A1-ESS-G2
Remote Setting

User Manual

Version 2.0

www.solaxpower.com

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About This Manual

Conventions

The symbols that may be found in this manual are defined as follows.

Symbol	Description
DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION!	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE!	Provides tips for the optimal operation of the product.

Change History

Version 02 (2025-04-09)

Added "3.5 SOC Management", "3.7 ExternalGen", "4.11.2 Panel Limit (Invalid)"

Updated "4.14.2 ATS Control", "4.14.3 Dry Contact"

Added the notice of hidden condition for some settings.

Version 01 (2024-12-18)

Updated "4 Advanced Setting" (Added some settings: "4.7 GMPPT", "4.10.3 Quick Power Supply", "Allow Legacy PV Export Directly", "4.12 MLPE Port Usage", "4.19.3 Meter2 CT Reverse")

Added the notice of hidden condition for some settings.

Version 00 (2024-11-07)

Initial release

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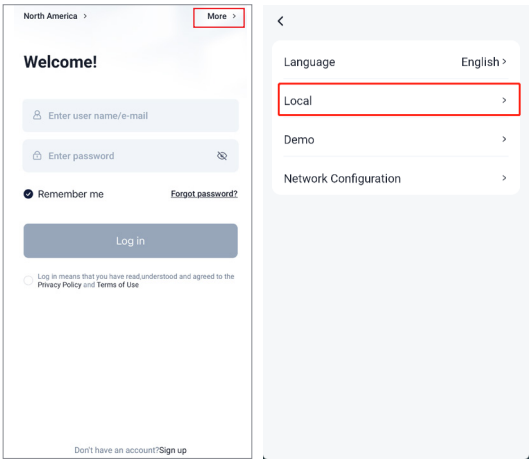
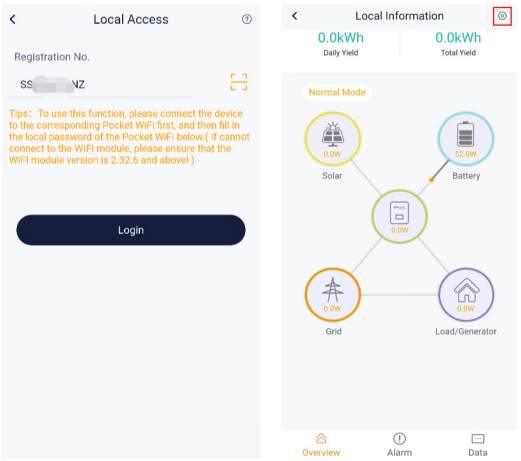
1 Setting Menu Login

1.1 Local Login

Step 1: Click **More** in the App login page and then click **Local**.



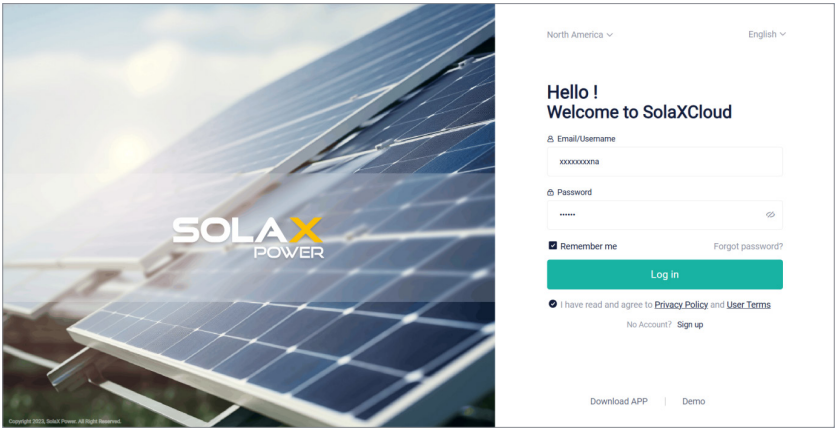
Step 2: Scan the QR Code on the monitoring dongle or type it manually. Then click **Login**. After login, click ⚙ at the top right.



