



X3-MIC G2

3 kW / 4 kW / 5 kW / 6 kW

8 kW / 10 kW / 12 kW / 15 kW

Installation Manual

Version 1.0

www.solaxpower.com



eManual in the QR code or
at www.solaxpower.com

Safety

General Notice

1. Contents might be updated or revised as needed. SolaX reserves the right to make improvements or changes in the product(s) and the program(s) described in this manual without the prior notice.
2. The installation, maintenance and grid-related setting can only be performed by qualified personnel who:
 - Are licensed and/or satisfy state and local regulations;
 - Have good knowledge of this manual and other related documents.
3. Before installing the device, carefully read, fully understand and strictly follow the detailed instruction of the user manual and other related regulations. SolaX shall not be liable for any consequences caused by the violation of the storage, transportation, installation, and operation regulations specified in this document and the user manual.
4. Use insulated tools when installing the device. Individual protective tools must be worn during installation, electrical connection and maintenance.
5. Please visit the website www.solaxpower.com of SolaX for more information.

Descriptions of Labels

	CE mark of conformity		TUV certification
	RCM mark of conformity		BIS mark of conformity
	Caution, risk of electric shock		Caution, hot surface
	Read the enclosed documentations		Caution, risk of danger
	Additional grounding point		Do not dispose of the inverter together with household waste.
	Do not operate this inverter until it is isolated from mains and on-site PV generation suppliers.		
	Danger of high voltage.		
	Do not touch live parts for 5 minutes after disconnection from the power sources.		

Note: The table is only used for the description of symbols which may be used on the inverter. Please be subject to the actual symbols on the device.

DANGER!

Lethal danger from electrical shock due to the inverter

- Only operate the inverter when it is technically faultless. Otherwise, electric shock or fire may occur.
- Do not open the enclosure in any case without authorization from SolaX. Unauthorized opening will void the warranty and cause lethal danger or serious injury due to electric shock.

DANGER!

Lethal danger from electrical shock due to the PV

- When exposed to sunlight, high DC voltage will be generated by PV modules. Death or lethal injuries will occur due to electric shock.
- Never touch the positive or negative pole of PV connecting device. Touching both of them at the same time is prohibited as well.
- Do not ground the positive or negative pole of the PV modules.
- Only qualified personnel can perform the wiring of the PV panels.

WARNING!

Risk of personnel injury or inverter damage

- During operation, do not touch any parts other than DC switch and LCD panel.
- Never connect or disconnect the AC and DC connectors when the inverter is running.
- Turn off the AC and DC power and disconnect them from the inverter, wait for 5 minutes to fully discharge the voltage before attempting any maintenance, cleaning or working on any circuits connected.
- Make sure that the input DC voltage $\leq$ Maximum DC input voltage of the inverter. Overvoltage may cause permanent damage to the inverter, which is NOT covered by the warranty.

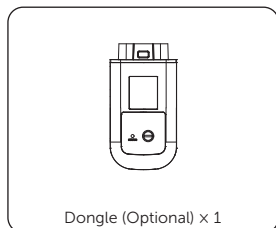
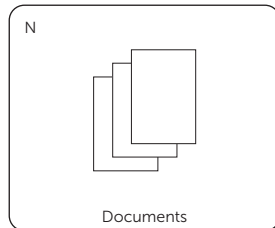
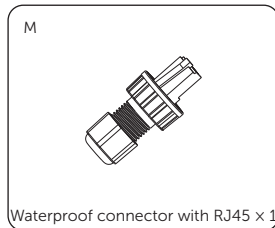
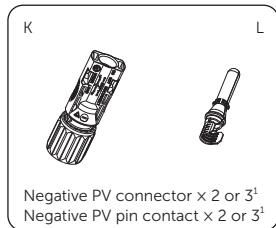
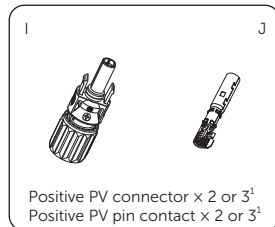
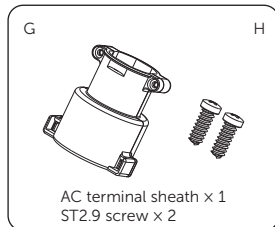
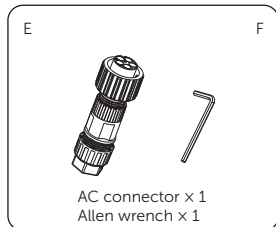
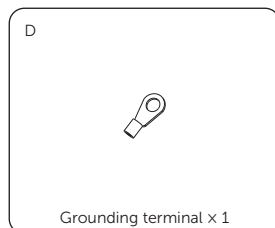
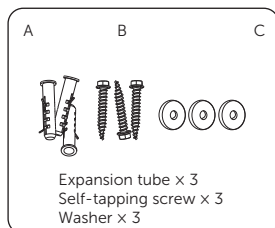
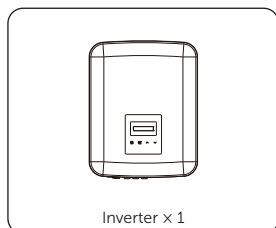
CAUTION!

- Keep children away from the inverter.
- Pay attention to the weight of the inverter. Personal injuries may be caused if not handled properly.

NOTICE!

- The inverter has an integrated Type-B Residual Current Monitoring Unit (RCMU). If an external RCD is required by local regulations, check which type of RCD is required for relevant electric codes. It is recommended to use a Type-A RCD with the value of 300 mA.
- All the product labels and nameplate on the inverter shall be maintained clearly visible.

