

USER MANUAL

Warning notices: Before using this product, please read this manual carefully and keep it for future reference. The design and specifications are subject to change without prior notice for product improvement. Consult with your dealer or manufacturer for details. The diagram above is just for reference. Please take the appearance of the actual product as the standard.

THANK YOU LETTER

Thank you for choosing Midea! Before using your new Midea product, please read this manual thoroughly to ensure that you know how to operate the features and functions that your new appliance offers in a safe way.

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The Household Energy Management System (HEMS) offers both user and installer apps. Support for the apps is guaranteed for at least 5 years from date of purchase. Illustrations are shown for reference purposes only and may differ from the app.

Installer Guide

This app is for professional installers only.

1. Download the goMSolar App

Please download the app using one of the following methods:

Method 1: Scan the following QR code and download the latest version.



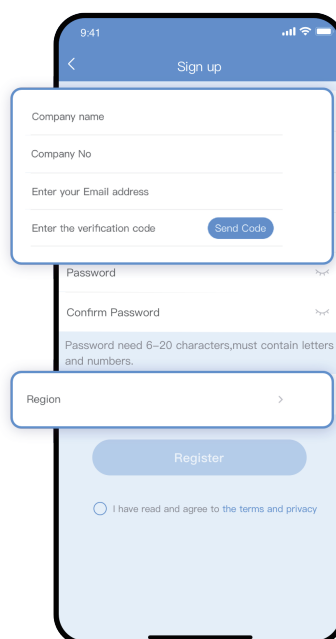
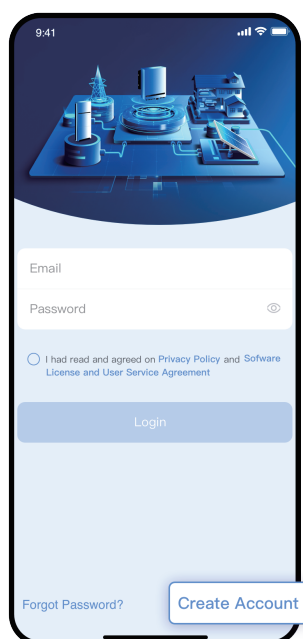
Method 2: Search for goMSolar on the App Store or Google Play app market and download the latest version.

2. Register an Account

If you already have an installer account, please skip this step and proceed to login to the app using your phone number or email address.

Alternatively, create a new account as follows (please ensure that you have your company number, provided by the supplier, at hand):

- Click on "Create Account".
- Fill in the relevant fields and click on "Send Verification Code". You will be sent a code to the e-mail address that you provided.
- Enter this code in the field provided and press "OK" to continue.



3. Connect to the HEMS

3.1 Establish Bluetooth Connection

NOTE

All the devices required for the setup should be installed before proceeding with the configuration.

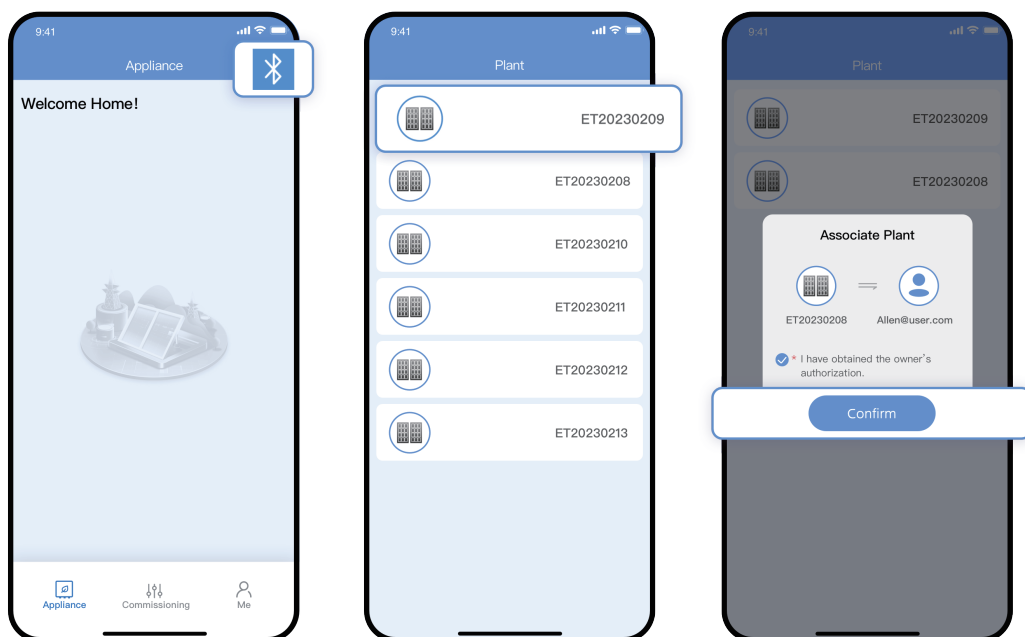
- Make sure that the device you wish to connect to is powered on. In the goMSolar app, tap on the Bluetooth icon, in the upper right-hand corner of the screen, to search for available devices.
- Click on the device to connect. Note that the app will locate all compatible wireless modules, not just the HEMS.
- The app will search for all hardware physically connected to the HEMS. If the list is incomplete, cancel the process and recheck the connections before trying again.

