Monitor System Setting Introduction For Hybrid Inverter

Version:1.1

Date:2023-03-09

History

Version	Record of modification	Date
Initial version	Initial version	2022-12-16

This Document is used to give a explanation of settings in the website and APP to Lux Power customers for Hybrid Inverter LXP 12K. The monitor system may change anytime, so if you find the settings described below is different from what you see, you can contact info@luxpowertek.com for help.

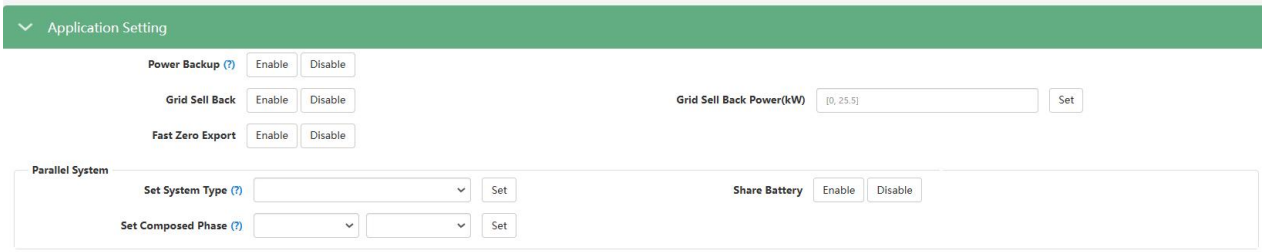
Content

Monitor System Setting Introduction For Hybrid Inverter 1
SETTING EXPLANATION 4
1. Application Setting 4
❖ Power Backup 4
❖ Grid sell back 4
❖ Grid Sell back Power (kW) 4
❖ Fast Zero Export 4
❖ Paralleling Setting Group 5
2. Generator Setting 6
❖ Batt Charge current limitation(A) 6
❖ Gen Rated Power (kW) 6
❖ Charge start volt(V)/ SOC (%) 6
❖ Charge end volt(V) / SOC (%) 6
3. Charge Setting 7
❖ Charge current limit (A) 7
❖ Battery Charge Control 7
❖ AC Charge Enable 7
❖ Charge First(PV) Setting Group 8
❖ Lead-Acid Battery Setting Group 9
4. Discharge Setting 9
❖ System Discharge Rate(%) 9
❖ On-grid Discharge Cut-off SOC (%)/ Volt(V) 9

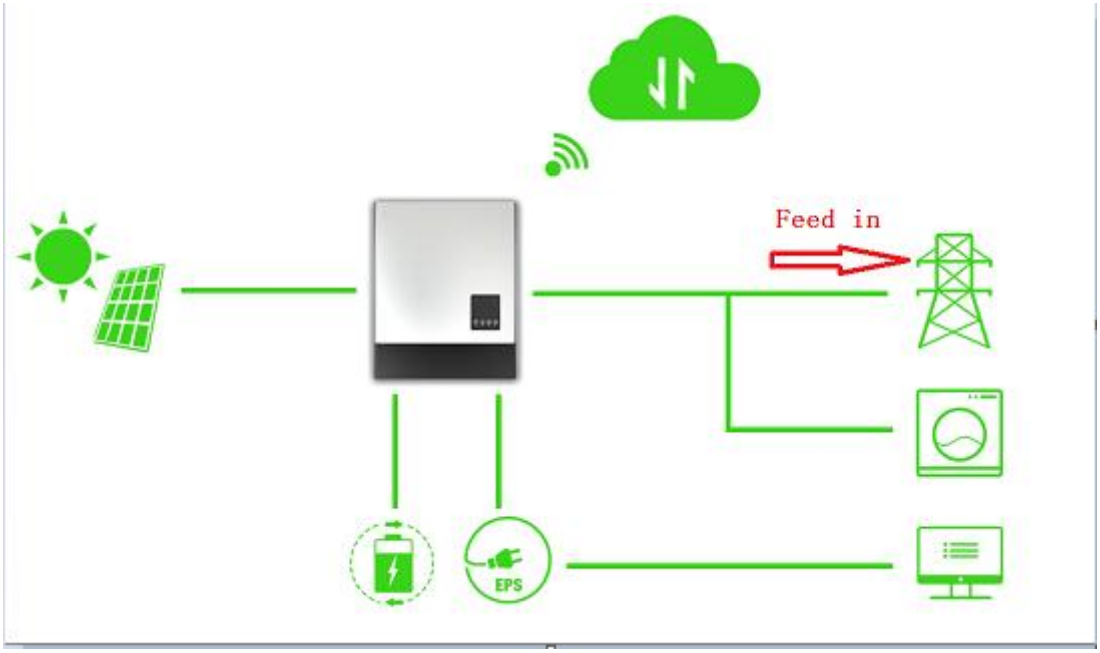
- Off-grid Discharge Cut-off SOC(%)/ Volt(V) 9
- Batt Discharge Control 10
- Discharge current limitation (A) : 10
- Forced Discharge Setting Group 10