Packing List



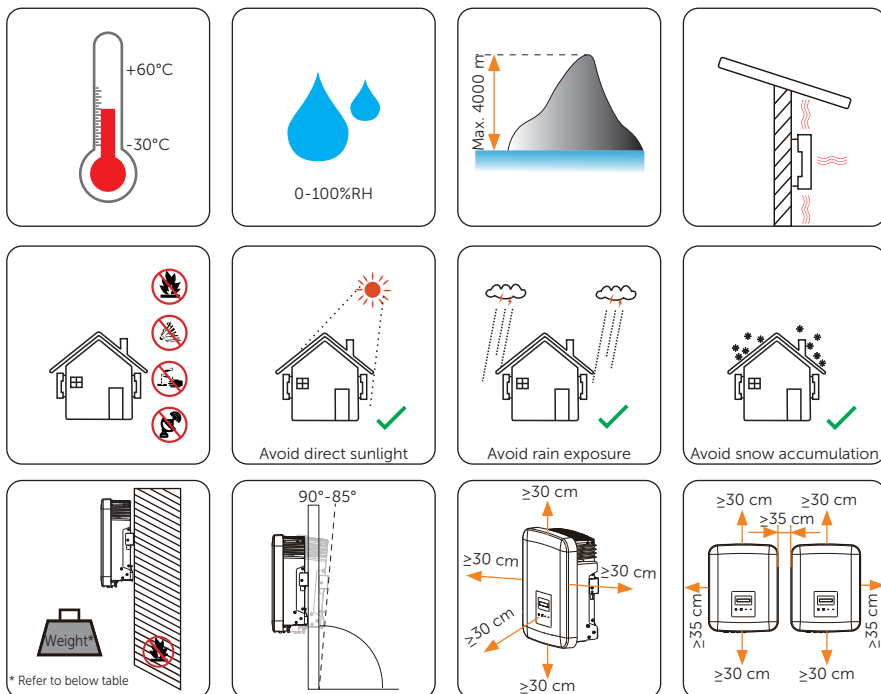
Note:

* Refer to the actual delivery for the optional accessories.

¹ 2 pcs for 3 kW~8 kW and 10 kW (PV1: one string),

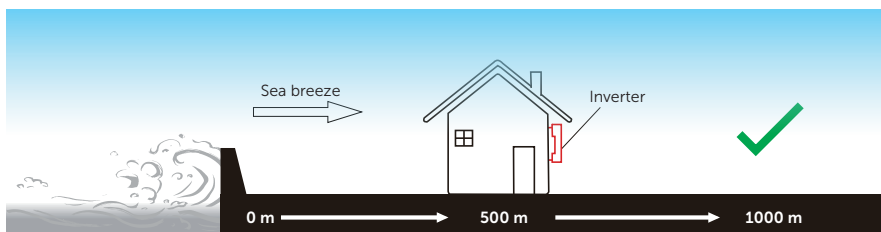
3 pcs for 12 kW~15 kW and 10 kW (PV1: two strings)

Mounting Location



Models	3 kW	4 kW	5 kW	6 kW	8 kW	10 kW	12 kW	15 kW	5 kW-LV	6 kW-LV	8 kW-LV
Net weight (kg)	15.5	15.5	15.5	15.5	17.0	17.0*	18.0	18.0	17.0	18.0	18.0

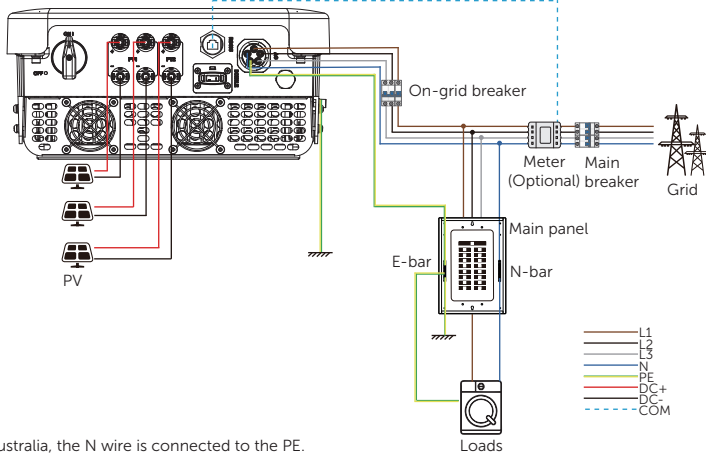
*PV1 connection terminal of 10K model is optional with two strings (Net weight: 18.0 kg).



NOTICE!

- For outdoor installation, precautions against direct sunlight, rain exposure and snow accumulation are recommended.
- Exposure to direct sunlight raises the temperature inside the device. This temperature rise poses no safety risks, but may impact the device performance.

