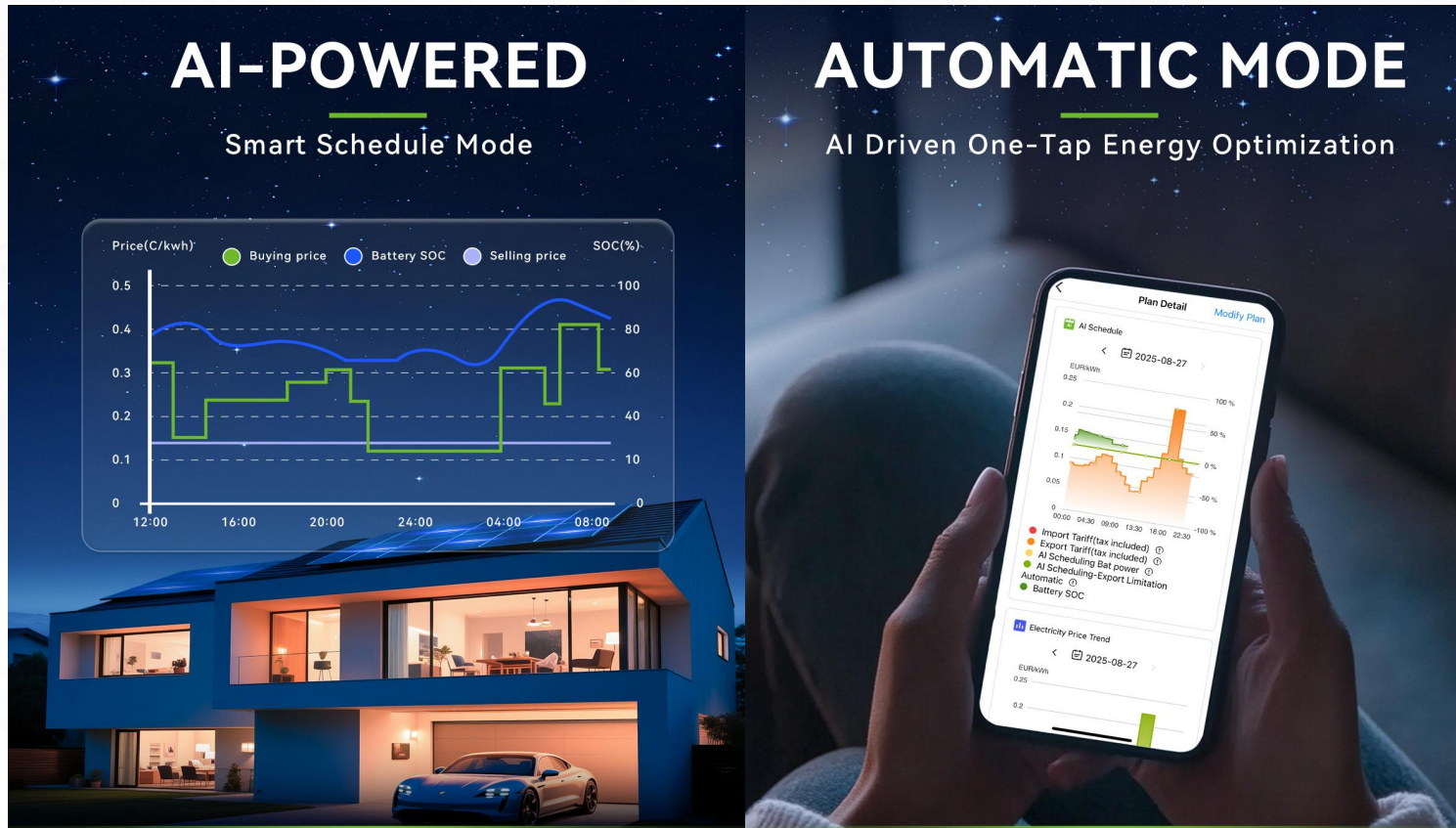
- 1) Enables grid supply to backup loads.
- 2) Automatically switches to bypass mode when the inverter is abnormal, ensuring uninterrupted power supply to backup loads.



AI-Powered Smart Scheduling Mode for Higher Savings

MINA & MODA series supports the AI-Powered Smart Scheduling Mode for flexible energy tariff.

The system has the possibility to schedule energy consumption based on the energy price:



1) Use energy with lower price for home consumption and battery charging, discharge when high price.

2) Avoid penalty due to power exportation to grid during negative electricity pricing period.