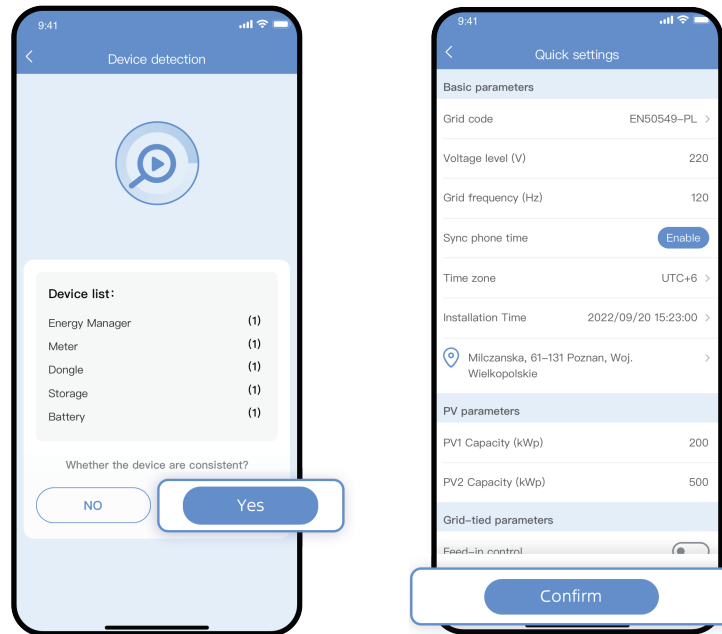
After tapping on “Proceed” you will be directed to the quick settings page where it is necessary to input the installation time. Optionally, you may configure the photovoltaic capacity and other variables.

When the configuration is complete, the HEMS will start automatically.

NOTE

Please ensure that all components are listed including PV systems, additional EMS, energy storage converts, batteries, communication modules and smart meters. Missing elements could result in unusual loads.





3.2 Additional Quick Settings

From the home screen tap on the “Commissioning” icon at the bottom of the screen. Then tap on “Quick Settings”

The following parameters can be configured here:

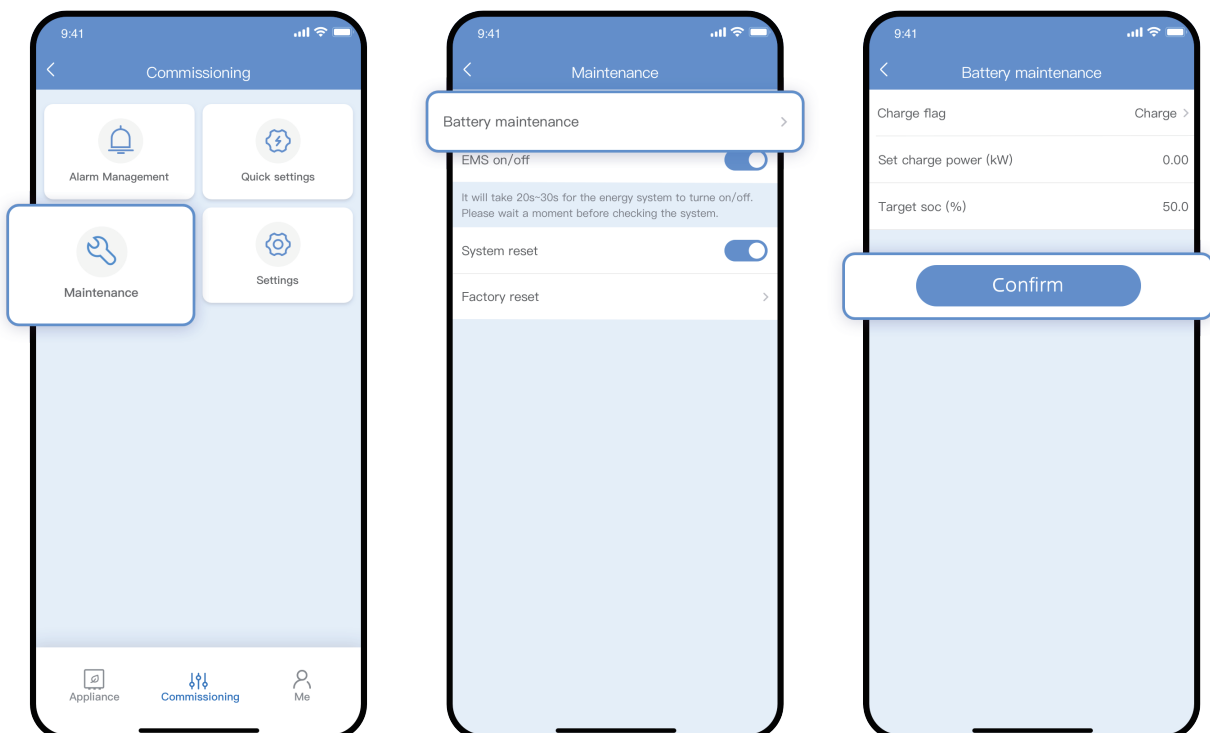
Parameter	Description	Value Range
Grid Code	Set this parameter based on the grid code of the country or region where the inverter is used and the inverter application scenario.	<ul style="list-style-type: none"> • CHINA-LV220/380 • Custom (50Hz) • NB/T 32004 • Poland-LV230/380 and so on
Voltage Level	Voltage level corresponding to the grid standard code	/
Grid Frequency	Grid frequency corresponding to the grid standard code	/
Time Zone	The time zone where the device is located	-12 - 12
Installation Time	Equipment installation time	/
PV String 1 Capacity	Insert the power range of the PV1 string.	0 - 10kW
PV String 2 Capacity	Insert the power range of the PV2 string.	0 - 10kW
Feed-In Control	Allow the user to control feed-in	<ul style="list-style-type: none"> • Disable • Enable

Feed-In Control	Allow the user to control feed-in	<ul style="list-style-type: none"> • Disable • Enable
Limit Control	Set limits per phase or for the entire system	<ul style="list-style-type: none"> • All phase • per phase
Maximum Feed-In Power	Maximum power of feed to grid	0 - 10kW
Charge from Grid Control	Allow the battery to be charge from the grid.	<ul style="list-style-type: none"> • Disable • Enable
Maximum Charge Power from Grid	Maximum power from grid	0 - 5kW
ESS Control Mode	Set default preference for the Energy Storage System (ESS)	<ul style="list-style-type: none"> • maximum self-consumption • Maximum Feed-in
Load Control Mode		<ul style="list-style-type: none"> • Disable • Enable
Load Type	Select heating system	<ul style="list-style-type: none"> • Combo • ATW • No Heat pump
Load Address	Set the heat pump Modbus address	<ul style="list-style-type: none"> • Combo • ATW
Control Mode	Select heat pump control Mode	<ul style="list-style-type: none"> • Linkage • Dry contact

3.3 Maintenance

From the home screen, tap on the “Commissioning” icon at the bottom of the screen and then tap on “Maintenance”.