Wiring Diagram

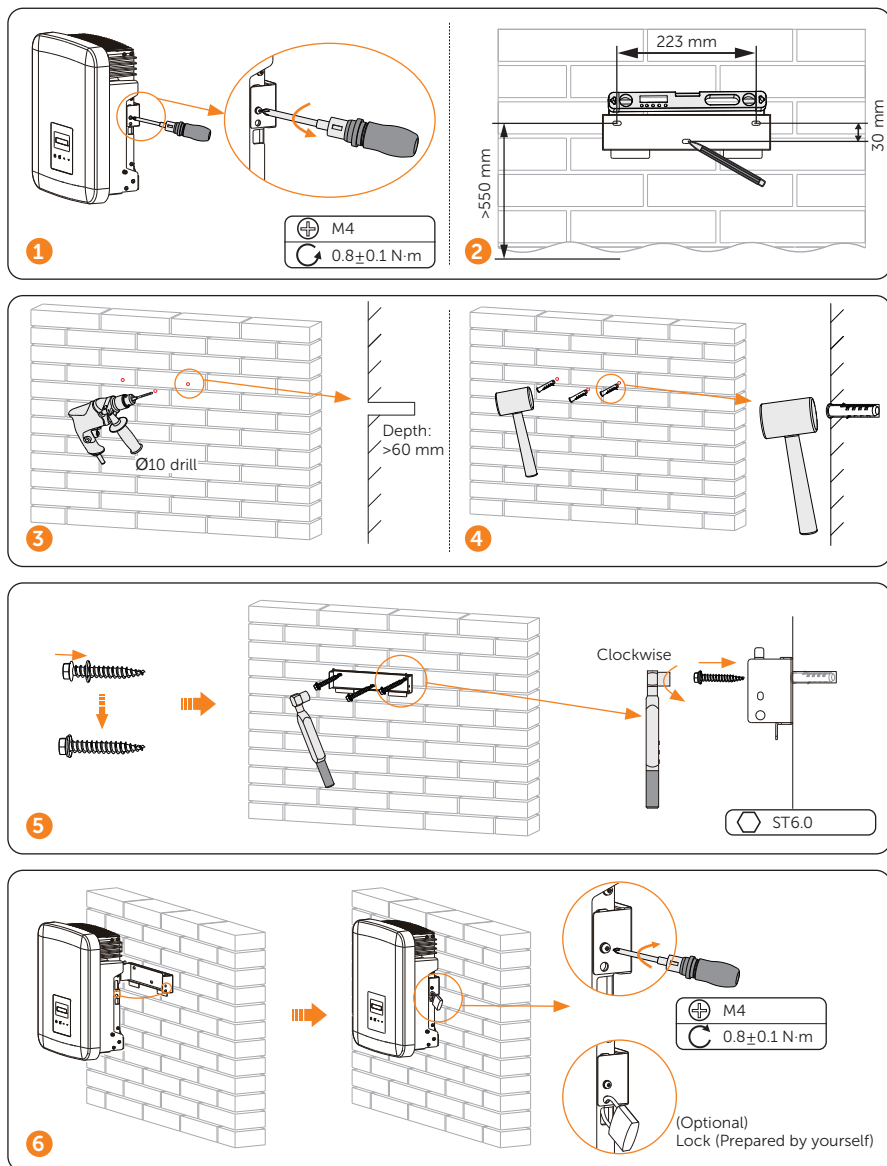


• Breaker recommended

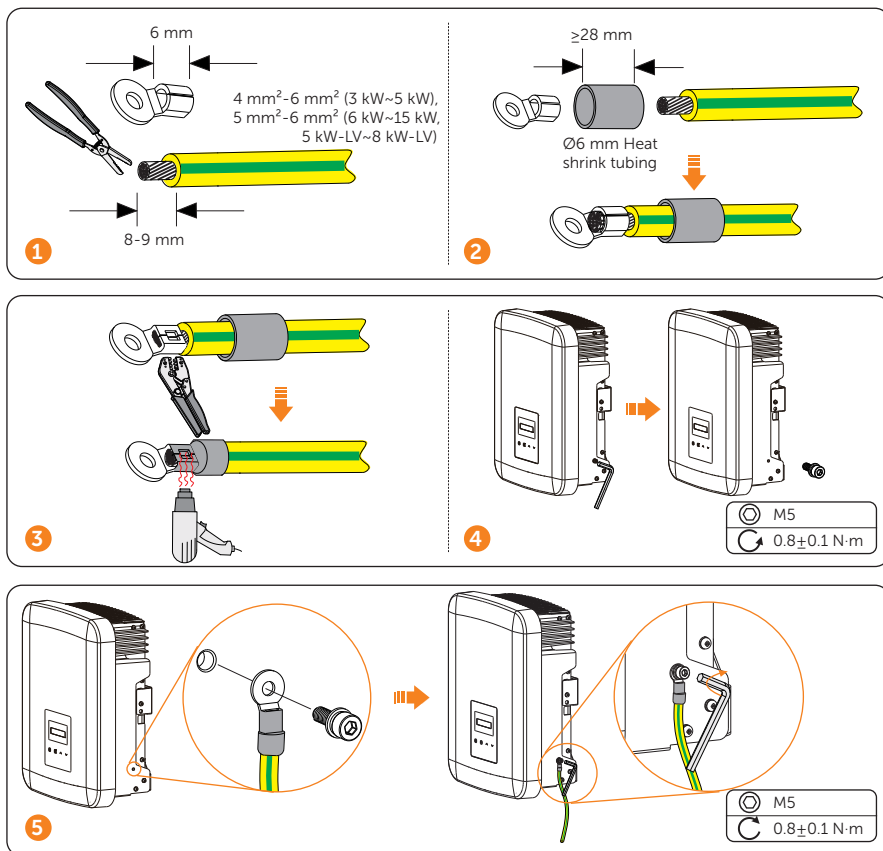
Model	X3-MIC-3K-G2	X3-MIC-4K-G2	X3-MIC-5K-G2	X3-MIC-6K-G2	X3-MIC-8K-G2	X3-MIC-10K-G2
On-grid breaker	16 A	16 A	16 A	20 A	20 A	20 A