SETTING EXPLANATION

1. Application Setting



- **Power Backup** : If Power backup function is Enabled, the EPS/UPS terminal will keep output when AC interrupted. You can set" Power backup" by web or "Off-grid output" by LCD. (Enable this mode, EPS output will be uninterrupted)
- **Grid sell back** : In some countries, the customer can not feed energy into grid, or if the customer do not want to feed energy to grid, you can disable Grid sell back function.

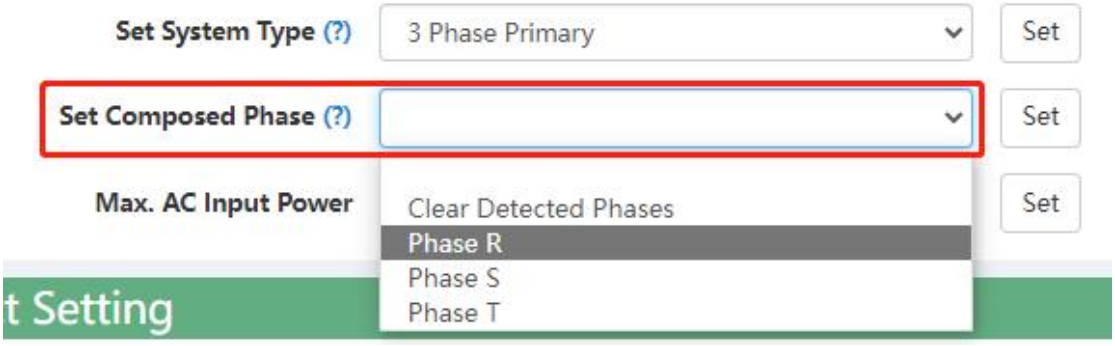


- **Grid Sell back Power (kW)**: If Grid sell back function is enabled, you can set the power limitation to feed into grid.
- **Fast Zero Export**: Normally inverter will adjust output power every 5 seconds to avoid

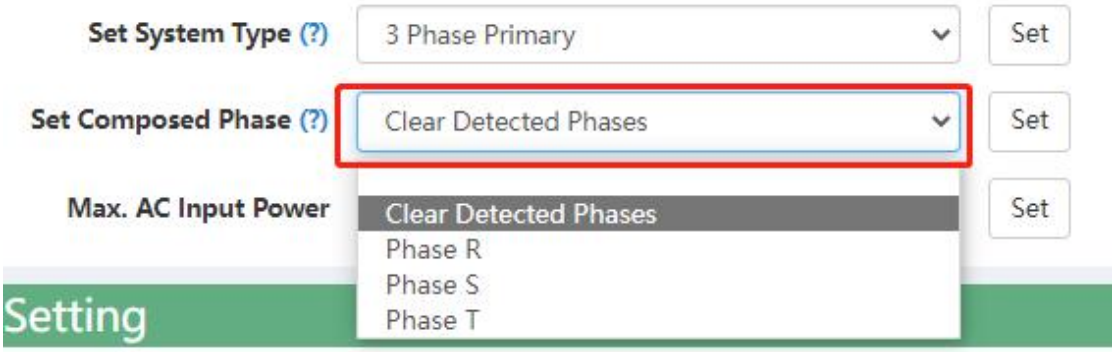
export, if fast zero export enabled, the inverter will adjust output power fast.

❖ **Paralleling Setting Group**

- **Set Subordinates or Primary** : LXP inverters support paralleling functions, you can connect the EPS terminal together in paralleling system, in this situation, we need to set one of the inverter to primary, and the others are slave. If you install all inverters in one phase, set one of the inverter to "1Phase Primary"; If you want to compose three phase system, set one of the inverter to "3 Phase Primary". All inverters are set to Subordinates in default mode, so when you get the inverters, just need to set one inverter to Primary.(Used for paralleling inverters)
- **Set Composed Phase**: When you use equal or more than 3 inverters to compose a three phase system, you connect the AC terminals of inverter to three phase grid. (Used when compose a three phase)



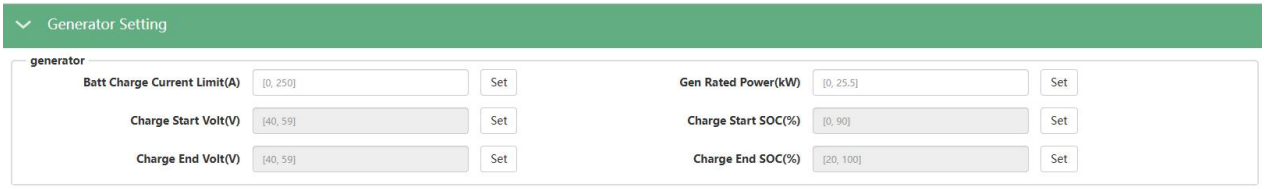
- If there is utility in the filed, the inverter will detect the phase it connects to automatically and record it. Next time it will output the phase as it detected.
- If the user setting is different from the phase inverter detected, it will output the phase it detected.
- The output phase record will be cleared if customer clears it.



