

Configuration Manual

Axpert King 24V/3KW
INVERTER / CHARGER

Version: 1.0

1 . Operating Sample

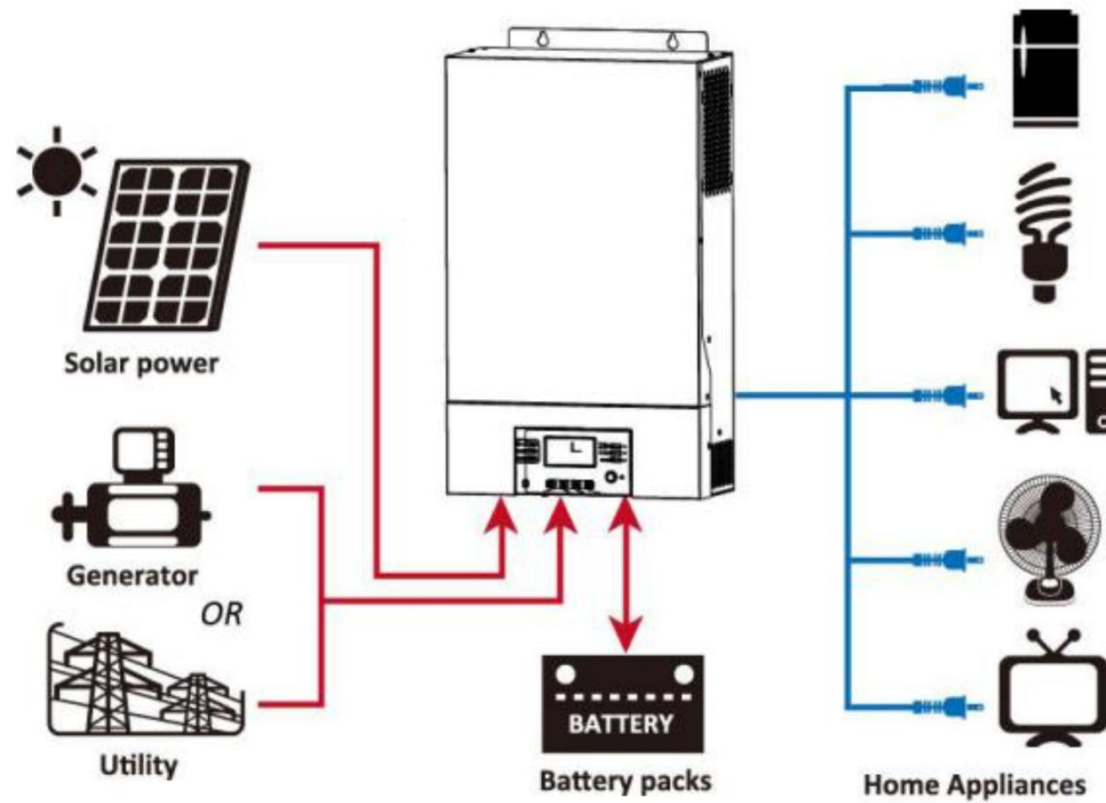
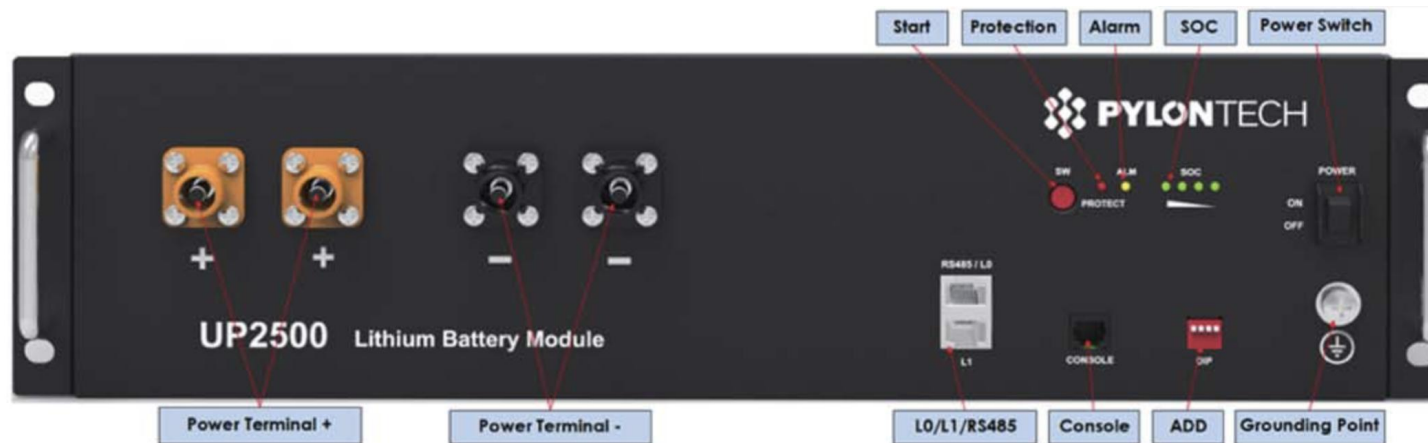