Model	X3-MIC-10KW-G2	X3-MIC-12K-G2	X3-MIC-15K-G2	X3-MIC-5K-G2-LV	X3-MIC-6K-G2-LV	X3-MIC-8K-G2-LV
On-grid breaker	20 A	25 A	32 A	20 A	25 A	32 A

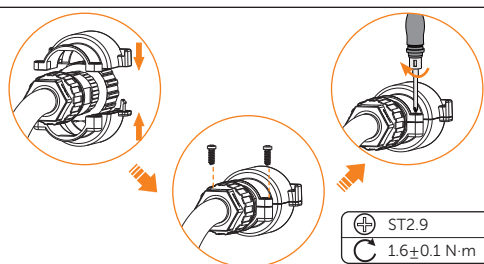
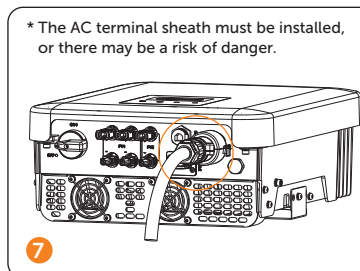
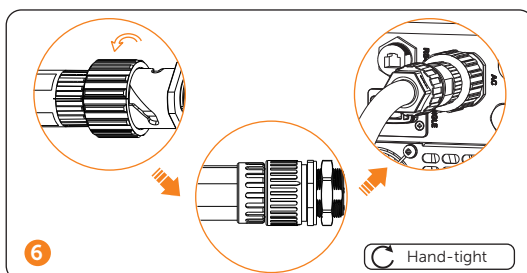
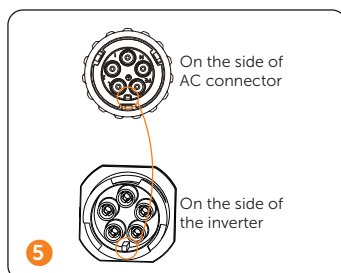
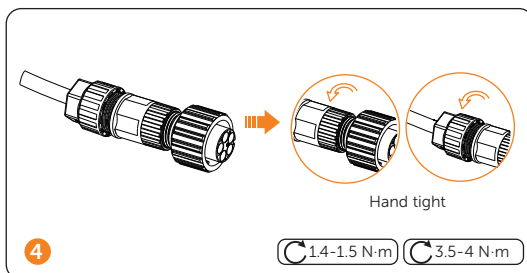
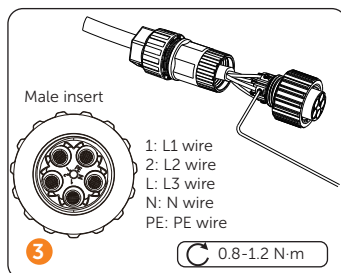
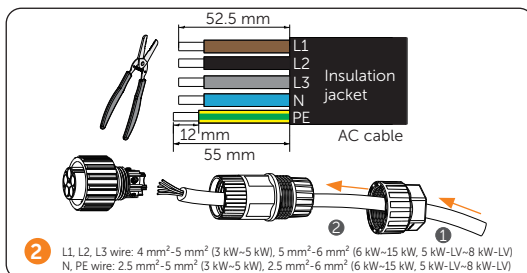
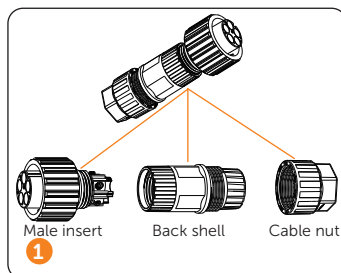
Mechanical Installation



