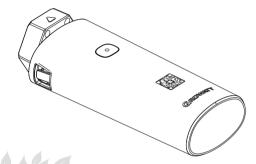
GROWATT

Shine4G-X User Manual



Disclaimer: Due to product upgrade or other reasons, the contents of this manual will be updated without notice to the user.

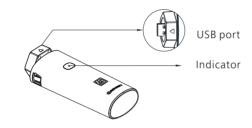
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1. Product Overview

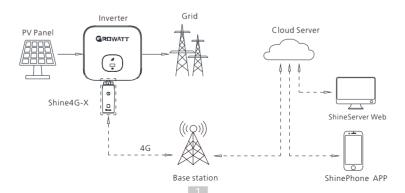
Shine4G-X is compatible with all on-grid inverters with USB port, which enables remote monitoring and maintenance of PV systems through 4G connection.

- > Support mobile APP and server web page monitoring
- > Support local commissioning and firmware upgrade
- > Supports local data saving and break point retransmission

2. Product Appearance



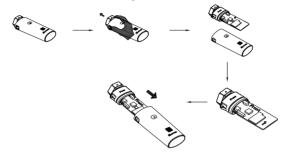
3. System Diagram



4.Installation and configuration

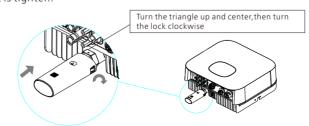
4.1 SIM card installation

- 1. Use finger to press the hook on the both sides of datalogger, remove the top cover and circuit board from the main body case;
- 2.Gently press the SIM card until the SIM card is inserted into the card slot;
- 3. Put back the circuit board and top cover, when hear the "click" means the top cover fixed with main body.



4.2 Installation instructions

- 1. Rotate the USB cover of the photovoltaic device counterclockwise;
- 2.Rotate the datalogger locker on the upper, make sure the triangle is centered on the front:
- 3. Connect the datalogger to the inverter USB port, make sure the triangle is on the front side, press the the locker and rotate clockwise until it is tighten.



4.3 Turn on inverter and check Shine4G-X state

After installing the Shine4G-X, turn on the inverter. When install the Shine4G-X for the first time, the indicate light will flash red. when the communication between server and inverter is established, it will flash blue. The following is the status description of LED lights:

| LED Flashing status | Working status |
|---------------------|---|
| LED off | Communication abnormal |
| Red LED flash | Communication with inverter is good and it is connecting to server now |
| Green LED flash | The communication with inverter is abnormal and the communication with server is good |
| Blue LED flash | Communication good |

4.3 Data logger configuration

1.Scan the QR code below to download ShinePhone, also you can search ShinePhone in Apple Store or Google Play, download and install it 2.After the APP is installed, you can follow the steps prompted on the APP interface to complete the datalogger configuration and build the PV plant. If there is any doubt in the configuration process, please refer to

plant. If there is any doubt in the configuration process, please refer to the ${\rm Shine4G-X}$ Configuration Guide ${\rm Shine4G-X}$, which can be downloaded by scanning the QR code.



[ShinePhone APP]



[Shine4G-X Configuration Guide]

4.5 Quick troubleshooting

| LED status | Working status | Troubleshooting |
|-------------------------|---|---|
| Blue LED flash | Communication good | Normal working state |
| Red LED flash | Communication with inverter is good and it is connecting to server now | If the red light flash for a long time, please check if the domain name and the port information is right or not |
| Green LED flash | The communication with inverter is abnormal and the communication with server is good | Please check the connection between inverter and datalogger |
| Blue LED normally on | Datalogger abnormal | Change another datalogger |
| Red LED normally on | SIM card arrears or no signal | Check SIM card status |
| Green LED normally on | Failed to read SIM card | Check if the SIM card loose or damaged |
| LED off | Communication abnormal | 1.Check connection between inverter and datalogger 2.Please check the domain name and the port information |

5. Specification

| Туре | ltem | Parameter |
|-----------------------|-------------------|-----------------|
| General parameters | Dimensions(W/H/D) | 47mm/122mm/32mm |
| | Weight | 116g |
| | Manual language | Chinese、English |
| | Protection grade | IP65 |

| Туре | Item | Parameter | |
|--------------------------|---------------------------------|---|--|
| Electrical parameters | Data rate | USART:9600/115200bps | |
| | Nominal voltage | 5V (±5%) | |
| | lmax | 2A | |
| | Typical power consumption | 5W | |
| | Working temperature | -35℃ ~ +65℃ | |
| | Storage temperature | -40°C ~ +70°C | |
| Application parameters | Inverter communication | USB(Modbus RTU protocol) | |
| | Server communication | TCP(Modbus TCP protocol) | |
| | Supported servers | ShineServer | |
| | Supported networks | 2/3/4G | |
| | User configuration Interface | APP configuration | |
| | SIM card type | Common SIM card / Patch SIM card | |
| | Data transmission interval | 5Min | |
| | Default server IP address | Server.growatt.com | |
| Wireless parameters | Certificates | CE、UKCA、RoHS | |
| | Wireless system type | 4G | |
| | GNSS | GNSS (GPS/GLONASS/BeiDou) Protocol:NMEA | |

| Туре | Item | Parameter |
|------------------------|---|--|
| Wireless parameters | European version standard & frequency band | • TDD-LTE:B38/B40/B41 • FDD-LTE:B1/B3/B5/B7/B8/B20 • UMTS/HSPA+:B1/B5/B8 • GSM/GPRS:B3/B8 |
| | South American version standard & frequency band | • TDD-LTE: B40 • FDD-LTE: B1/B2/B3/B4/B5/B7/B8/B28 • UMTS/HSPA+: B1/B2/B5/B8 • GSM/GPRS:850/900/1800/1900MHz |
| | Maximum output power | GSM/GPRS Power level: |
| | Data rate | GPRS Multiple time slot levels 12 EDGE Multiple time slot levels 12 UMTS R99:384 kbps DL/UL HSPA+:5.76 Mbps(UL), 42 Mbps(DL) TD-HSDPA/HSUPA:2.2 Mbps(UL), 2.8 Mbps(DL) CDMA EVDO:Rev-0,Rev-A, Rev-B LTE Type 4:150 Mbps (DL) LTE Type 4:50 Mbps (UL) |

6. Declaration of conformity

This product complies with the following regulations and requirements:

- ➤ Electromagnetic Compatibility Directive:2014/30/EU (EMC)
- ➤ Radio equipment instruction:2014/53/EU(RED)
- ➤ Electrical Equipment (Safety) Regulations 2016:2014/35/EU(LVD)
- ➤ Restriction of Hazardous Substances Directive: 2011/65/EU(EU) and 2015/863 (RoHS)

You can download the Declaration of Compliance at https://www.growatt.com.

7. After-sales service Contact

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Manual







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GR-UM-281-A-00