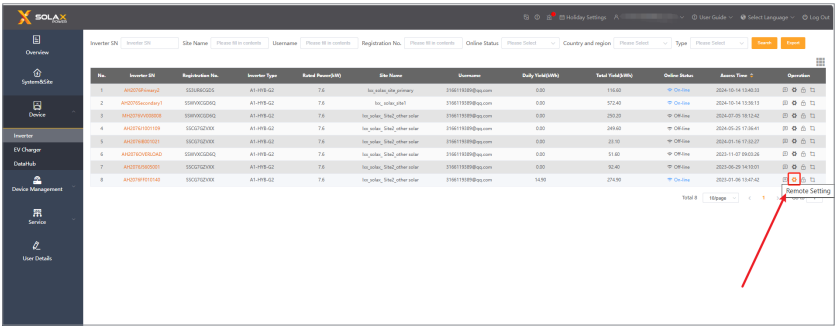
1.2 Remote Login

1.2.1 Operation on SolaXCloud Webpage

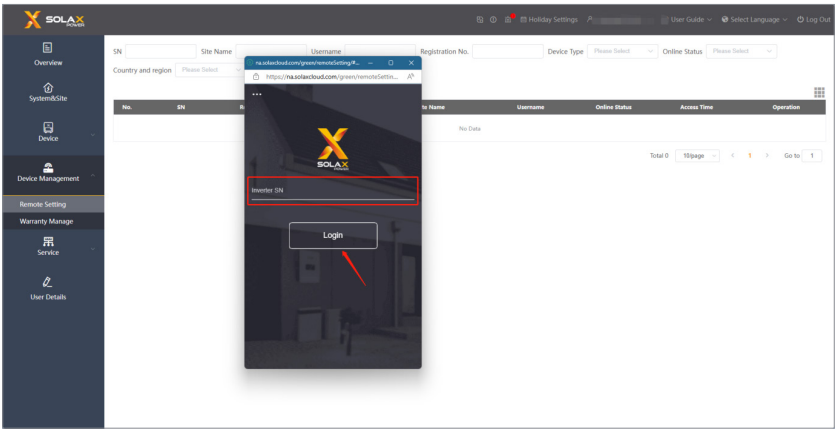
Step 1: Enter the login page of our official website (www.solaxcloud.com). Input **Email/ Username** and **Password** to login.



Step 2: Click on **Device > Inverter** and click on the right of the inverter information.

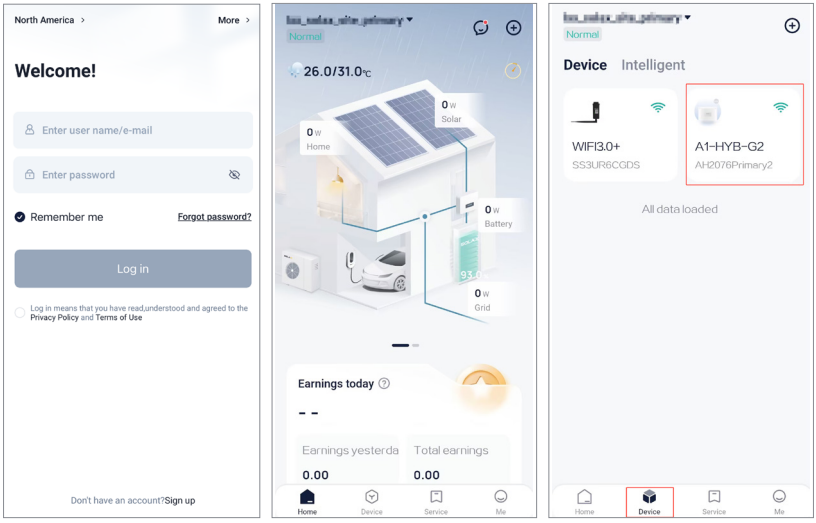


Or click on **Device Management > Remote Setting**, and input the **Inverter SN** to login the remote setting page.

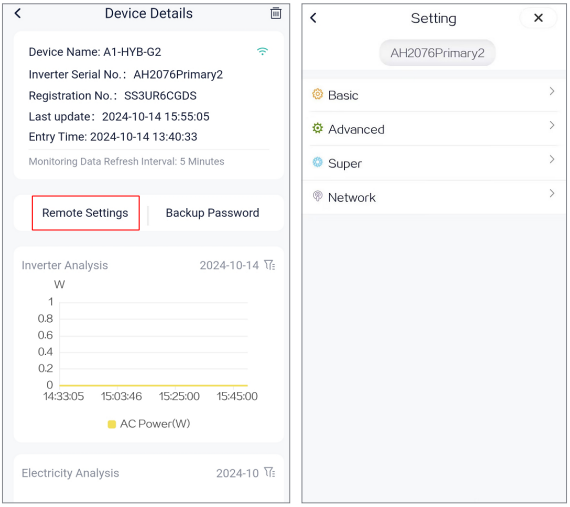


1.2.2 Operation on SolaXCloud App

Step 1: Input **Email/Username** and **Password** to login. Enter the **Home** page, and then tap **Device** and choose the inverter.



Step 2: Enter **Device Details** and Click **Remote Settings**. The remote settings page will be displayed.



2 Overview

Type	Explanation
Basic Setting	Basic Setting mainly includes Date Time, System Switch, Work Mode, Smart Switch, ARC Detection and Clear OverLoad Fault settings.
Advanced Setting	Advanced Setting mainly includes grid code selection, user-defined parameters, micro grid, charge/discharge, system paralleling, external devices connection settings and password change, etc.