- If there is no utility for the whole time, it will use the user output phase setting to compose three phase output. If the customer set wrong phase, for example 2 R phase and no T phase, the system will report error.

■ **Battery Shared:** For paralleling system, if all inverters connect to same battery, then we need to enable battery shared and then master inverter will broadcast the battery info to other inverters

2. Generator Setting



❖ **Batt Charge current limitation(A)** : Battery charge current limitation from Generator .

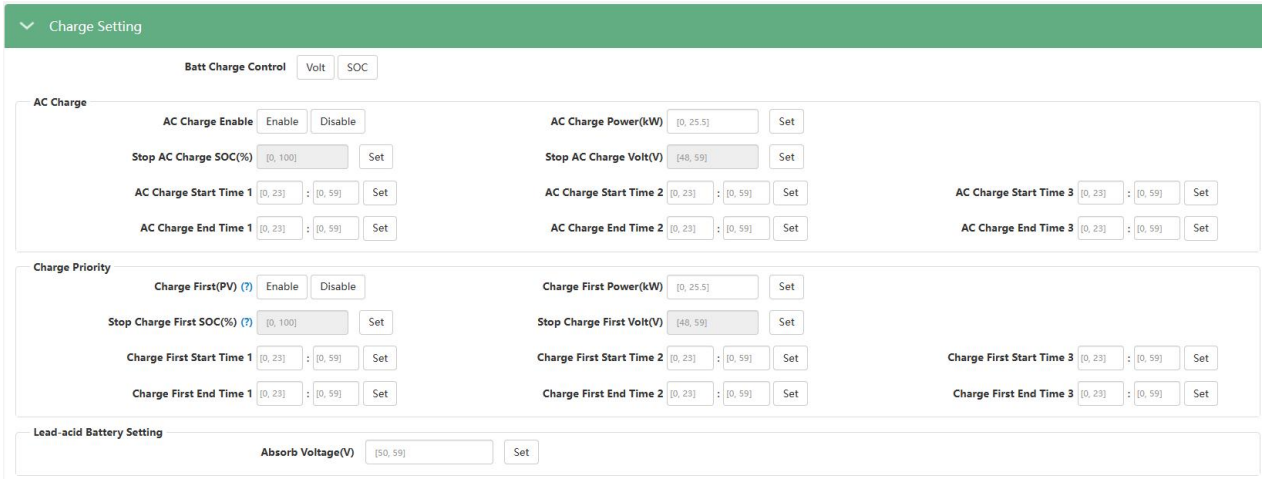
❖ **Gen Rated Power (kW)** : Generator input power limitation, you can limit the battery charge power based on the detected EPS load consumption and Generator input power limiation .

❖ **Charge start volt(V)/ SOC (%)** : While using auto-start function of the generator, you can limit the charge start voltage /SOC to start up the generator automatically .

❖ **Charge end volt(V) / SOC (%)** : While using auto-start function of the generator, you can

limit the charge end voltage/ SOC to turn off the generator automatically .

3. Charge Setting



- **Charge current limit (A)** : The max. Charge current limitation of the whole system.
- **Battery Charge Control** : If the inverter works with the Lithium battery battery and communication is also compatible , then you can just select charge control according to "SOC" , else if the inverter works with lead-acid battery or the lithium without communication , you can select charge control according to "VOLT" .
- **AC Charge Enable:** if the customer want to use AC charge the battery, the customer need to (1) enable " AC charge Enable" , and then (2)set the max power he want to charge the battery from AC, (3)set the SOC Limit (4)set the time period he wants to use the AC to charge the battery, there are 3 time periods you can set. So if the battery SOC is less than the limit, the system will use AC to charge the battery during the time he set
  - **AC Charge Enable**
  - **AC Charge Power (kW):** The max charge power from grid.
  - **Stop AC Charge SOC(%)/ Volt(V)** If the battery SOC or Voltage is higher than limit, the

inverter will stop AC charging

- **AC Charge Start Time 1**
- **AC Charge End Time 1**
- **AC Charge Start Time 2**
- **AC Charge End Time 2**
- **AC Charge Start Time 3**
- **AC Charge End Time 3**

If the time setting is continuous ,like 19:00(night time) - 08:00(morning of next day) ,you can just set 1 time slot .