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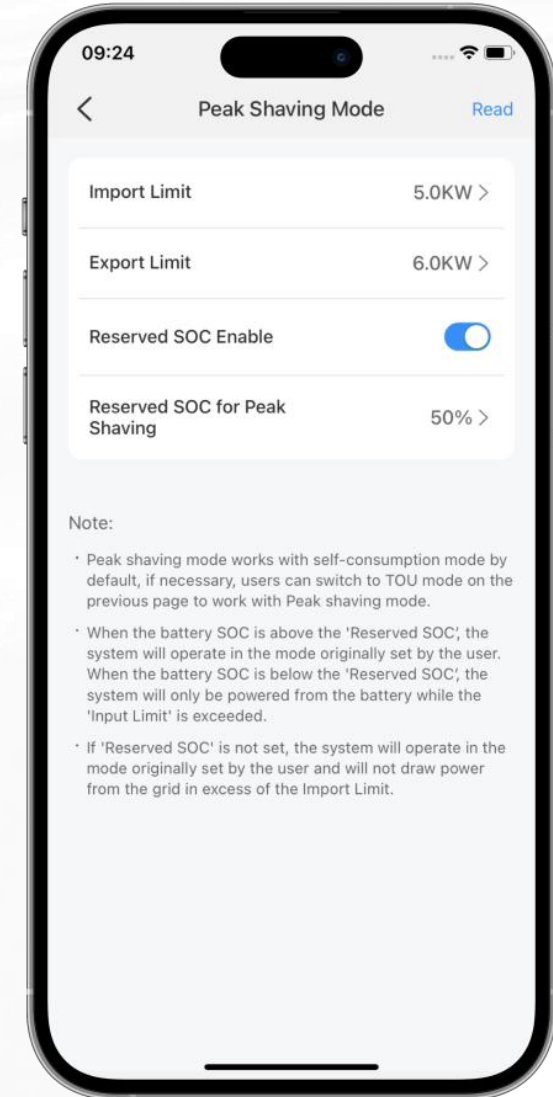
Peak Shaving for Lower Energy Costs

Import Limit

When PV energy is insufficient and the load power gradually increases beyond the import limit, the battery begins to discharge to meet the load's demand. At this point, the load primarily draws power from the grid, while any excess demand beyond the limit is supplied by the battery.

Reserved SOC for Peak Shaving

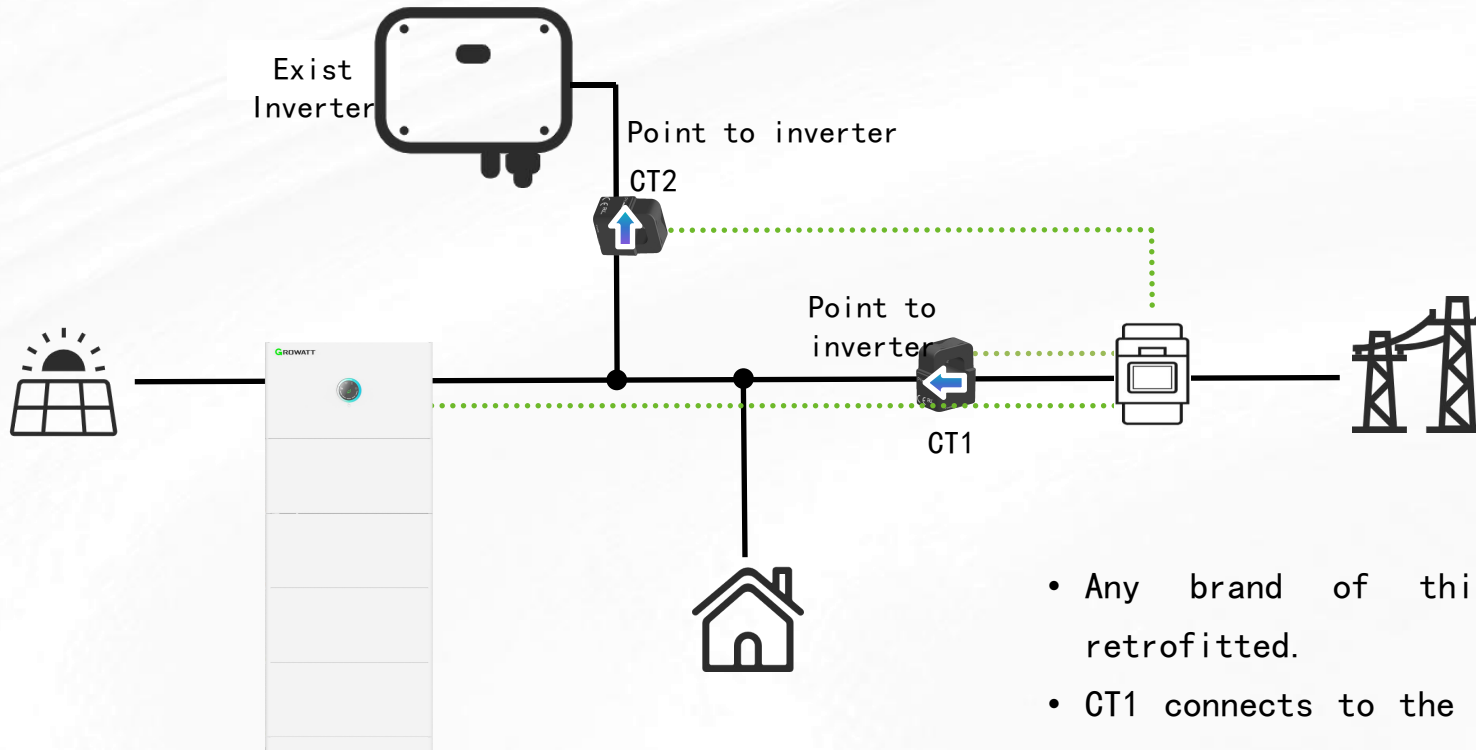
Setting a Reserved SOC for peak shaving based on load electricity usage helps reduce power drawn from the grid during peak hours. If the household's overall consumption is higher, it is recommended that to set a higher value for more flexible peak shaving capability.



