

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



Shenzhen Growatt New Energy Co.,Ltd.

Contents

1 Safety precautions	1
2 Networking	5
3 Product appearance	6
4 Electrical Connections	7
5 Commissioning on the APP	10
6 Reference documents	14
7 Contact Us	15

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 not covered under the 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 cause 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 not covered under the warranty.
- 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

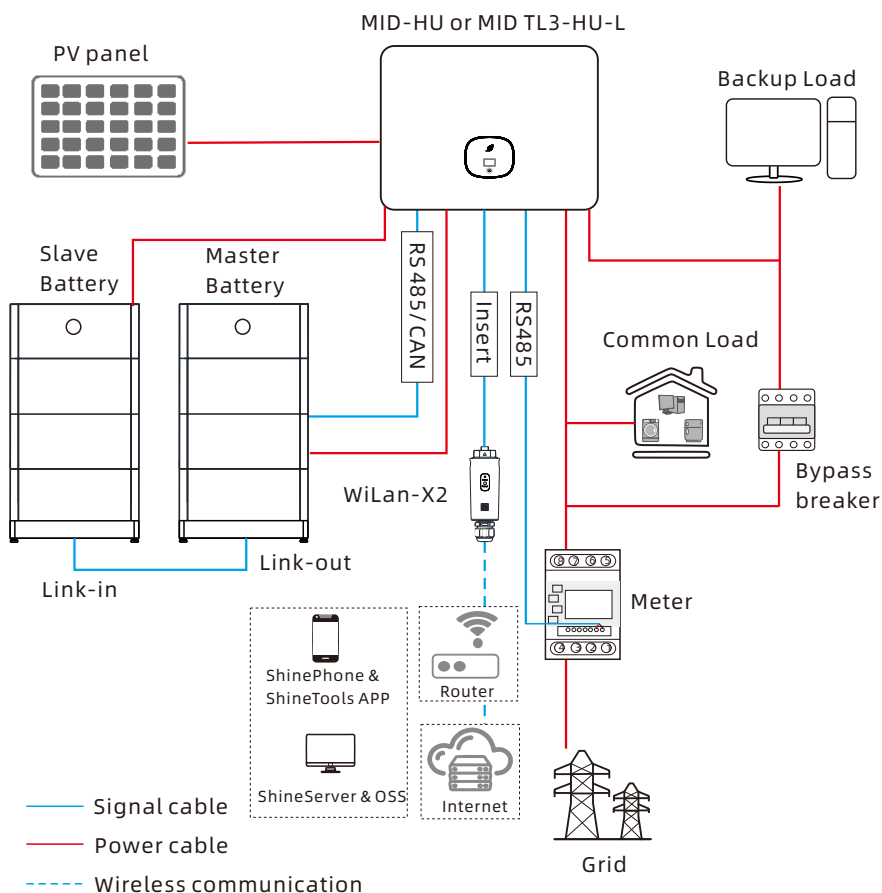
Within the scope of EU directives:

- 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.

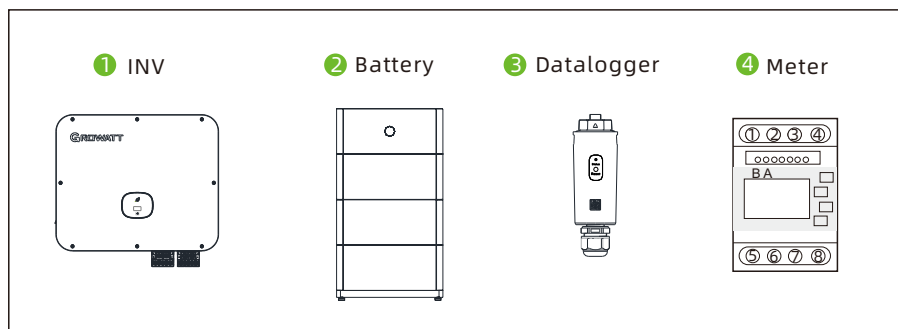
LED indication

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



Note:

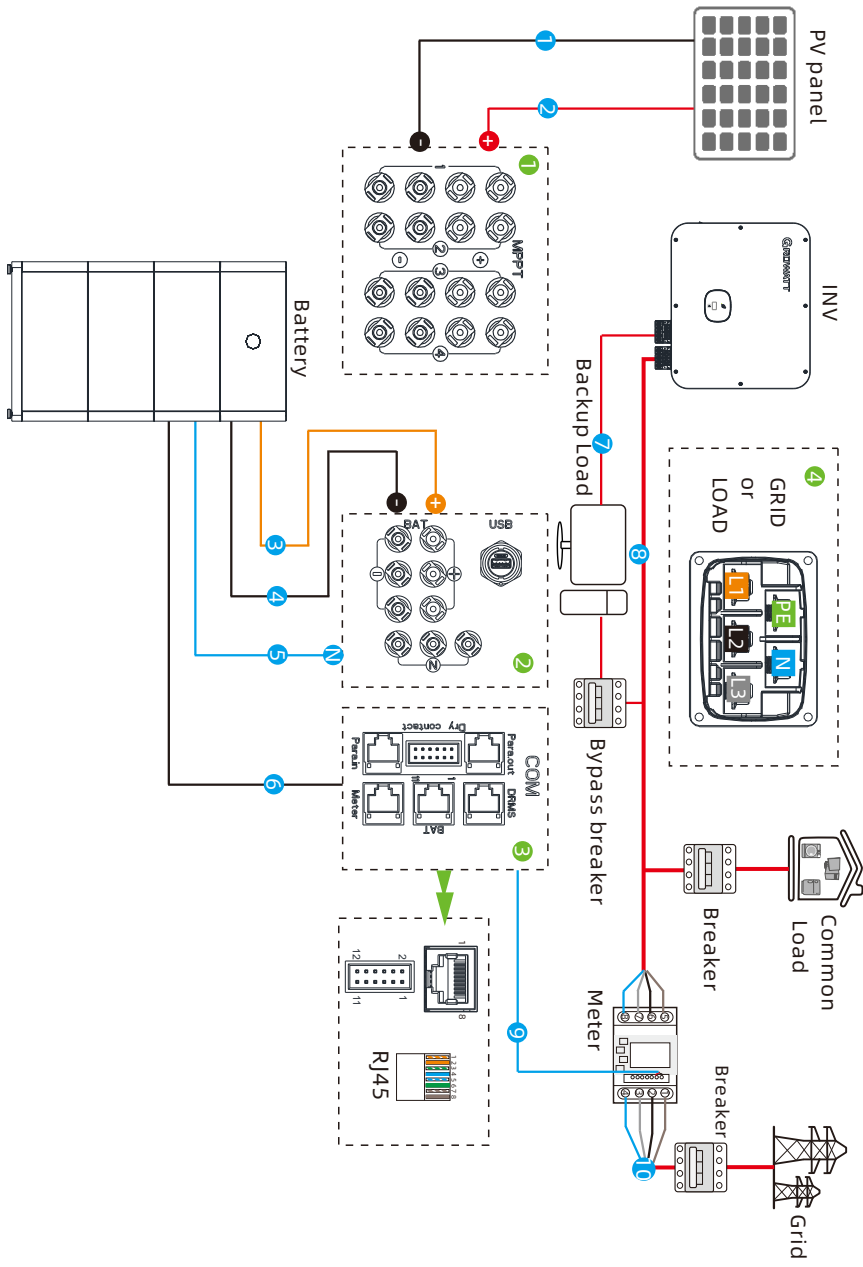
- The content of this document is continually reviewed. However, discrepancies cannot be excluded. Growatt reserves the right to make changes to the material at any time and without notice to keep the document accurate and up-to-date. This document is intended as an operation guide only. All statements, 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	- MID-HU - MID TL3-HU-L	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	- 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	WiLan-X2 can be used to monitor the operating status of a single inverter in real time.
Meter	SDM630Modbus V3 DTSU666/3*220	- For enable export limitation, working mode configuration and self-consumption monitoring, a smart meter should be installed externally. - The system will enable the meter automatically if 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.
External connection ports of the inverter.