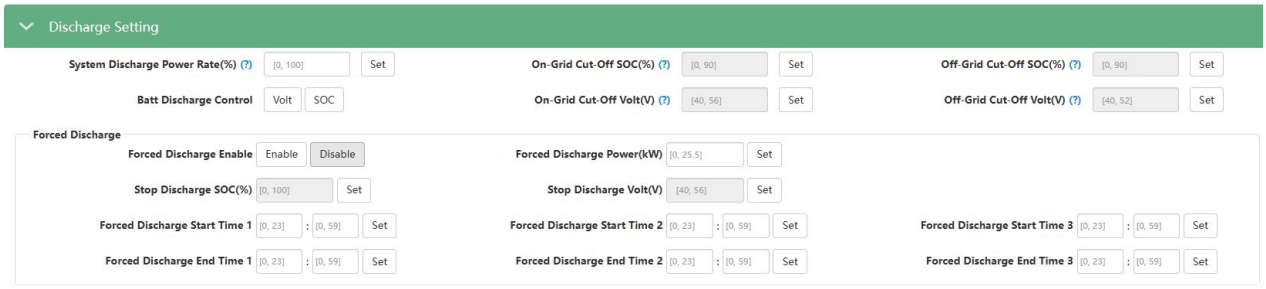
❖ **Charge First(PV) Setting Group :**For LXP hybird inverter, in default mode, when PV power is sufficient to cover the demands of home loads, then PV power will firstly consumed by home loads, if there is excessive PV power then the excessive power will be used to charge the battery, if there is still PV power rested after load consuming and battery charging, then the rested PV power will be feed-in to the grid. In some situation, the customers want the solar power to charge battery first, and if there is more energy, it take the load in house. So we can enable charge first function. Charge first power CMD is the max power percent when charge battery in charge first mode. If the time is in the period user set and the battery SOC is less than the limit, the solar power will used to charge battery first.

- **Charge Priority(Enable this mode, solar power charge battery first, then take the family load, if there is surplus, feed into grid)**
- **Charge First Power(kW)** The max charge power from PV.
- **Stop Charge first SOC(%)/ Volt(V)** If the SOC is higer than limit SOC or Voltage, the inverter will stop charge first function
- **Charge First Start Time 1**
- **Charge First End Time 1**
- **Charge First Start Time2**
- **Charge First End Time2**
- **Charge First Start Time 3**
- **Charge First End Time3**

❖ **Lead-Acid Battery Setting Group**

- **Absorb Voltage（V）**: The max. charge voltage limit
- **Floating Voltage （V）**: The float charge voltage for Lead-Acid Battery, it should be lower than or equal to the Absorb voltage.
- **Charge Temperature Low Limit :** If the temperature is lower than low limit, the inverter will stop charge battery (Only available for AS 4777 grid regulation)
- **Charge Temperature High Limit** : If the temperature is higher than high limit, the inverter will stop charge battery (Only available for AS 4777 grid regulation)

4. Discharge Setting



❖ **System Discharge Rate(%)** The max discharge power percent. Nominal discharge power is 12000W, if you set 50, the max discharge power will be 6000W.

❖ **On-grid Discharge Cut-off SOC (%)/ Volt(V)**: When the inverter connect to the grid,and if the battery is discharging to take the load, it will stop discharge when the SOC is lower than this limit

❖ **Off-grid Discharge Cut-off SOC(%)/ Volt(V)**: When the inverter is in off-grid mode, and if the battery is discharging to take the load, it will stop discharge when the SOC is lower

than this limit

- **Batt Discharge Control**: If the inverter works with the Lithium battery battery and communication is also compatible , then you can just select charge control according to "SOC", else if the inverter works with lead-acid battery or the lithium without communication , you can select charge control according to "VOLT".
- **Discharge current limitation (A) :** The max. Discharge current limit when grid power is on.
- **Forced Discharge Setting Group** If the customer wants to discharge the battery, you can enable forced discharge function,and set the discharge power and time period
  - **Forced Discharge Enable**
  - **Forced Discharge Power (kW) :** Forced discharge power limit
  - **Stop Discharge SOC(%)/ Volt(V):** If Battery SOC is Lower than this limit, the inverter will stop forced discharging function.
  - **Forced Discharge Start Time 1**
  - **Forced Discharge End Time 1**
  - **Forced Discharge Start Time 2**
  - **Forced Discharge End Time 2**
  - **Forced Discharge Start Time 3**
  - **Forced Discharge End Time 3**

——END——