

MID-HU & MID TL3-HU-L Quick Guide



Shenzhen Growatt New Energy Co.,Ltd.

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General Disclaimer

1. The content of this document is subject to change without notice owing to product updates and optimization to keep the document up to date. Unless otherwise specified, this guide does not substitute for the product labels or safety instructions in the User Manual.
2. Before installing the Inverter, read the Quick Guide carefully. For details, please see the User Manual, which can be accessed on our official website (en.growatt.com) or by scanning the QR code at the end of this guide.
3. Only qualified and trained professionals are allowed to install the inverter. Installers should be familiar with the User Manual and locally applicable regulations.
4. Check if the deliverables are intact and complete according to the packing list. Check the inverter model and inspect the appearance for any visible imperfections. If any damage is found or any component is missing, please contact Growatt or your distributor.
5. Personnel who perform electrical connections, work at heights or install the inverter must wear safety gear to avoid potential risks.
6. Follow the installation instructions specified in this guide and the User Manual strictly. Growatt shall not be liable for any device damage or personal injury resulting from failure to adhere to these precautions.

Safety disclaimer

DC side

1. The DC cables should be prepared by customers. Ensure that the cable specifications comply with local standards and requirements (recommended specifications: 5mm²~7mm²).
2. Before connecting the DC cables, ensure that the DC side voltage is within the safe range (below 36V DC) and that the inverter's DC SWITCH is in the "OFF" position.
3. Use the positive and negative metal terminals and PV connectors delivered with the inverter package. Any device damage caused by using other incompatible terminals or PV connectors is beyond the scope of warranty.
4. Check the polarity of the DC cables. If reversely connected, do not operate the DC Switch or the DC connectors at once to avoid personal injury. Wait until the solar irradiance declines at night and the PV string current is below 0.5A, then set the DC Switch to OFF and reconnect the positive and negative connectors, ensuring the correct polarity.
5. Device damage caused by improper sealing, or failure to comply with the requirements on cable installation and routing on the PV side is not covered under the warranty.

AC side (LOAD & GRID)

1. The AC cables should be prepared by customers. Do not use aluminum cables as output cables. Ensure that the cable specifications comply with local standards and requirements. Recommended specifications:

| Model | Not connected to batteries | Connected to batteries |
|--------------------|--|--|
| MID 29.9-36K-HU | 18 mm ² ~22 mm ² | 18 mm ² ~22 mm ² |
| MID 40-50K-HU | 25mm ² ~33 mm ² | 25 mm ² ~33 mm ² |
| MID 20-30KTL3-HU-L | 25mm ² ~33 mm ² | 25 mm ² ~33 mm ² |

2. An external AC circuit breaker is required to be installed on the AC side of the inverter to ensure safe disconnection from the grid. If you plan to install a circuit breaker with leakage protection, it is recommended to install a Type A or Type B RCD (Residual Current Device) with a rating of 300 mA or higher.
3. If an AC switch is used with specifications beyond local standards, regulations or the recommendation, the switch may fail to turn off in time in case of exceptions, leading to severe faults. Growatt shall not be responsible for any consequential damage.
4. Each inverter should be equipped with an AC output switch. Multiple inverters cannot share the same AC switch.
5. Ensure that the PE cable is securely connected.
6. Do not connect the neutral wire to the enclosure as a PE cable.
7. The PE point at the AC output port cannot replace the PE point on the enclosure.

Battery side

1. Before connecting to the battery, ensure that the DC switch of the battery is set to OFF.
2. Make sure all cables between the battery and the inverter are properly connected. Device damage caused by incorrect wiring is not covered under the warranty.











Communication side

1. Use network cables that comply with international standard specifications.
2. Use twisted cables for RS485 communication.

Product

1. Do not apply force to the DC SWITCH or any terminals when moving the inverter. Damage to the switch or terminals caused by improper handling is beyond the scope of delivery.
2. Do not attempt to repair, modify or disassemble the inverter by yourself. Any damage resulting from such actions is not covered under the warranty.
3. Do not block the air intake or exhaust vents of the inverter's fan.
4. Do not connect or disconnect any cables when the inverter is in operation.
5. Do not use single-core wires as the inverter's output cables.