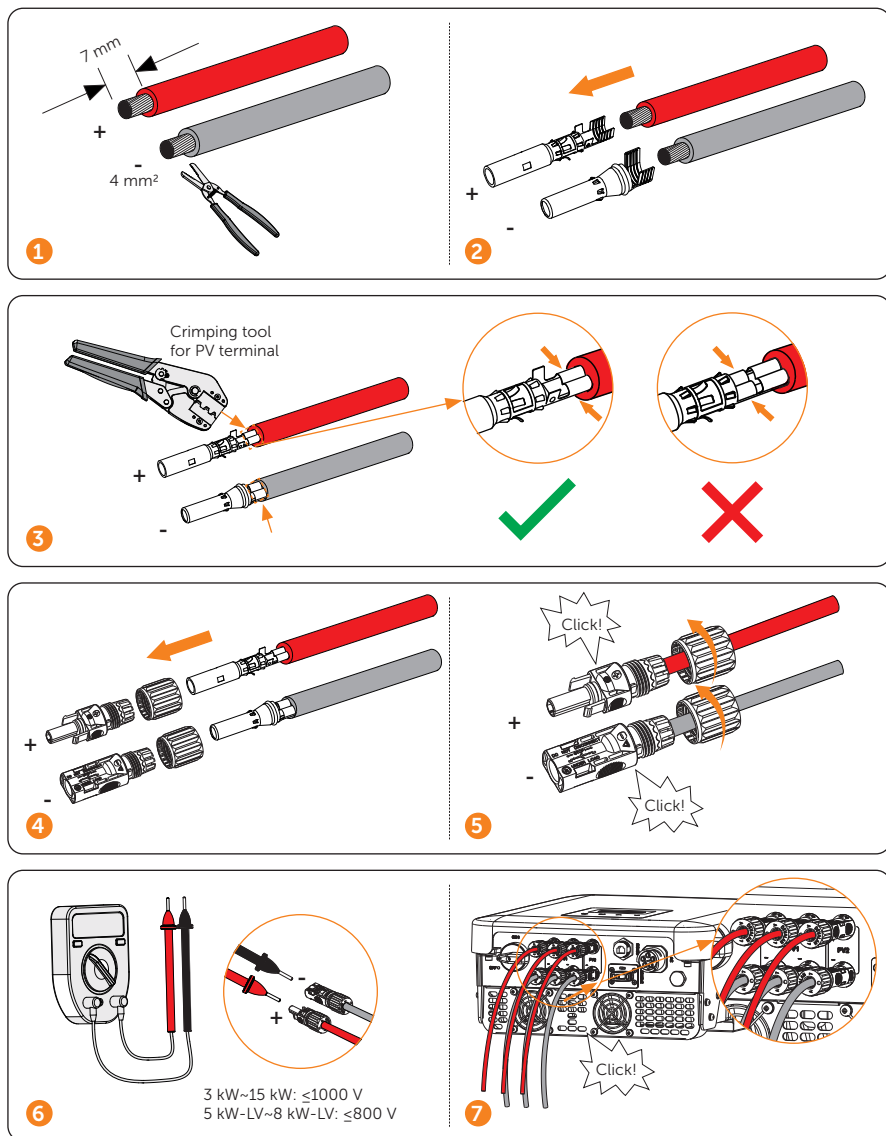
PE Connection



AC Side Connection

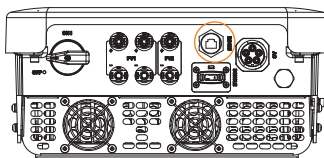


DC Side Connection



Communication Connection

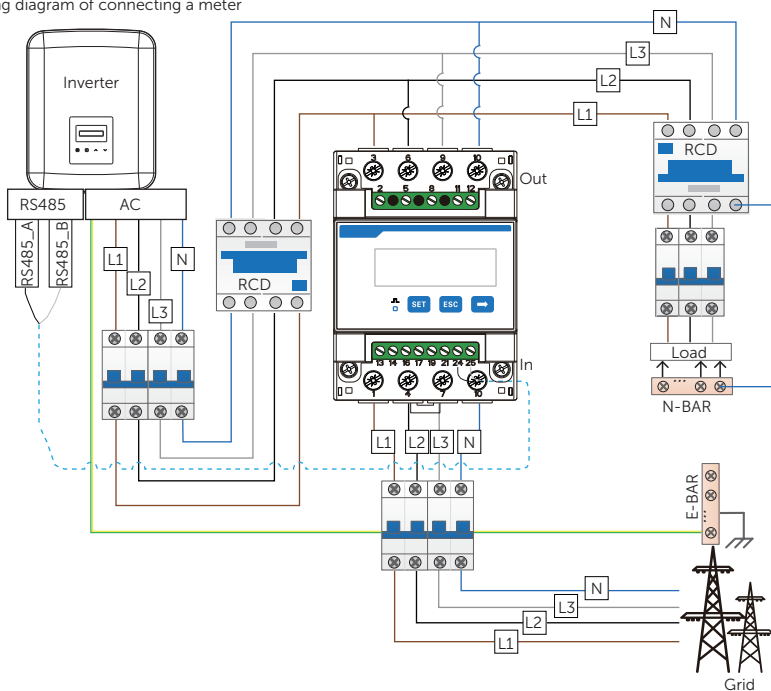
Pin definition for RS485 port

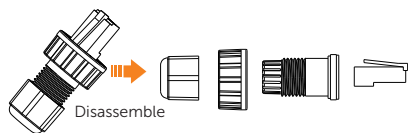


Item	DRM		Heat Pump	RS485/Meter		Heat Pump	-	-
Pin	1	2	3	4	5	6	7	8
Pin Definition	+12V	DRM0	Heat Pump	RS485_A	RS485_B	GND	X	X

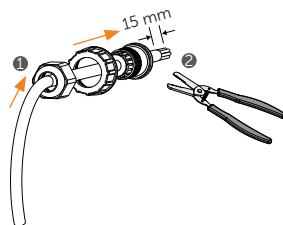
* For DRM, only DRM 0 is available now.

Wiring diagram of connecting a meter

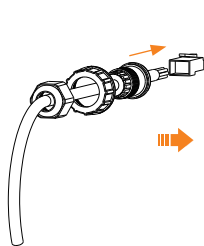




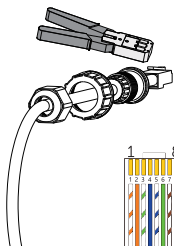
1



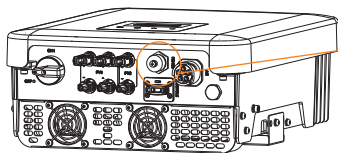
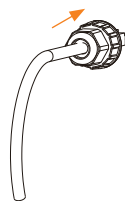
2



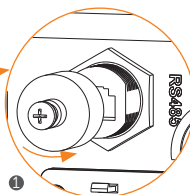
3



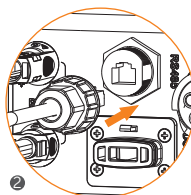
- 1) White with orange stripes
- 2) Orange
- 3) White with green stripes
- 4) Blue
- 5) White with blue stripes
- 6) Green
- 7) White with brown stripes
- 8) Brown