Product	No.	Port	Description
INV	1	MPPT1/MPPT2/ MPPT3/MPPT4	• 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	• The MID-HU/MID TL3-HU-L inverter feature three battery input channels with the BAT+/BAT-/BATN terminals. When matching APX HV Battery, only two clusters can be connected at most.
	3	COM	• DRMS; BAT (Battery); Meter; Parallel output; Dry contact; Parallel input.
	4	PE/N/L1/L2/L3	• Inverter's GRID or LOAD ports. • The port layout of the grid and the load is the same.

Connection of inverter to external devices.

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

No.	One End		The Other End	
	Component	Port	Port	Component
7	Backup 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	

Note(*):

It is the first and fifth pins of the Meter interface. If you are using CHINT meter, please refer to the user manual.

- 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 datalogger and configure the network
- Check the operating status of the plant



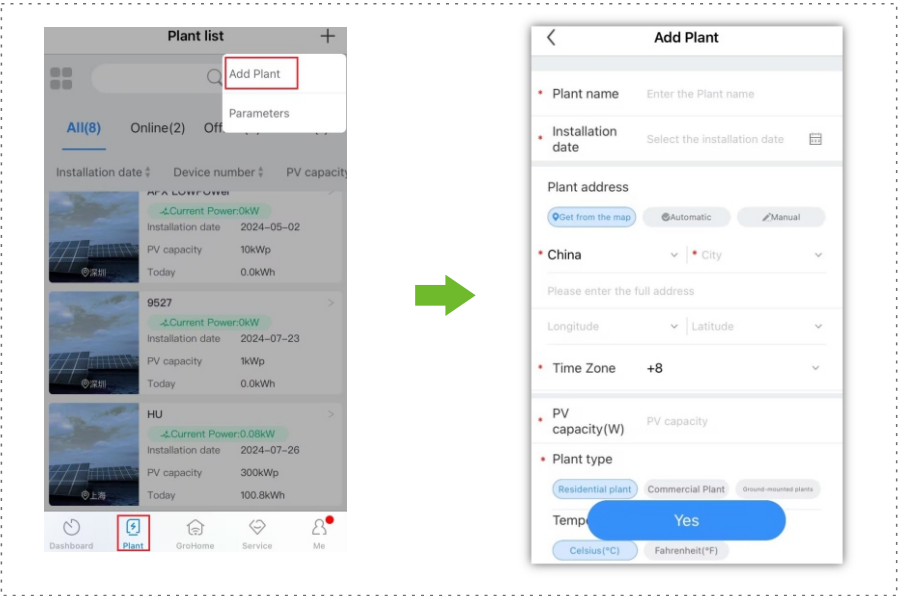
[Android & iOS]

Create a plant

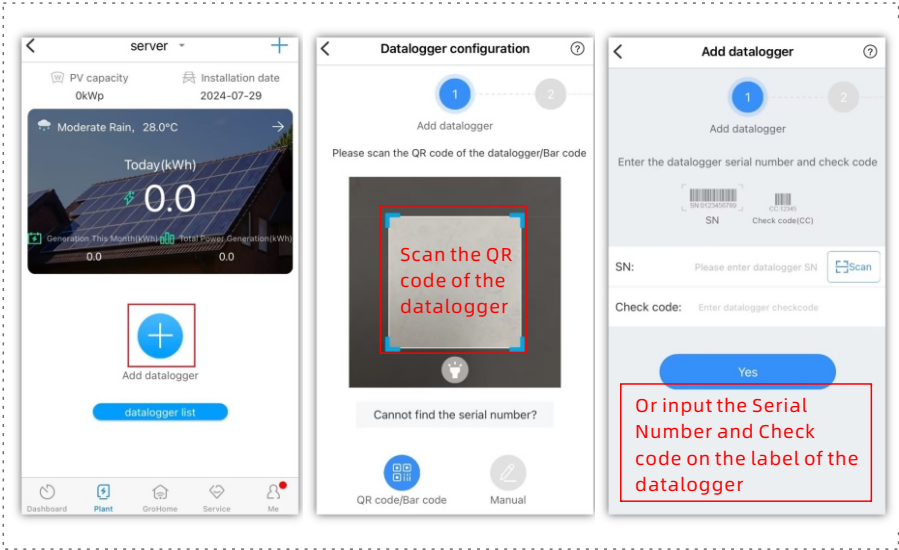
Fill in the information, then tap Register.