Labels on the product

| Symbol | Explanation |
|---|--|
|  | Risk of high voltages which might lead to electric shock |
|  | Risk of fire |
|  | Risk of burns due to hot surface |
|  | Delayed discharge: High voltage exists after the battery is powered off. It takes 5 minutes to discharge to the safe voltage. |
|  | Grounding: indicates the position for connecting the PE cable |
|  | Direct Current (DC) |
|  | Alternating Current (AC) |
|  | Refer to the manual |
|  | CE marking The inverter complies with the requirements of the applicable EU directives |
|  | Do not dispose of the product together with the household waste but in accordance with the disposal regulations for electronic waste applicable at the installation site |


EU Declaration of Conformity

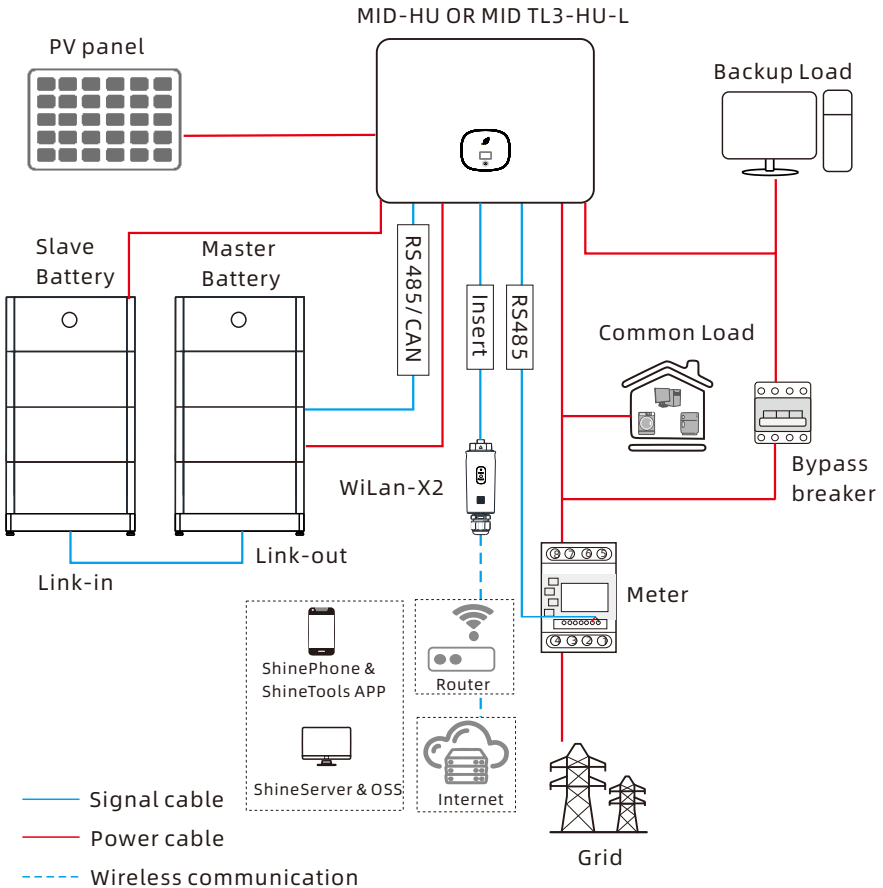
Within the scope of EU directives:

- 2014/35/EU Low Voltage Directive (LVD)
- 2014/30/EU Electromagnetic Compatibility Directive (EMC)
- 2011/65/EU RoHS Directive and its amendment (EU)2015/863

Shenzhen Growatt New Energy Co. Ltd confirms that the Growatt inverters and accessories described in this document are in compliance with the above-mentioned EU directives. The entire EU Declaration of Conformity can be found at en.growatt.com.

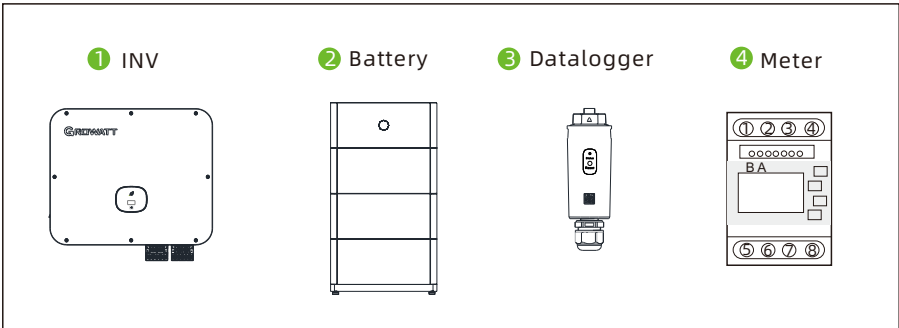
LED indication

| Symbol | Description | Inverter status | LED color | LED status |
|---|---------------------------|------------------------------------|-----------|---------------------------------------|
|  | Inverter status indicator | Standby | Green | 0.5 s on and 2 s off |
| | | Normal | Green | Steady |
| | | Fault | Red | Steady |
| | | Inverter warning/ Battery fault | Green | 0.5 s on, 0.5 s off/0.5 s on, 2 s off |
| | | Firmware burning | Yellow | 1 s on and 1 s off |