3 Basic Setting

3.1 Date Time

Set the inverter time according to the local time. The time will be automatically synchronized when it connects to SolaX server.

NOTICE!

- This time needs to be the same as the cloud site time, otherwise the cloud site page will zero the power ahead or will not update the data.

3.2 Language

Set the inverter language. Now it only has an English option.

3.3 System Switch

Turn on or turn off the system.

NOTICE!

- When the local USB port updates, this switch will turn off. Users must turn it on manually after the local update.

NOTICE!

- This parameter is hidden when the **Parallel Setting** is set to **Secondary**.

3.4 Work Mode

NOTICE!

- This parameter is hidden when the **Parallel Setting** is set to **Secondary**.

Option	Explanation	Applicable Scenes
Self Use	1. PV>Load, PV → Load → Battery → Grid 2. PV<Load, PV+Battery+Grid → Load 3. PV=0, Battery+Grid → Load	Suitable for the time when the electricity price is high and the feed-in is not allowed.
Backup Mode	Battery > Load > Grid	Utilizing the inverter as a backup power source, suitable for applications with frequent power outages.
Feed-in Priority	1. PV>Load, PV → Load → Grid 2. PV<Load, PV+Battery+Grid → Load 3. PV=0, Battery+Grid → Load	Suitable for the application scenarios with high electricity price and feed in subsidy.
Time of Use	1. Load > Battery > Grid (when discharging) 2. Battery > Load > Grid (when charging) **Note: Maximize Export** is used to maximize the feed to the utility. When enabled, it can set **Start Time** and **End Time**. If the time period of Maximize Export coincides with the charging time period, charging will be the main focus.	Suitable for areas that have different electricity prices depending on the day, time and season.
Demand Mode	Battery starts to discharge when grid import power exceeds certain value. (If enabled)	Suitable for the areas with high critical peak pricing or areas with limited capacity of distribution transformers.
ConstPower Mode	Constant Power Discharge Mode, during the specified time period, outputs power at a constant rate.	Suitable for certain electricity selling requirements in Hawaii.

3.5 SOC Management

Setting	Explanation	Option/Range
Min Capacity(%)	Battery minimum capacity limit. When the battery capacity is lower than this value and charging conditions are not met, the battery will enter cold standby mode and the battery output voltage will be zero.	5%~100% Default 10%
Grid-TiedMinSocEn	Battery energy is preserved during grid-connected mode.	Disable(By default) Enable
Grid-Tied Min SOC	Battery SOC in grid-connected mode can be set when Grid-TiedMinSocEn is enabled. Battery discharge will be prohibited when the SOC is lower than the value, and the inverter can be put into hot standby mode when other conditions are met.	10%~100% Default 30%

3.6 Smart Switch

Smart switch can be used for smart load management with BI/BI PRO. BI smart load management needs to be used with external switch box, while load switch function is built-in for BI PRO.

NOTICE!

- This parameter is hidden when the **PresenceOfBI** is set to **Disable** or the **Parallel Setting** is set to **Secondary**.

- BI smart load management:

Option	Explanation
DO1-DO3	Three-way DO can be configured as the type of equipment accessed, Smart Load and Solar Inverter are available. Users can choose according to the actual installation type.
Smart Load	Smart Load mode
Solar Inverter	Smart PV inverter microgrid system management mode

- BI PRO smart load management:

Option	Explanation
Smart Circuit CH1-CH3	Smart Circuit CH1-CH3 can set the circuit type (Smart Circuit) to 240 V or 120 V. Users can choose according to the actual load access method.
Load 1 / Load 2	If the smart circuit is set to 240 V, one 240 V load (Load 1) can be accessed; if the smart circuit is set to 120 V, two 120 V loads (Load 1 and Load 2) can be accessed.
Solar Inverter	Smart PV inverter microgrid system management mode

3.7 ExternalGen

3.7.1 Start Gen Method

Start Gen Method can set the methods of starting generator. The options includes:

- Manual ON
- Manual OFF
- Automatic (By default)

NOTICE!

- **Start Gen Method** in Basic setting is linked with **Start Gen Method** in Advanced setting ("4.14.3 Dry Contact"). When either one of them is set, the other one will be synchronized.
- When **Basic > ExternalGen > Start Gen Method** is set to **Automatic**, the actual effective mode is **Immediately** or **Reference Soc** in Advanced setting.

3.7.2 Overload Cut-off Priority

Setting	Explanation	Option
Overload Cut-off Priority	Set the equipment prioritized for cut-off in case of generator overload.	• Battery Charging (By default) • Smart Load

NOTICE!

- This parameter is hidden when the **Parallel Setting** is set to **Secondary**.
- When **Advanced > ExtenalGen** is set to **Disable**, **Basic > ExternalGen** is hidden.
- When **Advanced > ExtenalGen** is set to **Dry Contact, Basic > ExternalGen > Start Gen Method** is displayed.