If the inverter is connected to a battery, you can edit the parameters here.



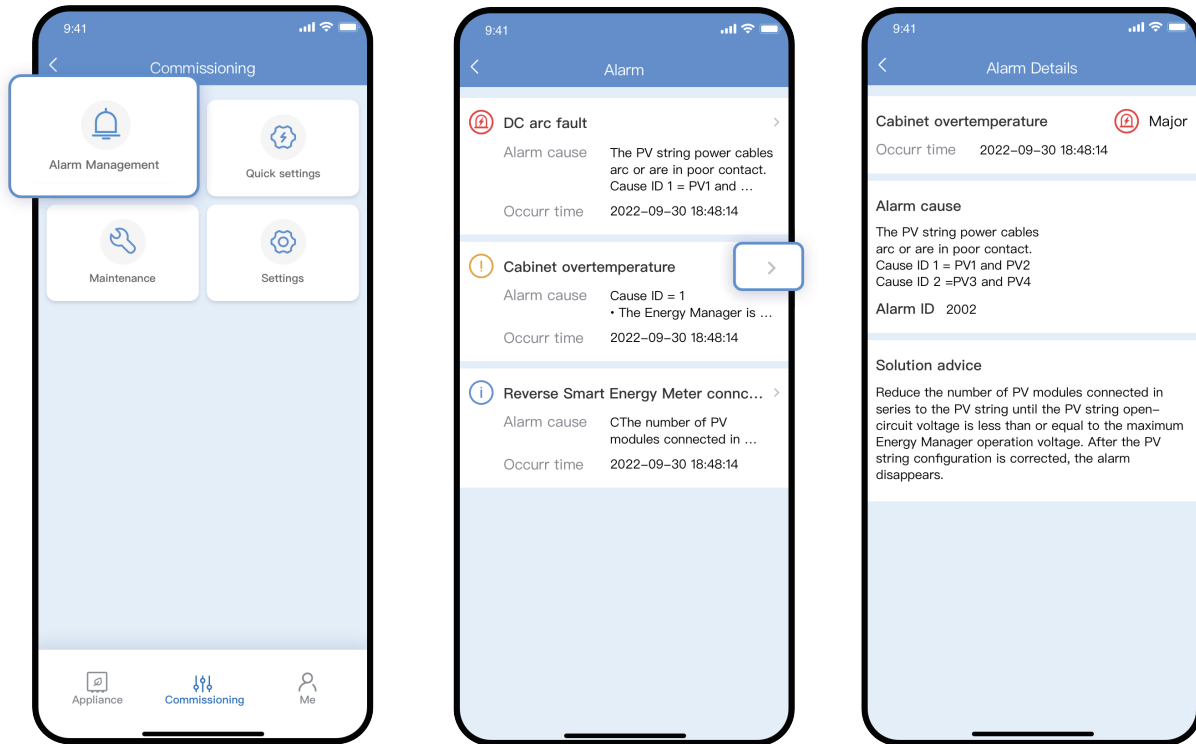
System parameter:

Parameter	Description	Value Range
Max Charge Power	Retain this parameter to the maximum charge power. Additional configuration is not required	0 - Max charge power
Max Discharge Power	Retain this parameter to the maximum discharge power. Additional configuration is not required	0 - Max discharge power
Grid Charging	Give user the option to charge the battery from the grid	<ul style="list-style-type: none"> • Disable • Enable
Charge Cut-Off SoC (Total)	Set the charge from PV cutoff limit	90 - 100%
Grid Charging Cut-Off SoC (Total)	Set the charge from grid cutoff limit	20 - 100%
Discharge Cut-Off SoC (Total)	Set the discharge cutoff limit	0 - 15%
Maximum Grid Charging Power (charge limit)	Set maximum battery charging power from grid	0 - 5kW

3.4 Alarm Management

From the home screen, tap on “Commissioning” and then “Alarm Management” to configure alarms.

The specific faults and corresponding indicator lights are shown in the table below:



Alarm ID	Description	Severity	Possible Cause(s)	Trouble shooting
1001	String reverse connection	Major	The PV string polarity is reversed	Check if the PV string is connected to the inverter in reverse. If so, wait until the PV string current decreases to below 0.5 A. Then, turn off the DC switch and correct the PV string polarity.
1002	Abnormal residual current	Major	The input-to-ground insulation impedance has decreased during the inverter operation	<ol style="list-style-type: none"> 1. If the alarm is triggered occasionally, the power grid may be in a temporary abnormal state. The inverter will automatically recover after detecting that the power grid has stabilized. 2. If the alarm occurs frequently, check whether the impedance between the PV string and ground is too low.

1003	Low insulation resistance	Major	<ol style="list-style-type: none"> 1. short circuit exists between the PV array and ground 2. The PV array is in a moist environment and the circuit is not completely insulated 	<ol style="list-style-type: none"> 1. Check the impedance between the PV array output and ground. If there is a short circuit or the insulation is insufficient, rectify the fault. 2. Alternatively, check if the PE cable of the inverter is correctly connected. 3. Lastly if you have confirmed that the impedance is lower than the specified protection threshold in a cloudy or rainy environment, log in to WEB and APP set the Insulation resistance protection threshold.
1004	Overheated cabinet	Major	<ol style="list-style-type: none"> 1. The inverter is installed in a place with poor ventilation 2. The ambient temperature exceeds the upper threshold 3. The inverter is not operating properly 	Check the ventilation and ambient temperature at the inverter. If the ventilation is poor, take measures to improve it. If the ambient temperature exceeds the upper threshold, employ means to dissipate the heat. Should it not be possible to resolve the issue, contact your dealer or technical support.
1005	Grid loss	Major	<ol style="list-style-type: none"> 1. A power grid outage has occurred 2. The AC circuit is disconnected or the AC switch is off 	The alarm will be cleared automatically after the power grid has recovered. In case no. 2, check if the AC circuit is disconnected or the AC switch is off.
1006	Power Module Communication failure	Major	The battery communication is abnormal	Check that the communications cable is correctly installed and that the communication parameters are the same as the inverter RS485 settings.
1007	BMS Communication failure	Major	The battery communication is abnormal	Check that the communications cable is correctly installed and that the communication parameters are the same as the inverter RS485 settings.
1008	Meter Communication failure	Major	The meter communication is abnormal	Check that the communications cable is correctly installed and that the communication parameters are the same as the inverter RS485 settings.
1009	Equipment fault	Major	An irrecoverable fault has occurred on a circuit inside the inverter	Turn off the AC output and DC input switches. Turn them on again after 5 minutes. If the alarm occurs frequently, replace the monitoring board or contact your dealer or technical support.