Note:

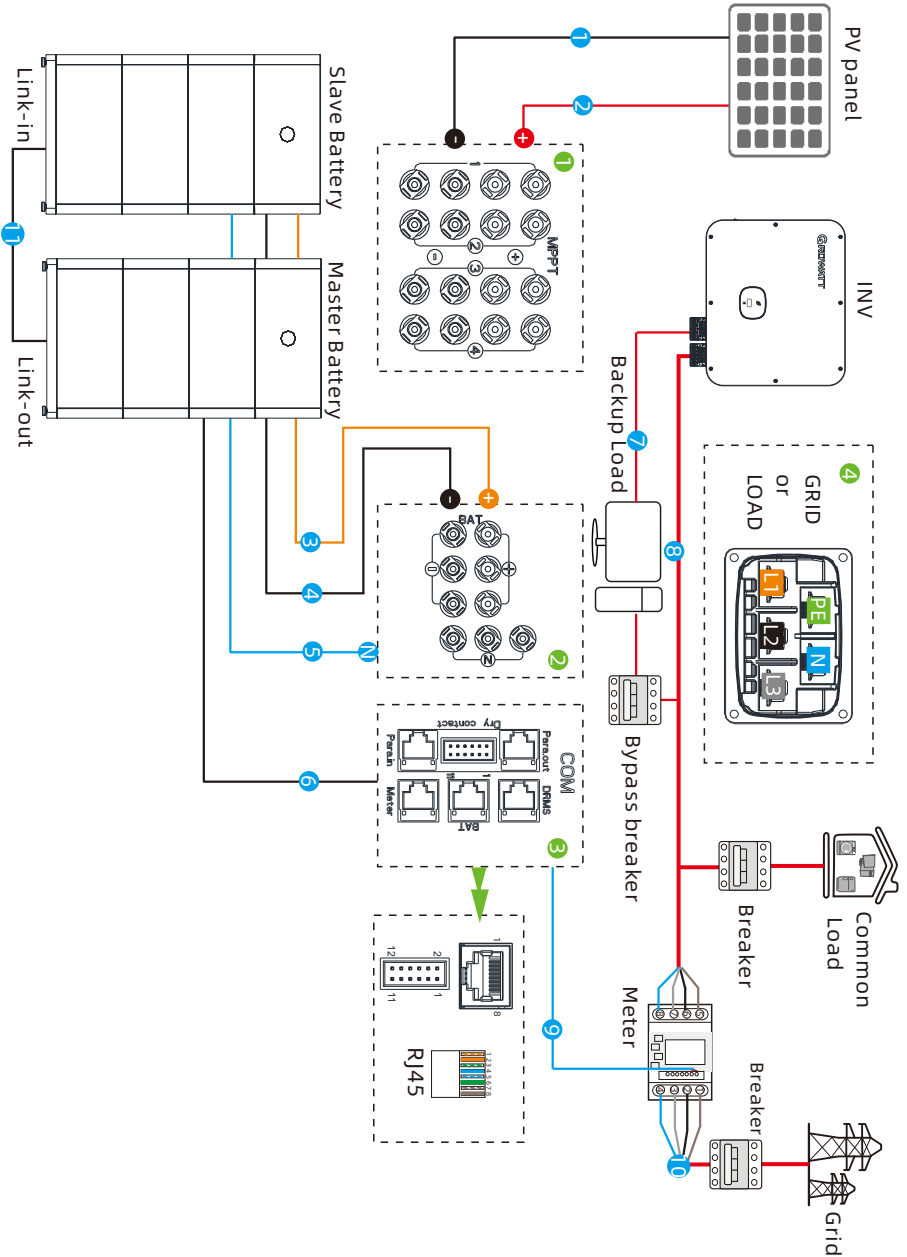
- The content of this document is continually reviewed. However, discrepancies cannot be excluded. Growatt reserves the right to make changes to the material at any time and without notice to keep the document accurate and up-to-date. This document is intended as an operation guide only. All statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.
- For details of installation requirements and electrical connections, please refer to the corresponding User Manual and Quick Guide.
- Cable colors in this guide are for reference only. Select the appropriate cables according to local cable regulations.