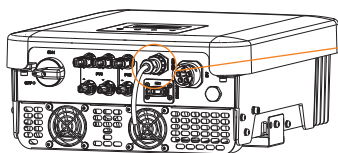
4



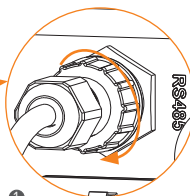
1



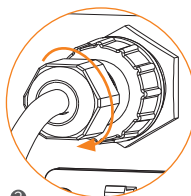
2



5

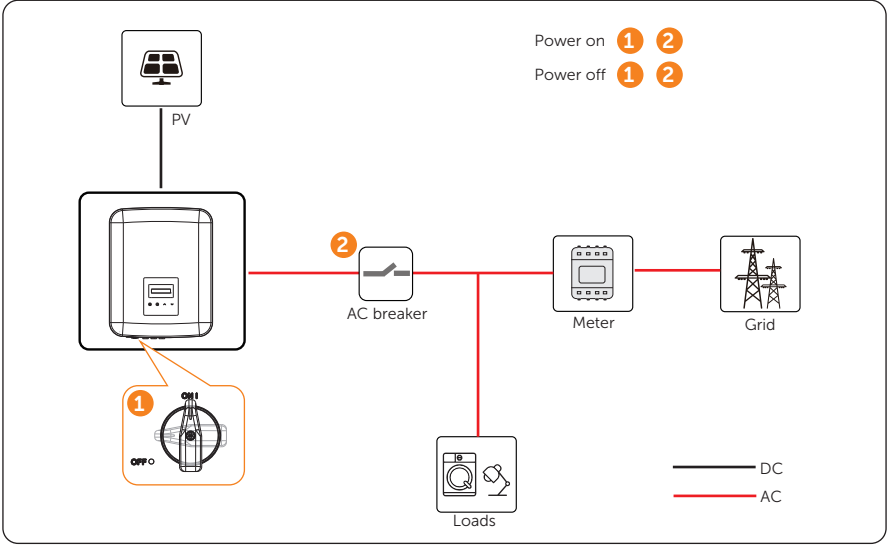


1

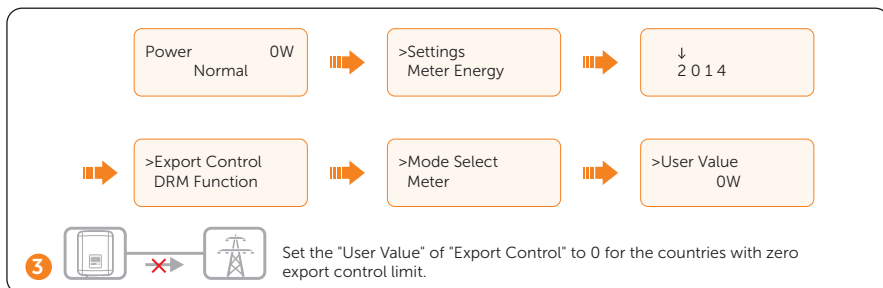
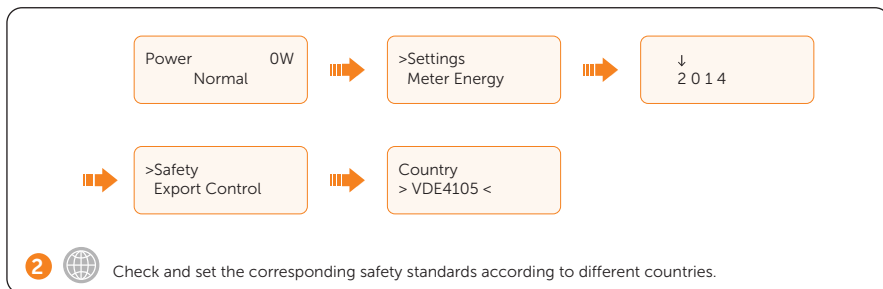
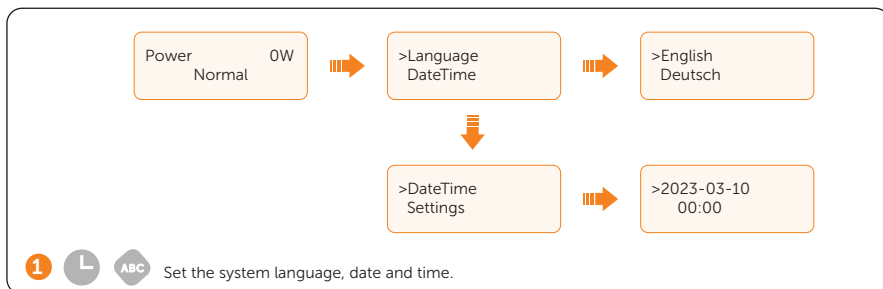


2

Hand-tight



General Setting



* The initial password is 2014 which should be changed for the consideration of account security. Refer to user manual for more settings.

SolaXCloud Download



Technical Data

• DC input

Model	X3-MIC-3K-G2	X3-MIC-4K-G2	X3-MIC-5K-G2	X3-MIC-6K-G2	X3-MIC-8K-G2	X3-MIC-10K-G2
Max. PV voltage [d.c. V]	1000	1000	1000	1000	1000	1000
Rated input voltage [d.c. V]	640	640	640	640	640	640
MPPT voltage range [d.c. V]	120-980	120-980	120-980	120-980	120-980	120-980
Max. PV current [d.c. A]	16/16	16/16	16/16	16/16	16/16	16/16 ¹
Isc PV array short circuit current [d.c. A]	20/20	20/20	20/20	20/20	20/20	20/20 ¹
Max. inverter backfeed current to the array [d.c. A]	0					

¹ PV1 connection terminal is optional with two strings (Max. PV current: 32 d.c. A, Isc PV array short circuit current: 40 d.c. A).