1010	Grid overvoltage	Minor	The grid voltage exceeds the upper threshold or the high voltage duration has lasted for more than the value specified for high voltage ride-through (HVRT)	<ol style="list-style-type: none"> 1. If the alarm is triggered occasionally, the power grid may be in a temporary abnormal state. The inverter will automatically recover after detecting that the power grid has stabilized. 2. If the alarm occurs frequently, check whether the power grid voltage is within the acceptable range or not. If not, then contact the local power operator. Modify the grid overvoltage protection threshold through the web or app interface with the consent of the local power operator. 3. Check if the peak voltage of the power grid is too high. If the alarm persists or has not been resolved for an extended period of time, contact the power operator.
1011	Grid undervoltage	Minor	The grid voltage is below the lower threshold or the low-voltage duration has lasted for more than the value specified by low voltage ride-through (LVRT)	<ol style="list-style-type: none"> 1. If the alarm is triggered occasionally, the power grid may be in a temporary abnormal state. The inverter will automatically recover after detecting that the power grid has stabilized. 2. If the alarm occurs frequently, check whether the power grid voltage is within the acceptable range or not. If not, then contact the local power operator. Modify the grid overvoltage protection threshold through the web or app interface with the consent of the local power operator. 3. Check if the peak voltage of the power grid is too high. If the alarm persists or has not been resolved for an extended period of time, contact the power operator.

1012	Grid overfrequency	Minor	Power grid exception: The actual power grid frequency is higher than the requirements for the local power grid code	<ol style="list-style-type: none"> 1. If the alarm is triggered occasionally, the power grid may be in a temporary abnormal state. The inverter will automatically recover after detecting that the power grid has stabilized 2. If the alarm occurs frequently, check whether the power grid voltage is within the acceptable range. If not, contact the local power operator. If yes, modify the grid overvoltage protection threshold through the WEB and APP with the consent of the local power operator. 3. Check whether the peak voltage of the power grid is too high. If the alarm persists and cannot be rectified for a long time, contact the power operator.
1013	Grid underfrequency	Minor	Power grid exception: The actual power grid frequency is lower than the requirements for the local power grid code	<ol style="list-style-type: none"> 1. If the alarm is triggered occasionally, the power grid may be in a temporary abnormal state. The inverter will automatically recover after detecting that the power grid has stabilized. 2. If the alarm occurs frequently, check whether the power grid voltage is within the acceptable range or not. If not, then contact the local power operator. Modify the grid overvoltage protection threshold through the web or app interface with the consent of the local power operator. 3. Check if the peak voltage of the power grid is too high. If the alarm persists or has not been resolved for an extended period of time, contact the power operator.
1014	AC-grid output overcurrent	Minor	The power grid voltage has dropped dramatically or there is a short circuit. As a result, the inverter transient output current has exceeded the upper threshold and protection Mode has been triggered	The inverter monitors its external operating conditions in real time and automatically recovers after the fault has been rectified. If the alarm persists and affects the energy yield of the power plant, it is advisable to check for a short circuit. If the fault is found, contact your dealer or technical support.

1015	AC-backup output overcurrent	Minor	The backup load power exceeds the upper threshold	<ol style="list-style-type: none"> 1. Try to reduce the load power 2. If it is not possible to resolve the problem, contact your dealer or technical support.
2001	Power module overtemperature	Major	<ol style="list-style-type: none"> 1. The installation position of the battery power control module is not well ventilated 2. The ambient temperature is excessively high 3. The battery power control module is functioning abnormally 	<ol style="list-style-type: none"> 1. Check that the ventilation is adequate and if required try to improve the ventilation and/or heat dissipation. Check that the ambient temperature of the power control module has not exceeded the upper threshold. 2. If the ventilation is sufficient and the ambient temperature is normal, contact your dealer or technical support.
2002	Low battery DC input bus voltage	Major	<ol style="list-style-type: none"> 1. The DC bus voltage of the battery is low 2. The DC battery switch is OFF 3. The battery cables are not correctly connected 	<ol style="list-style-type: none"> 1. Turn off the inverter AC output switch, inverter DC input switch, and battery DC switch 2. After waiting for 5 minutes, check the cable connections to the power control module by referring to the quick installation guide. 3. After checking that the battery power cables are correctly connected, turn on the battery DC switch, AC output switch and inverter DC input switch in this order. 4. If the alarm occurs frequently contact your dealer or technical support.
2003	Battery expansion module undervoltage	Major	The voltage of a battery expansion module is low	If the sunlight is sufficient or AC reverse charging is allowed, the battery expansion modules can be charged when the inverter is running.
2004	Power module reversely connected	Major	The positive and negative terminals of the power module are connected in reverse to the inverter	<ol style="list-style-type: none"> 1. Turn off the inverter AC output switch, inverter DC input switch and battery DC switch 2. After waiting for 5 minutes, check the cable connections to the power control module by referring to the quick installation guide. After checking that the battery power cables are correctly connected, turn on the battery DC switch, AC output switch, and inverter DC input switch in sequence. 3. If the alarm occurs frequently, contact your dealer or technical support.