3.8 ARC Detection

Option	Explanation
Reset ARC	Clearing ARC faults manually.
ARC SelfTest	Arc self-test function, the machine will be forced to trigger a primary arc fault, and detect itself.

3.9 Clear OverLoad Fault

Clear all overload fault errors.

4 Advanced Setting

4.1 Safety

There are multiply grid codes that you can select according to your local grid regulations. The grid code parameters can also be customized when the device is under special circumstances by professionals.

NOTICE!

- There are no Const Reactive Power and Active Reactive Power setting under RULE 21.

Grid Code	Explanation	Application
IEEE1547	A standard developed by the Institute of Electrical and Electronics Engineers (IEEE) that specifies the technical requirements for the interconnection of distributed energy resources (DER) with the power grid.	Applicable throughout the United States
RULE21	Emphasizing inverter functionality and remote communication	Specific to California
HECO SRD V2.0	HECO SRD V2.0 provides more details, covering the latest technical requirements and detailed operational specifications.	Specific to Hawaii
120/240Vac/50Hz	Split-phase 240 V, 50Hz grid	(Special for domestic test environment)
LA 1P_127/220	Single-phase 220 V, 60Hz grid	Brazil
PUERTO RICO	Emphasizing reliability and resilience in the event of natural disasters	Specific to Puerto Rico
USER DEFINED-60	After relaxing the voltage protection range under IEEE 1547, certain installation scenarios may experience grid instability, with voltage fluctuations exceeding 30V.	(Special for some after-sales work)
CENHUD -IEEE 1547:2018	Based on IEEE 1547, specific implementation requirements have been developed considering the specific conditions and needs of the CENHUD grid.	CENHUD's service area includes towns from the northern Hudson Valley to just south of Albany.
120/208Vac/60Hz	Split-phase 208 V, 60Hz grid	North America Commerical

4.2 Grid Recovery

The details of the grid connection regulations are set here. It will be set automatically after setting safety. It is only needed in special circumstances and debugging.

Setting		Explanation	Option/Range
Enter Service		Control whether to allow the inverter to enter the grid.	• Disable: On-grid mode is not allowed. • Enable: On-grid mode is allowed.
Unintertional Islanding Mode		Control whether to have island protection through passive detection.	• Disable: Passive detection is not allowed. • Enable: Passive detection is allowed.
Reconnection Time		This time is used to determine whether the equipment has been reconnected to the grid and entered on-grid mode.	60~600 s
Soft Ramp UpRate	SS Enable	When enabled, Soft Ramp Update can be set.	• Enable: The rate can be controlled. • Disable: The rate is set to a default value.
	Soft Ramp UpRate	When the system is changed into on-grid mode, the PV power rises at a certain rate.	1.00~1000.00 s Default 50 s
Norm Ramp Rate (S)		Grid-connected power startup rate. When entering the grid-connected mode for the first time, the power increase rate is limited by Norm Ramp Rate.	1.0~1000.0
Vac Max Recovery Rate		When the voltage input and frequency from the grid is too high or too low, the system will report an error. So the Vac Max Recovery Rate means when the voltage returns to normal, how much value is needed to determine the system recovery and error cancellation.	101.00%~115.00%
Vac Min Recovery Rate		It represents low voltage recovery.	80.00%~99.00%
Fac Max Recovery		It represents high frequency recovery.	60.10~61.00 Hz
Fac Min Recovery		It represents low frequency recovery.	59.00~59.90 Hz

4.3 Vac Protect

When the AC side overvoltage, undervoltage, overfrequency, and underfrequency, the system will protect it, and the conditions that need to be achieved are more demanding than the slow protection, but the response time of fast protection is faster.

It will be set automatically after setting safety.

Setting	Explanation	Range
Vac Min Fast Protect	Undervoltage fast protection value, when the grid voltage is lower than the value for a corresponding time, the system will report an error for protection.	0~99%
Time Vac Min Fast Adj	Time to trigger undervoltage fast protection.	0.16~60 s
Vac Min_Mid Fast Protect	Undervoltage medium speed protection value, when the grid voltage is lower than the value for a corresponding period of time, the system will report an error for protection.	0~99%
Time Vac Min_Mid Fast Adj	Time to trigger undervoltage medium speed protection.	0.16~60 s
Vac Min_Slow Adj	Undervoltage slow protection value, when the grid voltage is lower than the value for a corresponding period of time, the system will report an error for protection.	0~99%
Time Vac Min_Slow Adj	Time to trigger undervoltage slow protection.	0.16~60 s
Vac Max Protect	Overvoltage protection value, when the grid voltage is higher than the value for a corresponding period of time, the system will report an error for protection.	101%~120%
Time Vac Max_Fast Adj	Time to trigger overvoltage protection.	0.16 s
Vac Max Slow Protect	Overvoltage slow protection value, when the grid voltage is higher than the value for a corresponding period of time, the system will report an error for protection.	101%~120%
Time Vac Max_Slow Adj	Time to trigger overvoltage slow protection.	0.16~60 s