Retrofit solution for existing systems

MINA & MODA series support three-phase retrofit with TPM-6CT-C meter.

MINA series supports single-phase retrofit with SPM-2CT-C meter.



SPM-2CT-C (1-ph)
TPM-6CT-C (3-ph)

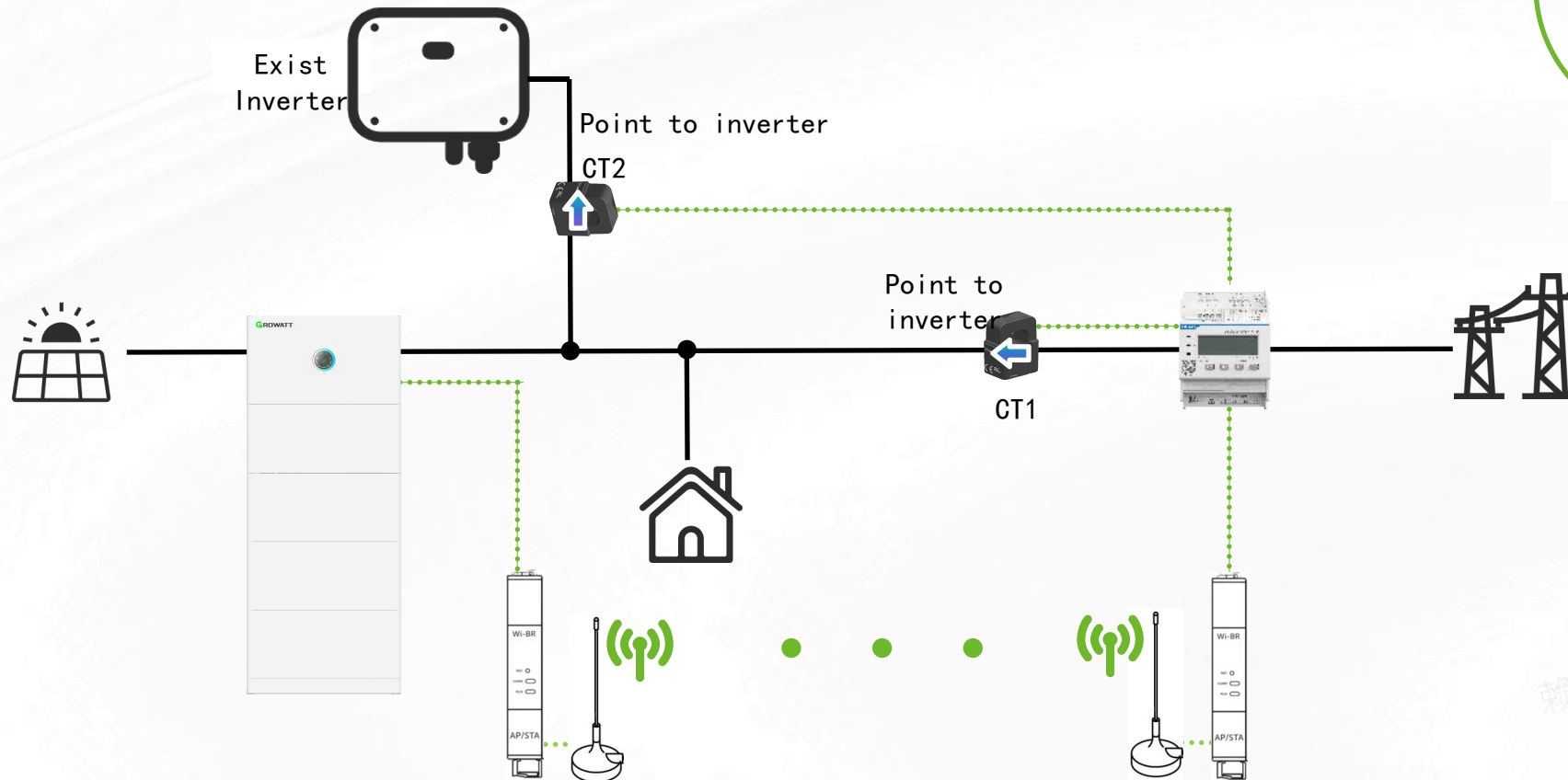
- Any brand of third-party PV system can be retrofitted.
- CT1 connects to the grid side; CT2 connects to the third-party system side.
- Supports control of newly added Growatt inverter only, not existing inverter.

