PYLONTECH

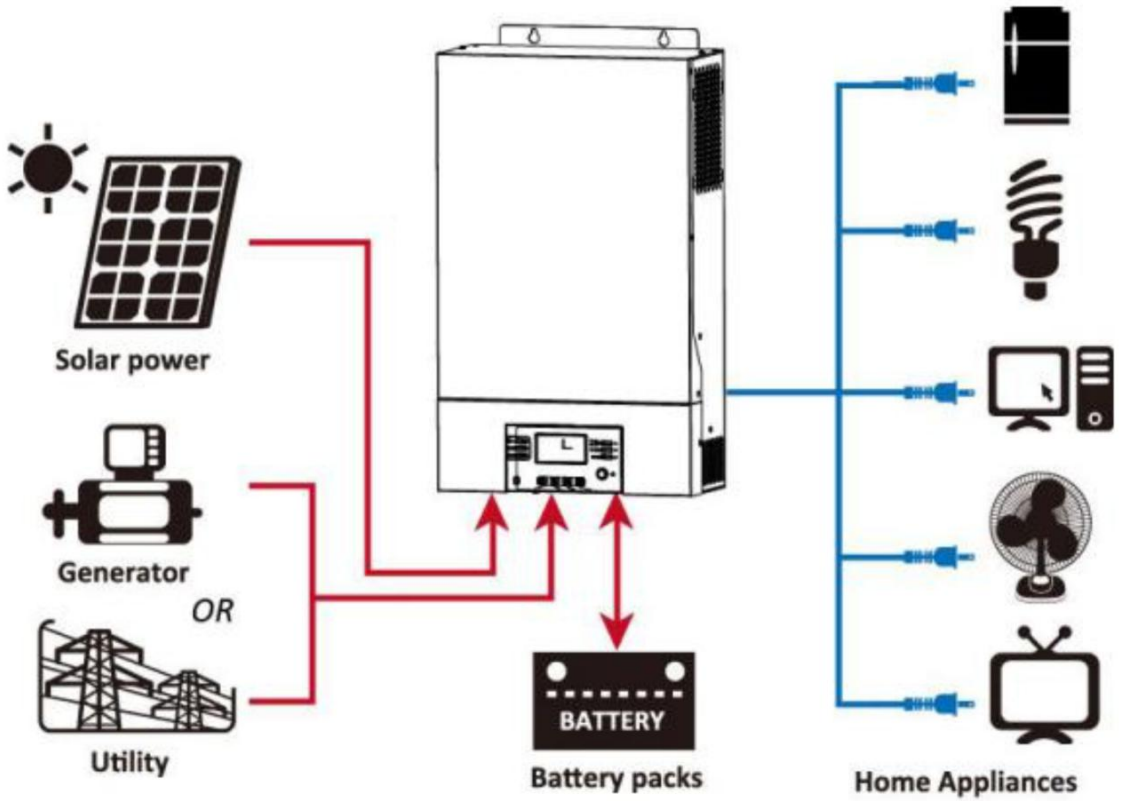
Configuration Manual

Axpert King 24V/3KW

INVERTER / CHARGER

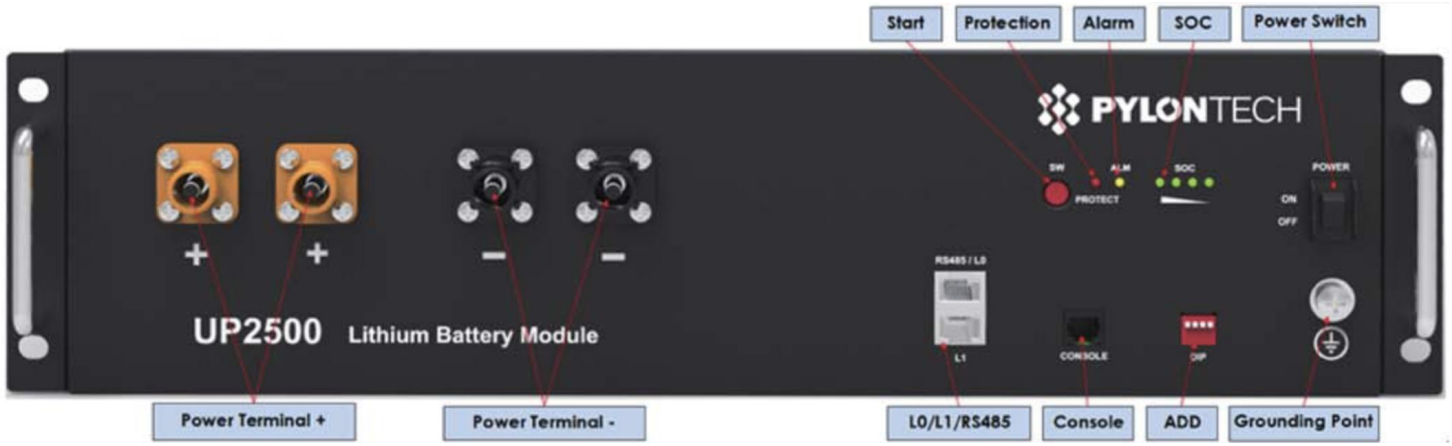
Version: 1.0

1 . Operating Sample



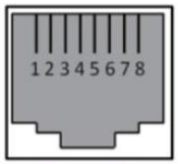
Figture 1 Hybird power system

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



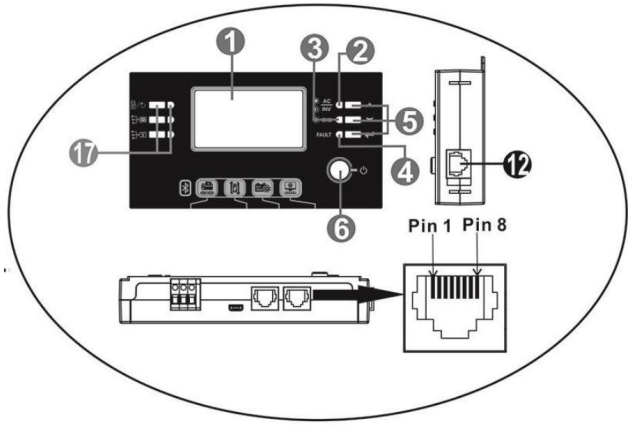
RJ45 Port

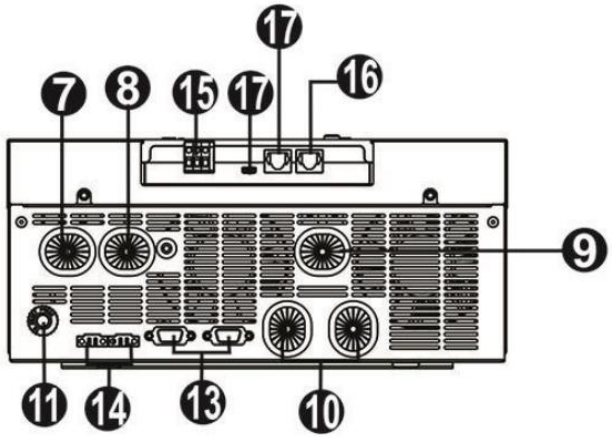
RJ45 Plug

Definition of RJ45 Port Pin (Inverter side)

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

3 . Axpert King 3kW Overview

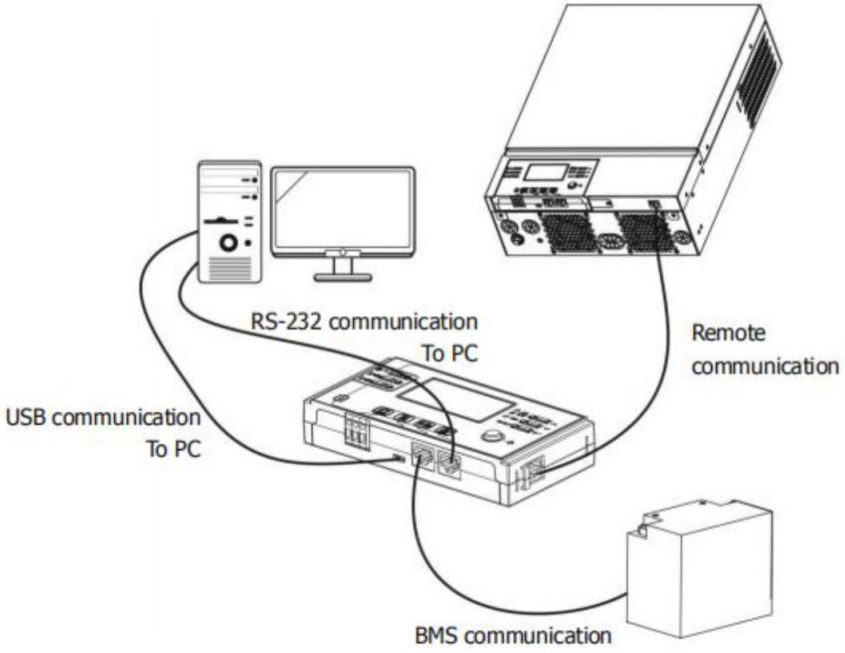




1. LCD display
2. Status indicator
3. Charging indicator
4. Fault indicator
5. Function key
6. Power on/off switch
7. AC input
8. AC output
9. PV input
10. Battery input
11. Circuit Breaker
12. Remote LCD panel communication port
13. Parallel communication cable
14. Current sharing cable
15. Dry contact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

SUB: Solar first

SBU priority

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)

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.

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

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)

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)

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

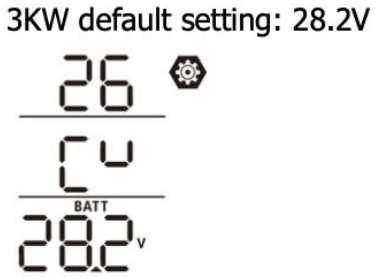
SLb: Solar energy for load first
UCb: Allow utility to charge battery

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

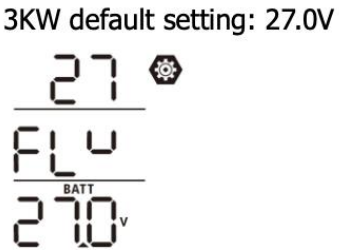
Section Numbers 23: Bypass function: If selected and no matter power ON button is pressed on or not,inverter can work in bypass mode if utility is available.

Bypass enable (default)

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



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



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

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

5 . Definitions

Axpert King

Solar energy priority: To configure solar energy priority for battery and load	**SBL UCB**	**Solar energy charges battery first and allow the utility to charge battery.**
	SBL UDC	**Solar energy charge battery first and disallow the utility to charge battery.**
	SLB UCB	**Solar energy provides power to the load first and also allow the utility to charge battery.**
	SLB UDC	**Solar energy provides power to the load first and disallow the utility to charge battery.**
Output source priority: To configure load power source priority	**USB**	**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.**

Output source priority: To configure load power source priority	SUB	Solar energy provides power to the loads as first priority. 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.
	SBU	Solar energy provides power to the loads as first priority. If solar energy is not sufficient to power all connected loads, battery energy will supply power to the loads at the same time. 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”.

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