Setting	Explanation	Range
Fac Min Protect	Underfrequency protection value, when the grid frequency is lower than the value for a corresponding period of time, the system will report an error for protection. The setting range is .	50.00~59.90 Hz
Time Fac Min_Fast Adj	Time to trigger underfrequency protection.	0.16~1000 s
Fac Min Slow Protect	Underfrequency slow protection value, when the grid frequency is lower than the value for the corresponding time, the system will report an error for protection.	50.00~59.90 Hz
Time Fac Min_Slow Adj	Time to trigger underfrequency slow speed protection.	1~1000 s
Fac Max Protect	Overfrequency protection value, when the grid frequency is higher than the value for a corresponding period of time, the system will report an error for protection.	60.10~66.00 Hz
Time Fac Max_Fast Adj	Time to trigger overfrequency protection.	0.16~1000 s
FacMaxSlowProtect	Overfrequency protection value, when the grid frequency is higher than the value for a corresponding period of time, the system will report an error for protection.	60.10~66.00 Hz
Time Fac Max_Slow Adj	Time to trigger overfrequency slow speed protection.	1~1000 s

4.4 ReactivePowerMode

This part is used to configure reactive compensation that often occurs in the power system. It will be set automatically after setting safety.

Option	Explanation
Power Factor	Fixed power factor function, which can be set according to the active power changes in reactive power.
ConstReactivePower	Constant reactive power function, which can set the output of reactive power with fixed size.

Option	Explanation
VoltReactivePower	Voltage reactive power function, which can make the reactive power follow the grid voltage and adjust automatically.
ActiveReactivePower	Active reactive power function, which can make the reactive power follow the active power size automatically adjusted.
ActivePowerFactor	Active power factor function, which enables the power factor to follow the active power to adjust automatically.

4.5 FreqWattMode

This feature is used to manually set inverter AC overfrequency or underfrequency rate to trigger output power change. It will be set automatically after setting safety.

Setting	Explanation	Option/Range
FreqWattModeEnable	When enabled, the active power is automatically adjusted according to the frequency.	Disable(By default) Enable
dbOF	It is a single-sided deadband value for high-frequency and low-frequency, respectively.	0.017~1.000 Hz
dbUF	It is a single-sided deadband value for high-frequency and low-frequency, respectively.	0.017~1.000 Hz
KOF	It is the per-unit frequency change corresponding to 1 per-unit power output change (frequency droop), unitless	0.020~0.070
KUF	It is the per-unit frequency change corresponding to 1 per-unit power output change (frequency droop), unitless	0.020~0.070
FW Open Response Timer	FW: FreqWatt mode Response time of active power adjustment.	0.05~10.00 s

4.6 VoltActivePower

Voltage active power setting function.

It will be set automatically after setting safety.

Setting	Explanation	Option/Range
VoltageActivePowerEn	When enabled, the active power is automatically adjusted according to the grid voltage.	Disable Enable
V1	Voltage point 1	fixed at 100%
V2	Voltage point 2	105%~110%
V3	Voltage point 3	105%~110%
P1	Active power point 1	fixed at 100%
P2	Active power point 2	-100%~100%
P3	Active power point 3	-100%~100%
VW Open Response Timer	VW: VoltWatt mode Response time of active power adjustment.	0.50~60.00 s

4.7 GMPPT

In some cases, PV arrays may be installed in the shadow of surrounding buildings or vegetation, and the maximum power point (MPP) may be affected by this partial shading condition, resulting in decrease of energy generation.

Global MPPT (GMPPT) scan solutions can perform maximum power point tracking for every MPPT to increase energy generation.

Setting	Explanation	Option/Range
GMPPT	It can set the scan interval time.	Off (By default): Disable GMPPT Low-Every 4h: GMPPT scan once every 4h Mid-Every 3h: GMPPT scan once every 3h High-Every 1h: GMPPT scan once every 1h Customized: The setting range is 5min~23h59min

4.8 Micro Grid

It is used to set the working conditions for accessing the third-party PV inverter in an off-grid state.