Wireless Meter Solution

MINA & MODA series support wireless meter solutions for flexible installation scenarios.
Both SPM-2CT-C and TPM-6CT-C meters are compatible with the wireless bridge.



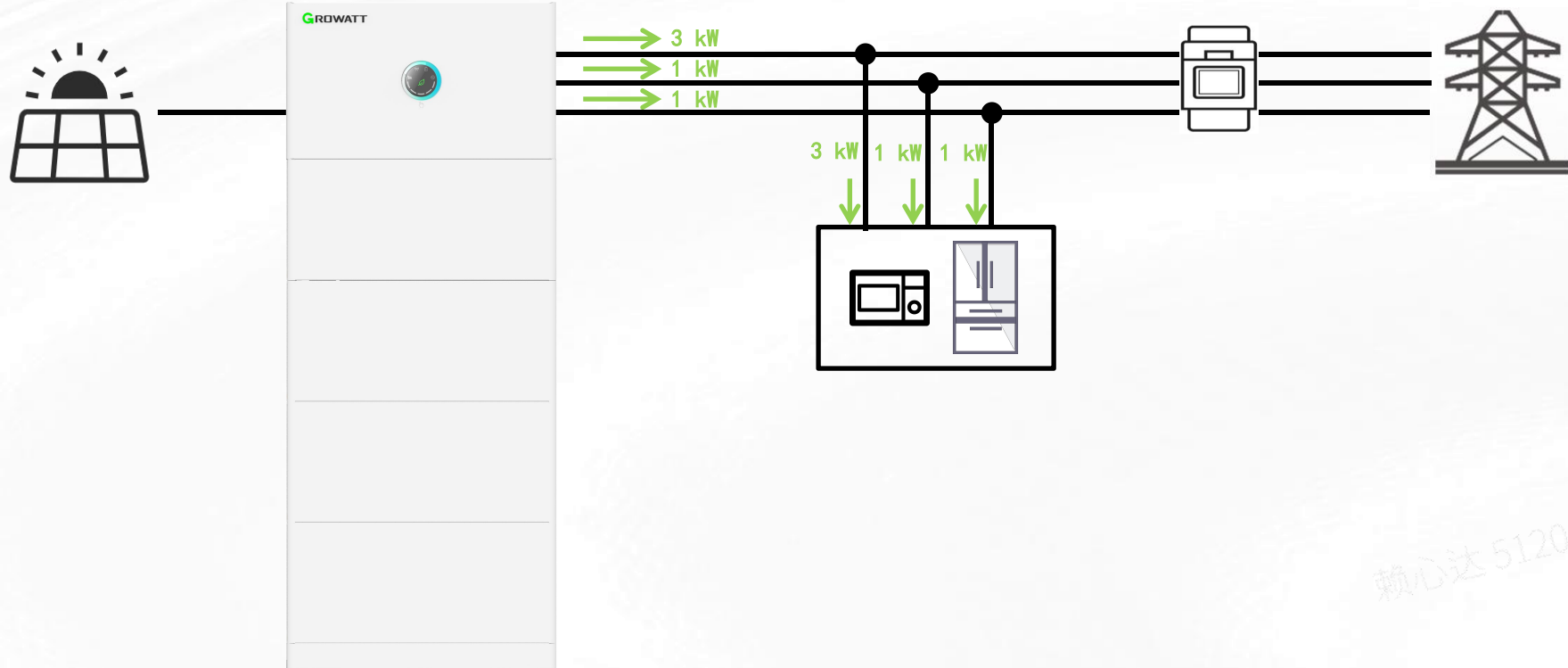
SPM-2CT-C (1-ph)
TPM-6CT-C (3-ph)



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MODA-100% Three-Phase Unbalanced Output

- The MODA series supports phase-level control.
- Correct phase-level control settings and proper phase connection of the meter are required to ensure normal system operation.