| System component | Model | Description |
|------------------|--|--|
| Inverter | <ul style="list-style-type: none"> • MID-HU • MID TL3-HU-L | <ul style="list-style-type: none"> • The MID-HU and MID TL3-HU-L series inverters support connection to the grid, connecting multiple inverters in parallel and output in off-grid mode. |
| Battery | APX 5.0_30.0P-S2 | <ul style="list-style-type: none"> • A maximum of 6 battery modules can be configured. • The capacity of one battery module is 5 kWh. Therefore, the maximum capacity of the system is 60 kWh. |
| Datalogger | ShineWiLan-x2 | <ul style="list-style-type: none"> • WiLan-X2 can be used to monitor the operating status of a single inverter in real time. |
| Meter | SDM630Modbus V3 | <ul style="list-style-type: none"> • To enable export limitation, working mode configuration and self-consumption monitoring, a smart meter should be installed externally. • The system will enable the meter automatically is a battery is connected; if not, you need to enable the meter manually. • You can choose CHINT or Eastron meters. If an Eastron meter is selected, you can refer to the wiring diagram below; for an CHINT meter, please refer to the user manual. |

04 Electrical Connections

System with a single inverter



 **DANGER**

Ensure that all switches on the inverter and the battery are OFF before connecting cables.

 **Note**

The RS485 signal cables must be twisted-pair cables.

| Product | No | Port | Description |
|---------|----|-----------------------------|---|
| INV1 | 1 | MPPT1/MPPT2/ MPPT3/MPPT4 | <ul style="list-style-type: none"> • MPPT input port • MID 29.9-36K-HU has 3 MPPT inputs • MID 40-50K-HU has 4 MPPT inputs • MID 20-30KTL3-HU-L has 4 MPPT inputs |
| | 2 | BAT | <ul style="list-style-type: none"> • The MID-HU / MID TL3-HU-L inverter feature two battery input channels with the BAT+/BAT-/BATN terminals. |
| | 3 | COM | <ul style="list-style-type: none"> • Inverter's communication port: DRMs; BAT COMM; Meter COMM; Parallel output; Dry contact; Parallel input |
| | 4 | PE/N/L1/L2/L3 | <ul style="list-style-type: none"> • Inverter's GRID or LOAD ports • The port layout of the grid and the load is the same. |

| No. | One End | | The Other End | |
|-----|--------------------------------|-------|---------------|-----------|
| | Component | Port | Port | Component |
| 1 | MPPT strings | MPPT- | MPPT- | INV |
| 2 | | MPPT+ | MPPT+ | |
| 3 | Slave Battery & Master Battery | BAT+ | BAT1/2/3+ | INV |
| 4 | | BAT- | BAT1/2/3- | |
| 5 | | BATN | BAT1/2/3N | |
| 6 | Master Battery | INV | COM-BAT | INV |

| No. | One End | | The Other End | |
|-----|----------------|--------------|---------------|---------------|
| | Component | Port | Port | Component |
| 7 | Off-grid load | L1 | LOAD-L1 | INV |
| | | L2 | LOAD-L2 | |
| | | L3 | LOAD-L3 | |
| | | N | LOAD-N | |
| | | PE | LOAD-PE | |
| 8 | INV | GRID-L1 | 5 | Eastron meter |
| | | GRID-L2 | 6 | |
| | | GRID-L3 | 7 | |
| | | GRID-N | 8 | |
| 9 | INV | COM-Meter(1) | B | Eastron meter |
| | | COM-Meter(5) | A | |
| 10 | Eastron meter | 1 | L1 | GRID |
| | | 2 | L2 | |
| | | 3 | L3 | |
| | | 4 | N | |
| 11 | Master Battery | Link-out | Link-in | Slave Battery |