Setting	Explanation	Option/Range
Micro_Grid_En	The inverter microgrid function can be set to be enabled or disabled.	Disable(By default) Enable
Start Freq	Microgrid frequency active regulation start point.	60~66 Hz Default 60 Hz
InvMaxPow	Maximum power output of the microgrid system grid-connected. This value usually depends on the maximum output power of the third party inverter.	0~10000 W
Freq Droop	Frequency active condition slope. This slope is related to the frequency at which the third party inverter is controlled, and when this frequency reaches a certain value, the third party inverter stops operating.	0~100%
FreqReverBatCap	If SOC is lower than this value, microgrid will return to the starting frequency point at which the battery starts charging.	20%~80% Default 70%
SolarInverterLocation	When building the microgrid system, the customer is required to pre-set the PV inverters to be installed at the port locations of the BI so that the BI can close the circuits of the corresponding PV inverters in time to connect them to the microgrid system.	• ESS Port: Connecting the third-party inverter to BI ESS port. • Backup Port: Connecting the third-party inverter to BI backup load port.

NOTICE!

- This parameter is hidden when the **PresenceOfBI** is set to **Disable** or the **Parallel Setting** is set to **Secondary**.

4.9 Charger

This function is to set battery control parameters, such as "Min SOC, Charge/Discharge max current", etc.

Setting	Explanation	Option/Range
Charge Max Current(A)	Maximum allowable charge current	0~54 A Default 54 A
Discharge Max Current(A)	Maximum allowable discharge current	0~54 A Default 54 A
LowSocChgFromGrid	Whether to allow charging from the grid when the battery is low.	ON OFF
Battery Heat	When the battery heat function is enabled, the Start Time and End Time are allowed to be set.	Disable(By default) Enable
Battery Expansion	When the battery expansion is enabled, you can set whether to allow discharging to the grid.	Disable(By default) Enable

4.10 EPS

NOTICE!

- This parameter is hidden when the **PresenceOfBI** is set to **Disable** or the **Parallel Setting** is set to **Secondary**.

4.10.1 EPS Auto Restart

Setting	Explanation	Option/Range
EpsBatLowRecoverEn	• Enable: During off-grid state, the inverter will cut the load connection when battery is below MiniSoc. The inverter will not reconnect the load unless battery reach to **EpsAutoRecoverSoc**. • Disable: During off-grid state, the inverter will cut the load connection when battery is below MiniSoc. The inverter will reconnect the load once the battery is charged by PV.	Enable(By default) Disable

Setting	Explanation	Option/Range
EpsAutoRecoverSoc	The battery capacity threshold to automatically restart the system output power.	0~100%

4.10.2 Black Start Function

Black start function starts to work when battery enters idle state with capacity less than MiniSOC under off-grid condition. During this condition, battery will output energy periodically to activate A1-ESS-G2 system. Once the battery is charged and the capacity reachs to **EpsAutoRecoverSoc**, the inverter will reconnect and supply energy to the loads.

NOTICE!

- A1-ESS-G2 firmware V25 changed the black start function from disable to enable by default. In order to make this change, the user needs to restore factory settings of the system. Otherwise, it will remain the same as the original settings.

Setting	Explanation	Range
Start Time & End Time	The black start time period is usually set to a time when there is sufficient light during the day so that the system has enough energy to recharge after the black start. The battery will automatically attempt to black start every hour during the preset time period.	Default start time is 9:00, default end time is 18:00.
Duration Time	Due to the fluctuating nature of PV light or the lagging start-up time of third party PV inverters, the voltage output maintenance time after a battery black start can be preset. If there is no sufficient power to charge within the preset time, the system can go to sleep again in time to save battery energy and wait for the next black start to try again.	Default 8 minutes

4.10.3 Quick Power Supply

After it is enabled, on-grid and off-grid switching is carried out at a faster speed, and the home power supply system is more stable. But the machine cannot enter hot standby mode.

4.11 PCS Setting

Power Control Systems (PCS) : Systems or devices which electronically limit or control the output power at grid point to a programmable limit or level. PCS mode setting will be automatically locked after 10 modifications according to the regulations.

NOTICE!

- This parameter is hidden when the **Parallel Setting** is set to **Secondary**.

4.11.1 Import/Export Controls

Enable or disable PCS function. If enabled, the work mode setting will appear.

Work mode

Option	Explanation
Unrestricted	No restriction for power exchange with grid.
Export Only (not released)	Allow power export to grid, but restrict power import from grid, by setting "PCS Controlled Current Setting", setting range is 0~160 A.
Import Only	Allow power import from grid, but restrict power export to grid, by setting "PCS Controlled Current Setting", setting range is 0~160 A.
No Exchange (not released)	Restrict both power import and export, by setting "PCS Controlled Import Current Setting" and "PCS Controlled Export Current Setting", setting range is 0~160 A.

NOTICE!

- 160A is the maximum standable value of BI. When somebody does the actual setting, the value should be smaller than model type power multiple voltage.

Allow Legacy PV Export Directly

Setting	Explanation	Range
Allow Legacy PV Export Directly	Whether to allow legacy PV systems to feed directly into the grid.	Disable(By default) Enable

NOTICE!

- This function is used to match California NEM 1.0 and 2.0 policies.