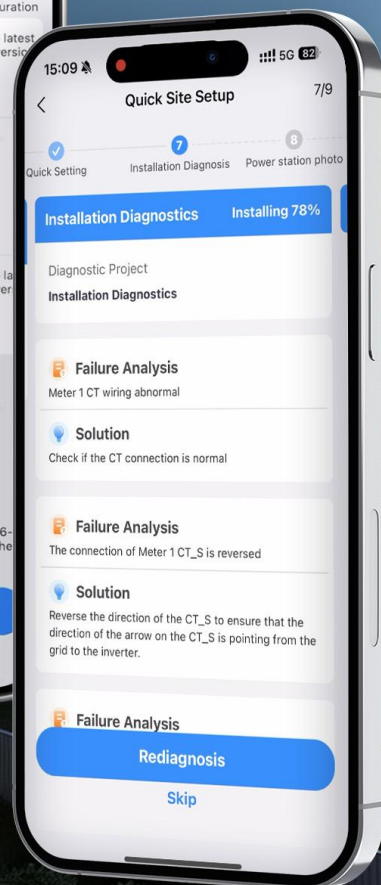
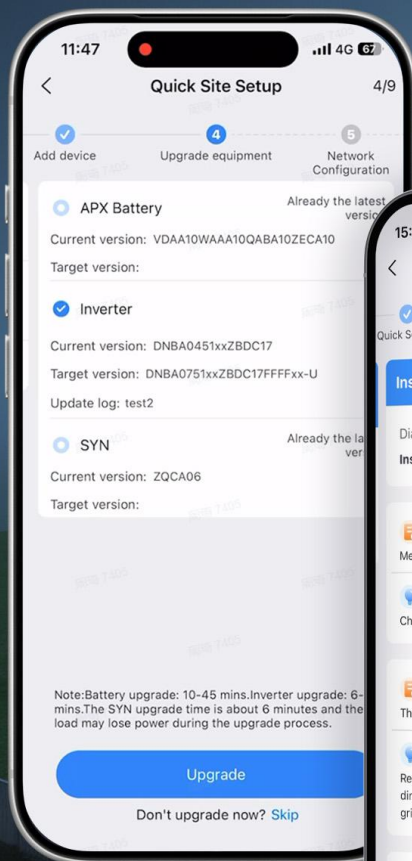
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CONTENTS

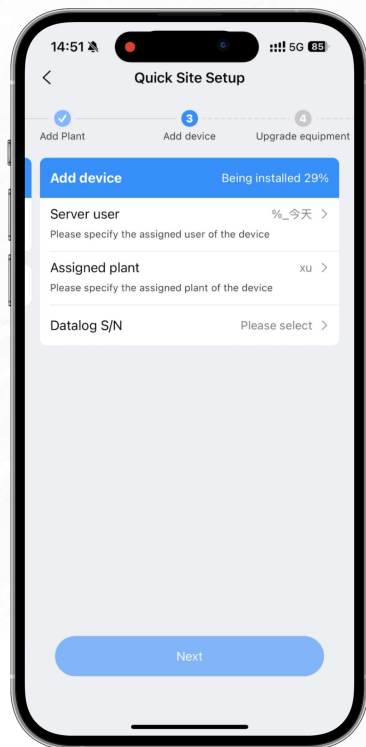
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Quick Site Setup & One-Click Diagnosis

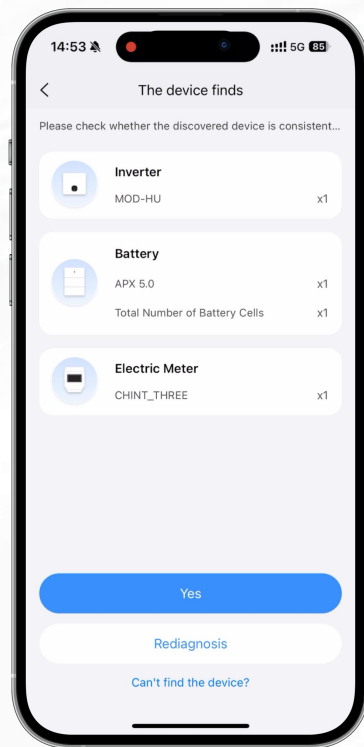
10-min rapid commissioning (Setup – Upgrade – Diagnosis)