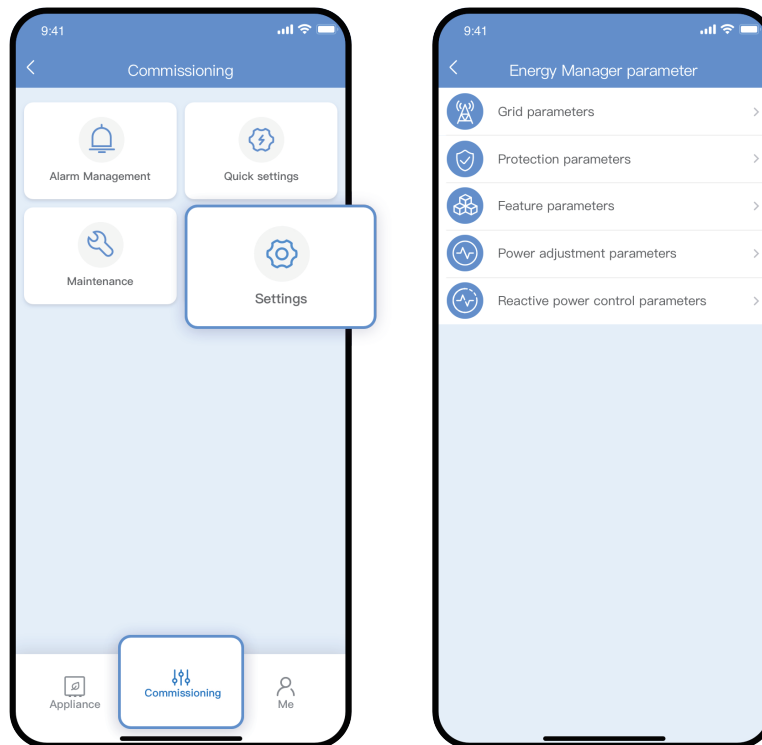
2005	Abnormal BMS communication	Major	The power module is unable to communicate with the battery expansion modules	<ol style="list-style-type: none"> 1. Turn off the battery DC switch. 2. Check that the power cables and communications cables are correctly connected to the battery expansion modules 3. After checking that everything is connected correctly, turn the battery DC switch on. 4. If the alarm occurs frequently, contact your dealer or technical support.
3001	Battery Undervoltage	Minor	<ol style="list-style-type: none"> 1. The voltage of the battery pack or one of its cells is too low 2. The battery pack has been stored for a long period of time 3. The battery pack has been idle for a long time after grid connection 	<ol style="list-style-type: none"> 1. Connect to the power grid and charge batteries in a timely manner. 2. If the alarm occurs frequently after the battery has been charged for one hour, contact your dealer or technical support.
3002	Battery module overtemperature	Minor	<ol style="list-style-type: none"> 1. The battery installation position is not well ventilated 2. The ambient temperature is excessively high. 3. The battery power control module is functioning abnormally 	<ol style="list-style-type: none"> 1. Check the ambient temperature of the battery expansion modules has not exceeded the upper threshold. 2. If the ventilation is poor or the ambient temperature is excessively high, improve the ventilation and heat dissipation. 3. If the ventilation and ambient temperature are normal, contact your dealer or technical support.
3003	Battery module low temperature	Minor	<ol style="list-style-type: none"> 1. The ambient temperature is excessively low 2. A battery expansion module is functioning abnormally 	<ol style="list-style-type: none"> 1. Check the ambient temperature in the installation positions of the battery expansion modules has not exceeded the lower threshold. 2. If the ambient temperature is excessively low, improve the installation environment. 3. If this is not possible or the alarm occurs frequently even if the ambient temperature is normal, contact your dealer or technical support.

Definition of alarm severity :

- Major: The inverter is faulty. As a result, the output power decreases or the grid-tied power generation is stopped.
- Minor: Some components are faulty without affecting the grid-tied power generation.
- Warning: The inverter works properly. The output power decreases or some authorization functions fail due to external factors.

3.5 Settings

On the home screen, choose Commissioning -> Settings to access the parameter setting screen.



NOTE

- The list of parameters provided in this document vary from your device Model. Grid codes may also be different. As the app is regularly updated, the images provided might vary.
- The parameters are for example only. The correct parameters depend on the device Model and grid code.
- The parameter names, value ranges, and default values are subject to change.

Item	Parameter	Description	Value Range
Grid Parameters	Grid code	Set this parameter based on the grid code of the country or region of the installation and the usage scenario	e.g. CHINA-LV220/ 380 Custom (50Hz)
	Automatic startup upon grid recovery	Allow the inverter to automatically start after the power grid recovers	<ul style="list-style-type: none"> • Disable • Enable
	On-grid recovery time	How long after grid recovery, the inverter should restart	0 - 7 200s
	Power grid fault startup soft start time	How long after grid recovery, the power should gradually begin to increase	1 - 1 800s
	Grid reconnection voltage upper limit	Country or region dependent: maximum grid voltage for inverter reconnection after inverter shut down	220 - 299.5V
	Grid reconnection voltage lower limit	Country or region dependent: minimum grid voltage for inverter reconnection after inverter shut down	99 - 220V
	Grid reconnection frequency upper limit	Country or region dependent: maximum grid frequency for inverter reconnection after inverter shut down	50 - 60Hz
	Grid reconnection frequency lower limit	Country or region dependent: minimum grid frequency for inverter reconnection after inverter shut down	40 - 50Hz

Load Control Parameters	Control mode	Set this parameter based on the grid code of the country or region of the installation and the usage scenario	<ul style="list-style-type: none"> • Disable • Enable
	Load type	Allow the inverter to automatically start after the power grid recovers	<ul style="list-style-type: none"> • Combo • ATW • No heat_pump
	Load model	Heat pump Model	e.g Combo Model:5
	Load address	Modbus address of the heat pump	1 - 255
	Control mode	Heat pump control Mode	<ul style="list-style-type: none"> • Linkage • Dry contact
Grid-Tied Parameters	Feed-in control	Online power restrictions	<ul style="list-style-type: none"> • Disable • Enable
	Limit control	Choose between “Total” or “Per Phase”, for export limitation at grid tie point	<ul style="list-style-type: none"> • All Phase • Per phase
	Maximum feed-in power	Specifies the maximum active power transmitted from the grid tie point to the power grid	0 - 10kW
	Charge from grid	Force compliance with charge from grid regulations comply with the grid charge requirements stipulated in local laws and regulations when this function is Enable	<ul style="list-style-type: none"> • Disable • Enable
Mode Setting Parameters	Backup mode	Allow standby Mode	<ul style="list-style-type: none"> • Disable • Enable
	Reserve energy for grid outage	Sets the backup power SoCSoC. In grid-tied Mode, the battery does not discharge when it is discharged to the backup power SOC. When the grid fails, the battery supplies power to loads in off-grids Mode until it reaches the end-of discharge capacity.	20 - 90% (When backup Mode is Enable)