4.11.2 Panel Limit (Invalid)

NOTICE!
• The setting of **Panel Limit** is not supported, it is planned to be released in the next version.

Setting	Explanation	Range
Panel Limit	Disable or enable BusBar.	Disable(By default) Enable
Panel Limit Current(A)	Set the current of BusBar.	16~1000 Default 80 A

4.11.3 Export Limit

Setting	Explanation	Range
Export Power(W)	Limit the export power.	0~60000 W Default 60000 W

The Export Power works with work mode above at the same time, take "Export Only" and "Import Only" as an example. If the homeowner does it as Export Only, the export power will also be restricted at the setting range here. If the homeowner does it as Import Only, the export power will be limited at the smaller number, compared "PCS Controlled Current Setting" to the setting range here.

4.12 MLPE Port Usage

Setting	Explanation	Option/Range
MLPE Port Usage	Inverter MLPE port usage settings	• Sunspec Modbus (By default): Use other external devices to control the inverter function through Modbus protocol. • Secondary Load Panel Meter2: Monitor the load power on another panel. • Legacy PV Meter2: Monitor the output power of another legacy PV system.

NOTICE!
• This parameter is hidden when the **Parallel Setting** is set to **Secondary**.

4.13 Power Limit

This function is used to limit the inverter AC output power, which is different with PCS setting.

Setting	Explanation
BI Breaker Trip Protection	It can be used to limit battery charging power when in parallel.
LimitActivePowerEn	Enabling or disabling to decide whether to actively limit the energy output of the inverter.
Active Power (%)	The setting range is 0~100. For example, if **Active Power** is set to 70, the inverter will be actively limited to output 70% of the original energy (depends on the power type of the inverter). **Note:** The limit effect is the same with "4.11.3 Export Limit" when there is no BI. Otherwise active power refers to AC port power of the inverter, and Export Power refers to power of the grid side.

4.14 ExternalGen

This menu is to configure the external diesel generator interconnection when the application scenario needs 24 hours power supply.

NOTICE!

- This parameter is hidden when the **PresenceOfBI** is set to **Disable** or the **Parallel Setting** is set to **Secondary**.

4.14.1 Disable

When the External Gen is set to **Disable**, there is an option to disable or suspend a dry contact generator at any time using the SolaXCloud App. If this option is used while the generator is running, then the generator stops immediately. This feature is useful when undertaking any maintenance work such as generator servicing, replacement, and so on. This option works only for dry contact generators.

4.14.2 ATS Control

Connecting generator by ATS (Automatic Transfer Switch) control solution.

Setting		Explanation	Option/Range
Max Charge Power		Maximum charge power	0~60000 W
Min Gen Run Power		Minimum run power of the generator	0~60000 W
Rated Gen Run Power		Set the rated power of the generator	1~60000 W Default 15200 W
Charge Period	Charge From Gen	It can control whether to charge from generator.	Disable Enable
	Charge End Soc	When the value reaches Soc, the charging will stop.	0~100%
	Charge Period 1&2	Set **Charge Start Time** and **Charge End Time**.	The range of Hour is [0,23], the range of Min is [0,59].

4.14.3 Dry Contact

Connecting generator by dry contact solution.

Setting	Explanation	Option/Range
Max Charge Power	Maximum charge power	0~60000 W
Min Gen Run Power	Minimum generator run power	0~60000 W
Rated Gen Run Power	Set the rated power of the generator	1~60000 W Default 15200 W
Start Gen Method	Set the methods of starting generator	Reference Soc, Immediately, Manual.
Max Run Time	Maximum run time of the generator	0~60000 min
Min Rest Time	Minimum rest time of the generator	0~60000 min
Allow Work Period	Set the start time and end time for allowing the generator to operate.	The range of Hour is [0,23], the range of Min is [0,59].

Setting		Explanation	Option/Range
Charge Period	Charge From Gen	It can control whether to charge from generator.	Disable Enable
	Charge End Soc	When the value reaches Soc, the charging will stop.	0~100%
	Charge Period 1&2	Set **Charge Start Time** and **Charge End Time**.	The range of Hour is [0,23], the range of Min is [0,59].
SelfTest	SelfTest En	It can control whether to selftest.	Disable Enable
	Day In Week	Set the day of the week	[1,7]
	Start Time	Set the start time of selftest.	The range of Hour is [0,23], the range of Min is [0,59]
	Duration	Set the duration of selftest.	10~60 min
	Frequency	Set the frequency of selftest.	1~8 Week

4.15 Home Backup Mode (Invalid)

NOTICE!

- This parameter is hidden when the **PresenceOfBI** is set to **Disable** or the **Parallel Setting** is set to **Secondary**.

4.16 Parallel Setting

The A1-ESS inverters support up to 4 machines of the same power range in parallel.