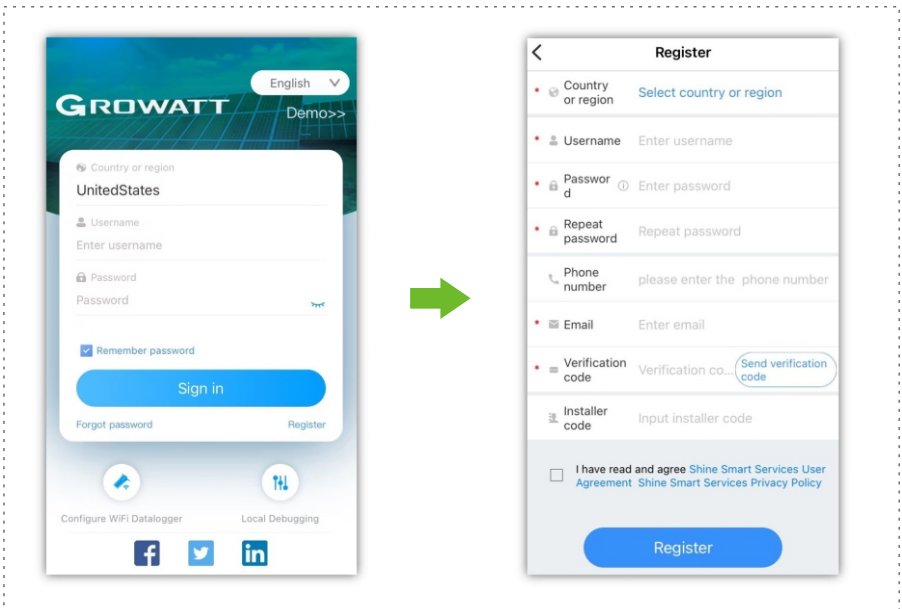
- Download the ShinePhone APP. You can scan the QR code to download ShinePhone, or search for ShinePhone in the Apple Store or Google Play to download it.
- Log in with your account or create a new account
- Create a plant
- Add a data logger and configure the network
- Check the operating status of the plant



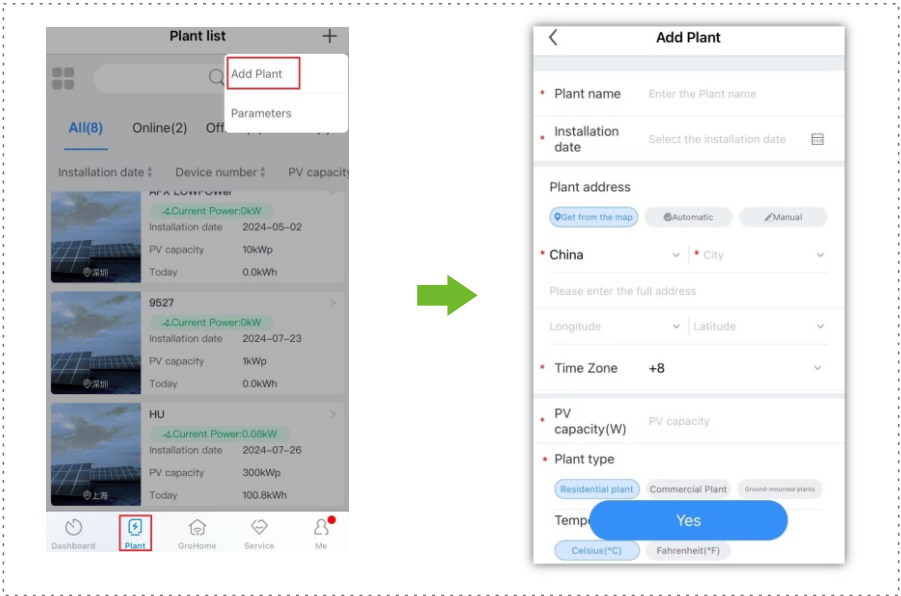
[Android & iOS]