Protection Parameter	Level-1 OV protection threshold	Level 1 overvoltage protection threshold	220 - 330V
	Level-1 OV protection time	Level 1 overvoltage protection duration	50 - 7 200 000ms
	Level-2 OV protection threshold	Level-2 overvoltage protection threshold	220 - 330V
	Level-2 OV protection time	Level-2 overvoltage protection duration	50 - 7 200 000ms
	Level-3 OV protection threshold	Level-3 overvoltage protection threshold	220 - 330V
	Level-3 OV protection time	Level-3 overvoltage protection duration	50 - 7 200 000ms
	Level-1 UV protection threshold	Level-1 undervoltage protection threshold	11 - 220V
	Level-1 UV protection time	Level-1 undervoltage protection duration	50 - 7 200 000ms
	Level-2 UV protection threshold	Level-1 undervoltage protection threshold	11 - 220V
	Level-2 UV protection time	Level-1 undervoltage protection duration	50 - 7 200 000ms
	Level-1 OF protection threshold	Level-1 overfrequency protection threshold	50 - 60V
	Level-1 OF protection time	Level-1 overfrequency protection duration	50 - 7 200 000ms
	Level-2 OF protection threshold	Level-2 overfrequency protection threshold	50 - 60V
	Level-2 OF protection time	Level-2 overfrequency protection duration	50 - 7 200 000ms
	Level-3 OF protection threshold	Level-3 overfrequency protection threshold	50 - 60V
	Level-3 OF protection time	Level-3 overfrequency protection duration	50 - 7 200 000ms
	Level-1 UF protection threshold	Level-1 underfrequency protection threshold	40 - 50V

Protection Parameter	Level-1 UF protection time	Level-1 underfrequency protection duration	50 - 7 200 000ms
	Level-2 UF protection threshold	Level-2 underfrequency protection threshold	40 - 50V
	Level-2 UF protection time	Level-2 underfrequency protection duration	50 - 7 200 000ms
	Level-3 UF protection threshold	Level-3 underfrequency protection threshold	40 - 50V
	Level-3 UF protection time	Level-3 underfrequency protection duration	50 - 7 200 000ms
	Insulation resistance protection Threshold	To ensure device safety, during self-check, the inverter compares the insulation resistance of the input to ground. This is the minimum value to allow grid connection.	0.02 - 1.50MΩ
Feature Parameter	HVRT	High voltage ride through (HVRT). When the grid voltage is abnormally high for a short time, the inverter cannot disconnect from the power grid immediately and has to work for some time.	0: Disable 1: Enable
	LVRT	LVRT is short for Low voltage ride-through (LVRT). When the grid voltage is abnormally low for a short time, the inverter cannot disconnect from the power grid immediately and has to work for some time.	0: Disable 1: Enable
	LVRT trigger threshold	Threshold for triggering LVRT. The threshold settings should meet the local grid standard.	110 - 220 V
	LVRT cut-off voltage	Low voltage ride through cutoff voltage	5 - 220 V
	LVRT trigger voltage time	Set the time for low voltage traversal to enter the voltage	100 - 30 000 ms

	LVRT cut-off voltage time	Set low voltage ride through cut-off voltage time	100 - 30 000 ms
	Shutdown gradient	Speed of change when shutting the inverter down expressed as percentage per second	0.1 - 2500 %/s
	Voltage rise suppression	Country or region specific. If required, Enable the suppression of voltage increase by using the inverter to output reactive power and reduce active power	<ul style="list-style-type: none"> • Disable • Enable
	Number of P-U curve points	number of P-U curve points	2-10
	U value at the first point of PU curve	Ratio of voltage to rated voltage (first point).	50 - 120%
	P/Pn value at the first point of P-U curve	Ratio of power to rated power (first point)	0 - 100%
	U value at the second point of P-U curve	Ratio of voltage to rated voltage (second point)	50 - 120%
	P/Pn value at the second point of P-U curve	The second point of the P (U) curve function, the ratio of power to rated power	0 - 100%
	U value at the third point of P-U curve	The third point of the P (U) curve function, the ratio of voltage to rated voltage	50 - 120%
	P/Pn value at the third point of P-U curve	The third point of the P (U) curve function, the ratio of power to rated power	0 - 100%
	U value at the fourth point of P-U curve	The fourth point of the P (U) curve function, the ratio of voltage to rated voltage	50 - 120%
	P/Pn value at the fourth point of P-U curve	The fourth point of the P (U) curve function, the ratio of power to rated power	0 - 100%

	U value at the fifth point of P-U curve	The fifth point of the P (U) curve function, the ratio of voltage to rated voltage	50 - 120%
	P/Pn value at the fifth point of P-U curve	The fifth point of the P (U) curve function, the ratio of power to rated power	0 - 100%
	U value at the sixth point of P-U curve	The sixth point of the P (U) curve function, the ratio of voltage to rated voltage	50 - 120%
	P/Pn value at the sixth point of P-U curve	The sixth point of the P (U) curve function, the ratio of power to rated power	0 - 100%
	U value at the seventh point of P-U curve	The seventh point of the P (U) curve function, the ratio of voltage to rated voltage	50 - 120%
	P/Pn value at the seventh point of P-U curve	The seventh point of the P (U) curve function, the ratio of power to rated power	0 - 100%
	U value at the eighth point of P-U curve	The eighth point of the P (U) curve function, the ratio of voltage to rated voltage	50 - 120%
	P/Pn value at the eighth point of P-U curve	The eighth point of the P (U) curve function, the ratio of power to rated power	0 - 100%
	U value at the ninth point of P-U curve	The ninth point of the P (U) curve function, the ratio of voltage to rated voltage	50 - 120%
	P/Pn value at the ninth point of P-U curve	The ninth point of the P (U) curve function, the ratio of power to rated power	0 - 100%
	U value at the tenth point of P-U curve	The tenth point of the P (U) curve function, the ratio of voltage to rated voltage	50 - 120%
	P/Pn value at the tenth point of P-U curve	The tenth point of the P (U) curve function, the ratio of power to rated power	0 - 100%