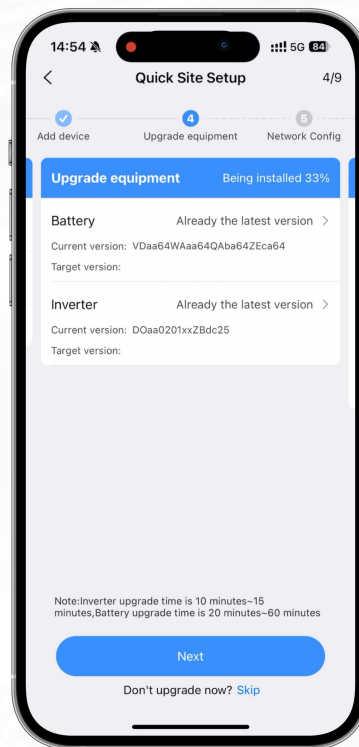
One-click setup & System Diagnostics via Shinetools



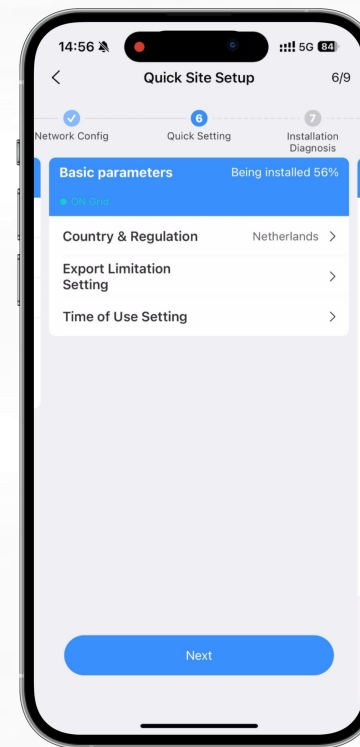
Create Account



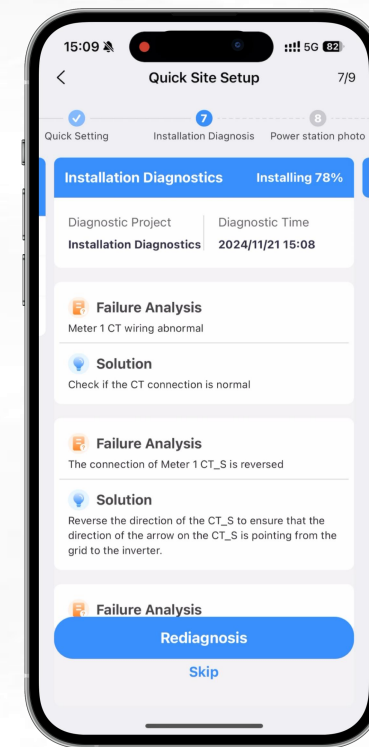
Device Discovery



Device Upgrading



Parameter Setting

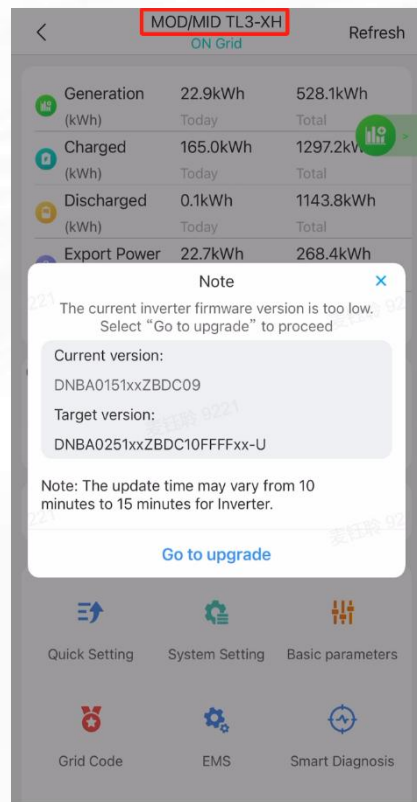


System Diagnostics

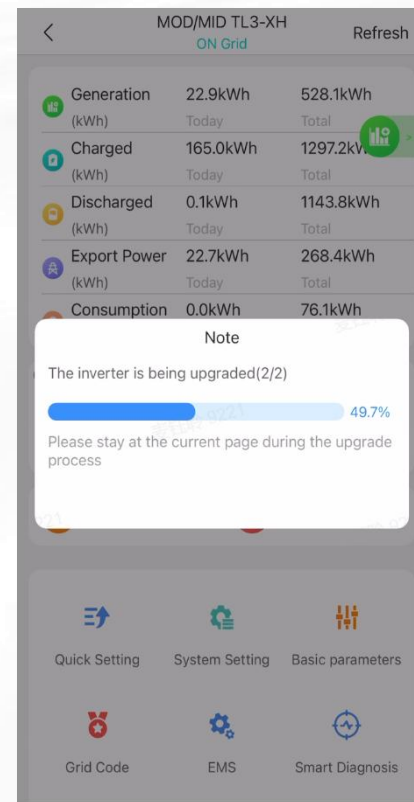
One-click upgrade via Shinetools



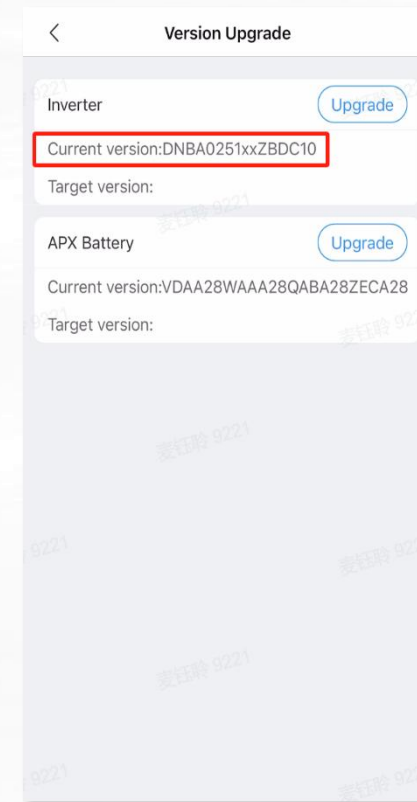
Enter the SN number of the datalogger



Automatic identification of the device model



View the upgrade process



Check the version after the upgrade is completed

One-click upgrade via OSS

GROWATT Growatt Update System Online