Model	X3-MIC-10KW-G2	X3-MIC-12K-G2	X3-MIC-15K-G2	X3-MIC-5K-G2-LV	X3-MIC-6K-G2-LV	X3-MIC-8K-G2-LV
Max. PV voltage [d.c. V]	1000	1000	1000	800	800	800
Rated input voltage [d.c. V]	640	640	640	360	360	360
MPPT voltage range [d.c. V]	120-980	120-980	120-980	120-650	120-650	120-650
Max. PV current [d.c. A]	16/16	32/16	32/16	16/16	16/16	16/16
Isc PV array short circuit current [d.c. A]	20/20	40/20	40/20	20/20	20/20	20/20
Max. inverter backfeed current to the array [d.c. A]	0					

• AC output

Model	X3-MIC-3K-G2	X3-MIC-4K-G2	X3-MIC-5K-G2	X3-MIC-6K-G2	X3-MIC-8K-G2	X3-MIC-10K-G2
Rated output apparent power [VA]	3000	4000	5000 ¹	6000	8000	10000 ²
Max. output apparent power [VA]	3300	4400	5500 ¹	6600	8800	11000 ²
Nominal AC voltage [a.c. V]	3~/N/PE, 220/380, 230/400; 3~/PE, 380, 400					
Nominal AC frequency [Hz]	50/60 (±5)					
Rated output current [a.c. A]*	4.6, 4.4	6.1, 5.8	7.6, 7.3	9.1, 8.7	12.2, 11.6	15.2, 14.5
Max. output continuous current [a.c. A]	4.8	6.4	8.0	9.6	12.8	16.0
Current (inrush) [a.c. A]	30 (20 µs)					
Power factor range	0.8 leading-0.8 lagging					
Maximum output fault current [a.c. A]	44					
Maximum output overcurrent protection [a.c. A]	39					
Short circuit current [a.c. A]	30					

Model	X3-MIC-10KW-G2	X3-MIC-12K-G2	X3-MIC-15K-G2	X3-MIC-5K-G2-LV	X3-MIC-6K-G2-LV	X3-MIC-8K-G2-LV
Rated output apparent power [VA]	10000	12000	15000 ³	5000	6000	8000
Max. output apparent power [VA]	10000	13200	15000 ³	5500	6600	8800
Nominal AC voltage [a.c. V]	3~/N/PE, 220/380, 230/400; 3~/PE, 380, 400			3~/N/PE, 127/220; 3~/PE, 220		
Nominal AC frequency [Hz]	50/60 (±5)					
Rated output current [a.c. A]*	15.2, 14.5	18.2, 17.4	22.7, 21.8	13.2	15.8	21
Max. output continuous current [a.c. A]	16.0	19.1	22.7	14.5	17.4	23.1
Current (inrush) [a.c. A]	30 (20 μs)					
Power factor range	0.8 leading-0.8 lagging					
Maximum output fault current [a.c. A]	44					
Maximum output overcurrent protection [a.c. A]	39					
Short circuit current [a.c. A]	30					

* "Rated output current": For models named without "-LV", the first data corresponds to 220/380 V, the second data corresponds to 230/400 V; for models named with "-LV" the data corresponds to 127/220 V.

¹ 4999 for AS/NZS 4777.2

² 9999 for AS/NZS 4777.2

³ 14999 for AS/NZS 4777.2

• Others

Model	X3-MIC-3K-G2	X3-MIC-4K-G2	X3-MIC-5K-G2	X3-MIC-6K-G2	X3-MIC-8K-G2	X3-MIC-10K-G2
Operating ambient temperature range [°C]	-30 to +60					
Storage temperature [°C]	-30 to +60					
Storage/Operation relative humidity	0%~100%					
Altitude [m]	4000					
Ingress protection	IP66					
Protective class	I					
Overvoltage category	III(MAINS), II(DC)					
Pollution degree	II(Inside), III(Outside)					
Inverter topology	Non-isolated					
Active anti-islanding method	Frequency Shift					
Safety	IEC/EN 62109-1/-2					
Grid monitoring	EN50549, VDE-AR-N 4105, G98, G99, AS/NZS 4777.2,UTE C15, CEI 0-21, VFR2019					

Model	X3-MIC-10KW-G2	X3-MIC-12K-G2	X3-MIC-15K-G2	X3-MIC-5K-G2-LV	X3-MIC-6K-G2-LV	X3-MIC-8K-G2-LV
Operating ambient temperature range [°C]	-30 to +60					
Storage temperature [°C]	-30 to +60					
Storage/Operation relative humidity	0%~100%					
Altitude [m]	4000					
Ingress protection	IP66					
Protective class	I					
Overvoltage category	III(MAINS), II(DC)					
Pollution degree	II(Inside), III(Outside)					
Inverter topology	Non-isolated					
Active anti-islanding method	Frequency Shift					
Safety	IEC/EN 62109-1/-2 *					
Grid monitoring	EN50549, VDE-AR-N 4105, G98, G99, AS/NZS 4777.2, UTE C15, CEI 0-21, VFR2019 *					

* Please refer to the actual certifications of the specific model.

Quick Installation Guide for WiFi (Optional)

Safety

Descriptions of Labels



CE mark of conformity



FCC mark of conformity



RCM mark of conformity



Do not dispose of the device together with household waste.