Power Adjustment Parameter	Over frequency derating	If Enabled, the active power of the inverter will be derated when the grid frequency threshold is exceeded.	0: Disable 1: Enable
	Remote power schedule	If Enabled, the inverter will follow the remote port schedule.	• Disable • Enable
	Underfrequency lift-off switch	Underfrequency and load up function control	• Disable • Enable
	Reactive power compensation	Reactive power compensation	-100 - +100PF
	Reactive power compensation	Reactive power compensation	-100 - +100Q/S
	Max. active power	Output upper threshold for active power	0 - 65535
	Plant active power gradient	Rate of active power rise due to sunlight changes.	5 - 3 000%/min
	Average active power filtering time	Period of active power rise due to sunlight changes. This parameter is used with Plant active power gradient	20 - 300 000 ms
	Active power change gradient	Rate of change of the inverter active power	0.1 - 100%/s
	Reactive power change gradient	Rate of change of the inverter reactive power	0.1 - 100%/s
	Trigger frequency of overfrequency derating	Country and region specific. The grid frequency threshold at which the output of active power from the inverter must be derated	50 - 60Hz
	Exit frequency of over frequency derating	Frequency threshold for exiting overfrequency derating	50 - 60Hz
	Overfrequency derating droop coefficient	Droop coefficient of the frequency derating function (slope) Over frequency derating droop coefficient, setting the slope of the over frequency derating function	3 - 20%

	Cut-off power of overfrequency derating	Power threshold for cutting off overfrequency derating	0 - 100%
	Power recovery gradient of overfrequency derating	Recovery rate of the overfrequency derating power	1 - 6 000%/min
	Underfrequency and load rise opening frequency	Underfrequency and load up opening frequency	40 - 50Hz
	Underfrequency lifting droop coefficient	Underfrequency load up droop coefficient, setting the slope of the underfrequency load up function	3 - 20%
Power Adjustment Parameter	Reactive power control Mode	reactive power output Mode at the grid-tied point	<ul style="list-style-type: none"> • Given reactive power • Given power factor • Q-U characteristic curve • $\cos \phi$- P/Pn characteristic curve
	Given reactive power	When selecting the given reactive power in the given method of reactive power, set the given reactive power through this parameter	-5 000 - 5 000
	Given power factor	When selecting a given power factor for the given method of reactive power, set the given power factor through this parameter	-10 - -0.8 0.8 - 10
	Q-U characteristic curve Mode Q-U	reactive power compensation Mode of the inverter output	0 - 10
	Q-U dispatch trigger power percentage	Threshold of apparent power of the inverter, expressed as a percentage, at which the QU curve scheduling function is triggered	0 - 100%
	Q-U dispatching exit power	Minimum power threshold at which the system exits from the Q-U curve function	0 - 100%

Minimum PF limit of Q-U characteristic curve	Minimum power limitation in reactive power Mode controlled by Q (U) curve	0 - 1
Number of Q-U characteristic curve points	Number of Q (U) curve points	2 - 10
U/Un value at the first point of Q-U curve	The first point of the Q (U) curve, the ratio of voltage to rated voltage	80 - 136%
Q/S value at the first point of Q-U curve	The first point of the Q (U) curve, the ratio of reactive power to rated power	-0.6 - 0.6
U/Un value at the second point of Q-U curve	The second point of the Q (U) curve, the ratio of voltage to rated voltage	80 - 136%
Q/S value at the second point of Q-U curve	The second point of the Q (U) curve, the ratio of reactive power to rated power	-0.6 - 0.6
U/Un value at the third point of Q-U curve	The third point of the Q (U) curve, the ratio of voltage to rated voltage	80 - 136%
Q/S value at the third point of Q-U curve	The third point of the Q (U) curve, the ratio of reactive power to rated power	-0.6 - 0.6
U/Un value at the fourth point of Q-U curve	The fourth point of the Q (U) curve, the ratio of voltage to rated voltage	80 - 136%
Q/S value at the fourth point of Q-U curve	The fourth point of the Q (U) curve, the ratio of reactive power to rated power	-0.6 - 0.6
U/Un value at the fifth point of Q-U curve	The fifth point of the Q (U) curve, the ratio of voltage to rated voltage	80 - 136%
Q/S value at the fifth point of Q-U curve	The fifth point of the Q (U) curve, the ratio of reactive power to rated power	-0.6 - 0.6
U/Un value at the sixth point of Q-U curve	The sixth point of the Q (U) curve, the ratio of voltage to rated voltage	80 - 136%