Create a plant

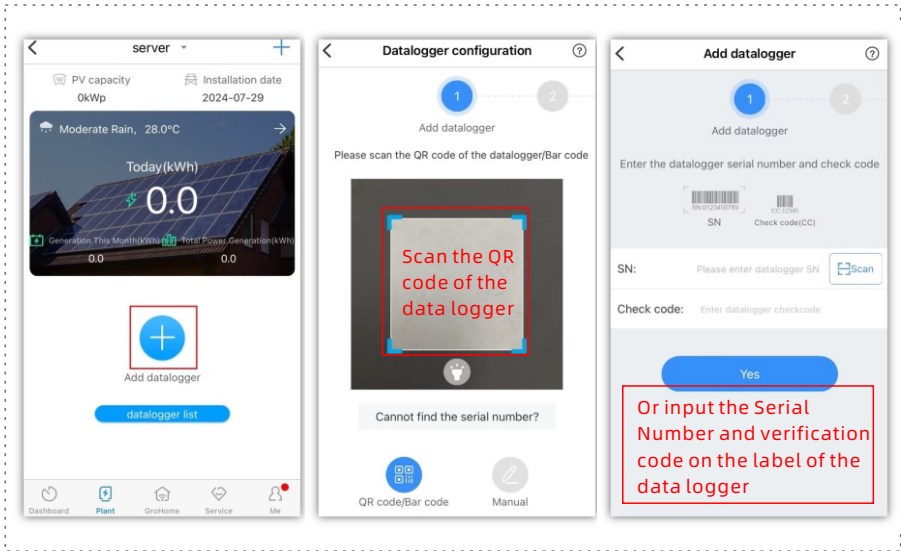
Fill in the information, then tap Create account.

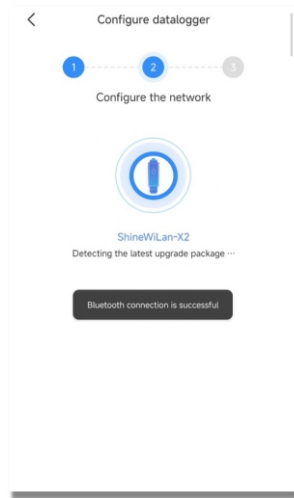
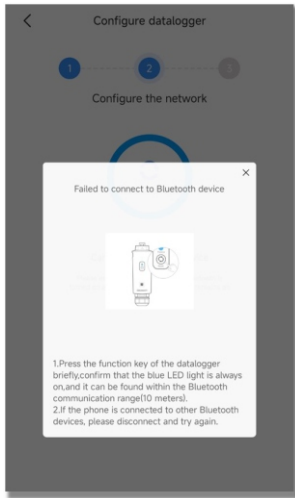


Create a new plant when creating an account or Tap Plant > tap Add Plant > fill in the information > tap Done.

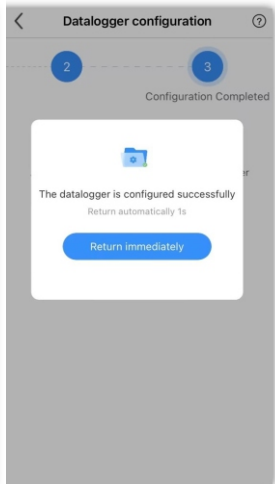
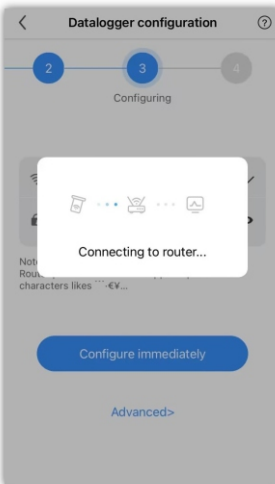
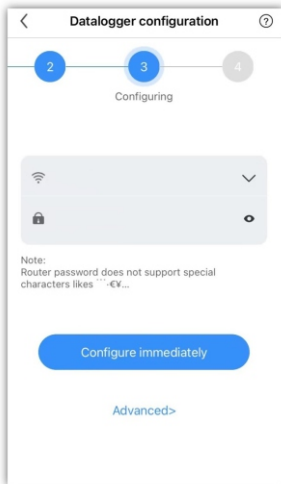


Add a data logger and configure the network

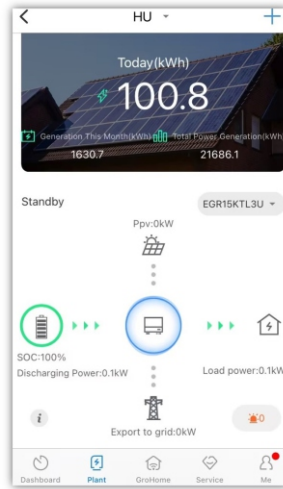




Add a data logger and configure the network



Check the operating status of the plant



You can scan the QR code below to access the corresponding manual



[MID-HU & MID TL3-HU-L]



[Battery]



[ShineWiLan-X2]

Find contact info for worldwide after-sales service at <https://en.growatt.com/support/contact>.

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For local customer support, please visit <https://en.growatt.com/support/contact>





Download
Manual

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