Your Current Location: Firmware Update > Device Update

One-click upgrade | Manual Update | Update Record

Product Type: Inverter | Device Serial Number: Please Input | Assigned User/Plant: Please Input

No.	Product Type	Device Type	Device Model	Device Serial Number	Data Logger SN	As

Search the device:
Inverter/Battery

Fill in the device SN

Update record can be checked easily,
including time, operator, progress,
original/current version...

GROWATT Growatt Update System Online

Your Current Location: Firmware Update > Device Update

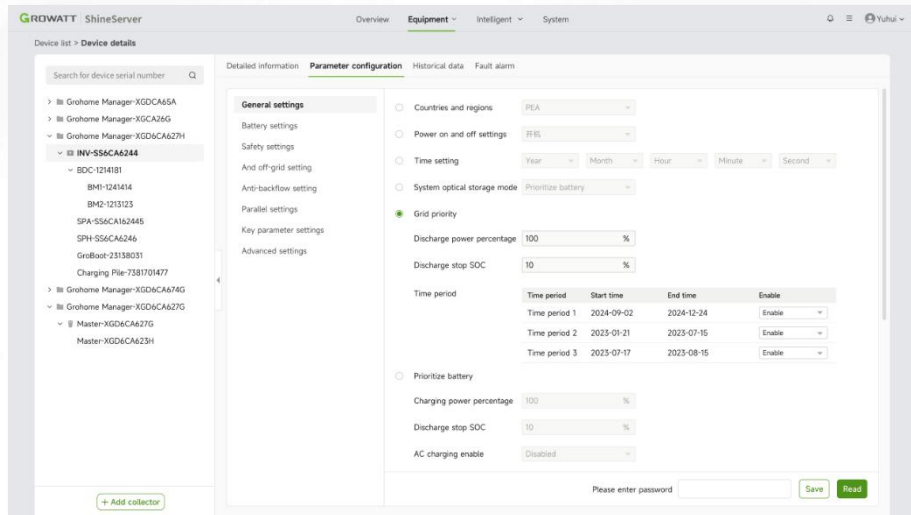
One-click upgrade | Manual Update | Update Record