CE DECLARATION OF CONFORMITY

- The product conforms to RF specifications and technical standards.
- The device complies with DOC declaration.
- The device meets the basic requirements and other relevant provisions of 2014/53/ EU directive.
- The device is allowed to be used in all EU member states.
- Manufacturer: SolaX Power Network Technology (Zhejiang) Co., Ltd.
Product type: Pocket WiFi V4.0
- CE Declaration of Conformity: <https://www.solaxpower.com/uploads/file/ce-declaration-pocket-wifi-v4.0.pdf>.

FCC RULES

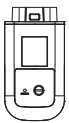
This device complies with part 15 of the FCC Rules Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Packing List



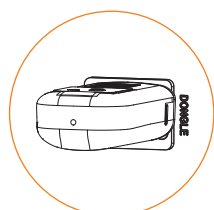
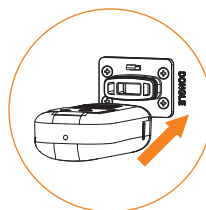
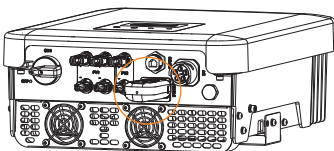
Dongle x 1

Installation Steps



- Ensure that all power has been cut off at least 5 minutes prior to installation.

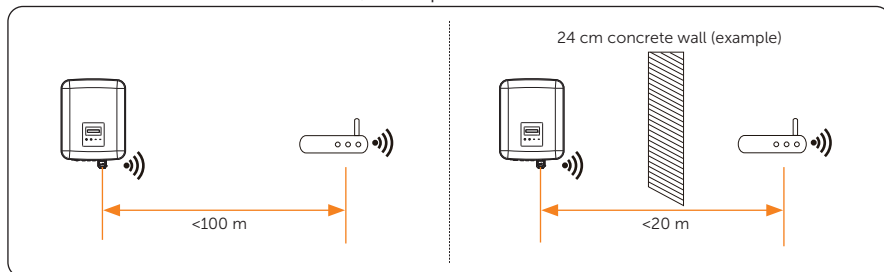
Plug the WiFi dongle into the correct port of the inverter.



Keep "QR Code" upwards.

Communication Requirements

The distance between the router and the equipment should be less than 100 m. However, if there is an obstacle between them, the separation distance should be less than 20 m.



NOTICE!

- If the WiFi signal is not strong enough, install a WiFi signal booster at the appropriate location.

WiFi Configuration

1. Scan the left QR code or enter the keyword "SolaXCloud" in the APP Store to download the monitoring APP.
2. Scan the right QR code for *Configuration Guide*.



Download App



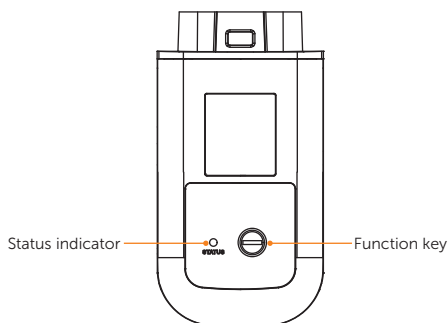
Configuration Guide

NOTICE!

- If you need to download *Configuration Guide*, please scroll down to the bottom of the interface and click **Download**.

Technical Data

Model	Pocket WiFi V4.0
Power Supply	5 V 50 mA DC
Rated Power	0.5 W
Data Transfer Intervals	5 mins / 10 s (optional)
EIRP Power	18 dBm (Measured Max. Average)
Antenna Gain	0.5 dBi
WiFi Standard	802.11 b/g/n/ax
WiFi Band	2.412-2.472 GHz
BLE Standard	BLE5.2 1M (aid WiFi connection)
Weight	45±10 g
Dimensions	83 × 44 × 26.5 mm
Protection Degree	IP65
Operating Temperature	-30°C ~ +60°C
Wireless Module	WiFi 6, 2.4 GHz
EMC	ETSI EN 301 489-1 V2.2.3: 2019, ETSI EN 301 489-17 V3.2.4:2020 EN 55032:2015+A11:2020, EN 55035:2017+A11:2020EN IEC61000-3-3: 2019+A1:2021, EN 61000-3-3: 2013/A2: 2021/AC: 2022-01
Safety	EN 62368-1:2014+A11:2017
Radio	ETSI EN 300 328 V2.2.2: 2019
Health	EN IEC 62311: 2020, EN 50665: 2017



- Description of status indicator

Indicator colour	Status	Description
Red	Flash	Inverter connection abnormal
	Always on	Router connection abnormal
Green	Flash	OTA upgrade
	Always on	All connections normal
Red & Green	Flash alternately	Server connection abnormal

- Description of function key

Function	Operation	Description
Turn on AP	Press once	The indicator being in red for 200 ms indicates the operation works.
Restart	Press twice	The indicator being in red for 200 ms twice indicates the operation works.
Factory reset	Long press for more than 5 s	The indicator flashing in red three times indicates the operation works.

NOTICE!

- If you need to enter **LOCAL MODE**, please press the function key once to turn on AP.
- The priority level of status indicator: OTA upgrade > Inverter connection abnormal > Router connection abnormal > Server connection abnormal.

Warranty Registration

Please visit the website: <https://www.solaxcloud.com/user-center/> to complete the warranty registration. For more detailed warranty terms, please visit SolaX official website: www.solaxpower.com.



SolaX Power Network Technology (Zhejiang) Co., Ltd.

Add.: No. 278, Shizhu Road, Chengnan Sub-district, Tonglu County,
Hangzhou, Zhejiang, China
E-mail: info@solaxpower.com