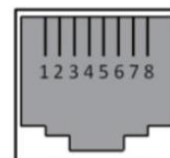
Figure 1 Hybrid power system

2 . Battery Module UP2500 Front Interface



Definition of RJ45 Port Pin (Battery side)

No.	RS485 Pin
1	--
2	--
3	--
4	--
5	--
6	GND
7	RS485A
8	RS485B



RJ45 Port

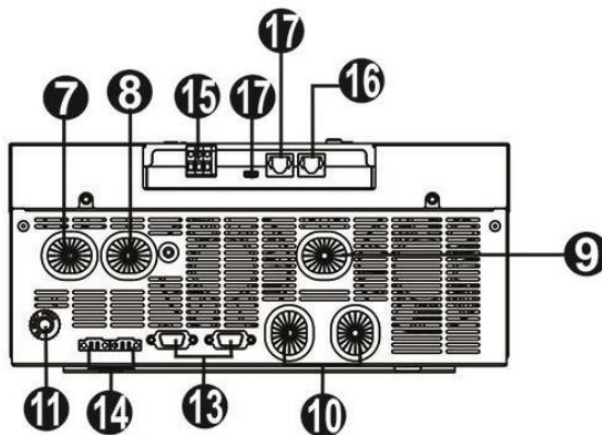
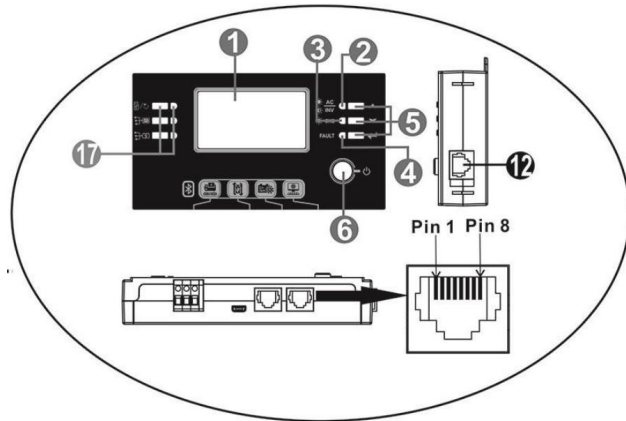


RJ45 Plug

Definition of RJ45 Port Pin (Inverter side)

No.	RS485Pin
1	--
2	--
3	RS485B
4	--
5	RS485A
6	--
7	--
8	--

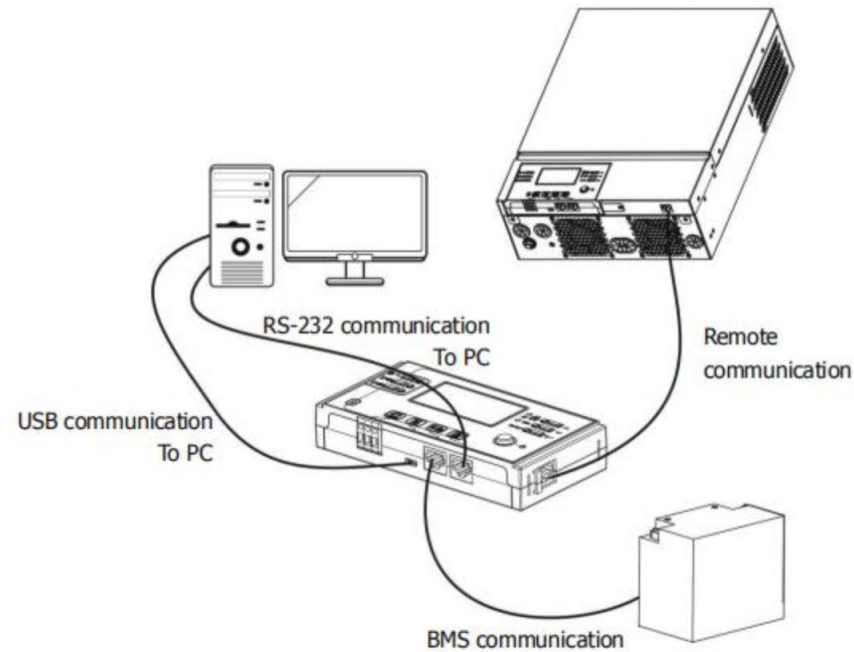
3 . Axpert King 3kW Overview



1. LCD display
2. Status indicator
3. Charging indicator
4. Fault indicator
5. Function key
6. Power on/off switch
7. AC input
8. AC output
9. PV input
10. Battery input
11. Circuit Breaker
12. Remote LCD panel communication port
13. Parallel communication cable
14. Current sharing cable
15. Dry contact
16. RS232 communication port
17. Reserved for future use

4 . Communication Connection

Connect LCD panel to the inverter with an optional RJ45 communication cable as below chart.