Q/S value at the sixth point of Q-U curve	The sixth point of the Q (U) curve, the ratio of reactive power to rated power	-0.6 - 0.6
U/Un value at the seventh point of Q-U curve	The seventh point of the Q (U) curve, the ratio of voltage to rated voltage	80 - 136%
Q/S value at the seventh point of Q-U curve	The seventh point of the Q (U) curve, the ratio of reactive power to rated power	-0.6 - 0.6
U/Un value at the eighth point of Q-U curve	The eighth point of the Q (U) curve, the ratio of voltage to rated voltage	80 - 136%
Q/S value at the eighth point of Q-U curve	The eighth point of the Q (U) curve, the ratio of reactive power to rated power	-0.6 - 0.6
U/Un value at the ninth point of Q-U curve	The ninth point of the Q (U) curve, the ratio of voltage to rated voltage	80 - 136%
Q/S value at the ninth point of Q-U curve	The ninth point of the Q (U) curve, the ratio of reactive power to rated power	-0.6 - 0.6
U/Un value at the tenth point of Q-U curve	The tenth point of the Q (U) curve, the ratio of voltage to rated voltage	80 - 136%
Q/S value at the tenth point of Q-U curve	The tenth point of the Q (U) curve, the ratio of reactive power to rated power	-0.6 - 0.6
Cos ϕ - P/Pn characteristic curve points	Cos ϕ (P) Number of curve points	2 - 10
P/Pn value at the first point of cos ϕ - P/Pn curve	Cos ϕ (P) The ratio of the power at the first point of the curve to the rated power	0 - 100%
cos ϕ value at the first point of cos ϕ - P/Pn curve	Cos ϕ (P) Power factor at the first point of the curve	-10 - -0.8 0.8 - 10

	P/P _n value at the second point of cos ϕ - P/P _n curve	Cos ϕ (P) The ratio of the power at the second point of the curve to the rated power	0 - 100%
	cos ϕ value at the second point of cos ϕ - P/P _n curve	Cos ϕ (P) Power factor at the second point of the curve	-10 - -0.8 0.8 - 10
	P/P _n value at the third point of cos ϕ - P/P _n curve	Cos ϕ (P) The ratio of the power at the third point of the curve to the rated power	0 - 100%
	cos ϕ value at the third point of cos ϕ - P/P _n curve	Cos ϕ (P) Power factor at the third point of the curve	-10 - -0.8 0.8 - 10
	P/P _n value at the fourth point of cos ϕ - P/P _n curve	Cos ϕ (P) The ratio of the power at the fourth point of the curve to the rated power	0 - 100%
	cos ϕ value at the fourth point of cos ϕ - P/P _n curve	Cos ϕ (P) Power factor at the fourth point of the curve	-10 - -0.8 0.8 - 10
	P/P _n value at the fifth point of cos ϕ - P/P _n curve	Cos ϕ (P) The ratio of the power at the fifth point of the curve to the rated power	0 - 100%
	cos ϕ value at the fifth point of cos ϕ - P/P _n curve	Cos ϕ (P) Power factor at the fifth point of the curve	-10 - -0.8 0.8 - 10
	P/P _n value at the sixth point of cos ϕ - P/P _n curve	Cos ϕ (P) The ratio of the power at the sixth point of the curve to the rated power	0 - 100%
	cos ϕ value at the sixth point of cos ϕ - P/P _n curve	Cos ϕ (P) Power factor at the sixth point of the curve	-10 - -0.8 0.8 - 10
	P/P _n value at the seventh point of cos ϕ - P/P _n curve	Cos ϕ (P) The ratio of the power at the seventh point of the curve to the rated power	0 - 100%

	cos ϕ value at the seventh point of cos ϕ - P/Pn curve	Cos ϕ (P) Power factor at the seventh point of the curve	-10 - -0.8 0.8 - 10
	P/Pn value at the eighth point of cos ϕ - P/Pn curve	Cos ϕ (P) The ratio of the power at the eighth point of the curve to the rated power	0 - 100%
	cos ϕ value at the eighth point of cos ϕ - P/Pn curve	Cos ϕ (P) Power factor at the eighth point of the curve	-10 - -0.8 0.8 - 10
	P/Pn value at the ninth point of cos ϕ - P/Pn curve	Cos ϕ (P) The ratio of the power at the ninth point of the curve to the rated power	0 - 100%
	cos ϕ value at the fourth point of cos ϕ - P/Pn curve	Cos ϕ (P) Power factor at the ninth point of the curve	-10 - -0.8 0.8 - 10
	P/Pn value at the tenth point of cos ϕ - P/Pn curve	Cos ϕ (P) The ratio of the power at the tenth point of the curve to the rated power	0 - 100%
	cos ϕ value at the tenth point of cos ϕ - P/Pn curve	Cos ϕ (P) Power factor at the tenth point of the curve	-10 - -0.8 0.8 - 10
	P/Pn value at the sixth point of cos ϕ - P/Pn curve	Cos ϕ (P) The ratio of the power at the sixth point of the curve to the rated power	0 - 100%
	cos ϕ value at the sixth point of cos ϕ - P/Pn curve	Cos ϕ (P) Power factor at the sixth point of the curve	-10 - -0.8 0.8 - 10

Common Charge-Discharge Parameter	max charge power(total)	Maximum battery charging power.	0 - 10kW
	max discharge power(total)	maximum battery discharging power	0 - 10kW
	Grid charging	If Charge from AC is Disabled by default, comply with the grid charge requirements stipulated in local laws and regulations when this function is Enabled	0 - 255
	Grid charging cut-off SoC (total)	grid charge cutoff SoC	20 - 100%
	Charge cut-off SoC (total)	end-of-charge SoC	90 - 100%
	Discharge cut-off SoC (total)	end-of-discharge SoC	0 - 15%
	Maximum grid charging power (Charge-Limit)	Specifies Maximum grid charging power	0 - 5kW

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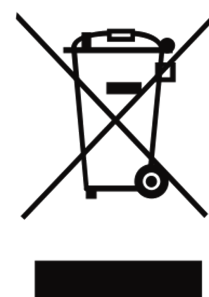
All the described functions and instructions were up to date at the time of printing this manual. However, the actual product may vary due to improved functions and designs.

DISPOSAL AND RECYCLING

Important instructions for environment(European Disposal Guidelines)

Compliance with the WEEE Directive and Disposing of the Waster Product:
This product complies with EU WEEE Directive. This product bears a classification symbol for waster electrical and electronic equipment (WEEE).

This symbol indicates that this product shall not be disposed with other household wastes at the end of its service life. Used device must be returned to official collection point for recycling of electrical electronic devices. To find these collection systems please contact to your local authorities or retailer where the product was purchased. Each household performs important role in recovering and recycling of old appliance. Appropriate disposal of used appliance helps prevent potential negative consequences for the environment and human health.



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