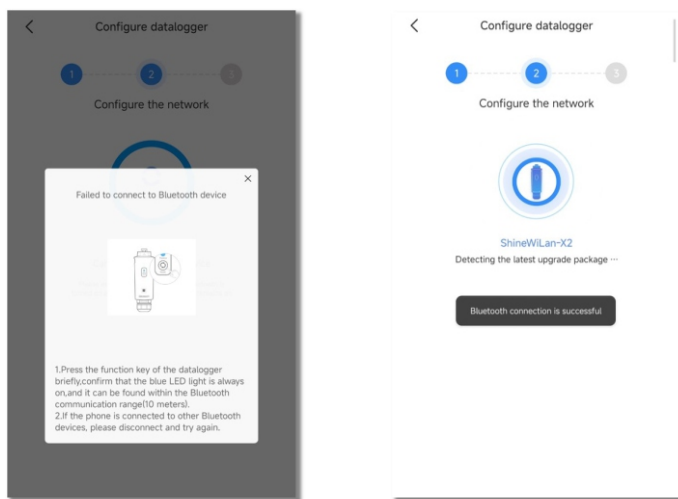


Create a new plant when creating an account or Tap Plant > tap Add Plant > fill in the information > Yes.

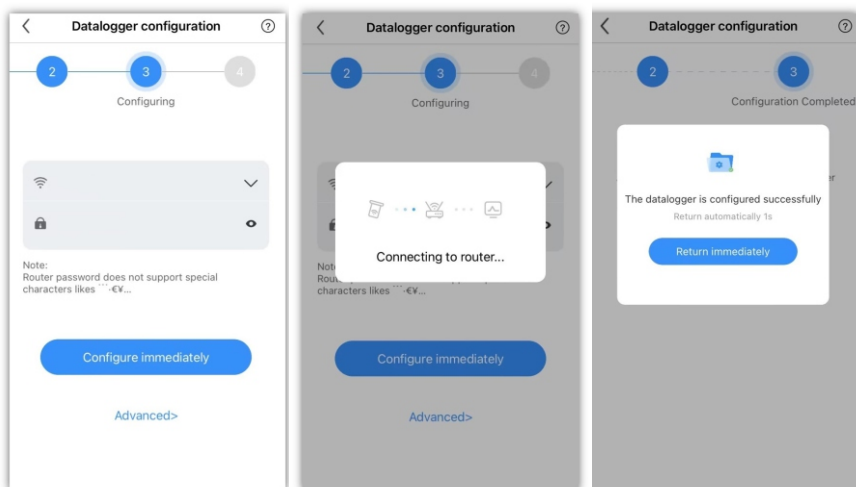


Add a data logger and configure the network





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>.

Shenzhen Growatt New Energy Co., Ltd.

4-13/F, Building A, Sino-German (Europe) Industrial Park,
Hangcheng Blvd, Bao'an District, Shenzhen, China

E service@growatt.com

W en.growatt.com

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



Download
Manual



Growatt New Energy

Shenzhen Growatt New Energy Co., Ltd.

4-13/F, Building A, Sino-German (Europe) Industrial Park,
Hangcheng Blvd, Bao'an District, Shenzhen, China

E service@growatt.com

W en.growatt.com

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

GR-UM-484-A-04 (044.0147204)