Please use supplied communication cable to connect to inverter and PC. Insert bundled CD into a computer and follow on-screen instruction to install the monitoring software. For the detailed software operation, please check user manual of software inside of CD.

5 . Parameter configuration

You can set the parameters through the inverter's LCD.

5.1 LCD Setting

After pressing and holding “←” button for 3 seconds, the unit will enter setting mode. Press “▲” or “▼”

button to select setting programs. And then, press “←” button to confirm the selection or “🔑/🔄” button to exit.

Setting Programs:

Section Numbers 01: Mode selection: Please set the working mode according to the situation on site.

USB : Utility first (default)

01 

USB

SUB: Solar first

01 

SUB

SBU priority

01 

SBU

Section Numbers 02: Maximum charging current: 3KW model setting range is from 10A to 120A and increment of each click is 10A. Please configure according to the number of batteries. Current= N*50 A(N=battery number)

60A (default)
02 

60^A

Section Numbers 05: Battery Type: Set the "Battery type" to "PYL" In the Section Numbers 05, Please select "PYL" first if "PYL" is an option.

AGM (default)
05 

AGM

Section Numbers 12: Voltage point back to utility source :3KW model setting range is from 22.0V to 28.5V and increment of each click is 0.5V.**The recommended setting is 24.5V.**

3KW default setting: 23.0V

12 

BATT
23.0_v

Section Numbers 13: voltage point back to battery mode :3KW model setting range is from 24.0V to 32.0V and increment of each click is 0.5V.**The recommended setting is 27V.**

27.0V (default)

13 

BATT
27.0_v

Section Numbers 16: Solar energy priority :To configure solar energy priority for battery and load.Please set the working mode according to the situation on site.

SbL: Solar energy for battery first
UCB: Allow utility to charge battery (Default)

16 
SbL
UCb

SbL: Solar energy for battery first
UdC: Disallow utility to charge battery

16 
SbL
UdC

SLb: Solar energy for load first
UCb: Allow utility to charge battery

16 
SLb
UCb

SLb: Solar energy for load first
UdC: Disallow utility to charge battery

16 
SLb
UdC

Section Numbers 23: Bypass function: If selected and no matter power ON button is pressed on or not,inverter can work in bypass mode if utility is available.

Bypass enable (default)

23 
bYE

Section Numbers 26: Bulk charging voltage(C.V voltage): After the battery communication, this option will be written according to the battery recommended value:28.4V

3KW default setting: 28.2V



A digital display showing three lines of information. The top line shows the number '26' followed by a gear icon. The middle line shows the number '24'. The bottom line shows '28.2' with a small 'v' to its right. Above the '28.2' is the label 'BATT'.

Section Numbers 27: Floating charging voltage: After the battery communication, this option will be written according to the battery recommended value:28.4V

3KW default setting: 27.0V



A digital display showing three lines of information. The top line shows the number '27' followed by a gear icon. The middle line shows the letters 'FLV'. The bottom line shows '27.0' with a small 'v' to its right. Above the '27.0' is the label 'BATT'.

Section Numbers 29: Low DC cut-off voltage: After the battery communication, this option will be written according to the battery recommended value:23.2V. Compared with section 12 value, the system will automatically select a larger value.

3KW default setting: 21.0V



29 
C04
BATT
21.0V

For other options not covered, just leave them as default.

5 . Definitions

Axpert King

<p>Solar energy priority: To configure solar energy priority for battery and load</p>	<p>SBL UCB</p>	<p>Solar energy charges battery first and allow the utility to charge battery.</p>
	<p>SBL UDC</p>	<p>Solar energy charge battery first and disallow the utility to charge battery.</p>
	<p>SLB UCB</p>	<p>Solar energy provides power to the load first and also allow the utility to charge battery.</p>
	<p>SLB UDC</p>	<p>Solar energy provides power to the load first and disallow the utility to charge battery.</p>
<p>Output source priority: To configure load power source priority</p>	<p>USB</p>	<p>Utility will provide power to the loads as first priority. Solar and battery energy will provide power to the loads only when utility power is not available.</p>

<p>Output source priority: To configure load power source priority</p>	<p>SUB</p>	<p>Solar energy provides power to the loads as first priority.</p> <p>If solar energy is not sufficient ,utility energy will supply power to the loads at the same time.Battery provides power to the loads only when solar and utility is not sufficient.</p>
	<p>SBU</p>	<p>Solar energy provides power to the loads as first priority.</p> <p>If solar energy is not sufficient to power all connected loads, battery energy will supply power to the loads at the same time.</p> <p>Utility provides power to the loads only when battery voltage drops to either “low-level warning voltage” or the setting point in “voltage point back to utility source”.</p>

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