- When applied to a parallel system, the customer needs to set the role of each device in the parallel system. Default is Free.
- When the parallel system is set up, only one machine can be used as the Primary.
- When set as the Primary, the number of parallel machines (including the Primary itself) needs to be set, and the Primary will poll the Secondary system according to the preset value. When the Secondary machine is lost, the corresponding fault will be reported to remind the customer for troubleshooting. Other machines can be set as Secondary 1/2/3 in turn. The operating mode of the Secondary will be the same as the primary, the Secondary can set the mode separately but it will not take effect.

4.17 PresenceofBI

NOTICE!

- This parameter is hidden when the **Parallel Setting** is set to **Secondary**.

Enable or disable it according to the presence of BI.

4.18 PresenceofRGMMeter

Enable or Disable it according to the usage of RGMMeter. Default is enabled.

NOTICE!

- This setting has no effect when it is enabled or not, unless you are participating in related events below.

- **Renewable Energy Systems**: For solar photovoltaic (PV) systems, RGM is often required for accurate measurement of energy production, particularly if the system participates in incentive programs, net metering, or performance-based incentives. Energy Management: In commercial and industrial settings, RGM is used for precise monitoring and verification of energy usage to comply with standards like ISO 50001 and for demand response programs.
- **Regulatory Requirements**: Certain states and utility companies may have specific requirements for the use of RGMs. For example, California has stringent metering requirements for renewable energy systems under programs like the California Solar Initiative (CSI).
- **Industry Standards**: The American National Standards Institute (ANSI) and other organizations have developed standards for revenue-grade metering, ensuring accuracy and reliability.

4.19 CT Reverse

NOTICE!

- This parameter is hidden when the **Parallel Setting** is set to **Secondary**.

4.19.1 BI CT Reverse

Due to the complex installation of field equipment, the CT direction of the BI parallel port is stuck backwards, or the problem of crossed wrong cards often occurs, in order to facilitate the processing of maintenance personnel, to provide the setting channel, for the CT direction stuck backwards or CT1, CT2 crossed in wrong mounting position situation, can be modified by modifying the CT configuration, the software according to the configuration, re-identify the definition of the meter data direction.

Option	Explanation
CT L1	The CT L1 direction is reversed and can be modified by enabling this setting.
CT L2	The CT L2 direction is reversed and can be modified by enabling this setting.
CT L1 & CT L2 Swap	If CT L1 & CT L2 are crossed wrongly, this can be changed by enabling this setting.
CT1	Whether the setting item is displayed or not depends on the setting of **BI Grid Meter Range**. • When **BI Grid Meter Range** is set to 200A, this setting is displayed; • When **BI Grid Meter Range** is set to 400A, this setting item is hidden.
CT2	
CT1 & CT2 Swap	

NOTICE!

- L1, L2 refers to the fixed L1A, L2A in BI, but in some scenarios, homeowners may need to disassemble L1AL2A and assemble L1BL2B, then it may cause problems.
- The setting of **BI Grid Meter Range** is not yet open to the public, if you need to adjust the setting, please contact technical support.

NOTICE!

- This parameter is hidden when the **PresenceOfBI** is set to **Disable**.

4.19.2 Grid Meter CT Reverse

Reverse setting of external meter CT.

- Enable: Reverse.
- Disable: Do not reverse.

NOTICE!

- This parameter is displayed when the **PresenceOfBI** is set to **Disable** and the **PresenceOfGridMeter** is set to **Enable**.
- This parameter is hidden when the **PresenceOfBI** is set to **Enable**.

4.19.3 Meter2 CT Reverse

Setting	Explanation	Option/Range
Meter2 CT Reverse	CT inversion setting for external meter 2	Disable(By default) Enable

NOTICE!

- This parameter is hidden when the **MLPE Port Usage** is set to **Sunspec Modbus**.

4.20 MachineStyle

- **A1-HYB**: Systems with inverters, BI, batteries, PV.
  - » **PV Only Enabled**: Systems only with Inverter and PV. No BI and batteries. (There will be no battery icon on the platform if the homeowner sets it.) The **PresenceOfGridMeter** setting is displayed, it can be enabled or disabled.
- **A1-AC**: System with inverter, BI, batteries, no PV. (There will be no PV icon on the platform if the homeowner sets it.)

4.21 Reset

Option	Explanation
ClearBatBreakOpenFault	After the system is installed, it may report after manually starting the battery. It can be cleared through this setting and the system will re-detect.
ClearEPSBatPowerLowFault	Manually clears EPSBatPowerLow Fault, and let inverter work normally, even with no setting on EPSBatLowRecoverEn of EPS.
Restore Factory Settings	System restores factory settings: system clear after setup will clear data back to factory defaults, clear range includes power generation, fault records, safety parameters, mode related parameters etc.

4.22 New Password

Password reset for entering **Advanced Setting**.

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