Product Type: All | Device Type: All | Device Model: All

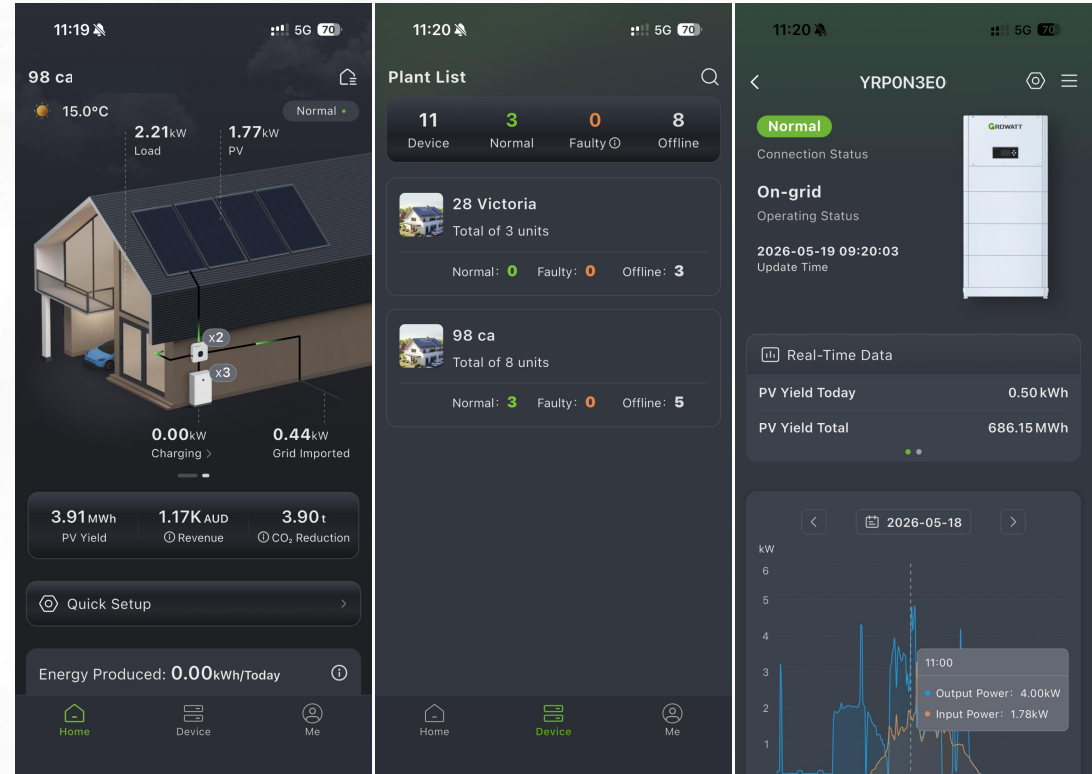
No.	Progress	Reason for upgrade	Update Result	Reason for upgrade failure
22		Customer requirement (No...	Success	
23		Testing purpose	Success	
24		Testing purpose	Success	
25		Customer requirement (No...	Success	

New Monitoring Platform

ShineServer



ShinePhone



Brand New Interface, Better Experience!

- Clear data visualization
- Refresh every 10s
- Easy TOU setting

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- 01 *Product Overview*
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Compatibility – Batteries



- MINA & MODA are compatible only with APX HV Battery 2.0.
- For All-in-one systems, no battery Master Module is required.



- APX HV battery system 2.0 is compatible with MIN-XH2 / MOD-XH BP / MOD-HU / MID-XH / MID-HU series.
- For separate systems, a battery Master Module is required.
- Single-phase and three-phase systems are compatible with the same APX 2.0 Master Module and Battery Module.



- Battery-ready PV solutions (without batteries) are not supported for MINA & MODA.
- MINA & MODA must be installed with compatible batteries.

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Compatibility – Accessories

Data logger

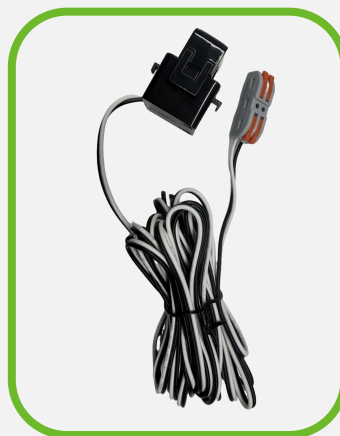


ShineWiLan-X2
(Included in
box)



Shine4G-X
(Optional)

CT & Meter



MINA : CT*1
MODA : CT*3
(Included in
box)



SPM-2CT-C (1-ph)
(Optional)
(Recommended)



TPM-6CT-C (3-ph)
(Optional)
(Recommended)

THANKS



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